This Catalog provides detailed information for current and prospective students about traditional undergraduate programs at Penn as well as important academic policies and resources for undergraduate students. It also provides information about courses at all levels of study.

This Catalog is intended to provide general information about the University of Pennsylvania and is accurate as of May 2023. The University reserves the right to change, modify, or correct any information contained herein without prior notice, at any time.

Email your feedback and questions here (curriculum@registrar.upenn.edu).
# TABLE OF CONTENTS

Programs .................................................................................................................. 12
School of Arts & Sciences ....................................................................................... 17

Curriculum .................................................................................................................. 17
  General Education Curriculum ............................................................................. 18
  Foundational Approaches ................................................................................... 18
  Sectors ................................................................................................................. 19
  The Major ............................................................................................................. 20

Academic Opportunities ......................................................................................... 20

Advising ................................................................................................................... 20

Policies and Procedures ......................................................................................... 21

Majors ...................................................................................................................... 21
  Africana Studies: African American Studies, BA ........................................... 23
  Africana Studies: African Diaspora Studies, BA ........................................... 23
  Africana Studies: African Studies, BA ........................................................... 24
  Ancient History, BA ......................................................................................... 25
  Anthropology: Archaeology, BA ................................................................. 25
  Anthropology: Biological Anthropology, BA ............................................... 26
  Anthropology: Cultural and Linguistic Anthropology, BA ....................... 27
  Anthropology: Environmental Anthropology, BA ................................ 27
  Anthropology: General Anthropology, BA .................................................. 28
  Anthropology: Medical Anthropology & Global Health, BA ................. 29
  Architecture: Intensive Design, BA ............................................................... 30
  Architecture: Design, BA ............................................................................... 30
  Architecture: History and Theory, BA .......................................................... 31
  Biochemistry, BA ............................................................................................ 31
  Biology: Computational Biology, BA ............................................................. 32
  Biology: Ecology & Evolutionary Biology, BA .......................................... 33
  Biology: General Biology, BA ...................................................................... 34
  Biology: Mathematical Biology, BA .............................................................. 34
  Biology: Mechanisms of Disease, BA .......................................................... 35
  Biology: Molecular & Cell Biology, BA ......................................................... 36
  Biology: Neurobiology, BA .......................................................................... 37
  Biophysics, BA ................................................................................................. 37
  Chemistry, BA ................................................................................................ 38
  Cinema and Media Studies, BA ...................................................................... 39
  Classical Studies: Classical Civilizations, BA ............................................ 40
  Classical Studies: Classical Languages and Literature, BA ................. 40
  Classical Studies: Mediterranean Archaeology, BA .................................. 41
  Cognitive Science: Cognitive Neuroscience, BA ...................................... 41
  Cognitive Science: Computation and Cognition, BA ............................... 42
  Cognitive Science: Individualized, BA ......................................................... 43
  Cognitive Science: Language & Mind, BA ................................................... 44
  Communication: Advocacy & Activism, BA .................................................. 44
  Communication: Audiences & Persuasion, BA ............................................ 46
  Communication: Communication & Public Service, BA .......................... 47
  Communication: Culture & Society, BA ......................................................... 49
  Communication: Data & Network Science, BA .......................................... 50
  Communication: General Communication, BA .......................................... 52
  Communication: Politics & Policy, BA .......................................................... 53
  Comparative Literature: (Trans)national Literatures, BA ........................ 54
  Comparative Literature: Globalization, BA .................................................. 55
  Comparative Literature: Theory, BA ............................................................. 56
  Criminology, BA ............................................................................................... 57
  Design, BA ........................................................................................................ 57
  Earth and Environmental Science, BA ......................................................... 58
  East Asian Languages and Civilizations: Dual Language, BA .................. 59
  East Asian Languages and Civilizations: East Asian Area Studies, BA .... 60
  East Asian Languages and Civilizations: General East Asian Languages and Civilizations, BA .......................................................... 61
  Economics, BA .............................................................................................. 61
  English: 18th/19th Centuries, BA ................................................................. 62
  English: 20th/21st Centuries, BA ................................................................. 63
  English: Africana Literatures & Culture, BA ................................................. 64
  English: Cinema & Media Studies, BA .......................................................... 65
  English: Creative Writing, BA ....................................................................... 66
  English: Drama, BA ........................................................................................ 66
  English: Gender/Sexuality, BA ....................................................................... 67
  English: General English, BA ....................................................................... 68
  English: Individualized, BA .......................................................................... 69
  English: Literary Theory & Cultural Studies, BA ....................................... 69
  English: Literature, Journalism and Print Culture, BA ............................. 70
  English: Medieval/Renaissance, BA ............................................................. 71
  English: Poetry and Poetics, BA .................................................................... 72
  English: The Novel, BA ................................................................................. 73
  Environmental Studies: Environmental History and Regional Studies, BA .......................................................... 73
  Environmental Studies: Environmental Policy and Application, BA ......... 74
  Environmental Studies: General Environmental Studies, BA .................. 75
  Environmental Studies: Global Environmental Systems, BA ................. 76
Environmental Studies: Sustainability and Environmental Management, BA ............................................. 76
Fine Arts, BA .................................................................. 77
French and Francophone Studies, BA ................................ 78
Gender, Sexuality, & Women's Studies: Feminist Studies, BA .......................................................... 79
Gender, Sexuality, & Women's Studies: General, BA .......... 79
Gender, Sexuality, & Women's Studies: Global Gender and Sexuality Studies, BA ......................... 80
Gender, Sexuality, & Women's Studies: Health and Disability Studies, BA .................................... 81
Gender, Sexuality, & Women's Studies: LGBTQ Studies, BA ... 81
Gender, Sexuality, & Women's Studies: Self Designed, BA ...... 82
German, BA ................................................................ 82
Health and Societies: Bioethics and Society, BA ............. 83
Health and Societies: Disease and Culture, BA ................ 84
Health and Societies: Global Health, BA ......................... 84
Health and Societies: Health Care Markets & Finance, BA .... 85
Health and Societies: Health Policy & Law, BA ................. 86
Health and Societies: Public Health, BA ......................... 87
Health and Societies: Race, Gender and Health, BA ........... 87
Hispanic Studies, BA ...................................................... 88
History of Art, BA .......................................................... 89
History: American History, BA ........................................... 90
History: Diplomatic History, BA ....................................... 90
History: Economic History, BA ........................................ 91
History: European History, BA ....................................... 92
History: Gender History, BA .......................................... 93
History: General History, BA ......................................... 93
History: Intellectual History, BA .................................... 94
History: Jewish History, BA ........................................... 95
History: World History, BA .............................................. 95
Individualized Major, BA .................................................. 96
International Relations, BA ............................................. 96
International Studies, BA ................................................. 97
Italian Studies: Italian Culture, BA .................................. 98
Italian Studies: Italian Literature, BA .............................. 98
Jewish Studies, BA ........................................................ 99
Latin American & Latinx Studies, BA ............................... 100
Linguistics, BA ............................................................. 100
Logic, Information, & Computation, BA ........................ 101
Mathematical Economics, BA ......................................... 102
Mathematics: Biological Mathematics, BA ................. 104
Mathematics: General Mathematics, BA ......................... 105
Modern Middle Eastern Studies, BA ................................ 105
Music, BA .................................................................. 106
Near Eastern Languages & Civilizations: Ancient Near East, BA ................................................... 107
Near Eastern Languages & Civilizations: Arabic & Hebrew Studies, BA ........................................... 107
Near Eastern Languages & Civilizations: Arabic & Islamic Studies, BA ........................................... 108
Near Eastern Languages & Civilizations: Cultures and Societies of the Middle East and North Africa, BA .......................................................... 109
Near Eastern Languages & Civilizations: Hebrew & Judaica, BA .................................................. 109
Near Eastern Languages & Civilizations: Persian Language & Literature, BA ......................... 110
Neuroscience, BA .......................................................... 111
Nutrition Science, BA ................................................... 112
Philosophy, Politics and Economics: Choice & Behavior, BA ... 112
Philosophy, Politics and Economics: Distributive Justice, BA .................................................. 113
Philosophy, Politics and Economics: Ethics & Professions, BA .................................................. 114
Philosophy, Politics and Economics: Globalization, BA 114
Philosophy, Politics and Economics: Public Policy & Governance, BA ...................................... 115
Philosophy: General Philosophy, BA ............................... 115
Philosophy: Humanistic Philosophy, BA ......................... 116
Philosophy: Philosophy and Science, BA ......................... 117
Philosophy: Political and Moral Philosophy, BA ............... 118
Physics: Astrophysics, BA .............................................. 119
Physics: Biological Science, BA ..................................... 119
Physics: Business & Technology, BA .............................. 120
Physics: Chemical Principles, BA ................................... 121
Physics: Computer Techniques, BA ................................. 122
Physics: Physical Theory and Experimental Technique, BA ... 123
Political Science: American Politics, BA ......................... 124
Political Science: Comparative Politics, BA ..................... 124
Political Science: General Political Science, BA ................ 125
Political Science: Individualized, BA ............................... 126
Political Science: International Relations, BA .................. 127
Political Science: Political Economy, BA ......................... 128
Political Science: Political Theory, BA ............................ 128
Psychology, BA ........................................................... 129
Religious Studies, BA .................................................. 130
Romance Languages: French and Italian, BA .................. 131
Romance Languages: French and Spanish, BA .................................. 132
Romance Languages: Italian and Spanish, BA .................................. 132
Russian and East European Studies: Cinema, Arts and Letters, BA .................................. 133
Russian and East European Studies: History, Politics and Society, BA .................................. 134
Russian and East European Studies: Language, Literature and Culture, BA .................................. 134
Science, Technology and Society: Biotechnology & Biomedicine, BA .................................. 135
Science, Technology and Society: Energy and Environment, BA .................................. 136
Science, Technology and Society: Global Science and Technology, BA .................................. 137
Science, Technology and Society: Information and Organizations, BA .................................. 137
Science, Technology and Society: Science/Nature/Culture, BA .................................. 138
Sociology: Applied Research and Data Analysis, BA .................................. 139
Sociology: Cities, Markets, and the Global Economy, BA .................................. 139
Sociology: Culture and Diversity, BA .................................. 140
Sociology: Education and Society, BA .................................. 141
Sociology: Family, Gender and Society, BA .................................. 142
Sociology: Law and Society, BA .................................. 143
Sociology: Medical Sociology, BA .................................. 143
Sociology: Population and Immigration, BA .................................. 144
Sociology: Structures of Opportunity and Inequality, BA .................................. 144
South Asia Studies, BA .................................. 145
Theatre Arts, BA .................................. 146
Urban Studies, BA .................................. 146
Visual Studies: Architecture Practice and Technology, BA .................................. 147
Visual Studies: Art and Culture of Seeing, BA .................................. 148
Visual Studies: Art, Practice and Technology, BA .................................. 149
Visual Studies: Philosophy and Science of Seeing, BA .................................. 150
Minors ................................................................. 151
Actuarial Mathematics, Minor .................................. 152
Africana Studies, Minor .................................. 152
American Public Policy, Minor .................................. 153
American Sign Language and Deaf Studies, Minor .................................. 153
Ancient History, Minor .................................. 153
Anthropology, Minor .................................. 154
Archaeological Science, Minor .................................. 154
Architectural History, Minor .................................. 154
Architecture, Minor .................................. 154
Asian American Studies, Minor .................................. 155
Bioethics, Minor .................................. 155
Biology, Minor .................................. 155
Biophysics, Minor .................................. 156
Chemistry, Minor .................................. 156
Cinema and Media Studies, Minor .................................. 157
Classical Studies, Minor .................................. 157
Cognitive Science, Minor .................................. 158
Comparative Literature, Minor .................................. 158
Computational Neuroscience, Minor .................................. 158
Consumer Psychology, Minor .................................. 159
Creative Writing, Minor .................................. 160
Data Science and Analytics, Minor .................................. 160
Design, Minor .................................. 161
Digital Humanities, Minor .................................. 161
East Asian Area Studies, Minor .................................. 162
East Asian Languages and Civilizations: Chinese, Minor .................................. 163
East Asian Languages and Civilizations: Japanese, Minor .................................. 163
East Asian Languages and Civilizations: Korean, Minor .................................. 164
East Central European Studies, Minor .................................. 164
Economic Policy, Minor .................................. 164
Economics, Minor .................................. 165
English, Minor .................................. 165
Environmental Humanities, Minor .................................. 166
Environmental Science, Minor .................................. 167
Environmental Studies, Minor .................................. 167
European Studies, Minor .................................. 168
Fine Arts, Minor .................................. 171
French and Francophone Studies, Minor .................................. 172
Gender, Sexuality, and Women's Studies, Minor .................................. 172
Geology, Minor .................................. 173
German, Minor .................................. 173
Global Medieval Studies, Minor .................................. 173
Hispanic Studies, Minor .................................. 174
History, Minor .................................. 174
History of Art, Minor .................................. 175
International Development, Minor .................................. 175
International Relations, Minor .................................. 175
Italian Studies: Italian Culture, Minor .................................. 176
Italian Studies: Italian Literature, Minor .................................. 176
Jewish Studies, Minor .................................. 177
Journalistic Writing, Minor .................................. 177
<table>
<thead>
<tr>
<th>Major</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latin American and Latinx Studies, Minor</td>
<td>178</td>
</tr>
<tr>
<td>Law and Society, Minor</td>
<td>178</td>
</tr>
<tr>
<td>Legal Studies &amp; History, Minor</td>
<td>178</td>
</tr>
<tr>
<td>Linguistics, Minor</td>
<td>179</td>
</tr>
<tr>
<td>Logic, Information, &amp; Computation, Minor</td>
<td>179</td>
</tr>
<tr>
<td>Mathematics, Minor</td>
<td>180</td>
</tr>
<tr>
<td>Medical Sociology, Minor</td>
<td>181</td>
</tr>
<tr>
<td>Modern Middle Eastern Studies, Minor</td>
<td>181</td>
</tr>
<tr>
<td>Music: Music, Minor</td>
<td>181</td>
</tr>
<tr>
<td>Music: Jazz and Popular Music, Minor</td>
<td>182</td>
</tr>
<tr>
<td>Native American and Indigenous Studies, Minor</td>
<td>183</td>
</tr>
<tr>
<td>Near Eastern Languages &amp; Civilizations: Ancient Near East, Minor</td>
<td>183</td>
</tr>
<tr>
<td>Near Eastern Languages &amp; Civilizations: Arabic &amp; Hebrew Studies, Minor</td>
<td>183</td>
</tr>
<tr>
<td>Near Eastern Languages &amp; Civilizations: Arabic &amp; Islamic Studies, Min</td>
<td>184</td>
</tr>
<tr>
<td>Near Eastern Languages &amp; Civilizations: Cultures and Societies of the Middle East and North Africa, Minor</td>
<td>184</td>
</tr>
<tr>
<td>Near Eastern Languages &amp; Civilizations: Hebrew &amp; Judaica, Minor</td>
<td>185</td>
</tr>
<tr>
<td>Near Eastern Languages &amp; Civilizations: Persian Language &amp; Literature, Minor</td>
<td>185</td>
</tr>
<tr>
<td>Neuroscience, Minor</td>
<td>186</td>
</tr>
<tr>
<td>Neuroscience and Health Care Management, Minor</td>
<td>186</td>
</tr>
<tr>
<td>Nutrition, Minor</td>
<td>186</td>
</tr>
<tr>
<td>Philosophy, Minor</td>
<td>187</td>
</tr>
<tr>
<td>Physics, Minor</td>
<td>187</td>
</tr>
<tr>
<td>Political Science, Minor</td>
<td>187</td>
</tr>
<tr>
<td>Psychoanalytic Studies, Minor</td>
<td>188</td>
</tr>
<tr>
<td>Psychology, Minor</td>
<td>188</td>
</tr>
<tr>
<td>Religious Studies, Minor</td>
<td>189</td>
</tr>
<tr>
<td>Russian and East European Studies: Russian Culture and History, Minor</td>
<td>189</td>
</tr>
<tr>
<td>Russian and East European Studies: Russian Language, Literature and Culture, Minor</td>
<td>190</td>
</tr>
<tr>
<td>Science, Technology and Society, Minor</td>
<td>190</td>
</tr>
<tr>
<td>Sociology, Minor</td>
<td>190</td>
</tr>
<tr>
<td>South Asia Studies, Minor</td>
<td>190</td>
</tr>
<tr>
<td>Statistics and Data Science, Minor</td>
<td>191</td>
</tr>
<tr>
<td>Survey Research and Data Analytics, Minor</td>
<td>191</td>
</tr>
<tr>
<td>Sustainability and Environmental Management, Minor</td>
<td>192</td>
</tr>
<tr>
<td>Theatre Arts, Minor</td>
<td>192</td>
</tr>
<tr>
<td>Urban Education, Minor</td>
<td>192</td>
</tr>
<tr>
<td>Urban Real Estate and Development, Minor</td>
<td>193</td>
</tr>
<tr>
<td>Urban Studies, Minor</td>
<td>193</td>
</tr>
<tr>
<td>Liberal and Professional Studies</td>
<td>194</td>
</tr>
<tr>
<td>Creative Studies, BAAS</td>
<td>194</td>
</tr>
<tr>
<td>Data Analytics and Psychological Sciences, BAAS</td>
<td>196</td>
</tr>
<tr>
<td>Data Analytics and Social Sciences, BAAS</td>
<td>197</td>
</tr>
<tr>
<td>Fine Arts, BFA</td>
<td>198</td>
</tr>
<tr>
<td>Individualized, BAAS</td>
<td>199</td>
</tr>
<tr>
<td>Leadership and Communication, BAAS</td>
<td>200</td>
</tr>
<tr>
<td>Literature, Culture and Tradition, BAAS</td>
<td>201</td>
</tr>
<tr>
<td>Organizational Studies, BAAS</td>
<td>203</td>
</tr>
<tr>
<td>Physical and Life Sciences, BAAS</td>
<td>204</td>
</tr>
<tr>
<td>Applied Positive Psychology, Certificate</td>
<td>205</td>
</tr>
<tr>
<td>Climate Change, Certificate</td>
<td>206</td>
</tr>
<tr>
<td>Creative Writing, Certificate</td>
<td>207</td>
</tr>
<tr>
<td>Data Analytics, Certificate</td>
<td>208</td>
</tr>
<tr>
<td>Digital Strategies and Culture, Certificate</td>
<td>209</td>
</tr>
<tr>
<td>Global and Regional Studies, Certificate</td>
<td>210</td>
</tr>
<tr>
<td>Leadership &amp; Communication, Certificate</td>
<td>211</td>
</tr>
<tr>
<td>Neuroscience, Certificate</td>
<td>212</td>
</tr>
<tr>
<td>Organizational Anthropology, Certificate</td>
<td>212</td>
</tr>
<tr>
<td>Professional Writing, Certificate</td>
<td>213</td>
</tr>
<tr>
<td>Science Foundations, Certificate</td>
<td>214</td>
</tr>
<tr>
<td>Social Difference, Diversity, Equity and Inclusion, Certificate</td>
<td>215</td>
</tr>
<tr>
<td>UpSkill, Certificate</td>
<td>216</td>
</tr>
<tr>
<td>Pre-Health Core Studies, Post-Baccalaureate Preparatory Program</td>
<td>217</td>
</tr>
<tr>
<td>Pre-Health Specialized Studies, Post-Baccalaureate Preparatory Program</td>
<td>217</td>
</tr>
<tr>
<td>School of Engineering and Applied Science</td>
<td>219</td>
</tr>
<tr>
<td>Curriculum</td>
<td>220</td>
</tr>
<tr>
<td>Majors</td>
<td>220</td>
</tr>
<tr>
<td>Bioengineering, BSE</td>
<td>220</td>
</tr>
<tr>
<td>Biomedical Science, BAS</td>
<td>221</td>
</tr>
<tr>
<td>Chemical and Biomolecular Engineering, BSE</td>
<td>222</td>
</tr>
<tr>
<td>Computer Engineering, BSE</td>
<td>223</td>
</tr>
<tr>
<td>Computer Science, BAS</td>
<td>225</td>
</tr>
<tr>
<td>Computer Science, BSE</td>
<td>226</td>
</tr>
<tr>
<td>Digital Media Design, BSE</td>
<td>227</td>
</tr>
<tr>
<td>Electrical Engineering, BSE</td>
<td>228</td>
</tr>
<tr>
<td>Individualized Program, BAS</td>
<td>229</td>
</tr>
</tbody>
</table>
Environmental, Social, and Governance Factors for Business: Social and Governance Factors, BS 266
Environmental, Social, and Governance Factors for Business: Entrepreneurship and Innovation, BS 267
Environmental, Social, and Governance Factors for Business: Finance, BS 269
Environmental, Social, and Governance Factors for Business: Health Care Management and Policy, BS 270
Environmental, Social, and Governance Factors for Business: Individualized, BS 271
Environmental, Social, and Governance Factors for Business: Legal Studies & Business Ethics, BS 272
Environmental, Social, and Governance Factors for Business: Management: General Track, BS 274
Environmental, Social, and Governance Factors for Business: Management: Multinational Management Track, BS 275
Environmental, Social, and Governance Factors for Business: Management: Organizational Effectiveness Track, BS 276
Environmental, Social, and Governance Factors for Business: Management: Strategic Management Track, BS 277
Environmental, Social, and Governance Factors for Business: Marketing & Communication, BS 278
Environmental, Social, and Governance Factors for Business: Marketing & Operations Management, BS 279
Environmental, Social, and Governance Factors for Business: Marketing, BS 280
Environmental, Social, and Governance Factors for Business: Operations, Information & Decisions: Decision Processes Track, BS 281
Environmental, Social, and Governance Factors for Business: Operations, Information & Decisions: General Track, BS 282
Environmental, Social, and Governance Factors for Business: Operations, Information & Decisions: Information Systems Track, BS 283
Environmental, Social, and Governance Factors for Business: Operations, Information & Decisions: Operations Management/Management Science Track, BS 284
Environmental, Social, and Governance Factors for Business: Real Estate, BS 285
Environmental, Social, and Governance Factors for Business: Retailing, BS 286
Environmental, Social, and Governance Factors for Business: Social Impact & Responsibility, BS 288
Environmental, Social, and Governance Factors for Business: Statistics and Data Science, BS 288
Environmental, Social, and Governance Factors for Business: Statistics for Non-Wharton Students, Minor 289
Environmental, Social, and Governance Factors for Business: Academic Opportunities 289
Interdisciplinary Studies 291
Interdisciplinary Studies: Coordinated Dual Degree Programs 292
Interdisciplinary Studies: Coordinated Submatriculation Programs 293
Interdisciplinary Studies: University Minors 294
Academic Resources 297
Academic Resources: Academic Calendar 297
Academic Resources: Advising 300
Academic Resources: Career Services 301
Academic Resources: Community Engagement 301
Academic Resources: Enrollment & Degree Verification 301
Academic Resources: Fellowships and Prizes 301
Academic Resources: Financial Aid 303
Academic Resources: Foreign Language Study Opportunities 303
Academic Resources: Global Programs 304
Academic Resources: Information for Athletes 304
<table>
<thead>
<tr>
<th>Department</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>City and Regional Planning (CPLN)</td>
<td>626</td>
</tr>
<tr>
<td>Classical Studies (CLST)</td>
<td>636</td>
</tr>
<tr>
<td>Classics (CLSC)</td>
<td>661</td>
</tr>
<tr>
<td>Climate Change (CLCH)</td>
<td>662</td>
</tr>
<tr>
<td>Cognitive Science (COGS)</td>
<td>663</td>
</tr>
<tr>
<td>College ( COLL)</td>
<td>664</td>
</tr>
<tr>
<td>Communications ( COMM)</td>
<td>665</td>
</tr>
<tr>
<td>Comparative Literature (COML)</td>
<td>684</td>
</tr>
<tr>
<td>Computer and Information Science (CIS)</td>
<td>725</td>
</tr>
<tr>
<td>Computer and Information Technology (CIT)</td>
<td>741</td>
</tr>
<tr>
<td>Creative Writing (CRWR)</td>
<td>742</td>
</tr>
<tr>
<td>Criminology (CRIM)</td>
<td>744</td>
</tr>
<tr>
<td>Czech (CZCH)</td>
<td>747</td>
</tr>
<tr>
<td>Data Analytics (DATA)</td>
<td>748</td>
</tr>
<tr>
<td>Data Science (DATS)</td>
<td>749</td>
</tr>
<tr>
<td>Demography (DEMG)</td>
<td>749</td>
</tr>
<tr>
<td>Dental - Community Oral Health (DCOH)</td>
<td>751</td>
</tr>
<tr>
<td>Dental - Dental Medicine (DENT)</td>
<td>751</td>
</tr>
<tr>
<td>Dental - Endodontics (DEND)</td>
<td>769</td>
</tr>
<tr>
<td>Dental - Graduate Advanced Dental Studies (GADS)</td>
<td>769</td>
</tr>
<tr>
<td>Dental - Graduate Core Curriculum (DADE)</td>
<td>773</td>
</tr>
<tr>
<td>Dental - Graduate Endodontics (GEND)</td>
<td>776</td>
</tr>
<tr>
<td>Dental - Graduate Oral and Population Health (GOPH)</td>
<td>777</td>
</tr>
<tr>
<td>Dental - Graduate Oral Health Sciences (GOHS)</td>
<td>779</td>
</tr>
<tr>
<td>Dental - Graduate Oral Medicine (GOMD)</td>
<td>782</td>
</tr>
<tr>
<td>Dental - Graduate Orthodontics (GORT)</td>
<td>783</td>
</tr>
<tr>
<td>Dental - Graduate Pediatrics (GPED)</td>
<td>785</td>
</tr>
<tr>
<td>Dental - Graduate Periodontics (GPRD)</td>
<td>786</td>
</tr>
<tr>
<td>Dental - Graduate Prosthodontics (GPRS)</td>
<td>788</td>
</tr>
<tr>
<td>Dental - Oral Medicine (DOMD)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Oral Surgery (DOSP)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Orthodontics (DORT)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Pediatrics (DPED)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Periodontics (DPRD)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Radiology (DRAD)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Radiology (DRAD)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Restorative Dentistry (DRST)</td>
<td>793</td>
</tr>
<tr>
<td>Design (DSGN)</td>
<td>793</td>
</tr>
<tr>
<td>Digital Culture (DIGC)</td>
<td>802</td>
</tr>
<tr>
<td>Dutch (DTCH)</td>
<td>804</td>
</tr>
<tr>
<td>Earth and Environmental Science (EESC)</td>
<td>807</td>
</tr>
<tr>
<td>East Asian Languages &amp; Civilization (EALC)</td>
<td>815</td>
</tr>
<tr>
<td>Economics (ECON)</td>
<td>847</td>
</tr>
<tr>
<td>Education (EDUC)</td>
<td>858</td>
</tr>
<tr>
<td>Education - Education Entrepreneurship (EDEN)</td>
<td>894</td>
</tr>
<tr>
<td>Education - Higher Education Management (EDHE)</td>
<td>897</td>
</tr>
<tr>
<td>Education - Independent School Teaching Residency (EDPR)</td>
<td>903</td>
</tr>
<tr>
<td>Education - Medical Education (EDME)</td>
<td>910</td>
</tr>
<tr>
<td>Education - Mid-Career Educational &amp; Organizational Leadership (EDMC)</td>
<td>911</td>
</tr>
<tr>
<td>Education - Penn Chief Learning Officer (EDCL)</td>
<td>918</td>
</tr>
<tr>
<td>Education - School &amp; Mental Health Counseling (EDSC)</td>
<td>920</td>
</tr>
<tr>
<td>Education - School Leadership (EDSL)</td>
<td>925</td>
</tr>
<tr>
<td>Education - Urban Teaching Residency Certificate (EDTC)</td>
<td>927</td>
</tr>
<tr>
<td>Education - Urban Teaching Residency Master's (EDTF)</td>
<td>932</td>
</tr>
<tr>
<td>Electrical &amp; Systems Engineering (ESE)</td>
<td>938</td>
</tr>
<tr>
<td>Energy Management and Policy (ENMG)</td>
<td>952</td>
</tr>
<tr>
<td>Engineering &amp; Applied Science (EAS)</td>
<td>953</td>
</tr>
<tr>
<td>Engineering (ENGR)</td>
<td>961</td>
</tr>
<tr>
<td>Engineering Mathematics (ENM)</td>
<td>963</td>
</tr>
<tr>
<td>English (ENGL)</td>
<td>965</td>
</tr>
<tr>
<td>English Literature (ENLT)</td>
<td>1027</td>
</tr>
<tr>
<td>Environmental Studies (ENVS)</td>
<td>1028</td>
</tr>
<tr>
<td>Epidemiology (EPID)</td>
<td>1043</td>
</tr>
<tr>
<td>Ethics (ETHC)</td>
<td>1050</td>
</tr>
<tr>
<td>Filipino (FILP)</td>
<td>1050</td>
</tr>
<tr>
<td>Finance (FNCE)</td>
<td>1051</td>
</tr>
<tr>
<td>Fine Arts (FNAR)</td>
<td>1064</td>
</tr>
<tr>
<td>Folklore (FOLK)</td>
<td>1088</td>
</tr>
<tr>
<td>Francophone, Italian, and Germanic Studies (FIGS)</td>
<td>1088</td>
</tr>
<tr>
<td>French (FREN)</td>
<td>1089</td>
</tr>
<tr>
<td>First-Year Seminar (FRSM)</td>
<td>1102</td>
</tr>
<tr>
<td>Gender, Sexuality &amp; Women's Studies (GSWS)</td>
<td>1102</td>
</tr>
<tr>
<td>Genetic Counseling (GENC)</td>
<td>1133</td>
</tr>
<tr>
<td>Genomics &amp; Comp. Biology (GCB)</td>
<td>1137</td>
</tr>
<tr>
<td>Geology (GEOL)</td>
<td>1139</td>
</tr>
<tr>
<td>Germanic Languages (GRMN)</td>
<td>1139</td>
</tr>
<tr>
<td>Global MPA (GMPA)</td>
<td>1160</td>
</tr>
<tr>
<td>Global Studies (GLBS)</td>
<td>1162</td>
</tr>
<tr>
<td>Government Administration (GAFL)</td>
<td>1164</td>
</tr>
<tr>
<td>Graduate Arts &amp; Sciences (GASF)</td>
<td>1173</td>
</tr>
<tr>
<td>Greek (GREK)</td>
<td>1173</td>
</tr>
<tr>
<td>Gujarati (GUJR)</td>
<td>1177</td>
</tr>
<tr>
<td>Health &amp; Societies (HSOC)</td>
<td>1178</td>
</tr>
</tbody>
</table>
Health Care Innovation (HCIN) .................................................. 1194
Health Care Management (HCMD) ........................................... 1197
Health Policy Research (HPR) .................................................. 1203
Healthcare Quality and Safety (HQS) .......................................... 1206
Hebrew (HEBR) ........................................................................ 1208
Hindi (HIND) ............................................................................ 1210
Historic Preservation (HSPV) ................................................... 1211
History & Sociology of Science (HSSC) ....................................... 1218
History (HIST) ........................................................................... 1223
Hungarian (HUNG) ..................................................................... 1275
Igbo (IGBO) .............................................................................. 1276
Immunology (IMUN) ............................................................... 1276
Implementation Science (IMP) ................................................... 1278
Indonesian (INDO) ..................................................................... 1279
Integrated Studies (INTG) .......................................................... 1279
Integrated Product Design (IPD) ................................................. 1280
Intercultural Communication (ICOM) ........................................... 1283
International Relations (INTR) ................................................... 1283
International Studies (INS) ......................................................... 1285
Irish Gaelic Studies (IRIS) ......................................................... 1285
Italian (ITAL) ............................................................................. 1286
Japanese (JAPAN) ....................................................................... 1300
Jewish Studies Program (JWST) ................................................. 1303
Kannada (KAND) ....................................................................... 1314
Korean (KORN) .......................................................................... 1315
Landscape Architecture & Regional Planning (LARP) ............... 1319
Latin (LATN) ............................................................................... 1327
Latin American & Latinx Studies (LALS) ....................................... 1330
Law (LAW) .................................................................................. 1359
Law - Master of Law (LAWM) ..................................................... 1360
Leadership and Communication (LEAD) .................................... 1360
Legal Studies & Business Ethics (LGST) ...................................... 1361
Linguistics (LING) ...................................................................... 1372
Logic, Information and Computation (LGIC) ............................. 1382
Malagasy (MALG) ....................................................................... 1383
Malayalam (MLYM) ................................................................. 1384
Management (MGMT) ............................................................... 1385
Managerial Economics (MGE) ................................................... 1409
Marathi (MRTI) ........................................................................... 1409
Marketing (MKTG) ..................................................................... 1410
Master of Applied Positive Psychology (MAPP) ....................... 1425
Master of Liberal Arts (MLA) ..................................................... 1426
Master of Science in Social Policy (MSSP) ................................. 1427
Master of Science in Translational Research (MTR) ................... 1433
Master of Urban Spatial Analytics (MUSA) ............................... 1435
Materials Science and Engineering (MSE) ............................... 1436
Mathematical Sciences (MTHS) .................................................. 1443
Mathematics (MATH) .................................................................. 1444
Mechanical Engineering and Applied Mechanics (MEAM) ....... 1453
Medical Physics (MPHY) ........................................................... 1464
Military Science (MSCI) ............................................................ 1465
Modern Middle East Studies (MODM) ....................................... 1468
Music (MUSC) ............................................................................. 1469
Nanotechnology (NANO) .......................................................... 1482
Nautical Science (NSCI) ............................................................. 1482
Near Eastern Languages & Civilizations (NELC) ...................... 1484
Network and Social Systems Engineering (NETS) .................... 1511
Neuroscience (NEUR) ............................................................... 1512
Neuroscience (NGG) ................................................................. 1513
Neuroscience (NRSC) ............................................................... 1516
Nonprofit Leadership (NPLD) .................................................... 1523
Nursing (NURS) ........................................................................ 1533
Operations, Information and Decisions (OIDD) ....................... 1571
Organizational Anthropology (ORG) .......................................... 1585
Organizational Dynamics (DYNM) ............................................. 1586
Pashto (PASH) ............................................................................ 1608
Persian (PERS) ............................................................................ 1608
Pharmacology (PHRM) ............................................................. 1611
Philosophy (PHIL) ..................................................................... 1613
Philosophy, Politics, Economics (PPE) ....................................... 1631
Physical and Life Sciences (PHYL) ............................................. 1633
Physics (PHYS) ........................................................................... 1634
Polish (PLSH) ............................................................................ 1641
Political Science (PSCI) .............................................................. 1642
Politics & Policy (PPOL) ............................................................. 1664
Portuguese (PORTG) ............................................................... 1664
Professional Writing (PROW) ..................................................... 1666
Psychology (PSYC) ................................................................... 1668
Psychology, Behavior & Decision Sciences (PBDS) .................. 1679
Public Health Studies (PBH) ...................................................... 1680
Punjabi (PUNJ) ........................................................................... 1688
Quechua (QUEC) ....................................................................... 1689
Real Estate (REAL) ...................................................................... 1689
Regulatory (REG) ........................................................................ 1694
<table>
<thead>
<tr>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion and Culture (RELC)</td>
<td>1698</td>
</tr>
<tr>
<td>Religious Studies (RELS)</td>
<td>1699</td>
</tr>
<tr>
<td>Robotics (ROBO)</td>
<td>1719</td>
</tr>
<tr>
<td>Romance Languages (ROML)</td>
<td>1720</td>
</tr>
<tr>
<td>Russian (RUSS)</td>
<td>1720</td>
</tr>
<tr>
<td>Russian and Eastern European Studies (REES)</td>
<td>1722</td>
</tr>
<tr>
<td>Sanskrit (SKRT)</td>
<td>1745</td>
</tr>
<tr>
<td>School of Social Policy and Practice (SSPP)</td>
<td>1746</td>
</tr>
<tr>
<td>Science, Technology &amp; Society (STSC)</td>
<td>1747</td>
</tr>
<tr>
<td>Scientific Computing (SCMP)</td>
<td>1760</td>
</tr>
<tr>
<td>Scientific Processes (SPRO)</td>
<td>1760</td>
</tr>
<tr>
<td>Social Difference, Diversity, Equity and Inclusion (SDEI)</td>
<td>1760</td>
</tr>
<tr>
<td>Social Welfare (SOCW)</td>
<td>1763</td>
</tr>
<tr>
<td>Social Work (SWRK)</td>
<td>1764</td>
</tr>
<tr>
<td>Sociology (SOCI)</td>
<td>1781</td>
</tr>
<tr>
<td>South Asia Studies (SAST)</td>
<td>1808</td>
</tr>
<tr>
<td>Spanish (SPAN)</td>
<td>1829</td>
</tr>
<tr>
<td>Spanish and Portuguese (SPPO)</td>
<td>1843</td>
</tr>
<tr>
<td>Statistics and Data Science (STAT)</td>
<td>1843</td>
</tr>
<tr>
<td>Sudanese Arabic (SARB)</td>
<td>1852</td>
</tr>
<tr>
<td>Swahili (SWAH)</td>
<td>1852</td>
</tr>
<tr>
<td>Swedish (SWED)</td>
<td>1853</td>
</tr>
<tr>
<td>Tamil (TAML)</td>
<td>1854</td>
</tr>
<tr>
<td>Telugu (TELU)</td>
<td>1855</td>
</tr>
<tr>
<td>Thai (THAI)</td>
<td>1856</td>
</tr>
<tr>
<td>Theatre Arts (THAR)</td>
<td>1857</td>
</tr>
<tr>
<td>Tibetan (TIBT)</td>
<td>1866</td>
</tr>
<tr>
<td>Tigrinya (TIGR)</td>
<td>1867</td>
</tr>
<tr>
<td>Turkish (TURK)</td>
<td>1867</td>
</tr>
<tr>
<td>Twi (TWI)</td>
<td>1870</td>
</tr>
<tr>
<td>Ukrainian (UKRN)</td>
<td>1871</td>
</tr>
<tr>
<td>Urban Studies (URBS)</td>
<td>1872</td>
</tr>
<tr>
<td>Urdu (URDU)</td>
<td>1892</td>
</tr>
<tr>
<td>Veterinary &amp; Biomedical Science (VBMS)</td>
<td>1894</td>
</tr>
<tr>
<td>Veterinary Clinical Studies - Medicine Courses (VMED)</td>
<td>1894</td>
</tr>
<tr>
<td>Veterinary Clinical Studies - New Bolton Center (VCSN)</td>
<td>1900</td>
</tr>
<tr>
<td>Veterinary Clinical Studies - Surgery Courses (VSUR)</td>
<td>1909</td>
</tr>
<tr>
<td>Veterinary Clinical Studies and Advanced Medicine - Philadelphia (VCSP)</td>
<td>1910</td>
</tr>
<tr>
<td>Veterinary Independent Study &amp; Research (VISR)</td>
<td>1918</td>
</tr>
<tr>
<td>Veterinary Pathobiology (VPTH)</td>
<td>1918</td>
</tr>
<tr>
<td>Vietnamese (VIET)</td>
<td>1922</td>
</tr>
<tr>
<td>Viper (VIPR)</td>
<td>1923</td>
</tr>
<tr>
<td>Visual Studies (VLST)</td>
<td>1923</td>
</tr>
<tr>
<td>Wharton Undergraduate (WH)</td>
<td>1929</td>
</tr>
<tr>
<td>Wolof (WOLF)</td>
<td>1930</td>
</tr>
<tr>
<td>Yiddish (YDSH)</td>
<td>1931</td>
</tr>
<tr>
<td>Yoruba (YORB)</td>
<td>1932</td>
</tr>
<tr>
<td>Zulu (ZULU)</td>
<td>1933</td>
</tr>
</tbody>
</table>

Index: 1935
### Programs

The following list includes undergraduate programs. PhD, master’s, certificate, and other professional degree programs are listed in the Graduate Catalog (http://catalog.upenn.edu/graduate/).

### A

- Accounting, BS (p. 256)
- Actuarial Mathematics, Minor (p. 152)
- Africana Studies, Minor (p. 152)
- Africana Studies: African American Studies, BA (p. 23)
- Africana Studies: African Diaspora Studies, BA (p. 23)
- Africana Studies: African Studies, BA (p. 24)
- American Public Policy, Minor (p. 153)
- American Sign Language and Deaf Studies, Minor (p. 153)
- Ancient History, BA (p. 25)
- Ancient History, Minor (p. 153)
- Anthropology, Minor (p. 154)
- Anthropology: Archaeology, BA (p. 25)
- Anthropology: Biological Anthropology, BA (p. 26)
- Anthropology: Cultural and Linguistic Anthropology, BA (p. 27)
- Anthropology: Environmental Anthropology, BA (p. 27)
- Anthropology: General Anthropology, BA (p. 28)
- Anthropology: Medical Anthropology & Global Health, BA (p. 29)
- Applied Positive Psychology, Certificate (p. 205)
- Archaeological Science, Minor (p. 154)
- Architectural History, Minor (p. 154)
- Architecture, Minor (p. 154)
- Architecture: Design, BA (p. 30)
- Architecture: Intensive Design, BA (p. 30)
- Asian American Studies, Minor (p. 155)

### B

- Behavioral Economics, BS (p. 256)
- Biochemistry, BA (p. 31)
- Bioengineering, BSE (p. 220)
- Bioethics, Minor (p. 155)
- Biology, Minor (p. 155)
- Biology: Computational Biology, BA (p. 32)
- Biology: Ecology & Evolutionary Biology, BA (p. 33)
- Biology: General Biology, BA (p. 34)
- Biology: Mathematical Biology, BA (p. 34)
- Biology: Mechanisms of Disease, BA (p. 35)
- Biology: Molecular & Cell Biology, BA (p. 36)
- Biology: Neurobiology, BA (p. 37)
- Biomedical Science, BAS (p. 221)
- Biophysics, BA (p. 37)
- Biophysics, Minor (p. 156)
- Business Analytics, BS (p. 257)
- Business Economics and Public Policy, BS (p. 259)
- Business, Energy, Environment, and Sustainability, BS (p. 261)

### C

- Chemical & Biomolecular Engineering, Minor (p. 235)
- Chemical and Biomolecular Engineering, BSE (p. 222)
- Chemistry, BA (p. 38)
- Chemistry, Minor (p. 156)
- Cinema and Media Studies, BA (p. 39)
- Cinema and Media Studies, Minor (p. 157)
- Classical Studies, Minor (p. 157)
- Classical Studies: Classical Civilizations, BA (p. 40)
- Classical Studies: Classical Languages and Literature, BA (p. 40)
- Classical Studies: Mediterranean Archaeology, BA (p. 41)
- Climate Change, Certificate (p. 206)
- Cognitive Science, Minor (p. 158)
- Cognitive Science: Cognitive Neuroscience, BA (p. 41)
- Cognitive Science: Computation and Cognition, BA (p. 42)
- Cognitive Science: Individualized, BA (p. 43)
- Cognitive Science: Language & Mind, BA (p. 44)
- Communication: Advocacy & Activism, BA (p. 44)
- Communication: Audiences & Persuasion, BA (p. 46)
- Communication: Communication & Public Service, BA (p. 47)
- Communication: Culture & Society, BA (p. 49)
- Communication: Data & Network Science, BA (p. 50)
- Communication: General Communication, BA (p. 52)
- Communication: Politics & Policy, BA (p. 53)
- Comparative Literature, Minor (p. 158)
- Comparative Literature: (Trans)national Literatures, BA (p. 54)
- Comparative Literature: Globalization, BA (p. 55)
- Comparative Literature: Theory, BA (p. 56)
- Computational Neuroscience, Minor (p. 158)
- Computer Engineering, BSE (p. 223)
- Computer Science, BAS (p. 225)
- Computer Science, BSE (p. 226)
- Computer Science, Minor (p. 235)
- Consumer Psychology, Minor (p. 159)
- Creative Studies, BAAS (p. 194)
- Creative Writing, Certificate (p. 207)
- Creative Writing, Minor (p. 160)
- Criminology, BA (p. 57)

### D

- Data Analytics and Psychological Sciences, BAAS (p. 196)
- Data Analytics and Social Sciences, BAAS (p. 197)
- Data Analytics, Certificate (p. 208)
- Data Science and Analytics, Minor (p. 160)
- Data Science, Minor (p. 236)
- Design, BA (p. 57)
- Design, Minor (p. 161)
- Digital Humanities, Minor (p. 161)
- Digital Media Design, BSE (p. 227)
- Digital Media Design, Minor (p. 236)
• Digital Strategies and Culture, Certificate (p. 209)
• Diversity, Equity and Inclusion, BS (p. 262)

E
• Earth and Environmental Science, BA (p. 58)
• East Asian Area Studies, Minor (p. 162)
• East Asian Languages and Civilizations: Chinese, Minor (p. 163)
• East Asian Languages and Civilizations: Dual Language, BA (p. 59)
• East Asian Languages and Civilizations: East Asian Area Studies, BA (p. 60)
• East Asian Languages and Civilizations: General East Asian Languages and Civilizations, BA (p. 61)
• East Asian Languages and Civilizations: Japanese, Minor (p. 163)
• East Asian Languages and Civilizations: Korean, Minor (p. 164)
• East Central European Studies, Minor (p. 164)
• Economic Policy, Minor (p. 164)
• Economics, BA (p. 61)
• Economics, Minor (p. 165)
• Electrical Engineering, BSE (p. 228)
• Electrical Engineering, Minor (p. 237)
• Energy & Sustainability, Minor (p. 237)
• Engineering Entrepreneurship, Minor (p. 238)
• English, Minor (p. 165)
• English: 18th/19th Centuries, BA (p. 62)
• English: 20th/21st Centuries, BA (p. 63)
• English: Africana Literatures & Culture, BA (p. 64)
• English: Cinema & Media Studies, BA (p. 65)
• English: Creative Writing, BA (p. 66)
• English: Drama, BA (p. 66)
• English: Gender/Sexuality, BA (p. 67)
• English: General English, BA (p. 68)
• English: Literary Theory & Cultural Studies, BA (p. 69)
• English: Literature, Journalism and Print Culture, BA (p. 70)
• English: Medieval/Renaissance, BA (p. 71)
• English: Poetry and Poetics, BA (p. 72)
• English: The Novel, BA (p. 73)
• Entrepreneurship and Innovation, BS (p. 267)
• Environmental Humanities, Minor (p. 166)
• Environmental Science, Minor (p. 167)
• Environmental Studies, Minor (p. 167)
• Environmental Studies: Environmental History and Regional Studies, BA (p. 73)
• Environmental Studies: Environmental Policy and Application, BA (p. 74)
• Environmental Studies: General Environmental Studies, BA (p. 75)
• Environmental Studies: Global Environmental Systems, BA (p. 76)
• Environmental Studies: Sustainability and Environmental Management, BA (p. 76)
• Environmental, Social, and Governance Factors for Business: Business, Energy, Environment and Sustainability, BS (p. 263)
• Environmental, Social, and Governance Factors for Business: General, BS (p. 264)
• Environmental, Social, and Governance Factors for Business: Social and Governance Factors, BS (p. 266)
• European Studies, Minor (p. 168)

F
• Finance, BS (p. 269)
• Fine Arts, BA (p. 77)
• Fine Arts, BFA (p. 198)
• Fine Arts, Minor (p. 171)
• French and Francophone Studies, BA (p. 78)
• French and Francophone Studies, Minor (p. 172)

G
• Gender, Sexuality & Women's Studies: Feminist Studies, BA (p. 79)
• Gender, Sexuality & Women's Studies: General, BA (p. 79)
• Gender, Sexuality & Women's Studies: Global Gender and Sexuality Studies, BA (p. 80)
• Gender, Sexuality & Women's Studies: Health and Disability Studies, BA (p. 81)
• Gender, Sexuality & Women's Studies: LGBTQ Studies, BA (p. 81)
• Gender, Sexuality & Women's Studies: Self Designed, BA (p. 82)
• Gender, Sexuality, and Women's Studies, Minor (p. 172)
• Geology, Minor (p. 173)
• German, BA (p. 82)
• German, Minor (p. 173)
• Global and Regional Studies, Certificate (p. 210)
• Global Health, Minor (p. 249)
• Global Medieval Studies, Minor (p. 173)
• History: Jewish History, BA (p. 95)
• History: World History, BA (p. 95)

I
• Individualized Major, BA (p. 96)
• Individualized Program, BAS (p. 229)
• Individualized, BAAS (p. 199)
• Individualized, BS (p. 271)
• International Development, Minor (p. 175)
• International Relations, BA (p. 96)
• International Relations, Minor (p. 175)
• International Studies, BA (p. 97)
• Italian Studies: Italian Culture, BA (p. 98)
• Italian Studies: Italian Culture, Minor (p. 176)
• Italian Studies: Italian Literature, BA (p. 98)
• Italian Studies: Italian Literature, Minor (p. 176)

J
• Jewish Studies, BA (p. 99)
• Jewish Studies, Minor (p. 177)
• Journalistic Writing, Minor (p. 177)

L
• Landscape Studies, Minor (p. 177)
• Latin American & Latinx Studies, BA (p. 100)
• Latin American and Latinx Studies, Minor (p. 178)
• Law and Society, Minor (p. 178)
• Leadership & Communication, Certificate (p. 211)
• Leadership and Communication, BAAS (p. 200)
• Legal Studies & Business Ethics, BS (p. 272)
• Legal Studies & History, Minor (p. 178)
• Linguistics, BA (p. 100)
• Linguistics, Minor (p. 179)
• Literature, Culture and Tradition, BAAS (p. 201)
• Logic, Information, & Computation, BA (p. 101)
• Logic, Information, & Computation, Minor (p. 179)

M
• Management: General Track, BS (p. 274)
• Management: Multinational Management Track, BS (p. 275)
• Management: Organizational Effectiveness Track, BS (p. 276)
• Management: Strategic Management Track, BS (p. 277)
• Marketing & Communication, BS (p. 278)
• Marketing & Operations Management, BS (p. 279)
• Marketing, BS (p. 280)
• Materials Science and Engineering, BSE (p. 230)
• Materials Science and Engineering, Minor (p. 239)
• Mathematical Economics, BA (p. 102)
• Mathematics, Minor (p. 180)
• Mathematics: Biological Mathematics, BA (p. 104)
• Mathematics: General Mathematics, BA (p. 105)
• Mechanical Engineering and Applied Mechanics, BSE (p. 231)
• Mechanical Engineering and Applied Mechanics, Minor (p. 240)
• Medical Sociology, Minor (p. 181)
• Modern Middle Eastern Studies, BA (p. 105)
• Modern Middle Eastern Studies, Minor (p. 181)
• Music, BA (p. 106)
• Music: Jazz and Popular Music, Minor (p. 182)
• Music: Music, Minor (p. 181)

N
• Native American and Indigenous Studies, Minor (p. 183)
• Near Eastern Languages & Civilizations: Ancient Near East, BA (p. 107)
• Near Eastern Languages & Civilizations: Ancient Near East, Minor (p. 183)
• Near Eastern Languages & Civilizations: Arabic & Hebrew Studies, BA (p. 107)
• Near Eastern Languages & Civilizations: Arabic & Hebrew Studies, Minor (p. 183)
• Near Eastern Languages & Civilizations: Arabic & Islamic Studies, BA (p. 108)
• Near Eastern Languages & Civilizations: Arabic & Islamic Studies, Minor (p. 184)
• Near Eastern Languages & Civilizations: Cultures and Societies of the Middle East and North Africa, BA (p. 109)
• Near Eastern Languages & Civilizations: Cultures and Societies of the Middle East and North Africa, Minor (p. 184)
• Near Eastern Languages & Civilizations: Hebrew & Judaica, BA (p. 109)
• Near Eastern Languages & Civilizations: Hebrew & Judaica, Minor (p. 185)
• Near Eastern Languages & Civilizations: Persian Language & Literature, BA (p. 110)
• Near Eastern Languages & Civilizations: Persian Language & Literature, Minor (p. 185)
• Networked and Social Systems Engineering, BSE (p. 232)
• Neuroscience and Health Care Management, Minor (p. 186)
• Neuroscience, BA (p. 111)
• Neuroscience, Certificate (p. 212)
• Neuroscience, Minor (p. 186)
• Nursing and Health Services Management, Minor (p. 250)
• Nursing, BSN (p. 245)
• Nutrition Science, BA (p. 112)
• Nutrition Science, BSN (p. 248)
• Nutrition, Minor (p. 251)
• Nutrition, Minor (p. 186)

O
• Operations, Information & Decisions: Decision Processes Track, BS (p. 281)
• Operations, Information & Decisions: General Track, BS (p. 282)
• Operations, Information & Decisions: Information Systems Track, BS (p. 283)
• Operations, Information & Decisions: Operations Management/Management Science Track, BS (p. 284)
P
• Philosophy, Minor (p. 187)
• Philosophy, Politics and Economics: Choice & Behavior, BA (p. 112)
• Philosophy, Politics and Economics: Distributive Justice, BA (p. 113)
• Philosophy, Politics and Economics: Globalization, BA (p. 114)
• Philosophy, Politics and Economics: Public Policy & Governance, BA (p. 115)
• Philosophy: General Philosophy, BA (p. 115)
• Philosophy: Humanistic Philosophy, BA (p. 116)
• Philosophy: Philosophy and Science, BA (p. 117)
• Philosophy: Political and Moral Philosophy, BA (p. 118)
• Physical and Life Sciences, BAAS (p. 204)
• Physics, Minor (p. 187)
• Physics: Astrophysics, BA (p. 119)
• Physics: Biological Science, BA (p. 119)
• Physics: Business & Technology, BA (p. 120)
• Physics: Chemical Principles, BA (p. 121)
• Physics: Computer Techniques, BA (p. 122)
• Physics: Physical Theory and Experimental Technique, BA (p. 123)
• Political Science, Minor (p. 187)
• Political Science: American Politics, BA (p. 124)
• Political Science: Comparative Politics, BA (p. 124)
• Political Science: General Political Science, BA (p. 125)
• Political Science: Individualized, BA (p. 126)
• Political Science: International Relations, BA (p. 127)
• Political Science: Political Economy, BA (p. 128)
• Political Science: Political Theory, BA (p. 128)
• Pre-Health Core Studies, Post-Baccalaureate Preparatory Program (p. 217)
• Pre-Health Specialized Studies, Post-Baccalaureate Preparatory Program (p. 217)
• Professional Writing, Certificate (p. 213)
• Psychoanalytic Studies, Minor (p. 188)
• Psychology, BA (p. 129)
• Psychology, Minor (p. 188)

R
• Real Estate, BS (p. 285)
• Religious Studies, BA (p. 130)
• Religious Studies, Minor (p. 189)
• Retailing, BS (p. 286)
• Romance Languages: French and Italian, BA (p. 131)
• Romance Languages: French and Spanish, BA (p. 132)
• Romance Languages: Italian and Spanish, BA (p. 132)
• Russian and East European Studies: Cinema, Arts and Letters, BA (p. 133)
• Russian and East European Studies: History, Politics and Society, BA (p. 134)
• Russian and East European Studies: Language, Literature and Culture, BA (p. 134)
• Russian and East European Studies: Russian Culture and History, Minor (p. 189)
• Russian and East European Studies: Russian Language, Literature and Culture, Minor (p. 190)

S
• Science Foundations, Certificate (p. 214)
• Science, Technology and Society, Minor (p. 190)
• Science, Technology and Society: Biotechnology & Biomedicine, BA (p. 135)
• Science, Technology and Society: Energy and Environment, BA (p. 136)
• Science, Technology and Society: Global Science and Technology, BA (p. 137)
• Science, Technology and Society: Information and Organizations, BA (p. 137)
• Science, Technology and Society: Science/Nature/Culture, BA (p. 138)
• Social Difference, Diversity, Equity and Inclusion, Certificate (p. 215)
• Social Impact & Responsibility, BS (p. 288)
• Sociology, Minor (p. 190)
• Sociology: Applied Research and Data Analysis, BA (p. 139)
• Sociology: Cities, Markets, and the Global Economy, BA (p. 139)
• Sociology: Culture and Diversity, BA (p. 140)
• Sociology: Education and Society, BA (p. 141)
• Sociology: Family, Gender and Society, BA (p. 142)
• Sociology: Law and Society, BA (p. 143)
• Sociology: Medical Sociology, BA (p. 143)
• Sociology: Structures of Opportunity and Inequality, BA (p. 144)
• South Asia Studies, BA (p. 145)
• South Asia Studies, Minor (p. 190)
• Statistics and Data Science, BS (p. 288)
• Statistics and Data Science, Minor (p. 191)
• Survey Research and Data Analytics, Minor (p. 191)
• Sustainability and Environmental Management, Minor (p. 192)
• Systems Science and Engineering, BSE (p. 233)
• Systems Science and Engineering, Minor (p. 240)

T
• Theatre Arts, BA (p. 146)
• Theatre Arts, Minor (p. 192)

U
• UpSkill, Certificate (p. 216)
• Urban Education, Minor (p. 192)
• Urban Real Estate and Development, Minor (p. 193)
• Urban Studies, BA (p. 146)
• Urban Studies, Minor (p. 193)

V
• Visual Studies: Architecture Practice and Technology, BA (p. 147)
• Visual Studies: Art and Culture of Seeing, BA (p. 148)
• Visual Studies: Art, Practice and Technology, BA (p. 149)
• Visual Studies: Philosophy and Science of Seeing, BA (p. 150)
SCHOOL OF ARTS & SCIENCES

In the tradition of its eighteenth-century founders, the College of Arts and Sciences (https://www.college.upenn.edu/) regards the enduring purpose of education as the liberation of the mind from ignorance, superstition, and prejudice. From its central position in an international research university, the College invites students to explore the broad spectrum of human knowledge and takes pride in its capacity to respond to the particular intellectual needs of those who join it. The College thrives on the diversity of scholars and students whose interests it sustains and whose intellectual goals it unites.

Study of the arts and sciences provides a solid basis for advanced scientific and scholarly research, for subsequent training in the professions, and for the informed exercise of the rights and responsibilities of citizenship. The College’s goal is to help students to become knowledgeable about the world and the complexities of today’s society, aware of moral, ethical, and social issues, prepared to exercise intellectual leadership, and enlivened by the use of their mind.

The College is committed to offering a broad education that will lay a durable foundation for critical and creative thinking. We believe that students should explore fundamental approaches to the acquisition and interpretation of knowledge through introduction to substantive bodies of current thought in the natural sciences, social sciences, and humanities. Equally important, they should learn to understand and evaluate the sources and methods from which this knowledge derives. In this way they can be led to appreciate the contingency of all knowledge and to participate in the ongoing excitement of intellectual discovery that is at the heart of the College.

We challenge our students to develop the skills of analysis and communication that will enable them to perceive pattern in complexity, render reasoned judgments, make wise choices under conditions of uncertainty, and join with others in the pursuit of common endeavors. They should, for example, be able to write and speak effectively and to use another people’s language as one means of access to the diversity of contemporary and historical culture.

A student’s emerging interests and talents find expression through an organized program of study in a major field. In the specialized context of the major, students investigate the traditions and contemporary status of an established branch of knowledge. The structured study of a discipline complements the general exploration of our intellectual heritage to provide the balance of educational breadth and depth to which the College is committed.

There is no single or easy path to the benefits of liberal education. A program of study must be shaped as a student grows. But the special strengths of the University of Pennsylvania—its combination of academic and professional excellence, its diverse and interdisciplinary tradition, its active community of scholars at all levels of experience—provide a setting in which the College can dedicate itself to nurturing honest, eager, and critical minds. The College welcomes those who seek to understand, appreciate, and contribute to the achievements of the human intellect.

The College of Arts and Sciences (https://www.college.upenn.edu/) is the full-time undergraduate division of the School of Arts and Sciences (SAS), which offers the Bachelor of Arts (B.A.) degree. Other divisions include:

- The Graduate School of Arts and Sciences which offers the advanced degrees of Master of Arts (M.A.), Master of Science (M.S.) and Doctor of Philosophy (Ph.D.);
- The College of Liberal and Professional Studies (LPS) is the home of lifelong learning at the University of Pennsylvania. It offers high school, undergraduate, post-baccalaureate, graduate, summer and online studies as well as customizable professional training with courses that span across disciplines. LPS also administers the Summer Sessions.

The twenty-seven departments in SAS represent the core disciplines of the liberal arts. They individually offer thirty-two major programs. In addition, through interdepartmental collaborations, the SAS faculty offer a number of interdisciplinary majors. Around SAS are grouped the various specialized professional schools, all of them drawing extensively on the intellectual resources provided by SAS. Two of these schools, the Annenberg School for Communication and the School of Design, offer undergraduate majors for College students through special collaborative relationships with SAS.

The College aims to provide its undergraduates with a broad general education that will lay the groundwork for critical and creative thinking in all fields. Ideally the graduate of the College will be well informed about the world and confident in today’s complex technological society. He or she will be willing and able to make critical judgments and to exercise intellectual leadership. The B.A. degree thus provides a solid basis for specialized scientific and scholarly research, for education for the professions, and for the informed exercise of the rights and responsibilities of citizenship.

The University of Pennsylvania is particularly well placed to provide its students with an education that links the theoretical and the practical. Within the College and the other schools is an extraordinary range of programs. The College alone offers over fifty different major programs. The College does its best to make all of the University’s resources accessible to its students, giving them wide latitude in planning their programs of study and in deciding on their areas of specialization.

To read the history of the College of Arts and Sciences, please click here. (https://www.college.upenn.edu/college-history/)

The fundamental purpose of the University as an academic community is the pursuit of knowledge. Essential to the success of this educational mission is a commitment to the principles of academic integrity. Academic work represents not only what we have learned about a subject but also how we have learned it. Values and beliefs about academic integrity have been adopted by scholars so that others may trace our honorable footsteps, verify what we have learned, and build upon our work. Every member of the University community is responsible for upholding the highest standards of honesty at all times.

As members of the University community, students are also responsible for adhering to the principles and spirit of the Code of Academic Integrity (http://catalog.upenn.edu/pennbook/code-of-academic-integrity/). Penn believes strongly in the importance of academic integrity. Students who violate its precepts are subject to punishment through the judicial system. Ignorance of the rules is no excuse. If a student is unsure whether his or her action(s) constitute a violation of the Code of Academic Integrity, it is that student’s responsibility to consult with the instructor to clarify any ambiguity.

Curriculum

The Purpose of the Curriculum

A curriculum is often identified with a set of degree requirements: “What do I have to do to receive my degree?” But degree requirements are not
themselves sufficient to define appropriate educational goals. One might fulfill all of the College’s degree requirements and yet fail to get a good education. It would also be possible to acquire a good education but neglect to fulfill the degree requirements. Now, we certainly do want you to fulfill all of the degree requirements, and we will work with you to see that this happens. But you are not here fundamentally for the purpose of completing degree requirements. If you think of your education solely in those terms, the result will be dull and unsatisfying.

“Curriculum” comes from the Latin for “course,” in the sense in which one might speak of the course of a journey. The term denotes a means rather than an end, but it suggests better than “degree requirements” what it is to become educated. It denotes a movement from a starting point to a destination, a movement that proceeds along some path. You are not left to your own devices to figure out how to get from here to there. But neither is the path straight and narrow. You will have many choices to make as you negotiate the course of your education, but they will be informed by the experience of the faculty, who in the curriculum offer their considered advice for your educational journey.

The College’s curriculum draws you toward two distinctive goals: toward general education across the wide range of the arts and sciences and toward specialized education in a major. A commitment to holding these two—general and specialized education—together has been the genius of American higher education since the early part of the last century. We continue to believe that these two elements constitute an education best suited to enabling intelligent individuals to live humane, productive and fulfilling lives in the 21st century.

There are 3 benchmarks that every College student must meet to graduate:

**1. Requirements:**

Complete:

A. General Education Requirements (https://www.college.upenn.edu/ged/) (Foundational Approaches and Sectors)

B. Major (https://upenn-preview.courseleaf.com/undergraduate/arts-sciences/curriculum/major/) 

**2. Total courses:**

Complete the course units (c.u.) needed to earn the degree (32-36 c.u.), typically 20 courses outside the major, but no student is required to complete more than 36 courses. Please visit the individual major pages in the Catalog about the specific c.u. requirements by Major (https://upenn-preview.courseleaf.com/undergraduate/arts-sciences/curriculum/major/).

**3. 16 courses in the Arts & Sciences outside the major:**

Complete 16 c.u. in the Arts & Sciences outside of the primary major which include those courses used for general education requirements, minors, and second majors. Courses in Wharton, Nursing, Engineering (including CIS), and Design (FNAR, DSGN, ARCH) are not Arts & Sciences courses, and therefore do not count towards this 16 c.u. requirement. However, some DSGN, FNAR, CIS, NETS or STAT can be used for General Education Requirements. When that occurs, these courses can be counted toward the 16 A&S courses outside the major. Students who are pursuing dual degrees are required to complete 14 A&S courses outside of the primary Arts & Sciences major.

---

**General Education Curriculum**

The College’s General Education Curriculum for its part has two broad objectives. It seeks to develop in you some general skills or approaches to knowledge and to engage you in the intellectual work of the disciplines in a variety of fields across the arts and sciences.

In following this curriculum, you will be guided by two kinds of degree requirements corresponding to these two objectives. One deals with foundational approaches, the other with specific disciplines and fields of knowledge. Within any given course, these two—an approach and a field of study—are integral to one another. An approach is learned by practice in relation to a field of knowledge: your ability to use a foreign language is developed through learning about the culture in which the language is rooted; understanding a work of art is acquired by learning how to write about it—that is, by learning how to use words to describe, compare, question and argue about works of art and the contexts in which they were created and are appreciated; you learn how to analyze quantitative data by thinking about what data mean for our knowledge of natural or social phenomena we observe. Some courses, however, give priority to developing skills and approaches, while others give priority to the field under investigation.

The General Education component of the Curriculum is comprised of two elements. Foundational Approaches (p. 18) develop key intellectual capabilities demanded in a variety of disciplines, while Sectors of Knowledge (p. 19) allow you to tailor your own education in the arts and sciences while gaining valuable knowledge across a broad range of disciplines.

Visit the College website (https://www.college.upenn.edu/curriculum/) for more information on the College curriculum.

**Foundational Approaches**

**Writing**

Writing is the primary medium through which the quality of a student’s intellectual work will be judged. The ability to express oneself clearly and persuasively in writing is fundamental for success across all academic disciplines, and throughout one’s personal and professional life.

For these reasons, writing plays a central role within the College curriculum. Students must take a writing seminar to fulfill the College’s Writing Requirement. It is recommended that students take this course during their first year of study. Students are also encouraged to continue development of their writing skills by participating in Penn’s writing programs.

**Foreign Language**

Competence in a foreign language is essential for an educated person. Participation in the global community is predicated on the ability to understand and appreciate cultural difference, and nothing brings this more sharply into focus than the experience of learning a foreign language. The foreign language not only affords unique access to a different culture and its ways of life and thought; it also increases awareness of one’s own language and culture. For this reason, College students are required to attain a certain degree of competency.

While students often opt to satisfy the Language Requirement by continuing to study the language that they have already begun in high school or earlier, the wealth of languages that the University offers is such that many students decide to explore a new culture and area of
our globe by beginning a foreign language that they have never studied before. French, Spanish, and a few other languages are taught at the pre-collegiate level, but students are less likely to have been exposed to Arabic, Hindi or Japanese—let alone Uzbek or Hausa—and each of these languages is a mode of access to a fascinating culture and history.

Quantitative Data Analysis

In contemporary society, citizenship, work and personal decision-making all require sophisticated thinking about quantitative evidence.

Students in the College must complete a course that uses mathematical or statistical analysis of quantitative data as an important method for understanding another subject. Through such study, students learn to think critically about quantitative data and the inferences that can be drawn from these data. They also gain experience with the use of quantitative analysis to interpret empirical data and to test hypotheses.

Courses in calculus and computer science do not fulfill the requirement because these courses do not require students to analyze actual data sets with the goal of evaluating hypotheses or interpreting results. To count toward the Quantitative Data Analysis Requirement, a course must include such data analysis.

Formal Reasoning and Analysis

In contrast to Quantitative Data Analysis courses, which deal with inductive reasoning, courses designated for this requirement focus on deductive reasoning and the formal structure of human thought, including its linguistic, logical and mathematical constituents. These courses emphasize mathematical and logical thinking and reasoning about formal structures and their application to the investigation of real-world phenomena. In addition to courses in mathematics, this requirement includes courses in computer science, formal linguistics, symbolic logic and decision theory.

Cross Cultural Analysis

In our increasingly interconnected world, the Cross-Cultural Analysis Requirement aims to increase students’ knowledge and understanding of socio-cultural systems outside the United States.

College students are required to take at least one course to develop their ability to understand and interpret the cultures of peoples with histories different from their own. The focus may be on the past or the present and it should expose students to distinctive sets of values, attitudes and methods of organizing experience that may not be obtained from American cultures. This exposure to the internal dynamic of another society should lead students to understand the values and practices that define their own cultural framework.

Cultural Diversity in the U.S.

The Cultural Diversity in the U.S. Requirement complements the Cross-Cultural Analysis Requirement and aims to develop students’ knowledge of the history, dynamic cultural systems and heterogeneous populations that make up the national culture of the United States.

College students are required to take at least one course to develop the skills necessary for understanding the population and culture of the United States as it becomes increasingly diverse. Through historical inquiry, the study of cultural expressions and the analysis of social data, students will develop their ability to examine issues of diversity with a focus on race, ethnicity, gender, sexuality, class and religion. The goal is to equip graduates with the ability to become perceptive and engaged members of society.

Sectors

The sectors are intended to ensure breadth of education across the sectors or fields of knowledge, along with interdisciplinary explorations that link several fields of knowledge.

I. Society

This sector focuses on the structure and norms of contemporary human society, including their psychological and cultural dimensions.

Courses in this sector use many analytical techniques that have been developed to study contemporary society, with its complex relations between individuals and larger forms of mass participation. Some Society courses are largely devoted to the analysis of aggregate forms of human behavior (encounters, markets, civil society, nations, supranational organizations, and so on), while others may focus on the relations between individuals and their various societies. While historical materials may be studied, the primary objective of Society courses is to enable students to develop concepts and principles, test theories, and perfect tools that can be used to interpret, explain and evaluate the behavior of human beings in contemporary societies. This objective will be realized through the specific content of the various courses, but the emphasis in each course should be on developing in students a general capacity for social analysis and understanding.

II. History and Tradition

This sector focuses on studies of continuity and change in human thought, belief and action. Understanding both ancient and modern civilizations provides students with an essential perspective on contemporary life. Courses in this sector examine the histories of diverse civilizations, their cultures and forms of expression, their formal and informal belief systems and ideologies, and the record of their human actors. Students should learn to interpret primary sources, identify and discuss their core intellectual issues, understand the social contexts in which these sources were created, pose questions about their validity and ability to represent broader perspectives and utilize them when writing persuasive essays.

III. Arts & Letters

This sector encompasses the means and meaning of visual arts, literature and music, together with the criticism surrounding them.

Most courses in this sector are concerned with works of creativity—paintings, films, poetry, fiction, theatre, dance and music. They generally address a considerable breadth of material rather than an individual work or artist. The objective of Arts and Letters courses is to confront students with works of creativity; cultivate their powers of perception (visual, textual, auditory); and equip them with tools for analysis, interpretation and criticism. This objective will be realized through the specific content of the various courses, but the emphasis in each course should be on developing and strengthening in students a general capacity for understanding meaning and the ways in which it is achieved in its distinctive environment of culture and moment.

IV. Humanities & Social Science

This sector comprises courses that combine methods and approaches at work in at least two of the first three sectors.
Students will engage with diverse approaches to society, history, tradition and the arts more deeply than a single course from each domain can allow. Greater depth of experience is gained by bringing to bear several humanistic and social scientific perspectives upon a single issue or topic or by engaging directly in academically-based service or performance informed by these perspectives.

In this sector, students seek to broaden their perspective by taking a course in the humanities or social sciences that has been approved as a general education course but that cuts across two or more of sectors I, II, and III. Some courses approved for this sector will seek a more integrative approach by addressing a problem or topic from a variety of disciplinary perspectives. Others will combine disciplinary study with community service or activism, and constructively and reflectively connect the theoretical with the actual. Finally, some courses in the arts that combine creative or performance experience with reflection and grounding within a discipline may be found in this sector.

V. The Living World

This sector deals substantively with the evolution, development, structure and/or function of living systems.

Courses in this sector study the variety of approaches that are useful in understanding the diversity of living organisms, their interrelatedness, and their interactions with their environment. Analytical approaches employed range from analyses at the molecular and cellular level, to analyses of the cognitive and neural bases of behavior, to analyses of evolutionary processes and ecological systems. Students learn the methods used by contemporary natural science to study these topics, including ways in which hypotheses are developed, tested, and reformulated in light of new research findings. A full understanding of living organisms incorporates insights from approaches at many different levels.

VI. The Physical World

This sector focuses on the methodology and concepts of physical science.

Courses in this sector aim to provide insight into the content and workings of modern physical science. Some courses in this sector are part of a major, while others are designed primarily to provide an introduction to the field for non-science majors. Courses for non-science majors may include some discussion of the historical development of the subject as well as the most important conceptual notions and their mathematical expressions. All courses in this sector seek to demonstrate the generally accepted paradigm of modern science: experiment and observation suggest mathematically formulated theories, which are then tested by comparison with new experiments and observations.

All courses in this sector use a significant mathematical prerequisite (advanced high school algebra through introductory calculus) - that is, students will actually be expected to use mathematical methods and concepts to achieve an understanding of subjects in physical science.

VII. Natural Science Across Disciplines

Students will engage with diverse perspectives generated by applying the principles of the natural sciences to broader applications. Courses in this sector emphasize the interrelationships and synergies gained from bringing together different perspectives in the form of: 1) two or more distinctive scientific disciplines (not just one discipline applied to a topic from another scientific field), 2) natural science and mathematics, or 3) natural science and societal issues.

The sector includes some intermediate and advanced courses that may be of special interest to STEM majors.

The Major

The Major provides an opportunity to know a segment of human knowledge deeply, with a sufficient grasp of its modes of thinking and analysis to make your own contribution.

The College offers more than 55 majors (p. 21) across the humanities, social sciences and natural sciences, and many programs provide options for concentrating in any number of specialty areas. Visit the College website (https://www.college.upenn.edu/curriculum/) for more information on the College curriculum.

Academic Opportunities

Learning happens inside and outside of the traditional classroom.

The value of a rich liberal arts tradition extends beyond the curriculum itself to the far reaches of cutting edge research and real-world internships, community partnerships and study abroad.

• Penn is a world-class research institution where undergraduates have the opportunity to participate in the creation of knowledge.
• Students in the College integrate knowledge from a variety of specializations or dig deeply into a particular area of study.
• Through their work with local schools and organizations, students in Academically Based Community Service Courses combine classroom and community work to solve critical issues.
• Students in study abroad programs and internship experience diverse communities and real world challenges in and outside of Philadelphia.

Visit the College website (https://www.college.upenn.edu/courses-options/) for a comprehensive view of academic opportunities for College students.

Advising

College students need to choose courses, declare a major and define career goals. They will need to examine their performance in different courses, identify their skills and those they wish to develop, and decide what really matters to them. Much of this assessment they will do themselves, but faculty members, academic advisors, career counselors and peers can help.

Students in the College have a strong network of academic advisors available to assist them throughout their undergraduate careers.

• Pre-major advisors help first- and second-year students navigate their entrance into academic and intellectual life in the College beginning with the issues of incoming freshmen and continuing through the student’s exploration of a potential major.
• Peer advisors work with the pre-major advisor and are one of the first points of contact for incoming College students. They provide the perspective of an upperclass student in the College and assist first-year students in making the transition from high school to Penn
by sharing their strategies for academic success and knowledge of campus resources.

- After declaring a major, students are assigned an academic advisor affiliated with the major department or program.
- All students are welcome and encouraged to speak with assistant deans for advising in the College Office. These advisors can help students explore the many options and opportunities available to College students, and are available by appointment or on a walk-in basis throughout the year.

For more information, visit the College website (https://www.college.upenn.edu/advising/).

Policies and Procedures

The College of Arts and Sciences Policies and Procedures are intended to provide guidelines for academic conduct and planning.

- Students are subject to the policies and procedures in place for the class into which they matriculated. Class-specific Policies and Procedures manuals can be found on the College site.
- Policies and procedures are subject to change throughout the year at the discretion of the University of Pennsylvania and the College of Arts and Sciences.
- Students are encouraged to consult with an academic advisor in the College Office for further information and clarification.

For class-specific manuals and current policies, visit the College website (https://www.college.upenn.edu/policies/).

 Majors

- Africana Studies
  - African American Studies, BA (p. 23)
  - African Diaspora Studies, BA (p. 23)
  - African Studies, BA (p. 24)
- Ancient History, BA (p. 25)
- Anthropology
  - Archaeology, BA (p. 25)
  - Biological Anthropology, BA (p. 26)
  - Cultural and Linguistic Anthropology, BA (p. 27)
  - Environmental Anthropology, BA (p. 27)
  - General Anthropology, BA (p. 28)
  - Medical Anthropology & Global Health, BA (p. 29)
- Architecture
  - Design, BA (p. 30)
  - Intensive Design, BA (p. 30)
- Biochemistry, BA (p. 31)
- Biology
  - Computational Biology, BA (p. 32)
  - Ecology & Evolutionary Biology, BA (p. 33)
  - General Biology, BA (p. 34)
  - Mathematical Biology, BA (p. 34)
  - Mechanisms of Disease, BA (p. 35)
  - Molecular & Cell Biology, BA (p. 36)
  - Neurobiology, BA (p. 37)
  - Biophysics, BA (p. 37)
  - Chemistry, BA (p. 38)
- Cinema and Media Studies, BA (p. 39)
- Classical Studies
  - Classical Civilizations, BA (p. 40)
  - Classical Languages and Literature, BA (p. 40)
  - Mediterranean Archaeology, BA (p. 41)
- Cognitive Science
  - Cognitive Neuroscience, BA (p. 41)
  - Computation and Cognition, BA (p. 42)
  - Individualized, BA (p. 43)
  - Language & Mind, BA (p. 44)
- Communication
  - Advocacy & Activism, BA (p. 44)
  - Audiences & Persuasion, BA (p. 46)
  - Communication & Public Service, BA (p. 47)
  - Culture & Society, BA (p. 49)
  - Data & Network Science, BA (p. 50)
  - General Communication, BA (p. 52)
  - Politics & Policy, BA (p. 53)
- Comparative Literature
  - (Trans)national Literatures, BA (p. 54)
  - Globalization, BA (p. 55)
  - Theory, BA (p. 56)
- Criminology, BA (p. 57)
- Design, BA (p. 57)
- Earth and Environmental Science, BA (p. 58)
- East Asian Languages and Civilizations
  - Dual Language, BA (p. 59)
  - East Asian Area Studies, BA (p. 60)
  - General East Asian Languages and Civilizations, BA (p. 61)
- Economics, BA (p. 61)
- English
  - 18th/19th Centuries, BA (p. 62)
  - 20th/21st Centuries, BA (p. 63)
  - Africana Literatures & Culture, BA (p. 64)
  - Cinema & Media Studies, BA (p. 65)
  - Creative Writing, BA (p. 66)
  - Drama, BA (p. 66)
  - Gender/Sexuality, BA (p. 67)
  - General English, BA (p. 68)
  - Literary Theory & Cultural Studies, BA (p. 69)
  - Literature, Journalism and Print Culture, BA (p. 70)
  - Medieval/Renaissance, BA (p. 71)
  - Poetry and Poetics, BA (p. 72)
  - The Novel, BA (p. 73)
- Environmental Studies
  - Environmental History and Regional Studies, BA (p. 73)
  - Environmental Policy and Application, BA (p. 74)
  - General Environmental Studies, BA (p. 75)
  - Global Environmental Systems, BA (p. 76)
  - Sustainability and Environmental Management, BA (p. 76)
- Fine Arts, BA (p. 77)
- French and Francophone Studies, BA (p. 78)
- Gender, Sexuality, & Women’s Studies
- Feminist Studies, BA (p. 79)
- General, BA (p. 79)
- Global Gender and Sexuality Studies, BA (p. 80)
- Health and Disability Studies, BA (p. 81)
- LGBTQ Studies, BA (p. 81)
- Self Designed, BA (p. 82)
- German, BA (p. 82)
- Health and Societies
  - Bioethics and Society, BA (p. 83)
  - Disease and Culture, BA (p. 84)
  - Global Health, BA (p. 84)
  - Health Care Markets & Finance, BA (p. 85)
  - Health Policy & Law, BA (p. 86)
  - Public Health, BA (p. 87)
  - Race, Gender and Health, BA (p. 87)
- Hispanic Studies, BA (p. 88)
- History of Art, BA (p. 89)
- History
  - American History, BA (p. 90)
  - Diplomatic History, BA (p. 90)
  - Economic History, BA (p. 91)
  - European History, BA (p. 92)
  - Gender History, BA (p. 93)
  - General History, BA (p. 93)
  - Intellectual History, BA (p. 94)
  - Jewish History, BA (p. 95)
  - World History, BA (p. 95)
- Individualized Major, BA (p. 96)
- International Relations, BA (p. 96)
- International Studies, BA (p. 97)
- Italian Studies
  - Italian Culture, BA (p. 98)
  - Italian Literature, BA (p. 98)
- Jewish Studies, BA (p. 99)
- Latin American & Latinx Studies, BA (p. 100)
- Linguistics, BA (p. 100)
- Logic, Information, & Computation, BA (p. 101)
- Mathematical Economics, BA (p. 102)
- Mathematics
  - Biological Mathematics, BA (p. 104)
  - General Mathematics, BA (p. 105)
- Modern Middle Eastern Studies, BA (p. 105)
- Music, BA (p. 106)
- Near Eastern Languages & Civilizations
  - Ancient Near East, BA (p. 107)
  - Arabic & Hebrew Studies, BA (p. 107)
  - Arabic & Islamic Studies, BA (p. 108)
  - Cultures and Societies of the Middle East and North Africa, BA (p. 109)
  - Hebrew & Judaica, BA (p. 109)
  - Persian Language & Literature, BA (p. 110)
- Neuroscience, BA (p. 111)
- Nutrition Science, BA (p. 112)
- Philosophy, Politics and Economics
  - Choice & Behavior, BA (p. 112)
  - Distributive Justice, BA (p. 113)
  - Globalization, BA (p. 114)
  - Public Policy & Governance, BA (p. 115)
- Philosophy
  - General Philosophy, BA (p. 115)
  - Humanistic Philosophy, BA (p. 116)
  - Philosophy and Science, BA (p. 117)
  - Political and Moral Philosophy, BA (p. 118)
- Physics
  - Astrophysics, BA (p. 119)
  - Biological Science, BA (p. 119)
  - Business & Technology, BA (p. 120)
  - Chemical Principles, BA (p. 121)
  - Computer Techniques, BA (p. 122)
  - Physical Theory and Experimental Technique, BA (p. 123)
- Political Science
  - American Politics, BA (p. 124)
  - Comparative Politics, BA (p. 124)
  - General Political Science, BA (p. 125)
  - Individualized, BA (p. 126)
  - International Relations, BA (p. 127)
  - Political Economy, BA (p. 128)
  - Political Theory, BA (p. 128)
- Psychology, BA (p. 129)
- Religious Studies, BA (p. 130)
- Romance Languages
  - French and Italian, BA (p. 131)
  - French and Spanish, BA (p. 132)
  - Italian and Spanish, BA (p. 132)
- Russian and East European Studies
  - Cinema, Arts and Letters, BA (p. 133)
  - History, Politics and Society, BA (p. 134)
  - Language, Literature and Culture, BA (p. 134)
- Science, Technology and Society
  - Biotechnology & Biomedicine, BA (p. 135)
  - Energy and Environment, BA (p. 136)
  - Global Science and Technology, BA (p. 137)
  - Information and Organizations, BA (p. 137)
  - Science/Nature/Culture, BA (p. 138)
- Sociology
  - Applied Research and Data Analysis, BA (p. 139)
  - Cities, Markets, and the Global Economy, BA (p. 139)
  - Culture and Diversity, BA (p. 140)
  - Education and Society, BA (p. 141)
  - Family, Gender and Society, BA (p. 142)
  - Law and Society, BA (p. 143)
  - Medical Sociology, BA (p. 143)
  - Structures of Opportunity and Inequality, BA (p. 144)
- South Asia Studies, BA (p. 145)
- Theatre Arts, BA (p. 146)
- Urban Studies, BA (p. 146)
- Visual Studies
Africana Studies: African American Studies, BA

Africana Studies is an interdisciplinary field of study devoted to the critical and systematic examination of the cultural, political, social, economic, and historical experiences of African Americans, Africans, and peoples of African descent around the world. Our course of study is designed to provide students with an integrated understanding and appreciation for a new global black studies. An undergraduate degree in Africana Studies prepares students for graduate work in the humanities, social sciences, and professional schools, as well as a range of careers in teaching, business, public service, and the arts, among others.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

African Language courses do not count toward the Major Requirements.

For more information: https://africana.sas.upenn.edu/department/undergraduate (https://africana.sas.upenn.edu/department/undergraduate/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://africana.sas.upenn.edu/department/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 1001</td>
<td>Introduction to Africana Studies</td>
<td>1</td>
</tr>
<tr>
<td>AFRC 1002</td>
<td>Introduction to Africa</td>
<td>1</td>
</tr>
<tr>
<td>AFRC 2325</td>
<td>August Wilson and Beyond</td>
<td>1</td>
</tr>
<tr>
<td>AFRC 1060</td>
<td>Race and Ethnic Relations</td>
<td>1</td>
</tr>
<tr>
<td>or AFRC 2430</td>
<td>Race, Science &amp; Justice</td>
<td>1</td>
</tr>
<tr>
<td>or SOCI 1060</td>
<td>Race and Ethnic Relations</td>
<td>1</td>
</tr>
<tr>
<td>or SOCI 2430</td>
<td>Race, Science &amp; Justice</td>
<td>1</td>
</tr>
<tr>
<td>AFRC 2010</td>
<td>Social Statistics</td>
<td>1</td>
</tr>
<tr>
<td>or SOCI 2010</td>
<td>Social Statistics</td>
<td>1</td>
</tr>
<tr>
<td>AFRC 3500</td>
<td>American Slavery and the Law (or similar)</td>
<td>1</td>
</tr>
<tr>
<td>AFRC 3999</td>
<td>Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Course Units: 32

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2. Select a Research Course at the 3000-4000 level.
3. Must include one history course.

For more information: https://africana.sas.upenn.edu/department/undergraduate (https://africana.sas.upenn.edu/department/undergraduate/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 1001</td>
<td>Introduction to Africana Studies</td>
<td>1</td>
</tr>
<tr>
<td>AFRC 1002</td>
<td>Introduction to Africa</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Africana Studies: African Diaspora Studies, BA

Africana Studies is an interdisciplinary field of study devoted to the critical and systematic examination of the cultural, political, social, economic, and historical experiences of African Americans, Africans, and peoples of African descent around the world. Our course of study is designed to provide students with an integrated understanding and appreciation for a new global black studies. An undergraduate degree in Africana Studies prepares students for graduate work in the humanities, social sciences, and professional schools, as well as a range of careers in teaching, business, public service, and the arts, among others.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

African Language courses do not count toward the Major Requirements.

For more information: https://africana.sas.upenn.edu/department/undergraduate (https://africana.sas.upenn.edu/department/undergraduate/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 1001</td>
<td>Introduction to Africana Studies</td>
<td>1</td>
</tr>
<tr>
<td>AFRC 1002</td>
<td>Introduction to Africa</td>
<td>1</td>
</tr>
</tbody>
</table>

2023-24 Catalog | Generated 08/02/23
### Africana Studies: African Studies, BA

Africana Studies is an interdisciplinary field of study devoted to the critical and systematic examination of the cultural, political, social, economic, and historical experiences of African Americans, Africans, and peoples of African descent around the world. Our course of study is designed to provide students with an integrated understanding and appreciation for a new global black studies. An undergraduate degree in Africana Studies prepares students for graduate work in the humanities, social sciences, and professional schools, as well as a range of careers in teaching, business, public service, and the arts, among others.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

African Language courses do not count toward the Major Requirements.

For more information: https://africana.sas.upenn.edu/department/undergraduate/ (https://africana.sas.upenn.edu/department/undergraduate/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 4990</td>
<td>Honors Course</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Category Requirements

<table>
<thead>
<tr>
<th>Humanities Course</th>
<th>AFRC 2325 August Wilson and Beyond</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Science Course</td>
<td>AFRC 1060 Race and Ethnic Relations</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or AFRC 2430 Race, Science &amp; Justice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or SOCI 1060 Race and Ethnic Relations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or SOCI 2430 Race, Science &amp; Justice</td>
<td></td>
</tr>
<tr>
<td>Methodology Course</td>
<td>AFRC 2010 Social Statistics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or SOCI 2010 Social Statistics</td>
<td></td>
</tr>
<tr>
<td>Research Course</td>
<td>AFRC 3500 American Slavery and the Law (or similar)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Concentration</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Honors

A minimum GPA of 3.3 is required. Please consult with the Program Director for further details of requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 4990</td>
<td>Honors Course</td>
<td>1</td>
</tr>
</tbody>
</table>

You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

Select a Research Course at the 3000-4000 level.

Must include one history course.

---

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 2325</td>
<td>August Wilson and Beyond</td>
<td>1</td>
</tr>
<tr>
<td>SOCI 1060</td>
<td>Race and Ethnic Relations</td>
<td>1</td>
</tr>
<tr>
<td>SOCI 2430</td>
<td>Race, Science &amp; Justice</td>
<td>1</td>
</tr>
<tr>
<td>SOCI 2430</td>
<td>Race, Science &amp; Justice</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 2010</td>
<td>Social Statistics</td>
<td>1</td>
</tr>
<tr>
<td>SOCI 2010</td>
<td>Social Statistics</td>
<td>1</td>
</tr>
<tr>
<td>AFRC 3500</td>
<td>American Slavery and the Law (or similar)</td>
<td>1</td>
</tr>
<tr>
<td>Concentration</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

#### Elective

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 3999</td>
<td>Independent Study</td>
<td>1</td>
</tr>
<tr>
<td>or AFRC 4990</td>
<td>Honors Course</td>
<td></td>
</tr>
</tbody>
</table>

#### Capstone

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 3999</td>
<td>Independent Study</td>
<td>1</td>
</tr>
<tr>
<td>or AFRC 4990</td>
<td>Honors Course</td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units: 32

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Select a Research Course at the 3000-4000 level.

3 Must include one history course.

---

**Africana Studies: African Studies, BA**

Africana Studies is an interdisciplinary field of study devoted to the critical and systematic examination of the cultural, political, social, economic, and historical experiences of African Americans, Africans, and peoples of African descent around the world. Our course of study is designed to provide students with an integrated understanding and appreciation for a new global black studies. An undergraduate degree in Africana Studies prepares students for graduate work in the humanities, social sciences, and professional schools, as well as a range of careers in teaching, business, public service, and the arts, among others.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

African Language courses do not count toward the Major Requirements.

For more information: https://africana.sas.upenn.edu/department/undergraduate/ (https://africana.sas.upenn.edu/department/undergraduate/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 4990</td>
<td>Honors Course</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Honors

A minimum GPA of 3.3 is required. Please consult with the Program Director for further details of requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 4990</td>
<td>Honors Course</td>
<td>1</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Select a Research Course at the 3000-4000 level.

3 Must include one history course.

---

The Africana Studies: African Studies, BA program provides students with an integrated understanding and appreciation for a new global black studies. The minimum total course units for graduation in this major is 32. Additional requirements, such as a concentration and capstone courses, are also included. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Honors

A minimum GPA of 3.3 is required. Please consult with the Program Director for further details of requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 4990</td>
<td>Honors Course</td>
<td>1</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Select a Research Course at the 3000-4000 level.

3 Must include one history course.

---

The Africana Studies: African Studies, BA program is designed to provide students with a comprehensive understanding of African American, African, and global black experiences. The minimum total course units for graduation in this major is 32. Additional requirements, such as a concentration and capstone courses, are also included. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Honors

A minimum GPA of 3.3 is required. Please consult with the Program Director for further details of requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 4990</td>
<td>Honors Course</td>
<td>1</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Select a Research Course at the 3000-4000 level.

3 Must include one history course.
Ancient History, BA

The major in Ancient History coordinates a curriculum encompassing the whole of the ancient history of the Near East and the Mediterranean Basin.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: https://www.classics.upenn.edu/majoring-and-minoring-major-ancient-history/https://www.classics.upenn.edu/majoring-and-minoring-major-ancient-history/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANCH 0100</td>
<td>Introduction to the Ancient Near East</td>
<td>1</td>
</tr>
<tr>
<td>ANCH 0101</td>
<td>Ancient Greece</td>
<td>1</td>
</tr>
<tr>
<td>ANCH 0102</td>
<td>Ancient Rome</td>
<td>1</td>
</tr>
</tbody>
</table>

Equity Requirement
1 course related to equity. May also count in clusters 1, 2, or 3

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Anthropology: Archaeology, BA

Anthropology is the global social science. It is the study of the human condition everywhere; its cultural, linguistic, and biological diversity; and how it evolved and developed from the prehistoric past into the globalizing present. Anthropology is an interdisciplinary 14 credit major that intersects with programs and departments across the University. Students may major in anthropology as a whole (General Anthropology), or choose to concentrate in Biological Anthropology, Archaeology, Cultural and Linguistic Anthropology, or specialize in two thematic concentrations: Medical Anthropology and Environmental Anthropology.

Archaeology is the study of past societies through the excavation of material culture, from the Paleolithic into the early Historical periods. Students study excavation methods and techniques of analysis, and have opportunities to work with collections in the Penn Museum and its Center for the Analysis of Archaeological Materials (CAAM). Archaeology majors take introductory courses in all sub-fields of Anthropology, and complete the remainder of their coursework primarily in Archaeology.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://www.sas.upenn.edu/archaeology/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0050</td>
<td>Great Transformations</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 1480</td>
<td>Food and Fire: Archaeology in the Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0020</td>
<td>Anthropology, Race, and the Making of the Modern World</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0040</td>
<td>The Modern World and Its Cultural Background</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0030</td>
<td>Human Origins, Evolution and Diversity</td>
<td>1</td>
</tr>
</tbody>
</table>

Honors
Applicants must have a minimum GPA of 3.00 in the major and major related courses.
Block III
Select 3 course units in Archaeology: 2
Attribute AAAR - Archaeology

Select 2 course units in Anthropology
Attribute AAAR - Archaeology; Attribute AACL - Cultural and Linguistic; Attribute AABI - Biological Anthropology; Attribute AAEA - Environmental Anthropology; Attribute AAMA - Medical Anthropology

Select 3 Anthropology or Anthropology-related courses in another department 2

Capstone Seminar
ANTH 4000 Research Seminar in Anthropology 1

Total Course Units 34

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 For up to three of these, non-ANTH courses with anthropological content may be requested. All non-ANTH courses must be approved by the Undergraduate Program Chair.

Honors
Applicants must have a minimum GPA of 3.5 in the major and write a senior thesis.

Anthropology: Biological Anthropology, BA

Anthropology is the global social science. It is the study of the human condition everywhere; its cultural, linguistic, and biological diversity; and how it evolved and developed from the prehistoric past into the globalizing present. Anthropology is an interdisciplinary 14 credit major that intersects with programs and departments across the University. Students may major in anthropology as a whole (General Anthropology), or choose to concentrate in Biological Anthropology, Archaeology, Cultural and Linguistic Anthropology, or specialize in two thematic concentrations: Medical Anthropology and Environmental Anthropology.

Biological Anthropology is the study of human evolution and the biology of modern populations. Areas of study include genetics, osteology, and forensics. Students have the opportunity to work in laboratory settings, as well as in the Penn Museum's Physical Anthropology section or its Center for the Analysis of Archaelogical Materials (CAAM). Biological Anthropology majors take introductory courses in all sub-fields of Anthropology, and complete the remainder of their coursework primarily in Biological Anthropology.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://www.sas.upenn.edu/anthropology/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0050</td>
<td>Great Transformations</td>
<td>1</td>
</tr>
<tr>
<td>or ANTH 1480</td>
<td>Food and Fire: Archaeology in the Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0060</td>
<td>Anthropology, Race, and the Making of the Modern World</td>
<td>1</td>
</tr>
<tr>
<td>or ANTH 0040</td>
<td>The Modern World and Its Cultural Background</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0030</td>
<td>Human Origins, Evolution and Diversity</td>
<td>1</td>
</tr>
</tbody>
</table>

Block II
Select 1 course unit in Archaeology: 1
Attribute AAAR - Archaeology

Select 1 course unit in Cultural and Linguistic Anthropology: 1
Attribute AACL - Cultural and Linguistics

Block III
ANTH 1430 Explorations in Human Biology 1
ANTH 2440 Disease and Human Evolution 1
Select 1 course unit in Biological Anthropology: 2
Attribute AABI - Biological Anthropology

Select 2 course units in Anthropology
Attribute AAAR - Archaeology; Attribute AACL - Cultural and Linguistic; Attribute AABI - Biological Anthropology; Attribute AAEA - Environmental Anthropology; Attribute AAMA - Medical Anthropology

Select 3 Anthropology or Anthropology-related courses in another department 2

Capstone Seminar
ANTH 4000 Research Seminar in Anthropology 1

Total Course Units 34

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Up to three courses from NRSC, BIOL, HSSC and PSYC may be requested. All non-ANTH courses must be approved by the Undergraduate Program Chair.

Honors
Applicants must have a minimum GPA of 3.5 in the Major and write a senior thesis.
Anthropology: Cultural and Linguistic Anthropology, BA

Anthropology is the global social science. It is the study of the human condition everywhere; its cultural, linguistic, and biological diversity; and how it evolved and developed from the prehistoric past into the globalizing present. Anthropology is an interdisciplinary 14 credit major that intersects with programs and departments across the University. Students may major in anthropology as a whole (General Anthropology), or choose to concentrate in Biological Anthropology, Archaeology, Cultural and Linguistic Anthropology, or specialize in two thematic concentrations: Medical Anthropology and Environmental Anthropology.

Cultural and Linguistic Anthropology is the study of cultural, social, and semiotic variation in the modern world since the development of the ethnographic method in the late 19th century. Areas of study include comparisons of different cultural communities and their relationship to social and demographic factors, as well as communication and media. Cultural and Linguistic Anthropology majors take introductory courses in all sub-fields of Anthropology, and complete the remainder of their coursework primarily in Cultural and Linguistic Anthropology.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://www.sas.upenn.edu/anthropology/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

---

Anthropology: Environmental Anthropology, BA

Anthropology is the global social science. It is the study of the human condition everywhere; its cultural, linguistic, and biological diversity; and how it evolved and developed from the prehistoric past into the globalizing present. Anthropology is an interdisciplinary 14 credit major that intersects with programs and departments across the University. Students may major in anthropology as a whole (General Anthropology), or choose to concentrate in Biological Anthropology, Archaeology, Cultural and Linguistic Anthropology, or specialize in two thematic concentrations: Medical Anthropology and Environmental Anthropology.

Environmental Anthropology is a thematic concentration that investigates how human societies create and change geologies and climates up to a planetary scale, and the ways that anthropologists have questioned the division between cultures and nature. Students may choose to study topics from contemporary society to the impact of environmental change over long spans of time. Students have the opportunity to do original fieldwork, engage in research with the collections of the Penn Museum and the resources of the Center for the Analysis of Archaeological Materials (CAAM) and study abroad. After they fulfill the foundational course requirements in anthropology, students take three distribution electives from the four themes of Political Ecology, Science Technology and the Environment, Material Worlds, Landscapes and Archaeology, and Biology, Environment and Health.

---

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

 attribute AAAR - Archaeology; Attribute AABI - Biological Anthropology; Attribute AAAC - Cultural and Linguistics; Attribute AAAD - Anthropology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0030</td>
<td>Human Origins, Evolution and Diversity</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0040</td>
<td>The Modern World and Its Cultural Background</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0050</td>
<td>Anthropology, Race, and the Making of the Modern World</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 1480</td>
<td>Food and Fire: Archaeology in the Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0010</td>
<td>Great Transformations</td>
<td>1</td>
</tr>
</tbody>
</table>

**Block I: Introductory Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0030</td>
<td>Human Origins, Evolution and Diversity</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0040</td>
<td>The Modern World and Its Cultural Background</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0050</td>
<td>Anthropology, Race, and the Making of the Modern World</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 1480</td>
<td>Food and Fire: Archaeology in the Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0010</td>
<td>Great Transformations</td>
<td>1</td>
</tr>
</tbody>
</table>

**Block II**

Select 1 course unit in Biological Anthropology: 1

| Attribute AABI - Biological Anthropology                                      | 1            |
| Attribute AAAR - Archaeology                                                  | 1            |

**Block III**

Select 3 course units in Cultural and Linguistic Anthropology: 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capstone Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Research Seminar in Anthropology</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Course Units**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0030</td>
<td>Human Origins, Evolution and Diversity</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0040</td>
<td>The Modern World and Its Cultural Background</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0050</td>
<td>Anthropology, Race, and the Making of the Modern World</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 1480</td>
<td>Food and Fire: Archaeology in the Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0010</td>
<td>Great Transformations</td>
<td>1</td>
</tr>
</tbody>
</table>

**Honors**

Applicants must have a minimum GPA of 3.5 in the Major and write a senior thesis.

---

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0030</td>
<td>Human Origins, Evolution and Diversity</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0040</td>
<td>The Modern World and Its Cultural Background</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0050</td>
<td>Anthropology, Race, and the Making of the Modern World</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 1480</td>
<td>Food and Fire: Archaeology in the Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0010</td>
<td>Great Transformations</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Course Units**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0030</td>
<td>Human Origins, Evolution and Diversity</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0040</td>
<td>The Modern World and Its Cultural Background</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0050</td>
<td>Anthropology, Race, and the Making of the Modern World</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 1480</td>
<td>Food and Fire: Archaeology in the Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 0010</td>
<td>Great Transformations</td>
<td>1</td>
</tr>
</tbody>
</table>

---

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 For up to three of these, non-ANTH courses with anthropological content may be requested. All non-ANTH courses must be approved by the Undergraduate Program Chair.
The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://www.sas.upenn.edu/anthropology/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

Curriculum

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Block I: Introductory courses</strong></td>
<td></td>
</tr>
<tr>
<td>ANTH 0020</td>
<td>Anthropology, Race, and the Making of the Modern World</td>
<td>1</td>
</tr>
<tr>
<td>or ANTH 0040</td>
<td>The Modern World and Its Cultural Background</td>
<td></td>
</tr>
<tr>
<td>ANTH 0050</td>
<td>Great Transformations</td>
<td>1</td>
</tr>
<tr>
<td>or ANTH 1480</td>
<td>Food and Fire: Archaeology in the Laboratory</td>
<td></td>
</tr>
<tr>
<td>ANTH 0030</td>
<td>Human Origins, Evolution and Diversity</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Block II</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 3 Foundation courses:</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Attribute AAPE - Political Ecology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attribute AAST - Science, Technology, and Environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attribute AAMW - Material Worlds, Landscapes, Archaeology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attribute AABE - Biology, Environment, Health</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Block III</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 courses from the approved list:</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Attribute AAEA - Environmental Anthropology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 course units in Anthropology</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Attribute AAAR - Archaeology; Attribute AACL - Cultural and Linguistic; Attribute AABI - Biological Anthropology; Attribute AAEA - Environmental; AAMA - Medical Anthropology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Select 3 Anthropology or Anthropology-related courses in another department</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Capstone Seminar</strong></td>
<td></td>
</tr>
<tr>
<td>ANTH 4000</td>
<td>Research Seminar in Anthropology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>34</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Foundation courses are drawn from at least 3 of the 4 elective groups:
   • Political Ecology
   • Science, Technology, Environment
   • Material Worlds, Landscapes, Archaeology
   • Biology, Environment, and Health

3 Up to 3 of these, non-ANTH courses with anthropological content may be requested. All non-ANTH courses must be approved by the Undergraduate Program coordinator.

Honors

Applicants must have a minimum GPA of 3.5 in the Major and write a senior thesis.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Anthropology: General Anthropology, BA

Anthropology is the global social science. It is the study of the human condition everywhere; its cultural, linguistic, and biological diversity; and how it evolved and developed from the prehistoric past into the globalizing present. Anthropology is an interdisciplinary 14 credit major that intersects with programs and departments across the University. Students may major in anthropology as a whole (General Anthropology), or choose to concentrate in Biological Anthropology, Archaeology, Cultural and Linguistic Anthropology, or specialize in two thematic concentrations: Medical Anthropology and Environmental Anthropology.

General Anthropology majors study all four anthropology sub-fields, acquiring an introduction to the full range of anthropological research. Students are required to take courses in Biological Anthropology, Archaeology, Cultural and Linguistic Anthropology, and Medical Anthropology.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://www.sas.upenn.edu/anthropology/

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Block I: Introductory Courses</strong></td>
<td></td>
</tr>
<tr>
<td>ANTH 0020</td>
<td>Anthropology, Race, and the Making of the Modern World</td>
<td>1</td>
</tr>
<tr>
<td>or ANTH 0040</td>
<td>The Modern World and Its Cultural Background</td>
<td></td>
</tr>
<tr>
<td>ANTH 0050</td>
<td>Great Transformations</td>
<td>1</td>
</tr>
<tr>
<td>or ANTH 1480</td>
<td>Food and Fire: Archaeology in the Laboratory</td>
<td></td>
</tr>
<tr>
<td>ANTH 0030</td>
<td>Human Origins, Evolution and Diversity</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Block II</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Archaeology Courses:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Attribute AAAR - Archaeology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Biological Anthropology Courses:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Attribute AABI - Biological Anthropology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Cultural and Linguistic Anthropology:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Attribute AACL - Cultural and Linguistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 course units in Anthropology</td>
<td>4</td>
</tr>
</tbody>
</table>
For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 4000</td>
<td>Research Seminar in Anthropology</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Course Units** 34

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Up to three non-ANTH courses with anthropological content may be requested. All non-ANTH courses must be approved by the Undergraduate Program Chair.

**Honors**

Applicants must have a minimum GPA of 3.5 in the Major and write a senior thesis.

---

**Anthropology: Medical Anthropology & Global Health, BA**

Anthropology is the global social science. It is the study of the human condition everywhere; its cultural, linguistic, and biological diversity; and how it evolved and developed from the prehistoric past into the globalizing present. Anthropology is an interdisciplinary 14 credit major that intersects with programs and departments across the University. Students may major in anthropology as a whole (General Anthropology), or choose to concentrate in Biological Anthropology, Archaeology, Cultural and Linguistic Anthropology, or specialize in two thematic concentrations: Medical Anthropology and Environmental Anthropology.

Medical Anthropology applies anthropological methods to the study of global health, well-being, and disease. The concentration provides students with a theoretical and methodological foundation to address problems of global health inequality. Medical Anthropology majors take introductory courses in all sub-fields of Anthropology, and complete the remainder of their coursework primarily in Medical Anthropology.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://www.sas.upenn.edu/anthropology/
**Architecture: Intensive Design, BA**

The Intensive Major in Architecture is for students in the Design Concentration who intend to pursue a graduate professional degree in architecture. Students in the Intensive Major enroll in their senior year in the technology courses offered in the first year of the Master of Architecture Professional Degree Program. Those accepted into the School of Design's Master of Architecture Professional Degree Program are qualified to be admitted with advanced placement into the second year of the graduate program, reducing the length of study from three to two years.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

**Application requirements:** At least Sophomore Standing. Please consult with the Undergraduate Chair for other important criteria.

For more information: www.architecture.sas.upenn.edu (http://www.architecture.sas.upenn.edu)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>College General Education Requirements and Free Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Architecture Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Architecture courses must be taken in the following sequence:</td>
<td></td>
</tr>
<tr>
<td>ARCH 1010</td>
<td>Introduction to Design</td>
<td>1</td>
</tr>
<tr>
<td>or ARCH 1020</td>
<td>Introduction to Architecture</td>
<td></td>
</tr>
<tr>
<td>ARCH 2010</td>
<td>Design Fundamentals I</td>
<td>1.5</td>
</tr>
<tr>
<td>ARCH 2020</td>
<td>Design Fundamentals II</td>
<td>1.5</td>
</tr>
<tr>
<td>ARCH 3010</td>
<td>Architecture Design I</td>
<td>2</td>
</tr>
<tr>
<td>ARCH 3020</td>
<td>Architecture Design II</td>
<td>2</td>
</tr>
<tr>
<td>ARCH 3110</td>
<td>Theory I: Geometry in Architecture</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 4010</td>
<td>Advanced Design Workshop</td>
<td>2</td>
</tr>
<tr>
<td>ARCH 4120</td>
<td>Theory II: Architecture as Cultural Ecology</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 4310</td>
<td>Construction I</td>
<td>0.5</td>
</tr>
<tr>
<td>ARCH 4320</td>
<td>Construction II</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 4330</td>
<td>Building Systems Integration</td>
<td>0.5</td>
</tr>
<tr>
<td>ARCH 4350</td>
<td>Structures I</td>
<td>0.5</td>
</tr>
<tr>
<td>ARCH 4360</td>
<td>Structures II</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td><strong>Art History Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>ARTH 2810</td>
<td>Modern Architecture, 1900-Present</td>
<td>1</td>
</tr>
<tr>
<td>Select one of the following courses in Art History (ARTH):</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ARTH 1010</td>
<td>World Art before 1400</td>
<td></td>
</tr>
<tr>
<td>ARTH 1010</td>
<td>The Artist in History, 1400-Now</td>
<td></td>
</tr>
<tr>
<td>ARTH 1060</td>
<td>Architect and History</td>
<td></td>
</tr>
<tr>
<td>ARTH 1100</td>
<td>What is Modern Art?</td>
<td></td>
</tr>
<tr>
<td>Select one of the following courses in Culture, Society, and the City:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>URBS 0003</td>
<td>Origin and Culture of Cities</td>
<td></td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (https://www.college.upenn.edu,double-counting-courses/).

### Honors

A minimum GPA of 3.75 in ARCH courses is required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Architecture: Design, BA**

The Major in Architecture is for students who intend to pursue a career in architecture or a related design discipline (e.g., landscape architecture, urban design, product design, etc.). The Major is a studio-based liberal arts program offering two concentrations. The Design Concentration includes a six-semester sequence of design studios and courses in the history and theory of art, architecture, and landscape architecture.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: www.architecture.sas.upenn.edu (http://www.architecture.sas.upenn.edu)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Biochemistry, BA

Contemporary biological sciences are based on principles of chemistry and physics. The importance of this relationship is the basis of the Penn Biochemistry major, which prepares students for advanced study in areas as diverse as biophysics, biotechnology, cell biology, genetic engineering, genomics, molecular biology, molecular genetics, nanotechnology, neurobiology, structural biology, systems biology, and biochemistry. The major provides the basic science background for graduate and health professional schools and for prospective science teachers.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may need more course units.

For more information: https://biochemistry.sas.upenn.edu

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Calculus Requirement</td>
<td></td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Chemistry Requirement</td>
<td></td>
</tr>
<tr>
<td>CHEM 1011</td>
<td>Introduction to General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 1012</td>
<td>General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Introduction to General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>General Chemistry Laboratories:</td>
<td></td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>General Chemistry Laboratory I</td>
<td>.5</td>
</tr>
<tr>
<td>CHEM 1102</td>
<td>General Chemistry Laboratory II</td>
<td>.5</td>
</tr>
<tr>
<td></td>
<td>Other Chemistry Requirements:</td>
<td></td>
</tr>
<tr>
<td>CHEM 2411</td>
<td>Principles of Organic Chemistry I with Laboratory</td>
<td>1.5</td>
</tr>
<tr>
<td>CHEM 2421</td>
<td>Principles of Organic Chemistry II with Laboratory</td>
<td>1.5</td>
</tr>
<tr>
<td>CHEM 2210</td>
<td>Physical Chemistry I (Fall Only)</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2220</td>
<td>Physical Chemistry II (Spring Only)</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2510</td>
<td>Principles of Biological Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 5510</td>
<td>Biological Chemistry I (Fall Only)</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 5520</td>
<td>Biological Chemistry II (Spring Only)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Physics Requirement</td>
<td></td>
</tr>
<tr>
<td>PHYS 0150</td>
<td>Principles of Physics I: Mechanics and Wave Motion</td>
<td>1.5</td>
</tr>
<tr>
<td>or PHYS 0170</td>
<td>Honors Physics I: Mechanics and Wave Motion</td>
<td></td>
</tr>
</tbody>
</table>

### Honors

A minimum GPA of 3.75 in ARCH courses is required.
PHYS 0151  Principles of Physics II: Electromagnetism and Radiation       1.5
or PHYS 0171  Honors Physics II: Electromagnetism and Radiation

Research Requirement
BCHE 4597A  Biochemistry Laboratory                                    1
BCHE 4597B  Biochemistry Laboratory                                    1
Total Course Units                                                        36

1  Take before end of fourth semester. Take after CHEM 2411 Principles of Organic Chemistry I with Laboratory but BEFORE CHEM 5510 Biological Chemistry I.

Honors
Requirements: GPA of 3.2 in courses required for the major, taken at Penn, and not including BCHE 4597A & BCHE 4597B Biochemistry Laboratory.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Biology: Computational Biology, BA

Computational and Mathematical Biology are important new areas in the biological sciences. Many areas in genetics, ecology, and evolution depend on sophisticated quantitative analyses. For example, the advent of data from the human genome project (and similar data from other species) has shown the need for computer, statistical and mathematical methods to store, retrieve and analyze massive data sets. Recognizing the growing importance of these quantitative techniques and skills, we have developed undergraduate concentrations in both Computational and Mathematical Biology. These Concentrations are designed to prepare students for the world of data-driven science.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

With permission of the Undergraduate Chair, two course units away or LPS courses may count toward the Biology major. This limit does not apply to Study Abroad.


For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

Code    Title                                              Course Units
College General Education Requirements and Free Electives
Foundational Approaches + Sectors+ Free Electives       18.5
Major Requirements

Introductory Biology
Select one of the following: 2

Intro Bio Track 1:
- BIOL 1121  Introduction to Biology - The Molecular Biology of Life
- BIOL 1123  Introductory Molecular Biology Laboratory
- BIOL 1124  Introductory Organismal Biology Lab

Intro Bio Track 2:
- BIOL 1101  Introduction to Biology A
- BIOL 1102  Introduction to Biology B

Intermediate Biology
- BIOL 2210  Molecular Biology and Genetics
- BIOL 2410  Evolutionary Biology

Introductory Chemistry or Physics
Select one of the following: 1.5
- CHEM 1011  Introduction to General Chemistry I
- CHEM 1101  General Chemistry Laboratory I
- PHYS 0101  General Physics: Mechanics, Heat and Sound
- PHYS 0150  Principles of Physics I: Mechanics and Wave Motion
- PHYS 0170  Honors Physics I: Mechanics and Wave Motion

Introductory Math & Statistics
- MATH 1400  Calculus, Part I
- Select one of the following: 1
- BIOL 2510  Statistics for Biologists
- STAT 1020  Introductory Business Statistics
- STAT 1110  Introductory Statistics
- STAT 4310  Statistical Inference

Computer Science
- CIS 1200  Programming Languages and Techniques I
- CIS 1210  Programming Languages and Techniques II
- CIS 1600  Mathematical Foundations of Computer Science

Capstone Courses
- BIOL 4536  Introduction to Computational Biology & Biological Modeling
- BIOL 3999  Independent Study

Additional Biology Major Courses
Select 2 course units of Additional Biology Major courses
Computational Biology-Related Courses
Select 3 course units of Computational Biology-Related courses

Total Course Units                                                        36

1  You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2  Track 1 students must take one additional College credit.
Honors

Applicants must have a minimum GPA of 3.25 in the major and the thesis must be approved by the departmental honors committee.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Biology: Ecology & Evolutionary Biology, BA

Ecology and evolutionary biology are among the most exciting and challenging fields in biology today. The Concentration in Ecology and Evolutionary Biology provides intensive training in both areas, along with essential background in the statistical and mathematical methods essential for understanding Ecological and Evolutionary research and field practices.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

With permission from the Undergraduate Chair, two course units away or LPS courses may count toward the Biology major. This limit does not apply to Study Abroad.

For more information: http://www.bio.upenn.edu/undergraduate/concentrations/ecology-and-evolutionary-biology (http://www.bio.upenn.edu/undergraduate/concentrations/ecology-and-evolutionary-biology/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College General Education Requirements and Free Electives

Foundational Approaches + Sectors¹ + Free Electives 18.5

Major Requirements

Introductory Biology

Select one of the following tracks: 3

Track 1:

- BIOL 1121 Introduction to Biology - The Molecular Biology of Life
- BIOL 1123 Introductory Molecular Biology Laboratory
- BIOL 1124 Introductory Organismal Biology Lab

Select one of the following:

- BIOL 2140 Evolution of Behavior. Animal Behavior
- BIOL 3310 Principles of Human Physiology
- BIOL 2311 Human Physiology

Track 2:

- BIOL 1101 Introduction to Biology A
- BIOL 1102 Introduction to Biology B

Chemistry Requirement

Select 2 course units of Chemistry 2

Physics Requirement

Select one of the following: 1.5

- PHYS 0101 General Physics: Mechanics, Heat and Sound
- PHYS 0102 General Physics: Electromagnetism, Optics, and Modern Physics
- PHYS 0150 Principles of Physics I: Mechanics and Wave Motion
- PHYS 0151 Principles of Physics II: Electromagnetism and Radiation

Calculus/Statistics Requirement

- MATH 1400 Calculus, Part I 1
- MATH 1410 Calculus, Part II 1
- or MATH 1510 Calculus, Part II with Probability and Matrices

Select one of the following: 1

- BIOL 2510 Statistics for Biologists
- STAT 1020 Introductory Business Statistics
- STAT 1110 Introductory Statistics

Intermediate Biology

- BIOL 2210 Molecular Biology and Genetics 1
- BIOL 2410 Evolutionary Biology 1
- BIOL 2610 Ecology. From individuals to ecosystems 1

Ecology & Evolutionary Biology Electives

Select 4 course units of Ecology & Evolutionary Biology electives 4

Research Requirement

- BIOL 3999 Independent Study 1

Thesis

- SURB ²

Total Course Units 36

¹ You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
² Students are required to present their research at the annual Symposium on Undergraduate Research in Biology (SURB) poster session, held at the end of the Spring Term.

Honors

Applicants must have a minimum GPA of 3.25 in the Major and the Thesis must be approved by the departmental honors committee.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Biology: General Biology, BA

Studies in biology can serve as preparation for graduate study in the biological sciences, graduate training in health-related professions, teaching, or employment in a laboratory or conservation-related job. The Biology Department offers courses in many areas of biology, ranging from the workings of cells and cellular components to species interactions and ecosystem function. Penn’s curriculum keeps pace with recent developments in molecular biology and the study of evolutionary processes, including proteomics, computational genomics, molecular evolution, and epigenetics. The General Biology Major allows students to explore the wide range of topics in biology, while also providing a strong foundation in core subject areas such as cell and molecular biology, genetics, physiology, and ecology and evolution.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

With permission from the Undergraduate Chair, two course units away or LPS courses may count toward the Biology major. This limit does not apply to Study Abroad.

For more information: http://www.bio.upenn.edu/undergraduate/current-students/major-requirements (http://www.bio.upenn.edu/undergraduate/current-students/major-requirements/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Introductory Biology Requirement</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following Tracks:</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Track 1 (2 course units)</td>
<td></td>
</tr>
<tr>
<td>BIOL 1121</td>
<td>Introduction to Biology - The Molecular Biology of Life</td>
<td></td>
</tr>
<tr>
<td>BIOL 1123</td>
<td>Introductory Molecular Biology Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOL 1124</td>
<td>Introductory Organismal Biology Lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Track 2 (3 course units):</td>
<td></td>
</tr>
<tr>
<td>BIOL 1101</td>
<td>Introduction to Biology A</td>
<td></td>
</tr>
<tr>
<td>BIOL 1102</td>
<td>Introduction to Biology B</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Chemistry Requirement</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 course units of Chemistry</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Additional Chemistry and/or Physics Requirement</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 course units of additional Chemistry and/or Physics</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Calculus/Statistics Requirement</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 course units of Calculus/Statistics</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Intermediate Level Biology Courses</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following Tracks:</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Track 1: Select four courses from four different groups (4 course units):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Track 2: Select three courses from three different groups (3 course units):</td>
<td></td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.bio.upenn.edu/sectors-policy/).
2 A third course is needed if the additional CHEM or PHYS courses total less than 2 course units.

Honors

Applicants must have a minimum GPA of 3.25 in the major and the thesis must be approved by the departmental honors committee.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Biology: Mathematical Biology, BA

Computational and Mathematical Biology are important new areas in the biological sciences. Many areas in genetics, ecology, and evolution depend on sophisticated quantitative analyses. For example, the advent of data from the human genome project (and similar data from other species) has shown the need for computer, statistical and mathematical methods to store, retrieve and analyze massive data sets. Recognizing the growing importance of these quantitative techniques and skills, we have developed undergraduate concentrations in both Computational and Mathematical Biology. These Concentrations are designed to prepare students for the world of data-driven science.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

With permission of the Undergraduate Chair, two course units away or LPS courses may count toward the Biology major. This limit does not apply to Study Abroad.
**For more information:** http://www.bio.upenn.edu/undergraduate/concentrations/computational-and-mathematical-biology (http://www.bio.upenn.edu/undergraduate/concentrations/computational-and-mathematical-biology/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>18.5</td>
</tr>
</tbody>
</table>

**Major Requirements**

**Introductory Biology**

Select one of the following tracks:

- **Track 1:**
  - BIOL 1121 Introduction to Biology - The Molecular Biology of Life
  - BIOL 1123 Introductory Molecular Biology Laboratory
  - BIOL 1124 Introductory Organismal Biology Lab

- **Track 2:**
  - BIOL 1101 Introduction to Biology A
  - BIOL 1102 Introduction to Biology B

**Intermediate Biology**

- BIOL 2210 Molecular Biology and Genetics
- BIOL 2410 Evolutionary Biology

**Introductory Chemistry or Physics**

Select one of the following:

- CHEM 1011 & CHEM 1101 Introduction to General Chemistry I and General Chemistry Laboratory I
- PHYS 0101 General Physics: Mechanics, Heat and Sound
- PHYS 0150 Principles of Physics I: Mechanics and Wave Motion
- PHYS 0170 Honors Physics I: Mechanics and Wave Motion

**Introductory Math & Statistics**

- MATH 1400 Calculus, Part I

Select one of the following:

- BIOL 2510 Statistics for Biologists
- STAT 1020 Introductory Business Statistics
- STAT 1110 Introductory Statistics
- STAT 4310 Statistical Inference

**Mathematics Requirement**

- MATH 1410 Calculus, Part II
- MATH 2400 Calculus, Part III
- MATH 3200 Computer Methods in Mathematical Science I

**Capstone Courses**

- BIOL 4536 Introduction to Computational Biology & Biological Modeling
- BIOL 3999 Independent Study

**Additional Biology Major Courses**

- Select 2 course units of Additional Biology Major courses

---

**Mathematical Biology-Related Courses**

Select 3 course units of Computational Biology-Related courses

**Total Course Units**

36

---

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.bio.upenn.edu/sectors-policy/).

**Honors**

Applicants must have a minimum GPA of 3.25 in the major and the thesis must be approved by the departmental honors committee.

---

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Biology: Mechanisms of Disease, BA**

Among the most important and interesting areas of scientific investigation are the mechanisms that underlie disease. The study of this topic can be of great interest to those pursuing fundamental research, as well as to those drawn to medicine, biotechnology, law, and public health.

The introductory and intermediate level course offerings of the Biology Department provide a foundation in understanding the fundamental principles underlying the mechanisms of disease. Advanced electives are selected from the fields of Microbes and Infectious Disease, Genetic Disease, Molecular Genetics and Genomics, and Biochemistry.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

With permission from the Undergraduate Chair, two course units away or LPS courses may count toward the Biology major. This limit does not apply to Study Abroad.

**For more information:** http://www.bio.upenn.edu/undergraduate/concentrations/mechanisms-disease (http://www.bio.upenn.edu/undergraduate/concentrations/mechanisms-disease/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>18</td>
</tr>
</tbody>
</table>

**Major Requirements**

**Introductory Biology**

- BIOL 1121 Introduction to Biology - The Molecular Biology of Life
- BIOL 1123 Introductory Molecular Biology Laboratory
- BIOL 1124 Introductory Organismal Biology Lab

**Additional Biology Major Courses**

- Select 2 course units of Additional Biology Major courses

---

**For more information:** http://www.bio.upenn.edu/undergraduate/concentrations/mechanisms-disease (http://www.bio.upenn.edu/undergraduate/concentrations/mechanisms-disease/)
Select 4 course units of Chemistry 4

Mathematics Requirement
Select 1 course unit of Calculus 1
Select 1 course unit of Statistics 1

Intermediate Biology
BIOL 2810 Biochemistry 1
BIOL 2010 Cell Biology 1
BIOL 2210 Molecular Biology and Genetics 1

Additional BIOL Elective (1 to 1.5 course units) 1.5

Advanced Electives
Select 1 course unit of Microbes & Infectious Disease 1
Select 2 course units of Genetic Disease 2
Select 1 course unit of Molecular Genetics and Genomics 1
Select 1 course unit of additional electives 1

Research Requirement
BIOL 3999 Independent Study 1
SURB 2

Total Course Units 36

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 Students are required to present their research at the annual Symposium on Undergraduate Research in Biology (SURB) poster session, held at the end of the Spring Term.

Honors
Applicants must have a minimum GPA of 3.25 in the major and the thesis must be approved by the departmental honors committee.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Biology: Molecular & Cell Biology, BA

The concentration in Molecular and Cell Biology explores how the techniques of molecular biology and genetics are used to understand cell function. As with the previous Molecular Biology Concentration (https://www.bio.upenn.edu/undergraduate/concentrations/molecular-biology/), this concentration allows Biology majors to focus on a molecular approach to biological problems by combining lecture and seminar coursework with training in laboratory research. The list of course electives is organized into two categories: Molecular and Cell Biology and Genetics and Genomics. Advanced Experimental Research is required for the concentration.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

With permission of the Undergraduate Chair, two course units away or LPS courses may count toward the Biology major. This limit does not apply to Study Abroad.


For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2810</td>
<td>Biochemistry</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 2010</td>
<td>Cell Biology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 2210</td>
<td>Molecular Biology and Genetics</td>
<td>1</td>
</tr>
</tbody>
</table>

Advanced Electives

Select 1 course unit of Microbes & Infectious Disease 1
Select 2 course units of Genetic Disease 2
Select 1 course unit of Molecular Genetics and Genomics 1
Select 1 course unit of additional electives 1

Research Requirement

BIOL 3999 Independent Study 1
SURB 2

Total Course Units 36

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 Students in Track 2 need only 4 electives.
Honors
Applicants must have a minimum GPA of 3.25 in the major and have taken BIOL 399 Independent Study. Thesis must be approved by the departmental honors committee.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Biology: Neurobiology, BA

Neurobiology is one of the most exciting fields within biology today. The basis of neurological disease, molecular mechanisms of brain function, and behavior are major foci of research in medicine, biotechnology, and academia. The Neurobiology Concentration provides fundamental training in brain physiology, coupled with a background in molecular genetics that is essential for understanding the molecular mechanisms of brain function at the gene and protein levels.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

With permission from the Undergraduate Chair, two course units away or LPS courses may count toward the Biology major. This limit does not apply to Study Abroad.

For more information: http://www.bio.upenn.edu/undergraduate/concentrations/neurobiology/ (http://www.bio.upenn.edu/undergraduate/concentrations/neurobiology/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introductory Biology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following tracks: 2-3</td>
<td>2-3</td>
</tr>
<tr>
<td>Track 1:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 1121</td>
<td>Introduction to Biology - The Molecular Biology of Life</td>
<td></td>
</tr>
<tr>
<td>BIOL 1123</td>
<td>Introductory Molecular Biology Laboratory</td>
<td></td>
</tr>
<tr>
<td>BIOL 1124</td>
<td>Introductory Organismal Biology Lab</td>
<td></td>
</tr>
<tr>
<td>Track 2:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 1101</td>
<td>Introduction to Biology A</td>
<td></td>
</tr>
<tr>
<td>BIOL 1102</td>
<td>Introduction to Biology B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physics Requirement</td>
<td></td>
</tr>
<tr>
<td>PHYS 0102</td>
<td>General Physics: Electromagnetism, Optics, and Modern Physics</td>
<td>1.5</td>
</tr>
<tr>
<td>or PHYS 0151</td>
<td>Principles of Physics II: Electromagnetism and Radiation</td>
<td></td>
</tr>
</tbody>
</table>

Chemistry Requirement
Select 3 course units of Chemistry courses 3
Math Requirement
Select 2 course units of Math courses 2
Required Biology Courses
BIOL 2210 Molecular Biology and Genetics 1
BIOL 2110 Molecular and Cellular Neurobiology 1
Select one of the following: 1
- BIOL 4310 Molecular Physiology
- BIOL 4142 Neurobiology of Learning and Memory
- BIOL 4110 Neural Systems and Behavior

Required Biology Courses
Select 2 course units of Cell/Molec/Develop Neurobiology courses 2
Select 1 course unit of Systems & Integrative Neurobiology courses 1
Research Requirement
BIOL 3999 Independent Study 1
BIOL 4999 Advanced Independent Study 1
Thesis SURB 3

Total Course Units 36

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 Track 1 students must take one additional College credit.
3 Students are required to present their research at the annual Symposium on Undergraduate Research in Biology (SURB) poster session, held at the end of the Spring Term.

Honors
Applicants must have a minimum GPA of 3.25 in the major and the thesis must be approved by the departmental honors committee.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Biophysics, BA

Bridging the biological sciences and the physical sciences, Biophysics is concerned with physical and chemical explanations of living processes, especially at the cellular and molecular levels. Detailed molecular descriptions are emerging for genetic elements and the mechanisms that control their propagation and expression. Biophysical studies include the investigation of protein structure, nucleic acid structure, enzyme mechanisms, the phenomena underlying cellular behavior, excitable phenomena in nerve, muscle and visual cells, and integrative neural phenomena.
The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

**Note:** Though not a requirement of the major, participation in an independent research project is strongly encouraged.

**For more information:** https://www.physics.upenn.edu/biophysics/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2810</td>
<td>Biochemistry</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 2010</td>
<td>Cell Biology</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 2280</td>
<td>Physical Models of Biological Systems</td>
<td>1</td>
</tr>
<tr>
<td>or BCHE 2280</td>
<td>Physical Models of Biological Systems</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit or two .5 course units of electives</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CHEM 1011</td>
<td>Introduction to General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 1012</td>
<td>General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>or CHEM 1151</td>
<td>Honors Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Introduction to General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 1022</td>
<td>General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>or CHEM 1161</td>
<td>Honors Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CHEM 2411</td>
<td>Principles of Organic Chemistry I with Laboratory</td>
<td>1.5</td>
</tr>
<tr>
<td>CHEM 2421</td>
<td>Principles of Organic Chemistry II with Laboratory</td>
<td>1.5</td>
</tr>
<tr>
<td>or CHEM 2425</td>
<td>Organic Chemistry II: Principles of Organic Chemistry with applications in Chemical Biology</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CHEM 2210</td>
<td>Physical Chemistry I</td>
<td></td>
</tr>
<tr>
<td>&amp; CHEM 2220</td>
<td>and Physical Chemistry II</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 1230 &amp; PHYS 1240</td>
<td>Principles of Physics III: Thermal Physics and Waves and Principles of Physics IV: Modern Physics (without laboratory)</td>
<td></td>
</tr>
<tr>
<td>or PHYS 125</td>
<td>Principles of Physics IV: Modern Physics</td>
<td></td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td></td>
</tr>
<tr>
<td>MATH 1510</td>
<td>Calculus, Part II with Probability and Matrices</td>
<td></td>
</tr>
<tr>
<td>MATH 1610</td>
<td>Honors Calculus</td>
<td></td>
</tr>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 2600</td>
<td>Honors Calculus, Part II</td>
<td></td>
</tr>
<tr>
<td>MATH 2410</td>
<td>Calculus, Part IV</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0150</td>
<td>Principles of Physics I: Mechanics and Wave Motion</td>
<td>1.5</td>
</tr>
<tr>
<td>or PHYS 0170</td>
<td>Honors Physics I: Mechanics and Wave Motion</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>PHYS 0151</td>
<td>Principles of Physics II: Electromagnetism and Radiation</td>
<td></td>
</tr>
<tr>
<td>or PHYS 017</td>
<td>Honors Physics II: Electromagnetism and Radiation</td>
<td></td>
</tr>
<tr>
<td>PHYS 3361</td>
<td>Electromagnetism I: Electricity and Potential Theory</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 5561</td>
<td>Electromagnetism I</td>
<td></td>
</tr>
<tr>
<td>PHYS 3362</td>
<td>Electromagnetism II: Magnetism, Maxwell's Equations, and Electromagnetic Waves</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 5562</td>
<td>Electromagnetism II: Magnetism, Maxwell's Equations, and Electromagnetic Waves</td>
<td></td>
</tr>
</tbody>
</table>

**Total Course Units** 36

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

**Honors**

Applicant must have a minimum GPA of 3.3 in the major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Chemistry, BA**

The different disciplines of modern physical and biological sciences have much to offer each other through advances in technology. Aside from basic research, society continually generates fundamental scientific and technological challenges such as the need for new sources of energy, new synthetic and biotechnologies; new materials exhibiting unusual catalytic, metallic, or electrolytic properties; and developments in laser, computer, and communications technology. We consider these within the province of a unified field of molecular sciences, in which chemistry plays the central role.

Chemistry is concerned with the study of matter and the changes matter undergo. The chemistry program provides a basic foundation for career opportunities in chemical research and teaching, in scientific communication and information transfer, and in the health professions. Students who want to prepare for advanced study in chemistry or allied fields where research experience is advantageous should complete the chemistry honors program.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.
Those considering the Chemistry major should consult with the undergraduate chairman as soon as possible, preferably in the freshman year, especially if you have AP credit in Science and Mathematics from high school.

For more information: http://www.chem.upenn.edu/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1011</td>
<td>Introduction to General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 1151</td>
<td>Honors Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Introduction to General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 1161</td>
<td>Honors Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1101 &amp; CHEM 1102</td>
<td>General Chemistry Laboratory I and General Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2411</td>
<td>Principles of Organic Chemistry I with Laboratory</td>
<td>1.5</td>
</tr>
<tr>
<td>CHEM 2421</td>
<td>Principles of Organic Chemistry II with Laboratory</td>
<td>1.5</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1610</td>
<td>Honors Calculus</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0150</td>
<td>Principles of Physics I: Mechanics and Wave Motion</td>
<td>1.5</td>
</tr>
<tr>
<td>PHYS 0151</td>
<td>Principles of Physics II: Electromagnetism and Radiation</td>
<td>1.5</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Honors**

Applicants must have a minimum GPA of 3.0 in all Math and Science courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 3999</td>
<td>Independent Research</td>
<td>1</td>
</tr>
</tbody>
</table>

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://cinemastudies.sas.upenn.edu/undergraduate/major (http://cinemastudies.sas.upenn.edu/undergraduate/major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 2410</td>
<td>Physical Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2220</td>
<td>Physical Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2230</td>
<td>Experimental Physical Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2510</td>
<td>Principles of Biological Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2610</td>
<td>Inorganic Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2460</td>
<td>Advanced Synthesis and Spectroscopy Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Cinema and Media Studies, BA**

The Penn Cinema and Media Studies major and minor are traditional humanities programs involving the critical study of film and media history, theory, and aesthetics. Reflecting the hybrid nature of the field of Cinema and Media Studies, our faculty members are housed in departments across SAS and the university, and we cross-list courses with various departments and schools, including Africana Studies, Anthropology, Communications, East Asian Language and Civilizations, English, Fine Arts, German, History, History of Art, Near Eastern Languages and Civilizations, Romance Languages and Literatures, and Women's Studies. This truly interdisciplinary program will introduce students to the wide range of methodologies used to study film and media, and this intersection with other disciplines makes Cinema and Media Studies an ideal component of a double major.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://cinemastudies.sas.upenn.edu/undergraduate/major (http://cinemastudies.sas.upenn.edu/undergraduate/major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
Classical Studies: Classical Civilizations, BA

CIMS 1010 World Film History to 1945 1
CIMS 1020 World Film History 1945-Present 1
CIMS 1030 Television and New Media 1

Electives
Select 10 course units of Electives 10
  Minimum 3 course units of Non-American Cinema
  Maximum 3 course units of Production & Craft of Cinema

Total Course Units 33

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

Honors
Applicants must have a minimum GPA of 3.5 in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIMS 4998</td>
<td>Cinema Studies Honor Thesis</td>
<td>0.5</td>
</tr>
</tbody>
</table>

You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

Classical Studies: Classical Civilizations, BA

Classical Studies encompasses the civilization of the ancient Greeks and Romans from prehistory to the Middle Ages, with emphasis on the literature, philosophy, and history of the classical Greek and Roman periods. It includes economic, political, social, and intellectual history as well as philosophy, archaeology, religion, and myth. Students may choose a track that emphasizes the study of texts in Greek and/or Latin or opt for a program of courses that do not require any knowledge of the ancient languages. The Classical Studies Department provides extensive training at the Undergraduate level and graduate training in both Classical Studies and Ancient History. We also offer a special Post-Baccalaureate Program for students who wish to continue the study of Greek and Latin but who do not yet meet the requirements of a conventional graduate program.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: http://www.classics.upenn.edu/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
</tbody>
</table>

Classical Studies: Classical Languages and Literature, BA

Classical Studies encompasses the civilization of the ancient Greeks and Romans from prehistory to the Middle Ages, with emphasis on the literature, philosophy, and history of the classical Greek and Roman periods. It includes economic, political, social, and intellectual history as well as philosophy, archaeology, religion, and myth. Students may choose a track that emphasizes the study of texts in Greek and/or Latin or opt for a program of courses that do not require any knowledge of the ancient languages. The Classical Studies Department provides extensive training at the Undergraduate level and graduate training in both Classical Studies and Ancient History. We also offer a special Post-Baccalaureate Program for students who wish to continue the study of Greek and Latin but who do not yet meet the requirements of a conventional graduate program.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: http://www.classics.upenn.edu/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
Classical Studies: Mediterranean Archaeology, BA

Classical Studies encompasses the civilization of the ancient Greeks and Romans from prehistory to the Middle Ages, with emphasis on the literature, philosophy, and history of the classical Greek and Roman periods. It includes economic, political, social, and intellectual history as well as philosophy, archaeology, religion, and myth. Students may choose a track that emphasizes the study of texts in Greek and/or Latin, or they may opt for a program of courses that do not require any knowledge of the ancient languages. The Classical Studies Department provides extensive training at the Undergraduate level and graduate training in both Classical Studies and Ancient History. The department also offers a special Post-Baccalaureate Program for students who wish to continue the study of Greek and Latin but do not yet meet the requirements of a conventional graduate program.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

Cognitive Science: Cognitive Neuroscience, BA

Cognitive science is the empirical study of intelligent systems, including the human mind. An interdisciplinary science, it combines results from biology, computer science, linguistics, mathematics, neuroscience, philosophy and psychology to the study of language processing, perception, action, learning, concept formation, inference and other activities of the mind, with applications for information technology and the study of artificial intelligence.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: https://web.sas.upenn.edu/cogsci/program/

Honors

Honors Thesis

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Honors

Honors Thesis

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COGS 1001 Introduction to Cognitive Science</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Breadth Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychology:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSYC 0001 Introduction to Experimental Psychology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or PSYC 1310 Language and Thought</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computation:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CIS 1100 Introduction to Computer Programming</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CIS 1200 Programming Languages and Techniques I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHIL 1710 Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Language:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LING 0001 Introduction to Linguistics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or LING 0500 Introduction to Formal Linguistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Philosophy:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PHIL 1170 History of Modern Philosophy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHIL 2640 Introduction to Philosophy of Mind</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHIL 4660 Philosophy of Language</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHIL 4840 Philosophy of Psychology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neuroscience:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NRSC 2249 Cognitive Neuroscience</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Mathematics:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>STAT 1110 Introductory Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 1400 Calculus, Part I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 1410 Calculus, Part II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 1510 Calculus, Part II with Probability and Matrices</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concentration Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 9 course units of Concentration Electives</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>36</td>
</tr>
</tbody>
</table>

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
3. See COGS website for lists of approved courses.
4. NOTE: You must take NRSC 1110 Introduction to Brain and Behavior/PSYC 1210 Introduction to Brain and Behavior/BIOL 1110 Introduction to Brain and Behavior either in Breadth or as a Concentration Elective.

**Honors**

**Required:** A Minimum Overall GPA of 3.0 and 3.5 in Major Related Courses

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Cognitive Science: Computation and Cognition, BA**

Cognitive science is the empirical study of intelligent systems, including the human mind. An interdisciplinary science, it combines results from biology, computer science, linguistics, mathematics, neuroscience, philosophy and psychology to the study of language processing, perception, action, learning, concept formation, inference and other activities of the mind, with applications for information technology and the study of artificial intelligence.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

**For more information:** https://web.sas.upenn.edu/cogsci/program/major/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
**PHIL 2640**  Introduction to Philosophy of Mind

**PHIL 4660**  Philosophy of Language

**PHIL 4840**  Philosophy of Psychology

**Neuroscience:**
- **NRSC 2249/PSYC 1230**  Cognitive Neuroscience
- or **NRSC/BIOL 1110/PSYC 1210**  Introduction to Brain and Behavior

**Mathematics:**
Select one of the following:

- **STAT 1110**  Introductory Statistics
- **MATH 1400**  Calculus, Part I
- **MATH 1410**  Calculus, Part II
- **MATH 1510**  Calculus, Part II with Probability and Matrices

**Concentration Requirement**
Select 9 course units of Concentration Electives

**Total Course Units** 36

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2. May be taken as **CIS 1400** Introduction to Cognitive Science, **LING 1005** Introduction to Cognitive Science, **PHIL 1840** Introduction to Cognitive Science, or **PSYC 1333** Introduction to Cognitive Science.

3. All Courses must be approved by your advisor.

4. See COGS website for lists of approved courses.

---

**Honors**

**Required:** A Minimum Overall GPA of 3.0 and 3.5 in Major Related Courses

---

**Cognitive Science: Individualized, BA**

Cognitive science is the empirical study of intelligent systems, including the human mind. An interdisciplinary science, it combines results from biology, computer science, linguistics, mathematics, neuroscience, philosophy and psychology to the study of language processing, perception, action, learning, concept formation, inference and other activities of the mind, with applications for information technology and the study of artificial intelligence.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: https://web.sas.upenn.edu/cogsci/program/major/
Cognitive Science: Language & Mind, BA

Cognitive science is the empirical study of intelligent systems, including the human mind. An interdisciplinary science, it combines results from biology, computer science, linguistics, mathematics, neuroscience, philosophy and psychology to the study of language processing, perception, action, learning, concept formation, inference and other activities of the mind, with applications for information technology and the study of artificial intelligence.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: https://web.sas.upenn.edu/cogsci/program/major/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COGS 1001 Introduction to Cognitive Science</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Breadth Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychology:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSYC 0001 Introduction to Experimental Psychology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or PSYC 1310 Language and Thought</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computation:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CIS 1100 Introduction to Computer Programming</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CIS 1200 Programming Languages and Techniques</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHIL 1710 Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Language:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LING 0001 Introduction to Linguistics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or LING 0500 Introduction to Formal Linguistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Philosophy:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PHIL 1170 History of Modern Philosophy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHIL 2640 Introduction to Philosophy of Mind</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concentration Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 9 course units of Concentration Electives</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>36</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
3 See COGS website for lists of approved courses.

Honors

Required: A minimum overall GPA of 3.0 and 3.5 in major related courses.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Communication: Advocacy & Activism, BA

Communication is an interdisciplinary field that draws from the humanities, social sciences, and sciences. The undergraduate Communication program focuses on the theoretical, critical, and empirical examination of fundamental communication systems, institutions, processes, and effects. Communication majors gain deep insight into how communication shapes our individual and collective social, political, economic, and cultural lives; both historical and contemporary, local and global. Our majors learn and employ a range of theories and research methods, including quantitative approaches such as survey research, experiments, content analysis, and computational science; and qualitative approaches such as historical, textual and
discourse analysis, focus groups, and ethnographic fieldwork. In doing so, they produce scholarship that is rigorous, relevant, and multi-modal.

The major in Communication is granted by the College of Arts and Sciences, but the 14-credit major curriculum is designed, administered, and taught by the Annenberg School for Communication.

Majors may complete an optional concentration. Effective Fall 2020, Communication concentrations are as follows: Advocacy & Activism; Audiences & Persuasion; Culture & Society; Data & Network Science; and Politics & Policy. Alternatively, students may also choose to enroll in the Communication and Public Service (ComPS) program. Students interested in pursuing one of these concentrations or ComPS should make an appointment to meet with a member of the Communication Undergraduate Advising Team (https://www.asc.upenn.edu/undergraduate-program/online-advising-appointments/).

See separate details on requirements for a Communication major concentration (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/) or the Communication and Public Service program (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/communication-and-public-service-comps-program/).

Communication students with a concentration complete the 14-credit major curriculum, including a total of 5 courses required to complete a concentration. Of the 5 courses required to complete a concentration, 3 courses are COMM courses, and 2 courses are non-COMM elective courses. A list of approved COMM Advocacy and Activism concentration courses can be found on the Annenberg School for Communication website (https://www.asc.upenn.edu/undergraduate/courses/?term=All&faculty=All&concentration=31). Non-COMM elective courses require pre-approval from a member of the Communication Undergraduate Advising Team (https://www.asc.upenn.edu/undergraduate-program/online-advising-appointments/). Students may only complete one concentration.

In addition to concentrations, the Communication curriculum also offers opportunities for thesis research (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/communication-thesis/), i (https://www.asc.upenn.edu/academics/undergraduate-program/curriculum-and-major-requirements/independent-study/Independent study (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/independent-study/), internships (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/internship-opportunities-policies/), study abroad (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/study-abroad-transfer-credit/), and public service (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/annenberg-public-service/) (through the Communication and Public Service Program).

**Advocacy & Activism**

Courses in this Concentration focus on the intersection of communication and social justice. Through this concentration students will explore vital communication-related questions about socio-political power, protest, and progress. Courses explore media institutions and the past, present, and evolving techniques and technologies of protest and social movements. Sample courses include: Media Activism Studies; Ethnography and Media for Social Justice; Global Digital Activism; Communication, Activism, and Social Change; and Digital Inequality.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

Students must meet the following minimum course and GPA requirements as a condition of application to the major. Students may submit the application for the major after enrollment in the third required course. Meeting these requirements is not a guarantee of admission to the major.

The deadline for declaring the major, declaring a concentration, changing a concentration, and/or removing a concentration is the last day to add a course in the students’ final semester.

1. Completion of at least two of the following introductory core survey courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1230</td>
<td>Critical Approaches to Popular Culture</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Completion of a third Communication course.

3. Cumulative GPA of 2.0 or higher in all University of Pennsylvania courses.

For more information: https://www.asc.upenn.edu/academics/undergraduate-program (https://www.asc.upenn.edu/academics/undergraduate-program/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1230</td>
<td>Critical Approaches to Popular Culture</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 2100</td>
<td>Quantitative Research Methods in Communication</td>
<td>1</td>
</tr>
<tr>
<td>Or, Research Methods course from an approved list.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Concentration-Advocacy & Activism**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM concentration specific courses - Intermediate</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>COMM 1000:2999 (Attribute ACA)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>COMM concentration specific courses - Advanced</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>COMM 3000:4999 (Attribute ACA)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>COMM Electives - Intermediate</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COMM 1000:2999</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COMM Electives - Advanced</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>COMM 3000:4999</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Approved Non-COMM Electives</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
Select up to three non-COMM electives related to the Comm major

| Total Course Units | 34 |

1. Students may count no more than one course toward both a Major and a Sector requirement. For exceptions, check the Policies Governing the Sector Requirement (https://www.college.upenn.edu/sector-policy/).
2. Visit the Annenberg School for Communication website (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/) for a list of the approved Research Method courses.
3. With department permission, COMM 3091 or COMM 4997 may be counted as one of the concentration-specific course requirements.
4. Study abroad and study away courses are normally assigned the numbers COMM 2985 or 2995. Students can complete up to 3 COMM 2985 or 2995 courses toward their COMM major.
5. Students with a 3.5 or higher cumulative GPA can elect to enroll in the yearlong 2 CU senior thesis course sequence, COMM 4797 and COMM 4997.
6. At least 2 of the 3 non-COMM elective courses must be related to the student’s concentration. 1 of the 3 non-COMM elective courses must be related to the General Communication major but is not required to be related to the student’s concentration.
7. Additional COMM courses may be substituted for non-COMM electives.
8. All non-COMM elective courses must be pre-approved by the Comm Undergraduate Studies Program.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Communication: Audiences & Persuasion, BA**

**General Communication Degree Description:**

Communication is an interdisciplinary field that draws from the humanities, social sciences, and sciences. The undergraduate Communication program focuses on the theoretical, critical, and empirical examination of fundamental communication systems, institutions, processes, and effects. Communication majors gain deep insight into how communication shapes our individual and collective social, political, economic, and cultural lives; both historical and contemporary, local and global. Our majors learn and employ a range of theories and research methods, including quantitative approaches such as survey research, experiments, content analysis, and computational science; and qualitative approaches such as historical, textual and discourse analysis, focus groups, and ethnographic fieldwork. In doing so, they produce scholarship that is rigorous, relevant, and multi-modal.

The major in Communication is granted by the College of Arts and Sciences, but the 14-credit major curriculum is designed, administered, and taught by the Annenberg School for Communication.

Majors may complete an optional concentration. Effective Fall 2020, Communication concentrations are as follows: Advocacy & Activism; Audiences & Persuasion; Culture & Society; Data & Network Science; and Politics & Policy. Alternatively, students may also choose to enroll in the Communication and Public Service (ComPS) program. Students interested in pursuing one of these concentrations or ComPS should make an appointment to meet with a member of the Communication Undergraduate Advising Team (https://www.asc.upenn.edu/undergraduate-program/online-advising-appointments/).

See separate details on requirements for a Communication major concentration (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/) or the Communication and Public Service program (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/communication-and-public-service-comps-program/).

Communication students with a concentration complete 14-credit major curriculum, including a total of 5 courses required to complete a concentration. Of the 5 courses required to complete a concentration, 3 courses are COMM courses, and 2 courses are non-COMM elective courses. A list of approved COMM Audiences and Persuasion concentration courses can be found on the Annenberg School for Communication website (https://www.asc.upenn.edu/undergraduate/courses/?term=All&faculty=All&concentration=29). Non-COMM elective courses require pre-approval from a member of the Communication Undergraduate Advising Team (https://www.asc.upenn.edu/undergraduate-program/online-advising-appointments/). Students may only complete one concentration.

In addition to concentrations, the Communication curriculum also offers opportunities for thesis research (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/communication-thesis/), independent study (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/independent-study/), internships (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/internship-opportunities-policies/), study abroad (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/study-abroad-transfer-credit/), and public service (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/annenberg-public-service/) (through the Communication and Public Service Program).

**Audiences & Persuasion**

Courses in this concentration focus on both the social construction of audiences and the influence of interpersonal and mass mediated communication. Through this concentration students will gain an understanding of how individual and collective attitudes, opinions, information-processing, and behaviors develop, and how audiences and messages interact to create effects. Sample courses include: Social Media and Social Life; Children and Media; Advertising and Society; Communication and Persuasion; and Communication and Social Influence Laboratory.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

Students must meet the following minimum course and GPA requirements as a condition of application to the major. Students may submit the application for the major after enrollment in the third required course. Meeting these requirements is not a guarantee of admission to the major.
The deadline for declaring the major, declaring a concentration, changing a concentration, and/or removing a concentration is the last day to add a course in the students’ final semester.

1. Completion of at least two of the following introductory core survey courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1230</td>
<td>Critical Approaches to Popular Culture</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Completion of a third Communication course.

3. Cumulative GPA of 2.0 or higher in all University of Pennsylvania courses.

For more information: https://www.asc.upenn.edu/academics/undergraduate-program

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum page.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Communication: Communication & Public Service, BA

#### General Communication Degree Description:

Communication is an interdisciplinary field that draws from the humanities, social sciences, and sciences. The undergraduate Communication program focuses on the theoretical, critical, and empirical examination of fundamental communication systems, institutions, processes, and effects. Communication majors gain deep insight into how communication shapes our individual and collective social, political, economic, and cultural lives; both historical and contemporary, local and global. Our majors learn and employ a range of theories and research methods, including quantitative approaches such as survey research, experiments, content analysis, and computational science; and qualitative approaches such as historical, textual and discourse analysis, focus groups, and ethnographic fieldwork. In doing so, they produce scholarship that is rigorous, relevant, and multi-modal.

The major in Communication is granted by the College of Arts and Sciences, but the 14-credit major curriculum is designed, administered, and taught by the Annenberg School for Communication.

 Majors may complete an optional concentration. Effective Fall 2020, Communication concentrations are as follows: Advocacy & Activism; Audiences & Persuasion; Culture & Society; Data & Network Science; and Politics & Policy. Alternatively, students may also choose to enroll in the Communication and Public Service (ComPS) program. Students interested in pursuing one of these concentrations or ComPS should make an appointment to meet with a member of the Communication Undergraduate Advising Team.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1230</td>
<td>Critical Approaches to Popular Culture</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

1 Students may count no more than one course toward both a Major and a Sector requirement. For exceptions, check the Policies Governing the Sector Requirement.

2 Visit the Annenberg School for Communication website (https://www.asc.upenn.edu/undergraduate-program) for a list of the approved Research Method courses.

3 With department permission, COMM 3091 or COMM 4997 may be counted as one of the concentration-specific course requirements.

4 Study abroad and study away courses are normally assigned the numbers COMM 2985 or 2995. Students can complete up to 3 COMM 2985 or 2995 courses toward their COMM major.

5 Students with a 3.5 or higher cumulative GPA can elect to enroll in the yearlong 2 CU senior thesis course sequence, COMM 4797 and COMM 4997.

6 At least 2 of the 3 non-COMM elective courses must be related to the student’s concentration. 1 of the 3 non-COMM elective courses must be related to the General Communication major but is not required to be related to the student’s concentration.

7 Additional COMM courses may be substituted for non-COMM electives.

8 All non-COMM elective courses must be pre-approved by the Comm Undergraduate Studies Program.

### College General Education Requirements and Free Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1230</td>
<td>Critical Approaches to Popular Culture</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td>1</td>
</tr>
<tr>
<td>COMM 2200</td>
<td>Quantitative Research Methods in Communication</td>
<td>1</td>
</tr>
<tr>
<td>COMM concentration specific courses - Intermediate</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>COMM 1000:2999 (Attribute ACAP)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>COMM concentration specific courses - Advanced</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COMM 3000:4999 (Attribute ACAP)</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

### Research Methods Course

Select one:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM Electives - Intermediate</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>COMM 1000:2999</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>COMM Electives - Advanced</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>COMM 3000:4999</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Approved Non-COMM Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM Electives</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>
See separate details on requirements for a Communication major concentration (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/) or the Communication and Public Service program (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/communication-and-public-service-comps-program/).

A list of approved COMM Communication and Public Service program courses can be found on the Annenberg School for Communication website (https://www.asc.upenn.edu/undergraduate/courses/?term=All&faculty=All&concentration=112). Non-COMM elective courses require pre-approval from a member of the Communication Undergraduate Advising Team (https://www.asc.upenn.edu/undergraduate-program/online-advising-appointments/). Students may only complete one concentration.

In addition to concentrations, the Communication curriculum also offers opportunities for thesis research (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/communication-thesis/), independent study (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/independent-study/), internships (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/internship-opportunities-policies/), study abroad (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/study-abroad-transfer-credit/), and public service (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/annenberg-public-service/) (through the Communication and Public Service Program).

**Communication and Public Service**

A Communication major with a focus in Communication and Public Service (ComPS) program offers students a special program that combines individual research opportunities with hands-on experience in the public arena. Classes, seminars, internships, field experiences, and individual research projects provide students with opportunities to meet and learn from current and former officeholders, journalists, and public servants who have been leaders in government and civil society. The program is closely matched to the undergraduate Communication major, and like the Communication major, ComPS students must complete 14 courses.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

Students must meet the following minimum course and GPA requirements as a condition of application to the major. Students may submit the application for the major after enrollment in the third required course. Meeting these requirements is not a guarantee of admission to the major.

The deadline for declaring the major, declaring a concentration, changing a concentration, and/or removing a concentration is the last day to add a course in the students’ final semester.

1. Completion of at least two of the following introductory core survey courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1230</td>
<td>Critical Approaches to Popular Culture</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Completion of a third Communication course.

3. Cumulative GPA of 2.0 or higher in all University of Pennsylvania courses.

For more information: https://www.asc.upenn.edu/undergraduate-program (https://www.asc.upenn.edu/undergraduate-program/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

**College General Education Requirements and Free Electives**

| Foundational Approaches + Sectors 1 + Free Electives | 20 |

**Major Requirements**

**Introductory Core Survey Courses**

Select two of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1230</td>
<td>Critical Approaches to Popular Culture</td>
<td>2</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

**Research Methods Course**

Select one:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 2100</td>
<td>Quantitative Research Methods in Communication</td>
<td>1</td>
</tr>
</tbody>
</table>

Or, Research Methods course from an approved list. 2

**Communication & Public Service (ComPS) Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 3230</td>
<td>Contemporary Politics, Policy, and Journalism</td>
<td>1</td>
</tr>
<tr>
<td>or COMM 3950</td>
<td>Communication and the Presidency</td>
<td>2</td>
</tr>
</tbody>
</table>

Any COMM 1000:4999 (Attribute ACCP) 3

**Capstone Thesis** 4

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 4797</td>
<td>Honors &amp; Capstone Thesis</td>
<td>1</td>
</tr>
<tr>
<td>COMM 4897</td>
<td>COMPS Capstone Thesis</td>
<td>1</td>
</tr>
</tbody>
</table>

**Elective Courses**

**COMM Electives - Intermediate** 5

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1000:2999</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

**COMM Electives - Advanced**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 3000:4999</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**Approved Non-COMM Electives** 6,7,8

Select up to three non-COMM electives related to the ComPS program

**Total Course Units** 34

---

1. Students may count no more than one course toward both a Major and a Sector requirement. For exceptions, check the Policies Governing the Sector Requirement (https://www.college.upenn.edu/sector-policy/).

2. Visit the Annenberg School for Communication website (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/) for a list of the approved Research Method courses.
The Information Technology (IT) major is designed for students interested in pursuing one of these concentrations or ComPS should make an appointment to meet with a member of the Communication Undergraduate Advising Team (https://www.asc.upenn.edu/undergraduate-program-online-advising-appointments/).

See separate details on requirements for a Communication major concentration (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/) or the Communication and Public Service program (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/communication-and-public-service-comps-program/).

Communication students with a concentration complete the 14-credit major curriculum, including a total of 5 courses required to complete a concentration. Of the 5 courses required to complete a concentration, 3 courses are COMM courses, and 2 courses are non-COMM elective courses. A list of approved COMM Culture and Society concentration courses can be found on the Annenberg School for Communication website (https://www.asc.upenn.edu/undergraduate/courses/?term=All&faculty=All&concentration=27). Non-COMM elective courses require pre-approval from a member of the Communication Undergraduate Advising Team (https://www.asc.upenn.edu/undergraduate-program-online-advising-appointments/). Students may only complete one concentration.

In addition to concentrations, the Communication curriculum also offers opportunities for thesis research (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/communication-thesis/), independent study (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/independent-study/), internships (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/internship-opportunities-policies/), study abroad (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/study-abroad-transfer-credit/), and public service (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/annenberg-public-service/) (through the Communication and Public Service Program).

Culture & Society

Courses in this concentration explore the complex relationships between communication and cultural practices. Through this concentration students will gain an understanding of the ways in which communication is central to the construction, maintenance, and transmission of culture, as well as to cultural resistance and change. Sample courses include: Media, Culture and Society in Contemporary China; Ritual Communication; History and Theory of Freedom of Expression; Critical Perspectives in Journalism; and Media Criticism.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

Students must meet the following minimum course and GPA requirements as a condition of application to the major. Students may submit the application for the major after enrollment in the third required course. Meeting these requirements is not a guarantee of admission to the major.

The deadline for declaring the major, declaring a concentration, changing a concentration, and/or removing a concentration is the last day to add a course in the students’ final semester.
1. Completion of at least two of the following introductory core survey courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1230</td>
<td>Critical Approaches to Popular Culture</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Completion of a third Communication course.

3. Cumulative GPA of 2.0 or higher in all University of Pennsylvania courses.

For more information: https://www.asc.upenn.edu/academics/undergraduate-program (https://www.asc.upenn.edu/academics/undergraduate-program/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 2100</td>
<td>Quantitative Research Methods in Communication</td>
<td>1</td>
</tr>
<tr>
<td>Or, Research Methods course from an approved list. 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Concentration - Culture & Society

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1000:2999</td>
<td>(Attribute ACCS)</td>
<td>1</td>
</tr>
<tr>
<td>COMM 3000:4999</td>
<td>(Attribute ACCS)</td>
<td>1</td>
</tr>
<tr>
<td>COMM Electives - Intermediate 4</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>COMM Electives - Advanced 5</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>COMM 3000:4999</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Approved Non-COMM Electives 6,7,8

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select up to three non-COMM electives related to the Comm major</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Total Course Units 34

1. Students may count no more than one course toward both a Major and a Sector requirement. For exceptions, check the Policies Governing the Sector Requirement (https://www.college.upenn.edu/sector-policy/).
2. Visit the Annenberg School for Communication website (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/) for a list of the approved Research Methods courses.
3. With department permission, COMM 3091 or COMM 4997 may be counted as one of the concentration-specific course requirements.
4. Study abroad and study away courses are normally assigned the numbers COMM 2985 or 2995. Students can complete up to 3 COMM 2985 or 2995 courses toward their COMM major.
5. Students with a 3.5 or higher cumulative GPA can elect to enroll in the yearlong 2 CU senior thesis course sequence, COMM 4797 and COMM 4997.
6. At least 2 of the 3 non-COMM elective courses must be related to the student’s concentration. 1 of the 3 non-COMM elective courses must be related to the General Communication major but is not required to be related to the student’s concentration.
7. Additional COMM courses may be substituted for non-COMM electives.
8. All non-COMM elective courses must be pre-approved by the Comm Undergraduate Studies Program.

**Honors**

A thesis project is completed over two semesters during the senior year. 1 CU is earned in each semester. Students who achieve a cumulative grade point average of 3.5 or higher and earn an A- or higher on their project will graduate with honors.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Communication: Data & Network Science, BA**

**General Communication Degree Description:**

Communication is an interdisciplinary field that draws from the humanities, social sciences, and sciences. The undergraduate Communication program focuses on the theoretical, critical, and empirical examination of fundamental communication systems, institutions, processes, and effects. Communication majors gain deep insight into how communication shapes our individual and collective social, political, economic, and cultural lives; both historical and contemporary, local and global. Our majors learn and employ a range of theories and research methods, including quantitative approaches such as survey research, experiments, content analysis, and computational science; and qualitative approaches such as historical, textual and discourse analysis, focus groups, and ethnographic fieldwork. In doing so, they produce scholarship that is rigorous, relevant, and multi-modal.

The major in Communication is granted by the College of Arts and Sciences, but the 14-credit major curriculum is designed, administered, and taught by the Annenberg School for Communication. Majors may complete an optional concentration. Effective Fall 2020, Communication concentrations are as follows: Advocacy & Activism; Audiences & Persuasion; Culture & Society; Data & Network Science; and Politics & Policy. Alternatively, students may also choose to enroll in the Communication and Public Service (ComPS) program. Students interested in pursuing one of these concentrations or ComPS should should make an appointment to meet with a member of the Communication Undergraduate Advising Team (https://
www.asc.upenn.edu/undergraduate-program/online-advising-appointments/).

See separate details on requirements for a Communication major concentration (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/) or the Communication and Public Service program (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/communication-and-public-service-comps-program/).

Communication students with a concentration complete the 14-credit major curriculum, including a total of 5 courses required to complete a concentration. Of the 5 courses required to complete a concentration, 3 courses are COMM courses, and 2 courses are non-COMM elective courses. A list of approved COMM Data and Network Science concentration courses can be found on the Annenberg School for Communication website (https://www.asc.upenn.edu/undergraduate/courses/?term=All&faculty=All&concentration=28). Non-COMM elective courses require pre-approval from a member of the Communication Undergraduate Advising Team (https://www.asc.upenn.edu/undergraduate-program/online-advising-appointments/). Students may only complete one concentration.

In addition to concentrations, the Communication curriculum also offers opportunities for thesis research (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/communication-thesis/), independent study (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/independent-study/), internships (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/internship-opportunities/policies/), study abroad (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/study-abroad-transfer-credit/), and public service (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/annenberg-public-service/) (through the Communication and Public Service Program).

**Data & Network Science**

Courses in this concentration focus on the role and analysis of data, complex systems, and networks in digital communication. Through this concentration students will gain an understanding of the role of digital media and social networks in disseminating information and influencing the communications, attitudes, and behaviors of social groups. Students have the opportunity to learn computational social science techniques to support research in this area, including social network analysis and methods from data science (information visualization, social media collection, quantitative data, and textual analysis) using various tools and programming languages (Python and R). Sample courses include: Computational Text Analysis for Communication Research; Communication in the Networked Age; Understanding Social Networks; The Impact of the Internet, Social Media, and Information Technology on Democracy; and Social Networks and the Spread of Behavior.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

Students must meet the following minimum course and GPA requirements as a condition of application to the major. Students may submit the application for the major after enrollment in the third required course. Meeting these requirements is not a guarantee of admission to the major.

The deadline for declaring the major, declaring a concentration, changing a concentration, and/or removing a concentration is the last day to add a course in the students’ final semester.

1. Completion of at least two of the following introductory core survey courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1230</td>
<td>Critical Approaches to Popular Culture</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Completion of a third Communication course.

3. Cumulative GPA of 2.0 or higher in all University of Pennsylvania courses.

For more information: https://www.asc.upenn.edu/academics/undergraduate-program (https://www.asc.upenn.edu/academics/undergraduate-program/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Introductory Core Survey Courses</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select two of the following:</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>COMM 1230 Critical Approaches to Popular Culture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMM 1250 Introduction to Communication Behavior</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMM 1300 Media Industries and Society</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Research Methods Course</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>COMM 2100 Quantitative Research Methods in Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Or, Research Methods course from the approved list</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Concentration - Data &amp; Network Science</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMM concentration specific courses - Intermediate</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>COMM 1000:2999 (Attribute ACDN)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMM concentration specific courses - Advanced</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>COMM 3000:4999 (Attribute ACDN)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMM Electives - Intermediate</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COMM 1000:2999</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMM Electives - Advanced</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>COMM 3000:4999</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved Non-COMM Electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select up to three non-COMM electives related to the Comm major</td>
<td></td>
</tr>
</tbody>
</table>

**Total Course Units** 34

1 Students may count no more than one course toward both a Major and a Sector requirement. For exceptions, check the Policies Governing the Sector Requirement (https://www.college.upenn.edu/sector-policy/).
Communication: General Communication, BA

General Communication Degree Description:

Communication is an interdisciplinary field that draws from the humanities, social sciences, and sciences. The undergraduate Communication program focuses on the theoretical, critical, and empirical examination of fundamental communication systems, institutions, processes, and effects. Communication majors gain deep insight into how communication shapes our individual and collective social, political, economic, and cultural lives; both historical and contemporary, local and global. Our majors learn and employ a range of theories and research methods, including quantitative approaches such as survey research, experiments, content analysis, and computational science; and qualitative approaches such as historical, textual and discourse analysis, focus groups, and ethnographic fieldwork. In doing so, they produce scholarship that is rigorous, relevant, and multi-modal.

The major in Communication is granted by the College of Arts and Sciences, but the 14-credit major curriculum is designed, administered, and taught by the Annenberg School for Communication.

Majors may complete an optional concentration. Effective Fall 2020, Communication concentrations are as follows: Advocacy & Activism; Audiences & Persuasion; Culture & Society; Data & Network Science; and Politics & Policy. Alternatively, students may also choose to enroll in the Communication and Public Service (ComPS) program. Students interested in pursuing one of these concentrations or ComPS should make an appointment to meet with a member of the Communication Undergraduate Advising Team (https://www.asc.upenn.edu/undergraduate-program/online-advising-appointments/).

See separate details on requirements for a Communication major concentration (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/) or the Communication and Public Service program (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/communication-and-public-service-comps-program/).

In addition to concentrations, the Communication curriculum also offers opportunities for thesis research (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/communication-thesis/), independent study (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/independent-study/), internships (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/internship-opportunities/policies/), study abroad (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/study-abroad-transfer-credit/), and public service (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/annenberg-public-service/) (through the Communication and Public Service Program).

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in the major is 34. Double majors may entail more course units.

Students must meet the following minimum course and GPA requirements as a condition of application to the major. Students may submit the application for the major after enrollment in the third required course. Meeting these requirements is not a guarantee of admission to the major.

The deadline for declaring the major, declaring a concentration, changing a concentration, and/or removing a concentration is the last day to add a course in the students’ final semester.

1. Completion of at least two of the following introductory core survey courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1230</td>
<td>Critical Approaches to Popular Culture</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Completion of a third Communication course.

3. Cumulative GPA of 2.0 or higher in all University of Pennsylvania courses.

For more information: https://www.asc.upenn.edu/academics/undergraduate-program (https://www.asc.upenn.edu/academics/undergraduate-program/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
</tbody>
</table>

Major Requirements

Introductory Core Survey Courses

Select two of the following:
The major in Communication is granted by the College of Arts and Sciences, but the 14-credit major curriculum is designed, administered, and taught by the Annenberg School for Communication.

Communication majors gain deep insight into how communication shapes our individual and collective social, political, economic, and cultural lives; both historical and contemporary, local and global. Our majors learn and employ a range of theories and research methods, including quantitative approaches such as survey research, experiments, content analysis, and computational science; and qualitative approaches such as historical, textual and discourse analysis, focus groups, and ethnographic fieldwork. In doing so, they produce scholarship that is rigorous, relevant, and multi-modal.

The undergraduate Communication concentration is open to all majors. Effective Fall 2020, Communication concentrations are as follows: Advocacy & Activism; Audiences & Persuasion; Culture & Society; Data & Network Science; and Politics & Policy. Alternatively, students may also choose to enroll in the Communication and Public Service (ComPS) program. Students interested in pursuing one of these concentrations or ComPS should make an appointment to meet with a member of the Communication Undergraduate Advising Team (https://www.asc.upenn.edu/undergraduate-program/online-advising-appointments/).

See separate details on requirements for a Communication major concentration (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/) or the Communication and Public Service program (https://www.asc.upenn.edu/undergraduate-program/communication-major-requirements/concentrations/communication-and-public-service-comps-program/).

Communication students with a concentration complete the 14-credit major curriculum, including a total of 5 courses required to complete a concentration. Of the 5 courses required to complete a concentration, 3 courses are COMM courses, and 2 courses are non-COMM elective courses. A list of approved COMM Politics and Policy concentration courses can be found on the Annenberg School for Communication website (https://www.asc.upenn.edu/undergraduate/courses/?term=All&faculty=All&concentration=30). Non-COMM elective courses require pre-approval from a member of the Communication Undergraduate Advising Team (https://www.asc.upenn.edu/undergraduate-program/online-advising-appointments/). Students may only complete one concentration.

In addition to concentrations, the Communication curriculum also offers opportunities for thesis research (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/communication-thesis/), independent study (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/independent-study/), internships (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/internship-opportunities-polices/), study abroad (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/study-abroad-transfer-credit/), and public service (https://www.asc.upenn.edu/undergraduate-program/academic-opportunities/annenberg-public-service/) (through the Communication and Public Service Program).

**Politics & Policy**

Courses in this concentration explore communication among and between political elites and other policy influencers, the media, and citizens. Through this concentration students will gain an understanding of the attitudes, opinions, information-processing, and behavior of citizens, political elites, political institutions, and political systems.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Sample courses include: Political Communication; Political Economy of Media; Communication and the Presidency; the Hidden World of Privacy Policies; and Public Opinion and the Voice of the People.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

Students must meet the following minimum course and GPA requirements as a condition of application to the major. Students may submit the application for the major after enrollment in the third required course. Meeting these requirements is not a guarantee of admission to the major.

The deadline for declaring the major, declaring a concentration, changing a concentration, and/or removing a concentration is the last day to add a course in the students’ final semester.

1. Completion of at least two of the following introductory core survey courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1230</td>
<td>Critical Approaches to Popular Culture</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Completion of a third Communication course.
3. Cumulative GPA of 2.0 or higher in all University of Pennsylvania courses.

For more information: https://www.asc.upenn.edu/academics/undergraduate-program/https://www.asc.upenn.edu/academics/undergraduate-program/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors^1 + Free Electives</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
</table>

**Introductory Core Survey Courses**

Select two of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1230</td>
<td>Critical Approaches to Popular Culture</td>
<td>2</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td></td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td></td>
</tr>
</tbody>
</table>

**Research Methods Course**

Select one:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 2100</td>
<td>Quantitative Research Methods in Communication</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Or Research Methods course from an approved list.</td>
<td>2</td>
</tr>
</tbody>
</table>

**Concentration - Politics & Policy**

**COMM concentration specific courses - Intermediate**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 1000:2999</td>
<td>(Attribute ACPP)</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1000:2999</td>
<td>(Attribute ACPP)</td>
<td></td>
</tr>
<tr>
<td>COMM 3000:4999</td>
<td>(Attribute ACPP)</td>
<td>2</td>
</tr>
<tr>
<td>COMM Electives - Intermediate</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

For more information: https://www.asc.upenn.edu/academics/undergraduate-program/communication-major-requirements/ for a list of the approved Research Methods courses.

With department permission, COMM 3091 or COMM 4997 may be counted as one of the concentration-specific course requirements.

Study abroad and study away courses are normally assigned the numbers COMM 2985 or 2995. Students can complete up to 3 COMM 2985 or 2995 courses toward their COMM major.

Students with a 3.5 or higher cumulative GPA can elect to enroll in the yearlong 2 CU senior thesis course sequence, COMM 4797 and COMM 4997.

At least 2 of the 3 non-COMM elective courses must be related to the student’s concentration. 1 of the 3 non-COMM elective courses must be related to the General Communication major but is not required to be related to the student’s concentration.

Additional COMM courses may be substituted for non-COMM electives.

All non-COMM elective courses must be pre-approved by the Comm Undergraduate Studies Program.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Comparative Literature: (Trans)national Literatures, BA**

The undergraduate program in Comparative Literature welcomes students interested in the study of literature from theoretical, interdisciplinary, cross-cultural, and global perspectives. The core courses train students to appreciate the variety of meanings that texts acquire in different institutional and philosophical contexts and different socio-political frameworks. There are three concentrations within the major: National and (Trans)national Literatures (four courses in each of two languages), Theory, and Globalization.

Comparative Literature is a flexible program, allowing students to take courses in a variety of departments in the College. Students with interests in more than one national literature and in fields such as philosophy and political theory, art and aesthetics, and film and music will find the requirements congenial. The program provides students with a cosmopolitan intellectual background that is increasingly in demand today.
The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

**For more information:** http://ccat.sas.upenn.edu/Complit/undergraduate.htm

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>College General Education Requirements and Free Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Course 1:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COML 1000 Introduction to Literary Study</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or COML 1025 Narrative Across Cultures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or COML 1191 World Literature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Course 2:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COML 1400 Introduction to Literary Theory</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or COML 0540 Benjamin Franklin Seminar: History of Literary Criticism</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Course 3: Capstone Seminar or Thesis</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COML 3999 Independent Study</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>COML 4999 Independent Study</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Advanced Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Comparative Literature Electives</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Select 1 Theory elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select 1 Non-Western or Post-Colonial elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select 1 COML elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Concentration Requirements</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Select 8 courses in two national literatures (4 in each)</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>34</td>
</tr>
</tbody>
</table>

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2. Must be COML courses.
3. All Concentration courses to be chosen in consultation with the Undergraduate Chair.
4. At least one concentration (4 course units) must be taken in a language other than English.

**Honors**

Applicants must have an overall GPA of 3.4 and a GPA of 3.6 in Major Related courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>College General Education Requirements and Free Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Course 1:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COML 1000 Introduction to Literary Study</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or COML 1025 Narrative Across Cultures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or COML 1191 World Literature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Course 2:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COML 1400 Introduction to Literary Theory</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or COML 0540 Benjamin Franklin Seminar: History of Literary Criticism</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Course 3: Capstone Seminar or Thesis</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COML 3999 Independent Study</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>COML 4999 Independent Study</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Advanced Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Comparative Literature Electives</strong></td>
<td>2</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Comparative Literature: Globalization, BA**

The undergraduate program in Comparative Literature welcomes students interested in the study of literature from theoretical, interdisciplinary, cross-cultural, and global perspectives. The core courses train students to appreciate the variety of meanings that texts acquire in different institutional and philosophical contexts and different socio-political frameworks. There are three concentrations within the major: National and Transnational Literatures (four courses in each of two languages), Theory, and Globalization.

Comparative Literature is a flexible program, allowing students to take courses in a variety of departments in the College. Students with interests in more than one national literature and in fields such as philosophy and political theory, art and aesthetics, and film and music will find the requirements congenial. The program provides students with a cosmopolitan intellectual background that is increasingly in demand today.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

**For more information:** http://ccat.sas.upenn.edu/Complit/undergraduate.htm

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
Select 3 COML Electives 3

**Concentration Requirements**

Select 8 course units in Literature or Film and Theory 3,4 8
- Select 1 Post-colonial Theory course
- Select 3 Globalization & Culture courses
- Select 4 Advanced Literature or Film courses 5

**Total Course Units** 34

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2. Must be COML courses.
3. All Concentration courses to be chosen in consultation with the Undergraduate Chair.
4. 4 course units must include courses that offer the student a theoretical or historical perspective on Globalization & Culture, and 4 course units must be Advanced Literature or Film courses.
5. 4 course units must be Advanced Literature or Film courses, of which at least two must be taught in a language other than English, and one must be in non-western or in post-colonial literature.

**Honors**

Applicants must have an overall GPA of 3.4 and a GPA of 3.6 in major related courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COML 4998</td>
<td>Honors Thesis (required)</td>
<td>1</td>
</tr>
<tr>
<td>COML 4999</td>
<td>Independent Study (required)</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Comparative Literature: Theory, BA**

The undergraduate program in Comparative Literature welcomes students interested in the study of literature from theoretical, interdisciplinary, cross-cultural, and global perspectives. The core courses train students to appreciate the variety of meanings that texts acquire in different institutional and philosophical contexts and different socio-political frameworks. There are three concentrations within the major: National and Transnational Literatures (four courses in each of two languages), Theory, and Globalization.

Comparative Literature is a flexible program, allowing students to take courses in a variety of departments in the College. Students with interests in more than one national literature and in fields such as philosophy and political theory, art and aesthetics, and film and music will find the requirements congenial. The program provides students with a cosmopolitan intellectual background that is increasingly in demand today.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

**For more information:** [http://ccat.sas.upenn.edu/Complit/undergraduate.htm](http://ccat.sas.upenn.edu/Complit/undergraduate.htm)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors 1 + Free Electives</td>
<td>20</td>
</tr>
</tbody>
</table>

**Major Requirements**

**Core Requirements**

<table>
<thead>
<tr>
<th>Core Course 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>COML 1000</td>
</tr>
<tr>
<td>or COML 1025</td>
</tr>
<tr>
<td>or COML 1191</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Course 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>COML 1400</td>
</tr>
<tr>
<td>or COML 0540</td>
</tr>
</tbody>
</table>

Select one of the following:

| Core Course 3 | |
|---------------|
| COML 3999     | Independent Study              |
| COML 4999     | Independent Study              |

**Advanced Elective**

**Comparative Literature Electives** 2

Select 2 COML Electives 2

Select 1 Non-Western or Post-Colonial elective 1

**Concentration Requirements** 3,4

Select 4 Theory Courses 5 4

Select 4 Advanced Literature or Film Courses 6 4

**Total Course Units** 34

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2. Must be COML courses.
3. All Concentration courses to be chosen in consultation with the Undergraduate Chair.
4. Must include courses in Literature or Film and Theory.
5. 4 course units must be Theory courses.
6. 4 course units must be Advanced Literature or Film courses, of which at least two must be taught in a language other than English, and one must be in non-western or in post-colonial literature.

**Honors**

Applicants must have an overall GPA of 3.4 and a GPA of 3.6 in major related courses.
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Criminology, BA

The major in Criminology enables students to acquire a theoretical and methodological framework for generating and assessing knowledge about crime and social control. The program draws upon disciplines from statistics to neuroscience to develop a liberal arts approach to the subject of crime.

The minimum total course units ([https://www.college.upenn.edu/credits-needed-major/](https://www.college.upenn.edu/credits-needed-major/)) for graduation in this major is 34. Double majors may entail more course units.

For more information: [http://crim.sas.upenn.edu/](http://crim.sas.upenn.edu/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum ([https://www.college.upenn.edu/curriculum/](https://www.college.upenn.edu/curriculum/)) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COML 4998</td>
<td>Honors Thesis (required)</td>
<td>1</td>
</tr>
<tr>
<td>COML 4999</td>
<td>Independent Study (required)</td>
<td>1</td>
</tr>
</tbody>
</table>

### Design, BA

The Fine Arts department is committed to cultivating global thought leaders in the fields of Art and Design. The Major in Design addresses a need for innovative pedagogy exploring the expansive nature of contemporary design and its relationship to the humanities, the sciences, and emerging technologies. The curriculum emphasizes an integrated understanding of design that brings together different disciplinary approaches that respond to complex social, cultural, and environmental challenges. Students will acquire contemporary representation, prototyping, and fabrication skills and engage with theoretical frameworks yielding advanced research and knowledge production.

Students begin the Design Major with two required core studios that introduce fundamental design methodologies, computational literacy, technological fabrication, and the study of contemporary digital culture. Majors then select from a series of theoretical and historical seminars that contextualize and expand their understanding of design practices including data-driven, speculative, and inquiry-based design. Majors also have the freedom to select from an expansive list of art and design electives that further their interdisciplinary expertise. The Design Major culminates in a year-long design project, researched design brief, public exhibition, and panel review with leading experts in the field.

A goal for students entering the major is to develop the ability to critically and resourcefully synthesize the expansive potentialities of design. These skill sets are gained through exposure to diverse approaches to design methodologies, histories, and theories. Learning outcomes are evident in the individual and collaborative conceptual, technological, and speculative projects that emerge from the core and integrative studios. Design electives and seminars enrich, complicate, and expand disciplinary modalities, while engaging in deeper explorations of positionality within a global climate. Ultimately, the Design Major seeks to guide students through a process of learning to independently question, interpret, and analyze integrative design.

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum ([https://www.college.upenn.edu/curriculum/](https://www.college.upenn.edu/curriculum/)) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM 4001</td>
<td>Senior Research Thesis</td>
<td>1.0</td>
</tr>
</tbody>
</table>

### Honors

Applicants must have a minimum GPA of 3.4 in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRIM 4001</td>
<td>Senior Research Thesis</td>
<td>1.0</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement ([http://www.college.upenn.edu/sectors-policy/](http://www.college.upenn.edu/sectors-policy/)).

2 Students completing a minor elective track are exempt from the 2 course units of Criminology electives.
Core Studio Requirements

Students are encouraged to take these classes their freshman and sophomore years.

DSGN 0010 Art, Design and Digital Culture
DSGN 0020 Design 21: Design After the Digital

Integrative Design Studio Requirements

Select 3 courses:

DSGN 1020 Art of the web: Interactive Concepts for Art & Design
DSGN 1070 Graphic Design I: Creative Technologies
DSGN 2040 Environmental Animation
DSGN 2070 Graphic Design II
DSGN 2260 Pixel to Print
DSGN 2510 Biological Design
DSGN 2500 Cultures of Making
DSGN 2530 Functions for Form and Material
DSGN 2540 Interfacing Cultures: Designing for Mobile, Web and Public Media
DSGN 2570 User Experience (UX) and User Interface (UI) Design
DSGN 3050 Design Tools and Technologies

Art History and Theory Requirements

Art History- select one introductory level art history course, such as:

ARTH 1010 World Art before 1400
ARTH 1020 The Artist in History, 1400-Now
ARTH 1060 Architect and History
ARTH 3000 Undergraduate Methods Seminar

Theory- select 2 of the following:

ARCH 4110 Theory I: Geometry in Architecture
DSGN 3020 Contemporary Theories of Design
DSGN 3040 Language of Design
DSGN 3060 Futures for All: Reimagining social equality through art and technology
DSGN 3070 Feminist Technoscience: Art, Technology, & Gender
DSGN 3100 Interrogative Design: Cultural Prosthetics
URBS 2050 People and Design
VLST 1010 Eye, Mind, and Image
FNAR 3050 Critical Issues in Art
FNAR 3060 The Chinese Body and Spatial Consumption in Chinatown
FNAR 3110 Public Art and Issues of Spatial Production
FNAR 3130 Mystics & Visionaries: Arts and Other Ways of Knowing
FNAR 3160 Is This Really Happening? Performance and Contemporary Political Horizons

Design Seminar Requirements

DSGN 4020 Design Senior Seminar Project (Fall)
DSGN 4030 Design Senior Seminar Project (Spring)

Art and Design Electives

Select any combination of four FNAR and DSGN courses to fulfill this requirement

Total Course Units 34

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2. Core studio requirements may be taken as early as freshman year and in any order as long as prerequisites are met.
3. Majors must take the Senior Seminar Project in consecutive semesters of their senior year.
4. Art and Design Electives can be taken in any order as long as prerequisites are met.
5. Fine Arts and Design courses can be found on the department website (https://www.design.upenn.edu/fine-arts/undergraduate/courses/).

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Earth and Environmental Science, BA

The Earth and Environmental Science major provides graduates with a broad understanding of the physical, chemical and biological processes that operate in and on the planet and how direct and indirect methods are used to examine, quantify and understand the structure, composition, and dynamics of the Earth’s atmosphere, hydrosphere, biosphere and lithosphere. Graduates appreciate how humans and ecosystems interact with the dynamic Earth, and how human activities such as non-sustainable resource extraction have generated climate change, exacerbated natural hazards, and disrupted hydrologic and biogeochemical cycles.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 35. Double majors may entail more course units.

For more information: https://earth.sas.upenn.edu/undergraduate/majors/eesc (https://earth.sas.upenn.edu/undergraduate/majors/eesc/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

Curriculum

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Arts &amp; Sciences CU + Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gateway Course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EESC 1000 Earth Systems Science</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Math and Quantitative Analysis</td>
<td>1</td>
</tr>
</tbody>
</table>

2023-24 Catalog | Generated 08/02/23
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 5454</td>
<td>Quantitative Analysis of Anthropological Data</td>
</tr>
<tr>
<td>BIOL 2510</td>
<td>Statistics for Biologists</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
</tr>
<tr>
<td>MATH 1510</td>
<td>Calculus, Part II with Probability and Matrices</td>
</tr>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
</tr>
<tr>
<td>MATH 2410</td>
<td>Calculus, Part IV</td>
</tr>
<tr>
<td>PHYS 1100</td>
<td>Foundations of Data Science</td>
</tr>
<tr>
<td>STAT 1110</td>
<td>Introductory Statistics</td>
</tr>
</tbody>
</table>

**Physics, Chemistry, or Biology**

Take one course in two out of the three disciplines [3]

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
<td>Introduction to Biology A</td>
</tr>
<tr>
<td>BIOL 1102</td>
<td>Introduction to Biology B</td>
</tr>
<tr>
<td>BIOL 1121</td>
<td>Introduction to Biology - The Molecular Biology and Introductory Molecular Biology Laboratory</td>
</tr>
<tr>
<td>&amp; BIOL 1123</td>
<td></td>
</tr>
<tr>
<td>CHEM 1011</td>
<td>Introduction to General Chemistry I</td>
</tr>
<tr>
<td>&amp; CHEM 1101</td>
<td>General Chemistry Laboratory I</td>
</tr>
<tr>
<td>CHEM 1012</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td>&amp; CHEM 1101</td>
<td>General Chemistry Laboratory I</td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Introduction to General Chemistry II</td>
</tr>
<tr>
<td>&amp; CHEM 1102</td>
<td>General Chemistry Laboratory II</td>
</tr>
<tr>
<td>CHEM 1022</td>
<td>General Chemistry II</td>
</tr>
<tr>
<td>&amp; CHEM 1102</td>
<td>General Chemistry Laboratory II</td>
</tr>
<tr>
<td>PHYS 0101</td>
<td>General Physics: Mechanics, Heat and Sound</td>
</tr>
<tr>
<td>PHYS 0102</td>
<td>General Physics: Electromagnetism, Optics, and Modern Physics</td>
</tr>
<tr>
<td>PHYS 0150</td>
<td>Principles of Physics I: Mechanics and Wave Motion</td>
</tr>
<tr>
<td>PHYS 0151</td>
<td>Principles of Physics II: Electromagnetism and Radiation</td>
</tr>
<tr>
<td>PHYS 0170</td>
<td>Honors Physics I: Mechanics and Wave Motion</td>
</tr>
<tr>
<td>PHYS 0171</td>
<td>Honors Physics II: Electromagnetism and Radiation</td>
</tr>
</tbody>
</table>

**Core Courses**

**Experiential Course** [1]

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EESC 3003</td>
<td>Penn in the Alps</td>
</tr>
<tr>
<td>EESC 3600</td>
<td>Earth’s Surface</td>
</tr>
<tr>
<td>ENVS 1615</td>
<td>Urban Environments: Speaking About Lead in West Philadelphia</td>
</tr>
<tr>
<td>ENVS 1650</td>
<td>The Role of Water in Urban Sustainability and Resiliency</td>
</tr>
<tr>
<td>ENVS 1665</td>
<td>Air Pollution: Sources &amp; Effects in Urban Environments</td>
</tr>
<tr>
<td>ENVS 3103</td>
<td>Penn Global Seminar: Case Studies in Environmental Sustainability</td>
</tr>
<tr>
<td>ENVS 5404</td>
<td>Wetlands</td>
</tr>
<tr>
<td>BIOL 4600</td>
<td>Field Botany</td>
</tr>
<tr>
<td>BIOL 4615</td>
<td>Freshwater Ecology</td>
</tr>
</tbody>
</table>

**Deep Time** [3]

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0030</td>
<td>Human Origins, Evolution and Diversity</td>
</tr>
<tr>
<td>BIOL 2410</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>EESC 1500</td>
<td>Paleontology</td>
</tr>
<tr>
<td>EESC 2500</td>
<td>Earth and Life Through Geologic Time</td>
</tr>
</tbody>
</table>

**Climate Science** [1]

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EESC 2300</td>
<td>Global Climate Change</td>
</tr>
<tr>
<td>EESC 3300</td>
<td>Glaciers, Ice &amp; Climate</td>
</tr>
<tr>
<td>EESC 4336</td>
<td>Ocean-Atmosphere Dynamics and Implications for Future Climate Change</td>
</tr>
</tbody>
</table>

**Spatial Analysis** [1]

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS 3700</td>
<td>GIS: Mapping Places &amp; Analyzing Spaces</td>
</tr>
<tr>
<td>EESC 4700</td>
<td>Remote Sensing</td>
</tr>
<tr>
<td>ENVS 5706</td>
<td>Modeling Geographical Objects</td>
</tr>
<tr>
<td>URBS 3300</td>
<td>GIS Applications in Social Science</td>
</tr>
</tbody>
</table>

**6 Electives with attribute AERE** [6]

**Total Course Units** [35]

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EESC 4997</td>
<td>Senior Thesis</td>
</tr>
</tbody>
</table>

**Honors**

**GPA 3.25**

Senior Honors Thesis [2]

Two semesters of EESC 4997 (grade of B+ or higher) are required for Honors in the Major.

EESC 4997 Senior Thesis

---

**East Asian Languages and Civilizations: Dual Language, BA**

The undergraduate program in EALC offers language training and courses in the culture, history, literature, and archaeology of East Asia. Students will focus on two of our three language offerings to study Chinese, Japanese or Korean within the major and are welcome to take content courses about multiple countries/areas.

For more information: [https://ealc.sas.upenn.edu/undergraduate/major](https://ealc.sas.upenn.edu/undergraduate/major)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

---

**College General Education Requirements and Free Electives**

Foundational Approaches + Sectors [1] + Free Electives [18]

**Major Requirements**

**Language**

---

2023-24 Catalog | Generated 08/02/23
Select 6 CU of Chinese, Japanese or Korean chosen from:
- CHIN 0100 and above, except for CHIN 0105, 0205, 0305, 0405, 0705, 0805
- KORN 0100 and above, except for KORN 0103, 0105
- JPAN 0100 and above, except for JPAN 0103, 0105

Select 6 CU in a language not already used including:
- CHIN 0100 or above, JPAN 0100 or above, or KORN 0100 or above

Content Courses
Select 2 CU 'Gateway' from the following (that correspond with languages taken above):
- EALC 0020 Introduction to Chinese Civilization
- EALC 0040 Introduction to Japanese Civilization
- EALC 0060 Introduction to Korean Civilization

Select 2 CU 'Seminars' from:
- EALC 2000-3999 with attribute AEAM

Select 2 CU 'Electives' from:
- Any EALC course and/or 1 additional CHIN, JPAN, KORN course to continue beyond those language CUs used above

At least 1 CU must be from an area not already focused on (if a student takes Chinese, then the breadth must be either Japanese or Korean and could be an overlap with Seminars)

Total Course Units 36

Honors
Required 3.0 GPA in major courses and the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EALC 0020</td>
<td>Introduction to Chinese Civilization (China)</td>
<td>1</td>
</tr>
<tr>
<td>EALC 0040</td>
<td>Introduction to Japanese Civilization (Japan)</td>
<td>1</td>
</tr>
<tr>
<td>EALC 0060</td>
<td>Introduction to Korean Civilization</td>
<td>1</td>
</tr>
</tbody>
</table>

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: https://ealc.sas.upenn.edu/undergraduatemajor (https://ealc.sas.upenn.edu/undergraduatemajor/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

East Asian Languages and Civilizations: East Asian Area Studies, BA

East Asian Studies focuses on East Asia as a region of the world and human experience, and provides an integrated curriculum drawing on the approaches of the social sciences and the humanities. The program requires relevant courses in areas including history, international relations, political science, sociology, legal studies, and East Asian arts and cultures, while maintaining high standards in language study.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Honors
Required: A minimum overall GPA of 3.0 and 3.5 in major related courses.
East Asian Languages and Civilizations: General East Asian Languages and Civilizations, BA

The undergraduate program in EALC offers language training and courses in the culture, history, literature, and archaeology of East Asia. Students will focus on either Chinese, Japanese or Korean language study within the major but are welcome to take content courses about multiple countries/areas.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: https://ealc.sas.upenn.edu/undergraduate/major (https://ealc.sas.upenn.edu/undergraduate/major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EALC</td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Language</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 6 CU of Chinese, Japanese or Korean chosen from:</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>CHIN 0100 and above, except for CHIN 0105, 0205, 0305, 0405, 0705, 0805</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KORN 0100 and above, except for KORN 0103, 0105</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JPAN 0100 and above, except for JPAN 0103, 0105</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Language placement will determine which course students should begin with and students whose level is so high that it is impossible to find enough offerings to satisfy this requirement will be allowed to work with the major advisors to chose 6 CU of alternative content courses.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 CU ‘Gateway’ from the following:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>EALC 0020 Introduction to Chinese Civilization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EALC 0040 Introduction to Japanese Civilization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EALC 0060 Introduction to Korean Civilization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 CU Seminars with Attribute AEAM - EALC Major Seminar</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 3 CU from the following:</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Any EALC course and/or 1 additional CHIN, JPAN, KORN course to continue beyond those language CUs used above.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least 1 CU must be from an area not already focused on (if a student takes Chinese, then the breadth must be either Japanese or Korean and could be an overlap with Seminars)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>32</td>
</tr>
</tbody>
</table>

Honors

Required 3.0 GPA in major courses and the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Code</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Title</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Course Units</td>
<td></td>
</tr>
<tr>
<td>2 CU additional in EALC - except EALC 0020, EALC 0040, EALC 0060</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>EALC 4950</td>
<td>Honors Thesis</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Course Units: 32

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Economics, BA

Economics is a social science and, as such, an important component of the liberal arts curriculum. At the core of economics are theories of how individuals, firms, and other organizations make choices and interact, taking into account constraints on their behaviors. Among the topics studied in economics are the determination of prices and quantities in various types of markets (from perfectly competitive commodity markets to highly regulated utility markets and internet auctions); the effects of taxes, subsidies, and regulations; the determination of aggregate economic activity (e.g., GDP, unemployment); inflation, monetary policy, and financial intermediation; economic growth and income distribution; and international trade and international finance (e.g., exchange rates). The Economics Major provides training in economic principles and provides a useful background for students preparing for a career in public policy, business, or finance.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: https://economics.sas.upenn.edu/undergraduate/majors-and-minors/economics-major (https://economics.sas.upenn.edu/undergraduate/majors-and-minors/economics-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 CU ‘Gateway’ from the following:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ECON 0100 Introduction to Micro and Macro Economics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECON 0200 Introductory Economics: Macro</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Or Waiver Conversion Complete</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intro Micro/Macro - For WHARTON Students Only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BEPP 1000 Introductory Economics for Business Students</td>
<td></td>
</tr>
</tbody>
</table>

2023-24 Catalog | Generated 08/02/23
Select an additional 4000-level ECON course

**Intermediate Level Micro and Macro Economics**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2100</td>
<td>Intermediate Microeconomics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 2200</td>
<td>Intermediate Macroeconomics</td>
<td>1</td>
</tr>
</tbody>
</table>

**Statistics**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1-3</td>
</tr>
</tbody>
</table>

Select one of the following:

**Option 1:**

- ECON 2300 Statistics for Economists

**Option 2:**

- STAT 4300 Probability
- STAT 4310 Statistical Inference

One additional ECON course

**Econometrics**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2310</td>
<td>Econometric Methods and Models</td>
<td>1</td>
</tr>
</tbody>
</table>

**Four Major Courses**

Select 4 course units of Major Courses from all 2000 Level with 2 course units in Econ Dept at U of P

**Mathematics Requirement**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1070</td>
<td>Mathematics of change, Part I</td>
<td>2</td>
</tr>
<tr>
<td>&amp; MATH 1080</td>
<td>and Mathematics of change, Part II</td>
<td>2</td>
</tr>
</tbody>
</table>

Or

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>2</td>
</tr>
<tr>
<td>&amp; MATH 1410</td>
<td>and Calculus, Part II</td>
<td>2</td>
</tr>
<tr>
<td>or MATH 1610</td>
<td>Honors Calculus</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Course Units**: 32-34

---

1. LPS academic year courses ECON 0100 Introduction to Micro Economics, ECON 0200 Introductory Economics: Macro, ECON 2100 Intermediate Microeconomics, ECON 2200 Intermediate Macroeconomics, or ECON 2300 Statistics for Economists are prerequisites for the major. Students choosing this Concentration will read authors imaginatively confronting vast social changes, including Behn and Dryden; Penn and Franklin; Swift and Pope; Fielding and Burney; Brockett Brown and Radcliffe; Dickens and Eliot; Austen and Hardy; Wollstonecraft, Godwin, and the Shelles; Hawthorne, Fuller, Melville, and Stowe; Marx, Darwin, and Freud. They will read about a range of economic, political, and aesthetic changes that took place in these years — from agrarian to industrial economies, abolition to imperialism, oligarchy to universal suffrage, from "literature" as a common medium for political discussion to literature as commodity and art object. In doing so, students will read across genres and national cultures, and will read literary history alongside economic and political history.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://www.english.upenn.edu/Undergrad/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/credits-needed-major/) page.
English: 20th/21st Centuries, BA

When we study the twentieth- and twenty-first centuries we turn the present into history. All the more ironic, then, that the period opened with the injunction to "MAKE IT NEW," to break away from tradition into a pure, laboratory world of aesthetic experiment. This "modernist revolution" was played out against calamities: a worldwide war, accelerating technological upheaval, economic depression, existential despair. Thus, James Joyce's refashioning of English conveyed the heartbeat of love and loss; Gertrude Stein pushed language to the condition of paint to express confusions in gender and national identity; Hemingway pared down prose to monosyllables to make fiction writing an ethical act. The world was a "Waste Land" — T. S. Eliot's "heap of broken images" — and literature not only told this story but enacted it. Ugly, hermetic, elitist: it was so brilliant! As the century proceeded, the disasters piled up — another world war, the Holocaust, Vietnam, such rapid shifts in technology and communication that no one could hope to adjust. And suddenly there were new voices to hear, voices whose stories had so far remained untold. By the 1970s, unprecedented quantities of literature by women and minorities were appearing in print. The wild energy of aesthetic experiment had been tethered to the project of social change, and in imaginations as rich as Toni Morrison's the triumph of art is no longer a betrayal of the human condition. This is the history we study as we continue to deal with the fallout of the twentieth century and explore our brave new millennium.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://www.english.upenn.edu/Undergrad/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 0010-ENGL 5999</td>
<td>Electives</td>
<td>2-4</td>
</tr>
</tbody>
</table>

1 You will need to take one course to fulfill each sector of the Major Core, six in total. Two of these courses may double-count with your Literature Seminar Electives. Creative Writing Seminars cannot count in the Major Core.

2 The One Series seminar (TOS) cannot double-count in the Major Core. However, if you take a second TOS course, your additional TOS may count as a Literature Seminar or an Elective.

3 These Early-Period Seminars may NOT double-count in the Core.

4 These Seminar Electives may be double-counted in the Core.

5 The rest of your 13 c.u. for the English Major will be met with Electives. If none of your seminars are being double-counted in the Core, you will only need two Electives. For each double-counting course, you will need to add an Elective, for a maximum of four, to reach 13 c.u. With the approval of your Major Advisor, you may count up to two courses outside of English toward the Major. Courses in Linguistics (LING) and in Literatures not in English may count; in the case of Non-English Literatures, the courses should ideally be crosslisted ("Also offered As") with ENGL, or you may obtain the permission from your Major advisor.

6 Concentration may be comprised from the 13 c.u. of the Major, or other courses.

Honors

Applicants must have a 3.6 GPA in the major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
of themselves and their fellow slaves. Alongside this tradition has arisen an equally rich tradition of African literatures in English, both before and after the end of colonialism in Africa. Even prior to this however, both created a dynamic oral tradition filled with witty folk tales and haunting spirituals and work songs. The oral tradition, along with the slave narratives, and the testimonials, essays, sermons and addresses of thousands of Black men and women form the beginnings of these two traditions. Students who choose to concentrate in African American literature will not only acquire a strong understanding of these early efforts, but will also have the opportunity to study with a diverse group of scholars whose interests range from Women’s fiction and Feminist theory to African American autobiography, literature of the African diaspora, African American poetry, narrative and the poetics of hip-hop. This is a literary tradition founded to counter claims of Black intellectual inferiority. It is a tradition grounded in the belief that literacy — the ability to read and write — is fundamental to freedom. It is a tradition that has contributed enormously to the literature of the world and one that only recently began to receive the kind of recognition and criticism that it demands and requires. From the earliest narratives to the works of Nobel Laureate Toni Morrison, this concentration is a dynamic and intellectually exciting one.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://www.english.upenn.edu/Undergrad/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/credits-needed-major/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Core Requirement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one course in each sector from ENGL 0010-ENGL 5999:</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 1 - Theory &amp; Poetics (Attribute: AETP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 2 - Difference and Diaspora (Attribute: AEED)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 3 - Medieval/Renaissance (Attribute: AEMR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 4 - Literature of the Long 18th Century (Attribute: AE18)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 5 - 19th Century Literature (Attribute: AE19)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 6 - 20th-21st Century Literature (Attribute: AE20)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>The One Series (TOS)</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL 4500-4998</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Early-Period Seminars</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL 0300-0399; 0500-0599; 0700-0799; 2000-2999; 4500-4998; 5000-5999</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar 1: Literature Before 1700 (Attribute: AEB7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar 2: Literature Before 1900 (Attribute: AEB9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Literature Seminar Electives</strong></td>
<td></td>
</tr>
<tr>
<td>ENGL 0051; 0300-0399; 0500-0599; 0700-0799; 2000-2999; 3000-3999; 4000-4998; 5000-5999</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar 3: Any Literature Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar 4: Any Literature Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Honors**

Applicants must have a 3.6 GPA in the major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**English: Africana Literatures & Culture, BA**

The massive dispersal, dislocation, and displacement that characterize New World Slavery, colonialism, and its legacies in Africa gave birth to an extraordinary rich, vibrant, and complex literature. The first African Americans to put pen to paper did so in an attempt to win the freedom...
ENGL 0010-ENGL 5999 2-4

Concentration Requirements

Four courses ENGL 0010-5999 with attribute AEAC.

Total Course Units 33

1. You will need to take one course to fulfill each sector of the Major Core, six in total. Two of these courses may double-count with your Literature Seminar Electives. Creative Writing Seminars cannot count in the Major Core.

2. The One Series seminar (TOS) cannot double-count in the Major Core. However, if you take a second TOS course, your additional TOS may count as a Literature Seminar or an Elective.

3. These Early-Period Seminars may NOT double-count in the Core.

4. These Seminar Electives may be double-counted in the Core.

5. The rest of your 13 c.u. for the English Major will be met with Electives. If none of your seminars are being double-counted in the Core, you will only need two Electives. For each double-counting course, you will need to add an Elective, for a maximum of four, to reach 13 c.u. With the approval of your Major Advisor, you may count up to two courses outside of English toward the Major. Courses in Linguistics (LING) and in Literatures not in English, the courses should ideally be crosslisted ("Also offered As") with ENGL, or you may obtain the permission from your Major advisor.

6. Concentration may be comprised from the 13 c.u. of the Major, or other courses.

Honors

Applicants must have a 3.6 GPA in the major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

English: Cinema & Media Studies, BA

Cinema Studies approaches the history of film and related media from a variety of perspectives: historical, critical, and theoretical. It examines a wide array of texts, from early silent-film-era cinema to YouTube. The advancement of media technology is of particular interest to this field, as the invention of new forms of visual and auditory storytelling necessitates new critical lenses to interpret their societal and political implications. While focused on situating media in the broader contexts of modernism, narrative theory, commercial entertainment and consumer culture, and technologies of production.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://www/english.upenn.edu/Undergrad/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
In this Concentration, you only need to have a single Elective.

**Honors**

Applicants must have a 3.6 GPA in the major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**English: Creative Writing, BA**

The English Major with a Concentration in Creative Writing provides students with a solid grounding in literature as well as advanced study in creative writing. Penn's premier undergraduate creative writing program includes courses in poetry, fiction, nonfiction, screenwriting, playwriting, writing for children, journalistic writing, and review.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: [http://www.english.upenn.edu/Undergrad/](http://www.english.upenn.edu/Undergrad/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>College General Education Requirements and Free Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Core Requirement</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one course in each sector from ENGL 0010-ENGL 5999, except 3000-3999:</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Sector 1 - Theory &amp; Poetics (Attribute: AETP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 2 - Difference and Diaspora (Attribute: AEDD)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 3 - Medieval/Renaissance (Attribute: AEMR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 4 - Literature of the Long 18th Century (Attribute: AE18)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 5 - 19th Century Literature (Attribute: AE19)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 6 - 20th-21st Century Literature (Attribute: AE20)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>The One Series (TOS)</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ENGL 4500-4998</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Creative Writing Seminars</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENGL 0051, 0700-0799, or 3000-3999</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Creative Writing Seminar 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Creative Writing Seminar 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Creative Writing Seminar 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Early-Period Seminar</strong></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ENGL 0300-0399, 0500-0599, 0700-0799, 2000-2999; 4000-4998, 5000-5999</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Literature Seminar 1: Literature Before 1900 (Attribute: AEB7, AEB9)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 0051; 0300-0399; 0500-0599; 0700-0799; 2000-2999; 3000-3999; 4000-4998; 5000-5999</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Literature Seminar Elective</strong></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>ENGL 0010-5999</td>
<td>1-3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>33</td>
</tr>
</tbody>
</table>

1 You will need to take one course to fulfill each sector of the Major Core, six in total. Two of these courses may double-count with your Literature Seminar Electives. Creative Writing Seminars cannot count in the Major Core.

2 The One Series seminar (TOS) cannot double-count in the Major Core. However, if you take a second TOS course, your additional TOS may count as a Literature Seminar or an Elective.

3 You must take at least three Creative Writing Seminars.

4 You must take one Early-Period Literature Seminar, either Literature Before 1700 (AEB7) or Literature Before 1900 (AEB9). This Seminar may be double-counted in the Major Core.

5 You must take one more Literature Seminar. This may be double-counted in the Major Core.

6 Remaining number of courses to fulfill 13 credits (1-3 c.u.).

**Honors**

Applicants must have a 3.6 GPA in the major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**English: Drama, BA**

The Concentration in Drama and Theatre Arts is ideal for students interested in both English and Theatre Arts, since nearly all of the courses that fulfill this concentration — those with the attribute AEDR in Path@Penn — are cross-listed with that program. Students are strongly encouraged to consult the course listings for both English and for Theatre Arts (THAR) ([http://www.sas.upenn.edu/theatrearts](http://www.sas.upenn.edu/theatrearts/)) in choosing courses that engage with drama and theatre. In addition, they might consider also adding a minor in Theatre Arts, or even doing a double major in English and in Theatre Arts. Several courses that count towards the English Major’s Drama Concentration can count towards the Theatre Arts Minor (six credits) or the Theatre Arts Major (thirteen credits).

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: [http://www.english.upenn.edu/Undergrad/](http://www.english.upenn.edu/Undergrad/)
For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Core Requirement</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one course in each sector from ENGL 0010-ENGL 5999, except 3000-3999.</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Sector 1 - Theory &amp; Poetics (Attribute: AE1P)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 2 - Difference and Diaspora (Attribute: AEDD)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 3 - Medieval/Renaissance (Attribute: AEMR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 4 - Literature of the Long 18th Century (Attribute: AE18)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 5 - 19th Century Literature (Attribute: AE19)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 6 - 20th-21st Century Literature (AE20)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>The One Series (TOS)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 4950-4998</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Early-Period Seminars</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 0300-0399; 0500-0599; 0700-0799; 2000-2999; 4500-4998; 5000-5999</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Seminar 1: Literature Before 1700 (Attribute: AEB7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar 2: Literature Before 1900 (Attribute: AEB7, AE9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Literature Seminar Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 0051; 0300-0399; 0500-0599; 0700-0799; 2000-2999; 3000-3999; 4000-4998; 5000-5999</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Seminar 3: Any Literature Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar 4: Any Literature Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 0010-ENGL 5999</td>
<td>2-4</td>
</tr>
<tr>
<td></td>
<td><strong>Concentration Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Four courses ENGL 0010-5999 with attribute AEDR</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>33</td>
</tr>
</tbody>
</table>

1. You will need to take one course to fulfill each sector of the Major Core, six in total. Two of these courses may double-count with your Literature Seminar Electives. Creative Writing Seminars cannot count in the Major Core.

2. The One Series seminar (TOS) cannot double-count in the Major Core. However, if you take a second TOS course, your additional TOS may count as a Literature Seminar or an Elective.

3. These Early-Period Seminars may NOT double-count in the Core.

4. These Seminar Electives may be double-counted in the Core.

5. The rest of your 13 c.u. for the English Major will be met with Electives. If none of your seminars are being double-counted in the Core, you will only need two Electives. For each double-counting course, you will need to add an Elective, for a maximum of four, to reach 13 c.u. With the approval of your Major Advisor, you may count up to two courses outside of English toward the Major. Courses in Linguistics (LING) and in Literatures not in English may count; in the case of Non-English Literatures, the courses should ideally be crosslisted (“Also offered As”) with ENGL, or you may obtain the permission from your Major advisor.

6. Concentration may be comprised from the 13 c.u. of the Major, or other courses.

**Honors**

Applicants must have a 3.6 GPA in the major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**English: Gender/Sexuality, BA**

The Concentration in Gender, Literature and Culture is designed to allow students to explore the complex effects of gender on the literary text: thus, students choosing this Concentration will not only consider the thematic implications of historically specific gender constructions, but also gender's effect on literary authorship, on textual reception, and on the development of language itself: on what *can* be said. All students in this Concentration will expose themselves to the range and richness of writing by and about women, since the history of women's writing is a complex one, filled with struggle, invention, and rebellion. Women have, for instance, not always had access to books, and it is only in the last two centuries that girls have routinely been taught to read and write. With some notable exceptions — the medieval pilgrim Margery Kempe, the Restoration dramatist Aphra Behn — women did not begin writing professionally until the eighteenth century, when rising literacy rates, changing gender roles, and enabled the emergence of a new, exceedingly popular prose form, the novel. It was then that “lady novelists” set the terms for women's writing, which has ever since been deeply concerned with asking what a woman is and what she can become. Meanwhile, while male dominance of literary production and reception had a drastic effect on the representation of women, it has also, paradoxically, sometimes rendered maleness itself obscure or invisible. Thus, this Concentration is also for students interested in the construction of male gender: courses with a focus on such matters as Elizabethan stage practices, 18th-century theories of consent, Victorian masculinity, post-colonial exploration and conquest, African American masculinities, gays and lesbians in 19th-century America and Asian American gender roles will expose students to the complex dance of both genders in literature and culture.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://www.english.upenn.edu/Undergrad/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one course in each sector from ENGL 0010-ENGL 5999, except 3000-3999:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 1 - Theory &amp; Poetics (Attribute: AETP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 2 - Difference and Diaspora (Attribute: AEDD)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 3 - Medieval/Renaissance (Attribute: AEMR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 4 - Literature of the Long 18th Century (Attribute: AE18)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 5 - 19th Century Literature (Attribute: AE19)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 6 - 20th Century Literature (Attribute: AE19)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The One Series (TOS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 4500-4998</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Early-Period Seminars</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 0300-0399; 0500-0599; 0700-0799; 2000-2999; 4500-4998; 5000-5999</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Seminar 1: Literature Before 1700 (Attribute: AEB7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar 2: Literature Before 1900 (AEB7, AEB9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Literature Seminar Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 0051; 0300-0399; 0500-0599; 0700-0799; 2000-2999; 3000-3999; 4000-4998; 5000-5999</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Seminar 3: Any Literature Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar 4: Any Literature Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENGL 0010-ENGL 5999</td>
<td>2-4</td>
</tr>
<tr>
<td></td>
<td>Concentration Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Four courses ENGL 0010-5999 with attribute AEGS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>33</td>
</tr>
</tbody>
</table>

1 You will need to take one course to fulfill each sector of the Major Core, six in total. Two of these courses may double-count with your Literature Seminar Electives. Creative Writing Seminars cannot count in the Major Core.

2 The One Series seminar (TOS) cannot double-count in the Major Core. However, if you take a second TOS course, your additional TOS may count as a Literature Seminar or an Elective.

3 These Early-Period Seminars may NOT double-count in the Core.

4 These Seminar Electives may be double-counted in the Core.

5 The rest of your 13 c.u. for the English Major will be met with Electives. If none of your seminars are being double-counted in the Core, you will only need two Electives. For each double-counting course, you will need to add an Elective, for a maximum of four, to reach 13 c.u. With the approval of your Major Advisor, you may count up to two courses outside of English toward the Major. Courses in Linguistics (LING) and in Literatures not in English may count; in the case of Non-English Literatures, the courses should ideally be crosslisted ("Also offered As") with ENGL, or you may obtain the permission from your Major advisor.

6 Concentration may be comprised from the 13 c.u. of the Major, or other courses.

**Honors**

Applicants must have a 3.6 GPA in the major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**English: General English, BA**

Students majoring in English explore language, literature, and culture across the globe and in a wide array of media. From books and manuscripts to theater, film, TV, and digital media, English majors go everywhere English goes in order to cultivate their critical and expressive skills.

Our faculty are among the most decorated in the university for their excellence in teaching. English Alumni pursue careers across the full range of professions, from law and medicine to consulting and teaching. For the past two decades, our graduates have especially thrived in the worlds of advertising and social media.

The English Major consists of 13 courses, divided into a Core of 6 courses and the rest Electives. Along the way, majors must take a course in The One Series (ENGL 4500 to 4599) and four Advanced Seminars, some of which may be counted in the Core. The Major was designed to allow students flexibility and choice while ensuring a comprehensive grounding in literary history and interpretation.

In addition to the Standard Curriculum, English Majors may also choose among 12 different Concentrations, including Creative Writing, Cinema & Media Studies, as well as concentrations focused on distinct historical periods, Genres, or Critical Approaches.

For more information: [http://www.english.upenn.edu/Undergrad/](http://www.english.upenn.edu/Undergrad/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
English: Literary Theory & Cultural Studies, BA

One of the most dramatic changes that has occurred in English departments over the past twenty years has been the increased emphasis on “theory.” Professors and students of literature have taken up questions which might formerly have been associated with such disciplines as Linguistics, Philosophy, Psychology, Sociology, or Economics. The works of such authors as Hegel, Marx, Saussure, Freud, Sartre, de Beauvoir, Fanon, Foucault, and Derrida have come to be part of the English curriculum. This expansion and transformation of what it means to study English have created controversy from the start, and the merits and limitations of theoretical work continue to be hotly debated at Penn as elsewhere. If you are intrigued and excited by these concerns, or if you are thinking about going on to do graduate work in English, you should consider the concentration in Literary Theory and Cultural Studies.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://www.english.upenn.edu/Undergrad/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Core Requirement</td>
<td>6</td>
</tr>
<tr>
<td>1</td>
<td>Select one course in each sector from ENGL 0010-ENGL 5999, except 3000-3999:</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Sector 1 - Theory &amp; Poetics (Attribute: AETP)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Sector 2 - Difference and Diaspora (Attribute: AEDD)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Sector 3 - Medieval/Renaissance (Attribute: AEMR)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Sector 4 - Literature of the Long 18th Century (Attribute: AE18)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Sector 5 - 19th Century Literature (Attribute: AE19)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Sector 6 - 20th-21st Century Literature (Attribute: AE20)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>The One Series (TOS)</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>ENGL 4500-4998</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Early-Period Seminars</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>ENGL 0300-0399, 0500-0599; 0700-0799; 2000-2999; 4500-4998; 5000-5999</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Seminar 1: Literature Before 1700 (Attribute: AEB7)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Seminar 2: Literature Before 1900 (Attribute: AEB7, AEB9)</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Literature Seminar Electives</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ENGL 0051; 0300-0399; 0500-0599; 0700-0799; 2000-2999; 3000-3999; 4000-4998; 5000-5999</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Seminar 3: Any Literature Seminar</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Seminar 4: Any Literature Seminar</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Electives</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ENGL 0010-5999</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Course Units 33

1 You will need to take one course to fulfill each sector of the Major Core, six in total. Two of these courses may double-count with your Literature Seminar Electives. Creative Writing Seminars cannot count in the Major Core.

2 The One Series seminar (TOS) cannot double-count in the Major Core. However, if you take a second TOS course, your additional TOS may count as a Literature Seminar or an Elective.

3 These Early-Period Seminars may NOT double-count in the Core.

4 These Seminar Electives may be double-counted in the Core.

5 The rest of your 13 c.u. for the English Major will be met with Electives. If none of your seminars are being double-counted in the Core, you will only need two Electives. For each double-counting course, you will need to add an Elective, for a maximum of four, to reach 13 c.u. With the approval of your Major Advisor, you may count up to two courses outside of English toward the Major. Courses in Linguistics (LING) and in Literatures not in English may count; in the case of Non-English Literatures, the courses should ideally be crosslisted (“Also offered As”) with ENGL, or you may obtain the permission from your Major advisor.

Honors

Applicants must have a 3.6 GPA in the Major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Four courses ENGL 0010-5999 with attribute AETC

Total Course Units 33

1 You will need to take one course to fulfill each sector of the Major Core, six in total. Two of these courses may double-count with your Literature Seminar Electives. Creative Writing Seminars cannot count in the Major Core.

2 The One Series seminar (TOS) cannot double-count in the Major Core. However, if you take a second TOS course, your additional TOS may count as a Literature Seminar or an Elective.

3 These Early-Period Seminars may NOT double-count in the Core.

4 These Seminar Electives may be double-counted in the Core.

5 The rest of your 13 c.u. for the English Major will be met with Electives. If none of your seminars are being double-counted in the Core, you will only need two Electives. For each double-counting course, you will need to add an Elective, for a maximum of four, to reach 13 c.u. With the approval of your Major Advisor, you may count up to two courses outside of English toward the Major. Courses in Linguistics (LING) and in Literatures not in English may count; in the case of Non-English Literatures, the courses should ideally be crosslisted ("Also offered As") with ENGL, or you may obtain the permission from your Major advisor.

6 Concentration may be comprised from the 13 c.u. of the Major, or other courses.

Honors

Applicants must have a 3.6 GPA in the Major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

English: Literature, Journalism and Print Culture, BA

This concentration allows students to devote focused study to the range of non-fictional literary genres whose usual purview is the world of "facts" and whose usual venue is the wide circulation newspaper or periodical. 20th-century practitioners in these genres include Ernest Hemingway, George Orwell, H.L. Mencken, Joan Didion, E. B. White, and Tom Wolfe, but their work has a long foreground. What we call journalistic writing emerged with the institution and establishment of print culture and in the periodical writings of such earlier figures as John Milton, Addison and Steele, John Boswell, Benjamin Franklin, Mark Twain, and Steven Crane. Students electing this Concentration should develop a sense of how historical changes in the material production of literature (such as the invention of the printing press, the growth of mass media, the emergence of the Internet) affect the relation between author and reader, literature and journalism, fiction and non-fiction. Given the broad nature of this Concentration, students will need to read course descriptions carefully to determine which courses include emphasis on some aspect of print culture.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://www.english.upenn.edu/Undergrad/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Requirement</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Select one course in each sector from ENGL 0010-ENGL 5999, except 3000-3999</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 1 - Theory &amp; Poetics (Attribute: AETP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 2 - Difference and Diaspora (Attribute: AEDD)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 3 - Medieval/Renaissance (Attribute: AEMR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 4 - Literature of the Long 18th Century (Attribute: AE18)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 5 - 19th Century Literature (Attribute: AE19)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sector 6 - 20th-21st Century Literature (Attribute: AE20)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The One Series (TOS)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ENGL 4500-ENGL 4998</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Early-Period Seminars</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENGL 0300-0399; 0500-0599; 0700-0799; 2000-2999; 4500-4998; 5000-5999</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Seminar 1: Literature Before 1700 (Attribute: AEB7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar 2: Literature Before 1900 (Attribute: AEB7, AEB9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Literature Seminar Electives</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ENGL 0051; 0300-0399; 0500-0599; 0700-0799; 2000-2999; 3000-3999; 4000-4998; 5000-5999</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Seminar 3: Any Literature Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar 4: Any Literature Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>ENGL 0010-ENGL 5999</td>
<td>2-4</td>
</tr>
<tr>
<td></td>
<td>Concentration Requirements</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Four courses ENGL 0010-5999 with attribute AELJ</td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units 33

1 You will need to take one course to fulfill each sector of the Major Core, six in total. Two of these courses may double-count with your Literature Seminar Electives. Creative Writing Seminars cannot count in the Major Core.

2 The One Series seminar (TOS) cannot double-count in the Major Core. However, if you take a second TOS course, your additional TOS may count as a Literature Seminar or an Elective.

3 These Early-Period Seminars may NOT double-count in the Core.

4 These Seminar Electives may be double-counted in the Core.
The rest of your 13 c.u. for the English Major will be met with Electives. If none of your seminars are being double-counted in the Core, you will only need two Electives. For each double-counting course, you will need to add an Elective, for a maximum of four, to reach 13 c.u. With the approval of your Major Advisor, you may count up to two courses outside of English toward the Major. Courses in Linguistics (LING) and in Literatures not in English may count; in the case of Non-English Literatures, the courses should ideally be crosslisted ("Also offered As") with ENGL, or you may obtain the permission from your Major advisor. Concentration may be comprised from the 13 c.u. of the Major, or other courses.

Honors
Applicants must have a 3.6 GPA in the Major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**English: Medieval/Renaissance, BA**

Students choosing this concentration follow English literature — Chaucer, Margery Kempe, Spenser, Shakespeare, and Milton — through the most volatile and dramatic phases of its development. Much of this literature was composed to be recited or performed in public, not read in lonely silence. Germanic, Scandinavian, and French invasions of Britain (culminating in the Conquest of 1066) drove Celtic culture to the margins while creating vocabularies of unmatched complexity (and poetic potential): in English, you can choose between the Holy Ghost (Germanic root) or the Holy Spirit (Latin), dark (Germanic) or obscure (Latin), pig and pork, etc. In the fourteenth century, the English countryside formed the powerhouse of the economy and poets wrote about millers, weavers (such as the Wife of Bath), and agricultural workers (Piers Plowman). Pilgrims, such as Margery Kempe, traveled freely within a European-wide Catholic culture to Rome, Gdansk, and Jerusalem. Following decades of civil war, which inspired Sir Thomas Malory to lament the passing of chivalry (Morte D’Arthur), a powerful new dynasty arose: the Tudors. Then, in the earlier sixteenth century, Henry VIII effected a revolutionary break with Roman Catholicism. Poets and playwrights took leading roles in refashioning England as a Protestant nation: Spenser adapted medieval genres of allegory and romance to celebrate not the Virgin Mary, but the Virgin Queen (Elizabeth I); medieval “mystery” or drama cycles took on Protestant themes; the great commercial theater of Marlowe and Shakespeare drew crowds and made money. Puritan activism subsequently closed the theaters; Puritans and royals eventually divided in a second civil war that led to the beheading of the King, the foundation of a Commonwealth, and the epical visions of Milton. English colonization, which had begun with invasions of Wales and Ireland, spread westward to the Americas and later became global in scope. The New World was greeted with wonder and exploited through settlement and slavery. All of this runs through the vibrant literature of this extraordinary period: a time that provides much food for thought as we proceed in this new millennium, with the United States and its corporate cultures in a position of unparalleled (and yet increasingly challenged) global dominance.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://www.english.upenn.edu/Undergrad/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>College General Education Requirements and Free Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Core Requirement</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Select one course in each sector from ENGL 0010-ENGL 5999, except 3000-3999:</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sector 1</strong> - Theory &amp; Poetics (Attribute: AETP)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sector 2</strong> - Difference and Diaspora (Attribute: AEDD)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sector 3</strong> - Medieval/Renaissance (Attribute: AEMR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sector 4</strong> - Literature of the Long 18th Century (Attribute: AE18)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sector 5</strong> - 19th Century Literature (Attribute: AE19)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Sector 6</strong> - 20th-21st Century Literature (Attribute: AE20)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>The One Series (TOS)</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ENGL 4500-4998</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Early-Period Seminars</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ENGL 0300-0399; 0500-0599; 0700-0799; 2000-2999; 4500-4998; 5000-5999</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Seminar 1</strong>: Literature Before 1700 (Attribute: AEB7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Seminar 2</strong> : Literature Before 1900 (Attribute: AEB7, AEB9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Literature Seminar Electives</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ENGL 0051; 0300-0399; 0500-0599; 0700-0799; 2000-2999; 3000-3999; 4000-4998; 5000-5999</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Seminar 3</strong> : Any Literature Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Seminar 4</strong> : Any Literature Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ENGL 0010-ENGL 5999</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Concentration Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Four courses ENGL 0010-5999 with attribute AEMR and/or AEMC.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>33</td>
</tr>
</tbody>
</table>

1 You will need to take one course to fulfill each sector of the Major Core, six in total. Two of these courses may double-count with your Literature Seminar Electives. Creative Writing Seminars cannot count in the Major Core.

2 The One Series seminar (TOS) cannot double-count in the Major Core. However, if you take a second TOS course, your additional TOS may count as a Literature Seminar or an Elective.

3 These Early-Period Seminars may NOT double-count in the Core.
These Seminar Electives may be double-counted in the Core.

The rest of your 13 c.u. for the English Major will be met with Electives. If none of your seminars are being double-counted in the Core, you will only need two Electives. For each double-counting course, you will need to add an Elective, for a maximum of four, to reach 13 c.u. With the approval of your Major Advisor, you may count up to two courses outside of English toward the Major. Courses in Linguistics (LING) and in Literatures not in English may count; in the case of Non-English Literatures, the courses should ideally be crosslisted ("Also offered As") with ENGL, or you may obtain the permission from your Major advisor.

Concentration may be comprised from the 13 c.u. of the Major, or other courses.

Honors
Applicants must have a 3.6 GPA in the Major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

English: Poetry and Poetics, BA
The Concentration in Poetry and Poetics is for students interested in the forms, theories, histories and practices of poetry. What makes a poem a poem? What are its cultural uses? Its formal and material determinants? Its relations and obligations to other kinds of speech and writing, other forms of expression and art? What notions of poet and audience inform its production and reception? All students adopting this Concentration will take English 1800: Poetry and Poetics. Additionally, all students of Poetry and Poetics will study the history of the poem in English, choosing from offerings in the 20th century and earlier. Students will find it possible to study Elizabethan love sonnets and Beat political manifestos; Augustan satire and American poetry of the natural world; Medieval songs and Native American chant; hip hop and odes. In addition, students will find many relevant offerings in departments outside English.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://www.english.upenn.edu/Undergrad/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Major Requirements</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Core Requirement 1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Select one course in each sector from ENGL 0010-ENGL 5999, except 3000-3999:</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

| Sector 1 - Theory & Poetics (Attribute: AE17) | |
| Sector 2 - Difference and Diaspora (Attribute: AEDD) | |
| Sector 3 - Medieval/Renaissance (Attribute: AEMR) | |
| Sector 4 - Literature of the Long 18th Century (Attribute: AE18) | |
| Sector 5 - 19th Century Literature (Attribute: AE19) | |
| Sector 6 - 20th-21st Century Literature (Attribute: AE20) | |

The One Series (TOS)

| ENGL 4500-4998 | 1 |
| ENGL 0051; 0300-0399; 0500-0599; 0700-0799; 2000-2999; 4500-4998; 5000-5999 | 2 |

| Seminar 1: Literature Before 1700 (Attribute: AEB7) | 1 |
| Seminar 2: Literature Before 1900 (Attribute: AEB7, AEB9) | 2 |

| Literature Seminar Electives 4 | |
| ENGL 0010-ENGL 5999 | 2-4 |

| Concentration Requirements 5 | |
| Four courses ENGL 0010-5999 with attribute AEPP | |

Total Course Units 33

1 You will need to take one course to fulfill each sector of the Major Core, six in total. Two of these courses may double-count with your Literature Seminar Electives. Creative Writing Seminars cannot count in the Major Core.

2 The One Series seminar (TOS) cannot double-count in the Major Core. However, if you take a second TOS course, your additional TOS may count as a Literature Seminar or an Elective.

3 These Early-Period Seminars may NOT double-count in the Core.

4 These Seminar Electives may be double-counted in the Core.

5 The rest of your 13 c.u. for the English Major will be met with Electives. If none of your seminars are being double-counted in the Core, you will only need two Electives. For each double-counting course, you will need to add an Elective, for a maximum of four, to reach 13 c.u. With the approval of your Major Advisor, you may count up to two courses outside of English toward the Major. Courses in Linguistics (LING) and in Literatures not in English may count; in the case of Non-English Literatures, the courses should ideally be crosslisted ("Also offered As") with ENGL, or you may obtain the permission from your Major advisor.

6 Concentration may be comprised from the 13 c.u. of the Major, or other courses.

Honors
Applicants must have a 3.6 GPA in the Major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should
consult with their academic program regarding final certifications and requirements for graduation.

**English: The Novel, BA**

The Concentration in Prose genres (i.e. The Novel) is for students interested in the forms, theories, histories, and practices of prose writing. What, for instance, makes a novel a novel? What makes a novel different from a story? A history? An allegory? A romance? What can narrative do that poetry can’t? why do we need both fiction and non-fiction? Distinctions among these and other forms of prose writing are often difficult to make, precisely because their histories and conventions are so deeply intertwined: Samuel Richardson’s novel Pamela began as a conduct book for young ladies; Bram Stoker’s Dracula is written as a series of letters and diary entries; Thomas Pynchon’s Mason-Dixon is both history and fiction at once. This Concentration aims to provide students with a means of studying how prose genres form, how they function in different historical moments, and how they evolve over time. Its focus on genre allows both critical and creative writers to explore, and also to test in practice, the protean and various possibilities of prose.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://www.english.upenn.edu/Undergrad/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Code
### Title

<table>
<thead>
<tr>
<th>College General Education Requirements and Free Electives</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
</tbody>
</table>

**Major Requirements**

**Core Requirement**

Select one course in each sector from ENGL 0010-ENGL 5999, except 3000-3999:

- **Sector 1** - Theory & Poetics (Attribute: AETP)
- **Sector 2** - Difference and Diaspora (Attribute: AEDD)
- **Sector 3** - Medieval/Renaissance (Attribute: AEMR)
- **Sector 4** - Literature of the Long 18th Century (Attribute: AE18)
- **Sector 5** - 19th Century Literature (Attribute: AE19)
- **Sector 6** - 20th-21st Century Literature (Attribute: AE20)

**The One Series (TOS)**

- ENGL 4500-4998

**Early-Period Seminars**

- ENGL 0300-0399; 0500-0599; 0700-0799; 2000-2999; 4500-4998; 5000-5999

- **Seminar 1**: Literature Before 1700 (Attribute: AEB7)
- **Seminar 2**: Literature Before 1900 (Attribute: AEB7, AEB9)

**Literature Seminar Electives**

- ENGL 0051; 0300-0399; 0500-0599; 0700-0799; 2000-2999; 3000-3999; 4500-4998; 5000-5999

- **Seminar 3**: Any Literature Seminar

**Electives**

| ENGL 0010-ENGL 5999 | 2-4 |

**Concentration Requirements**

| Four courses ENGL 0010-5999 with attribute AENV. |

### Total Course Units 33

1. You will need to take one course to fulfill each sector of the Major Core, six in total. Two of these courses may double-count with your Literature Seminar Electives. Creative Writing Seminars cannot count in the Major Core.

2. The One Series seminar (TOS) cannot double-count in the Major Core. However, if you take a second TOS course, your additional TOS may count as a Literature Seminar or an Elective.

3. These Early-Period Seminars may NOT double-count in the Core.

4. These Seminar Electives may be double-counted in the Core.

5. The rest of your 13 c.u. for the English Major will be met with Electives. If none of your seminars are being double-counted in the Core, you will only need two Electives. For each double-counting course, you will need to add an Elective, for a maximum of four, to reach 13 c.u. With the approval of your Major Advisor, you may count up to two courses outside of English toward the Major. Courses in Linguistics (LING) and in Literatures not in English may count; in the case of Non-English Literatures, the courses should ideally be crosslisted ("Also offered As") with ENGL, or you may obtain the permission from your Major advisor.

6. Concentration may be comprised from the 13 c.u. of the Major, or other courses.

### Honors

Applicants must have a 3.6 GPA in the Major. Thesis required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Environmental Studies: Environmental History and Regional Studies, BA**

The Environmental Studies major provides graduates with the necessary skills to contribute to society and effectively work on challenging problems that face humanity. Students acquire knowledge in environmental economics, environmental health, sustainability, renewable resources, and environmental management. In addition, they have an in-depth understanding of the human-environment interconnection, knowledge of international and domestic environmental issues, and are well-versed in environmental policies and how these policies are set and changed.
Students in the Environmental History and Regional Studies concentration learn a temporal and spatial perspective to the study of the Environment.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 35. Double majors may entail more course units.

This concentration is for students with a background in the Arts or Social Sciences.

For more information: http://www.sas.upenn.edu/earth/environmental-studies/environmental-history-regional-studies-concentration (http://www.sas.upenn.edu/earth/environmental-studies/environmental-history-regional-studies-concentration/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Requirements</td>
<td></td>
</tr>
<tr>
<td>ENVS 1000</td>
<td>Introduction to Environmental Science</td>
<td>1</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EESC 2300</td>
<td>Global Climate Change</td>
<td>1</td>
</tr>
<tr>
<td>EESC 1000</td>
<td>Earth Systems Science</td>
<td>1</td>
</tr>
<tr>
<td>EESC 1060</td>
<td>Natural Disturbances and Disasters</td>
<td>1</td>
</tr>
<tr>
<td>EESC 1050</td>
<td>Earth and Life Through Time</td>
<td>1</td>
</tr>
<tr>
<td>EESC 1030</td>
<td>Oceanography</td>
<td>1</td>
</tr>
<tr>
<td>Select 1 course unit of Data Analysis &amp; Statistics</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Economics &amp; Policy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ENVS 3100</td>
<td>Environmental Case Studies</td>
<td>1</td>
</tr>
<tr>
<td>or ENVS 3991</td>
<td>Topics in Environmental Studies</td>
<td>1</td>
</tr>
<tr>
<td>Select 1 course unit of Geographical or Environmental Modeling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENVS 4997</td>
<td>Senior Thesis (Semester I)</td>
<td>1</td>
</tr>
<tr>
<td>ENVS 4997</td>
<td>Senior Thesis (Semester II)</td>
<td>1</td>
</tr>
<tr>
<td>Environmental History &amp; Regional Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Earth Systems</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Biotic History</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Environmental History</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Environmental Geology</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Field Course</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 2 course units of 400 or 500-level Concentration Electives</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Curriculum-Related Practical Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field course or equivalent experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>35</td>
<td></td>
</tr>
</tbody>
</table>
Environmental Studies: General Environmental Studies, BA

The Environmental Studies major provides graduates with the necessary skills to contribute to society and effectively work on challenging problems that face humanity. Students acquire knowledge in environmental economics, environmental health, sustainability, renewable resources, and environmental management. In addition, they have an in-depth understanding of the human-environment interconnection, knowledge of international and domestic environmental issues, and are well-versed in environmental policies and how these policies are set and changed.

This is an individualized, specialized concentration designed for students who want to concentrate in an area not represented by the other concentrations. Formal proposals for this concentration must be developed and submitted for review and approved by both the EES program director and undergraduate chair before admittance into this concentration.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 35. Double majors may entail more course units.

For more information: http://www.sas.upenn.edu/earth/environmental-studies/individualized-concentration

Honors

Applicants must have a 3.25 GPA in the major and complete Senior Thesis with a B+ or above.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Environmental Studies: Global Environmental Systems, BA

The Environmental Studies major provides graduates with the necessary skills to contribute to society and effectively work on challenging problems that face humanity. Students acquire knowledge in environmental economics, environmental health, sustainability, renewable resources, and environmental management. In addition, they have an in-depth understanding of the human-environment interconnection, knowledge of international and domestic environmental issues, and are well-versed in environmental policies and how these policies are set and changed.

Students in the Global Environmental Systems concentration will focus their coursework on understanding global environmental systems.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 35. Double majors may entail more course units.

This concentration is for students who have a background in either the Natural or the Social Sciences.

For more information: http://www.sas.upenn.edu/earth/environmental-studies/global-environmental-systems-concentration/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Course Code, Title, and Course Units

#### Core Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS 1000</td>
<td>Introduction to Environmental Science</td>
<td>1</td>
</tr>
<tr>
<td>EESC 2300</td>
<td>Global Climate Change</td>
<td>1</td>
</tr>
<tr>
<td>EESC 1000</td>
<td>Earth Systems Science</td>
<td>1</td>
</tr>
<tr>
<td>EESC 1060</td>
<td>Natural Disturbances and Disasters</td>
<td>1</td>
</tr>
<tr>
<td>EESC 1050</td>
<td>Earth and Life Through Time</td>
<td>1</td>
</tr>
<tr>
<td>EESC 1030</td>
<td>Oceanography</td>
<td>1</td>
</tr>
<tr>
<td>Select 1 course unit of Data Analysis &amp; Statistics</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Economics &amp; Policy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ENVS 3100</td>
<td>Environmental Case Studies</td>
<td>1</td>
</tr>
<tr>
<td>or ENVS 3991 Topics in Environmental Studies</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Geographical or Environmental Modeling</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ENVS 4997</td>
<td>Senior Thesis (Semester I)</td>
<td>1</td>
</tr>
<tr>
<td>ENVS 4997</td>
<td>Senior Thesis (Semester II)</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Global Environmental Systems

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 1 course unit of Earth Systems</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Biotic History</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Geochemical Dynamics</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

### Curriculum-Related Practical Experience

<table>
<thead>
<tr>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field course or equivalent experience</td>
<td>1</td>
</tr>
</tbody>
</table>

### Total Course Units

35

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (https://www.college.upenn.edu/sector-policy/).

#### Honors

Applicants must have a 3.25 GPA in the major and complete Senior Thesis with a B+ or above.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Environmental Studies: Sustainability and Environmental Management, BA

The Environmental Studies major provides graduates with the necessary skills to contribute to society and effectively work on challenging problems that face humanity. Students acquire knowledge in environmental economics, environmental health, sustainability, renewable resources, and environmental management. In addition, they have an in-depth understanding of the human-environment interconnection, knowledge of international and domestic environmental issues, and are well-versed in environmental policies and how these policies are set and changed.

The Sustainability and Environmental Management concentration is designed to help students understand the nature of environmental constraints which face organizations and individuals in the modern world, and to understand how these constraints can be effectively considered as part of the decision-making process in for-profit and non-profit organizations.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 35. Double majors may entail more course units.

This concentration is for students who have a background in either the Natural or the Social Sciences.

For more information: http://www.sas.upenn.edu/earth/environmental-studies/sustainability-and-environmental-management-concentration/
Fine Arts, BA

The Undergraduate Fine Arts Program combines studio practices, seminar courses, and interactions with visiting artists and professionals to provide an open intellectual framework in order to foster critical awareness and independent methods of artistic research and learning. The Fine Arts Department offers a diverse range of studio courses in the areas of animation and 3D modeling, ceramics, design, drawing and painting, photography, printmaking, sculpture, and video. The dynamic curriculum also provides students with the opportunity to thoroughly examine contemporary art, creative research, interactive design, and public art through seminar-based instruction.

A goal of the Undergraduate Fine Arts program is to facilitate an environment where the potentialities of art are considered in relation to the real life conditions of our students. Encouraged to test themselves against the rigors of divergent artistic approaches and their histories, our students develop a more complex set of skills to creatively and critically negotiate the turbulent shifts taking place globally in terms of human experiences.

The Fine Arts major is available for students in the College of Arts and Sciences and the School of Engineering, and the minor is available for undergraduate students across the university. The Fine Arts program works in conjunction with three interdisciplinary degree programs in Cinema Studies, Digital Media Design, and Visual Studies.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: http://www.design.upenn.edu/fine-arts/undergraduate/program (http://www.design.upenn.edu/fine-arts/undergraduate/program/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNAR 0010</td>
<td>Drawing I</td>
<td>2</td>
</tr>
<tr>
<td>FNAR 0020</td>
<td>Contemporary Art Studio</td>
<td></td>
</tr>
<tr>
<td>DSGN 0010</td>
<td>Art, Design and Digital Culture</td>
<td></td>
</tr>
<tr>
<td>FNAR 1010</td>
<td>Video I</td>
<td></td>
</tr>
<tr>
<td>FNAR 1030</td>
<td>Introduction to Photography</td>
<td></td>
</tr>
<tr>
<td>FNAR 1040</td>
<td>Digital Photography</td>
<td></td>
</tr>
<tr>
<td>FNAR 1050</td>
<td>Mixed Media Animation</td>
<td></td>
</tr>
<tr>
<td>FNAR 1060</td>
<td>Sculpture I</td>
<td></td>
</tr>
<tr>
<td>FNAR 1070</td>
<td>Intro to Clay</td>
<td></td>
</tr>
<tr>
<td>FNAR 1080</td>
<td>Figure Drawing I</td>
<td></td>
</tr>
<tr>
<td>FNAR 1090</td>
<td>Painting I</td>
<td></td>
</tr>
</tbody>
</table>

Honors

Applicants must have a 3.25 GPA in the major and complete Senior Thesis with a B+ or above.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
French and Francophone Studies introduces students to the full span of historical and cultural traditions from France and the French-speaking world. Languages courses - from introductory to advanced - promote linguistic fluency, building on the skills students have acquired in high school or at Penn. Upper-level seminars explore a range of topics pertaining to literature, history, visual arts, and/or the media, and they offer majors and minors the opportunity to engage in research on French and global Francophone cultures across periods into contemporary times.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

At least half of all courses for the major must be taken in the Department at Penn. ALL courses must be taken in French, with the possible exception of Major-related courses.

For more information: http://www.sas.upenn.edu/french/undergraduate/requirements-majors-and-minors-major-french-francophone-studies (http://www.sas.upenn.edu/french/undergraduate/requirements-majors-and-minors-major-french-francophone-studies/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 1212</td>
<td>Advanced French Grammar and Composition</td>
<td>1</td>
</tr>
<tr>
<td>or FREN 1214</td>
<td>Advanced French Conversation and Composition</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>History &amp; Culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 2 course units of the following:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 1226</td>
<td>French History and Culture to 1774</td>
<td></td>
</tr>
<tr>
<td>FREN 1227</td>
<td>French History and Culture 1789-1945</td>
<td></td>
</tr>
<tr>
<td>FREN 2280</td>
<td>Contemporary France</td>
<td></td>
</tr>
<tr>
<td>FREN 3290</td>
<td>Le français dans le monde/French in the World</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Literature &amp; Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 2 of the following:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 1230</td>
<td>Masterpieces of French Cinema</td>
<td>2</td>
</tr>
<tr>
<td>FREN 1231</td>
<td>Perspectives in French Literature: Love and Passion</td>
<td></td>
</tr>
<tr>
<td>FREN 1232</td>
<td>Perspectives in French Literature: The Individual and Society</td>
<td></td>
</tr>
<tr>
<td>FREN 1233</td>
<td>Francophone Literature and Film</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select a minimum of 5 course units of 3000-level courses with 2 in the Department at Penn</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional French or Major-related Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 2 course units of French courses at the 2000 or 3000 level</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Research Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
Must be completed in the Department at Penn

**Total Course Units**

32

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2. Must be taken in the Department at Penn.
3. At least one course must be taken in the Department at Penn.
4. Major-related courses need approval from the Undergraduate Chair.

### Honors

Applicants must have a minimum GPA of 3.4 in the Major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 4000</td>
<td>Honors Thesis</td>
<td>1.0</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

### Gender, Sexuality, & Women's Studies: Feminist Studies, BA

A concentration with a broad range, Feminist Studies covers topics ranging from politics to policy, to research methods and methodologies. For example, students with a concentration in Feminist Studies may be interested in focusing on how feminist policy has shaped political life in the United States, researching the ways that feminist advocacy has shaped political movements in Latin America, or examining how feminist approaches to research methods have transformed data collection in particular fields.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

**For more information:** [https://gsws.sas.upenn.edu/program/undergraduate/major/concentrations/](https://gsws.sas.upenn.edu/program/undergraduate/major/concentrations/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors(^1) + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>GSWS 0002</td>
<td>Gender and Society</td>
<td>1</td>
</tr>
<tr>
<td>GSWS 0003</td>
<td>Introduction to Sexuality Studies and Queer Theory</td>
<td>1</td>
</tr>
</tbody>
</table>

**GSWS Theory Course**

1.0

**Concentration Requirements**

Select 5 courses with 4 courses in at least two different departments

**Elective Courses**

Select 4 elective courses

**Research/Capstone Requirement**

Select 1 course unit

**Total Course Units**

33

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

### Honors

Students with an overall GPA of 3.4 and 3.6 or better in the major are eligible for honors.

### Concentrations

Students may select one of five concentrations:

- Feminist Studies
- Global Gender and Sexuality Studies
- Health and Disability
- LGBTQ Studies
- Self-designed

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

### Gender, Sexuality, & Women's Studies: General, BA

The Gender, Sexuality, and Women's Studies Program (GSWS) is an interdisciplinary program that provides exciting intellectual opportunities to explore the role of gender in human affairs. The program offers over 50 courses each year, many cross-listed with other departments, as well as a major, a minor, and a graduate certificate.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

**For more information:** [https://gsws.sas.upenn.edu/](https://gsws.sas.upenn.edu/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
Gender, Sexuality, & Women’s Studies: Global Gender and Sexuality Studies, BA

This concentration is for students interested in exploring transnational feminist and queer approaches to scholarship in a variety of fields. Recent concentrations in this area have focused on global health policy, transnational literary critique, and transnational approaches to queer studies.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: https://gsws.sas.upenn.edu/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

Honors
Students with an overall GPA of 3.4 and 3.6 or better in the major are eligible for honors.

Concentrations
Students may select one of five concentrations (https://gsws.sas.upenn.edu/content/concentrations/):

- Feminist Studies
- Global Gender and Sexuality Studies
- Health and Disability
- LGBTQ Studies
- Self-designed

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Gender, Sexuality, & Women's Studies: Health and Disability Studies, BA

This concentration will be of interest to students who want to explore the intersections between history and health and the ways that disability and health are both shaped by, and experienced in, society. Courses are typically cross-listed with History and Sociology of Science, Sociology, Psychology, and English, but courses from other Departments can be approved on a case-by-case basis.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: https://gsws.sas.upenn.edu/program/undergraduate-major

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td>GSWS 0002</td>
<td>Gender and Society</td>
<td>1</td>
</tr>
<tr>
<td>GSWS 0003</td>
<td>Introduction to Sexuality Studies and Queer Theory</td>
<td>1</td>
</tr>
<tr>
<td>GSWS Theory Course</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Concentration Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 5 courses with 4 courses in at least two different departments</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Elective Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 elective courses</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Research/Capstone Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 course unit</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>33</td>
</tr>
</tbody>
</table>

Honors

Students with an overall GPA of 3.4 and 3.6 or better in the major are eligible for honors.

Concentrations

Students may select one of five concentrations (https://gsws.sas.upenn.edu/program/undergraduate-major/concentrations/):

- Feminist Studies
- Global Gender and Sexuality Studies
- Health and Disability
- LGBTQ Studies
- Self-designed

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Gender, Sexuality, & Women's Studies: LGBTQ Studies, BA

LGBTQ Studies is a growing field that includes courses offered in Departments and Schools across the University. Students may even wish to do a sub-concentration within this field, for example in the areas of queer cinema studies, queer literature, or queer design. There are also a growing number of courses offered which aim to cultivate LGBTQ literacy in the education and medical fields. The Program is also in the early stages of developing more courses in the field of Trans Studies, and courses taken in this field would count toward this concentration.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: https://gsws.sas.upenn.edu/program/undergraduate-major

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td>GSWS 0002</td>
<td>Gender and Society</td>
<td>1</td>
</tr>
<tr>
<td>GSWS 0003</td>
<td>Introduction to Sexuality Studies and Queer Theory</td>
<td>1</td>
</tr>
<tr>
<td>GSWS Theory Course</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Concentration Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 5 courses with 4 courses in at least two different departments</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Elective Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 elective courses</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Research/Capstone Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 course unit</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>33</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
Honors

Students with an overall GPA of 3.4 and 3.6 or better in the major are eligible for honors.

Concentrations

Students may select one of five concentrations (https://gsws.sas.upenn.edu/program/undergraduate/major/concentrations/):

- Feminist Studies
- Global Gender and Sexuality Studies
- Health and Disability
- LGBTQ Studies
- Self-designed

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Gender, Sexuality, & Women's Studies: Self Designed, BA

This concentration could be met by taking 5 courses within a single field or department, or a combination of departments—such as Politics and Philosophy, or Sociology & Anthropology. Other concentrations might include Media and Communications, History and English, or thematic concentrations that could combine courses in a wide variety of fields such as Performance Studies, Migration Studies, Labor Studies, and so forth. Any self-designed concentration should be determined in consultation with the Associate Director of the program and subsequently approved by the Program's Curriculum Committee. Please note that the title of the self-designed concentration will not appear on transcripts.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: https://gsws.sas.upenn.edu/program/undergraduate/major (https://gsws.sas.upenn.edu/program/undergraduate/major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>College General Education Requirements and Free Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td>Major Requirements</td>
<td>Required Courses</td>
<td></td>
</tr>
<tr>
<td>GSWS 0002</td>
<td>Gender and Society</td>
<td>1</td>
</tr>
<tr>
<td>GSWS 0003</td>
<td>Introduction to Sexuality Studies and Queer Theory</td>
<td>1</td>
</tr>
</tbody>
</table>

¹ You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

Honors

Students with an overall GPA of 3.4 and 3.6 or better in the major are eligible for honors.

Concentrations

Students may select one of five concentrations (https://gsws.sas.upenn.edu/program/undergraduate/major/concentrations/):

- Feminist Studies
- Global Gender and Sexuality Studies
- Health and Disability
- LGBTQ Studies
- Self-designed

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

German, BA

The major and minor programs in the Department of Germanic Languages and Literatures provide deep understandings of language and cultures. Building from basic language competency to synthesizing significant literary works, historical context and current media and politics, the program offers a comprehensive education through engaged, active learning in a combination of core courses with a wide range of electives. Your learning experiences can be broadened and applied in study abroad as well as internship programs.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: https://www.sas.upenn.edu/germanic/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
### College General Education Requirements and Free Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
</tbody>
</table>

### Major Requirements

#### Core Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRMN 2100</td>
<td>Texts and Contexts</td>
<td>1</td>
</tr>
<tr>
<td>GRMN 3110</td>
<td>Handschrift-Hypertext: Deutsche Medien</td>
<td>1</td>
</tr>
<tr>
<td>GRMN 3120</td>
<td>Places of Memory. Lieux de memoire. Erinnerungsorte.</td>
<td>1</td>
</tr>
<tr>
<td>GRMN 4100</td>
<td>Trans(l)mits</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Electives

Select 3 course units of electives at GRMN 3000 or above: 3 units taught in English

Select 5 course units of electives with no more than 3 course units taught in English: 5

### Target Language Requirement

Target Language Requirement Satisfied

### Total Course Units

32

---

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

---

### Health and Societies: Bioethics and Society, BA

The Health and Societies (HSOC) major examines health and medicine in social context, equipping students with the critical faculties and multidisciplinary skills that will prepare them for careers in public health, health services, and a variety of other arenas. The program is built on the foundation of three core disciplines: anthropology, history, and sociology. Methods and courses from other disciplines and fields—including epidemiology, political science, business/economics, law, environmental studies, and bioethics—supplement the core disciplines and provide majors with the variety of skills necessary to grasp the forces that have shaped our contemporary health landscapes. The Health and Societies graduate is a "multilingual" scholar and citizen, fluent in the methods and perspectives of several social science disciplines—theoretically informed but practically minded, with a global outlook and local experience.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

---

### Honors

Applicants must have a minimum GPA of 3.6 in the major and 3.3 overall. Students should complete their capstone paper in the spring of their Junior year or Fall of their senior year and must obtain the support of a
The Health and Societies (HSOC) major examines health and medicine in social context, equipping students with the critical faculties and multidisciplinary skills that will prepare them for careers in public health, health services, and a variety of other arenas. The program is built on the foundation of three core disciplines: anthropology, history, and sociology. Methods and courses from other disciplines and fields—including epidemiology, political science, business/economics, law, environmental studies, and bioethics—supplement the core disciplines and provide majors with the variety of skills necessary to grasp the forces that have shaped our contemporary health landscapes. The Health and Societies graduate is a "multilingual" scholar and citizen, fluent in the methods and perspectives of several social science disciplines— theoretically informed but practically minded, with a global outlook and local experience.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/health-societies-major (https://hss.sas.upenn.edu/undergraduate/health-societies-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Health and Societies: Disease and Culture, BA

The Health and Societies (HSOC) major examines health and medicine in social context, equipping students with the critical faculties and multidisciplinary skills that will prepare them for careers in public health, health services, and a variety of other arenas. The program is built on the foundation of three core disciplines: anthropology, history, and sociology. Methods and courses from other disciplines and fields—including epidemiology, political science, business/economics, law, environmental studies, and bioethics—supplement the core disciplines and provide majors with the variety of skills necessary to grasp the forces that have shaped our contemporary health landscapes. The Health and Societies graduate is a "multilingual" scholar and citizen, fluent in the methods and perspectives of several social science disciplines— theoretically informed but practically minded, with a global outlook and local experience.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/health-societies-major (https://hss.sas.upenn.edu/undergraduate/health-societies-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Health and Societies: Global Health, BA

The Health and Societies (HSOC) major examines health and medicine in social context, equipping students with the critical faculties and multidisciplinary skills that will prepare them for careers in public health, health services, and a variety of other arenas. The program is built on the foundation of three core disciplines: anthropology, history, and sociology. Methods and courses from other disciplines and fields—including epidemiology, political science, business/economics, law, environmental studies, and bioethics—supplement the core disciplines and provide majors with the variety of skills necessary to grasp the forces that have shaped our contemporary health landscapes. The Health and Societies graduate is a "multilingual" scholar and citizen, fluent in the methods and perspectives of several social science disciplines— theoretically informed but practically minded, with a global outlook and local experience.
The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/health-societies-major (https://hss.sas.upenn.edu/undergraduate/health-societies-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>College General Education Requirements and Free Electives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Foundational Approaches + Sectors** + Free Electives 20

**Major Requirements**

**Foundation Requirement**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSOC 0480</td>
<td>Health and Societies</td>
<td>1</td>
</tr>
<tr>
<td>or HSOC 0490</td>
<td>Comparative Medicine</td>
<td></td>
</tr>
</tbody>
</table>

**Quantitative Methods**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSOC 2002/</td>
<td>Sociological Research Methods 2</td>
<td>1</td>
</tr>
<tr>
<td>SOCI 2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or HSOC 2202/</td>
<td>Health of Populations</td>
<td></td>
</tr>
<tr>
<td>SOCI 2220</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Core Discipline**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSOC 0400</td>
<td>Medicine in History</td>
<td>1</td>
</tr>
<tr>
<td>or HSOC 1411</td>
<td>American Health Policy</td>
<td></td>
</tr>
<tr>
<td>or HSOC 1401</td>
<td>The Peoples Health</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSOC 1382</td>
<td>Introduction to Medical Anthropology</td>
<td>1</td>
</tr>
<tr>
<td>or HSOC 1222</td>
<td>Medical Sociology</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSOC or STSC Electives</td>
<td>(Any courses with HSOC or STSC or Attribute AHSM)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Global Health Concentration**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 1 Core Course on World Health (Attribute AHSW)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 Regional Course (Attribute AHSR)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 4 Global Health Concentration Electives (Attribute AHSG)</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

**Capstone Research Requirement**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 1 4000-level HSOC or STSC Research Seminar</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**Total Course Units** 34

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 HSOC 2002 Sociological Research Methods is cross listed with SOCI 2000 Sociological Research Methods and HSOC 2202 Health of Populations is cross listed with SOCI 2220 Health of Populations.

**Honors**

Applicants must have a minimum GPA of 3.6 in the major and 3.3 overall. Students should complete their capstone paper in the spring of their Junior year or Fall of their senior year and must obtain the support of a faculty advisor before applying for an Independent Study (HSOC 4980) to complete the Honors thesis.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honors Thesis (non-course requirement QST)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Health and Societies: Health Care Markets & Finance, BA**

The Health and Societies (HSOC) major examines health and medicine in social context, equipping students with the critical faculties and multidisciplinary skills that will prepare them for careers in public health, health services, and a variety of other arenas. The program is built on the foundation of three core disciplines: anthropology, history, and sociology. Methods and courses from other disciplines and fields—including epidemiology, political science, business/economics, law, environmental studies, and bioethics—supplement the core disciplines and provide majors with the variety of skills necessary to grasp the forces that have shaped our contemporary health landscapes. The Health and Societies graduate is a "multilingual" scholar and citizen, fluent in the methods and perspectives of several social science disciplines - theoretically informed but practically minded, with a global outlook and local experience.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/health-societies-major (https://hss.sas.upenn.edu/undergraduate/health-societies-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>College General Education Requirements and Free Electives</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Foundational Approaches + Sectors** + Free Electives 20

**Major Requirements**

**Foundation Requirement**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSOC 0480</td>
<td>Health and Societies</td>
<td>1</td>
</tr>
<tr>
<td>or HSOC 0490</td>
<td>Comparative Medicine</td>
<td></td>
</tr>
</tbody>
</table>

**Quantitative Methods**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSOC 2002/</td>
<td>Sociological Research Methods 2</td>
<td>1</td>
</tr>
<tr>
<td>SOCI 2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or HSOC 2202/</td>
<td>Health of Populations</td>
<td></td>
</tr>
<tr>
<td>SOCI 2220</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Core Discipline**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSOC 0400</td>
<td>Medicine in History</td>
<td>1</td>
</tr>
<tr>
<td>or HSOC 1411</td>
<td>American Health Policy</td>
<td></td>
</tr>
<tr>
<td>or HSOC 1401</td>
<td>The Peoples Health</td>
<td></td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 HSOC 2002 Sociological Research Methods is cross listed with SOCI 2000 Sociological Research Methods and HSOC 2202 Health of Populations is cross listed with SOCI 2220 Health of Populations.

The Health and Societies (HSOC) major examines health and medicine in social context, equipping students with the critical faculties and multidisciplinary skills that will prepare them for careers in public health, health services, and a variety of other arenas. The program is built on the foundation of three core disciplines: anthropology, history, and sociology. Methods and courses from other disciplines and fields—including epidemiology, political science, business/economics, law, environmental studies, and bioethics—supplement the core disciplines and provide majors with the variety of skills necessary to grasp the forces that have shaped our contemporary health landscapes. The Health and Societies graduate is a "multilingual" scholar and citizen, fluent in the methods and perspectives of several social science disciplines - theoretically informed but practically minded, with a global outlook and local experience.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/health-societies-major (https://hss.sas.upenn.edu/undergraduate/health-societies-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
Health and Societies: Health Policy & Law, BA

The Health and Societies (HSOC) major examines health and medicine in social context, equipping students with the critical faculties and multidisciplinary skills that will prepare them for careers in public health, health services, and a variety of other arenas. The program is built on the foundation of three core disciplines: anthropology, history, and sociology. Methods and courses from other disciplines and fields—including epidemiology, political science, business/economics, law, environmental studies, and bioethics—supplement the core disciplines and provide majors with the variety of skills necessary to grasp the forces that have shaped our contemporary health landscapes. The Health and Societies graduate is a “multilingual” scholar and citizen, fluent in the methods and perspectives of several social science disciplines - theoretically informed but practically minded, with a global outlook and local experience.

Honors

Applicants must have a minimum GPA of 3.6 in the major and 3.3 overall. Students should complete their capstone paper in the spring of their Junior year or Fall of their senior year and must obtain the support of a faculty advisor before applying for an Independent Study (HSOC 4980) to complete the Honors thesis.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/health-societies-major (https://hss.sas.upenn.edu/undergraduate/health-societies-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

College General Education Requirements and Free Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSOC 1382/HSOC 1222</td>
<td>Introduction to Medical Anthropology or Medical Sociology</td>
</tr>
</tbody>
</table>

Health Care Markets & Finance Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 3 HSOC or STSC Electives (Attribute AHSM)</td>
<td></td>
</tr>
</tbody>
</table>

Health and Societies: Health Policy & Law Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 1 Core Course (Attribute AHFC)</td>
<td></td>
</tr>
<tr>
<td>Select 5 Healthcare Finance Concentration courses (Attribute AHFI)</td>
<td></td>
</tr>
</tbody>
</table>

Capstone Research Requirement

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 1 4000-level HSOC or STSC Research Seminar</td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units 34

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 HSOC 2002 Sociological Research Methods is cross listed with SOCI 2000 Sociological Research Methods and HSOC 2202 Health of Populations is cross listed with SOCI 2220 Health of Populations.

Honors Thesis (non-course requirement QST)

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Health and Societies: Health Policy & Law, BA

The Health and Societies (HSOC) major examines health and medicine in social context, equipping students with the critical faculties and multidisciplinary skills that will prepare them for careers in public health, health services, and a variety of other arenas. The program is built on the foundation of three core disciplines: anthropology, history, and sociology. Methods and courses from other disciplines and fields—including epidemiology, political science, business/economics, law, environmental studies, and bioethics—supplement the core disciplines and provide majors with the variety of skills necessary to grasp the forces that have shaped our contemporary health landscapes. The Health and Societies graduate is a “multilingual” scholar and citizen, fluent in the methods and perspectives of several social science disciplines - theoretically informed but practically minded, with a global outlook and local experience.

Honors

Applicants must have a minimum GPA of 3.6 in the major and 3.3 overall. Students should complete their capstone paper in the spring of their Junior year or Fall of their senior year and must obtain the support of a faculty advisor before applying for an Independent Study (HSOC 4980) to complete the Honors thesis.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/health-societies-major (https://hss.sas.upenn.edu/undergraduate/health-societies-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

College General Education Requirements and Free Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSOC 1382/HSOC 1222</td>
<td>Introduction to Medical Anthropology or Medical Sociology</td>
</tr>
</tbody>
</table>

Health Care Markets & Finance Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 3 HSOC or STSC Electives (Attribute AHSM)</td>
<td></td>
</tr>
</tbody>
</table>

Health and Societies: Health Policy & Law Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 1 Core Course (Attribute AHFC)</td>
<td></td>
</tr>
<tr>
<td>Select 5 Healthcare Finance Concentration courses (Attribute AHFI)</td>
<td></td>
</tr>
</tbody>
</table>

Capstone Research Requirement

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 1 4000-level HSOC or STSC Research Seminar</td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units 34

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 HSOC 2002 Sociological Research Methods is cross listed with SOCI 2000 Sociological Research Methods and HSOC 2202 Health of Populations is cross listed with SOCI 2220 Health of Populations.
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Health and Societies: Public Health, BA

The Health and Societies (HSOC) major examines health and medicine in social context, equipping students with the critical faculties and multidisciplinary skills that will prepare them for careers in public health, health services, and a variety of other arenas. The program is built on the foundation of three core disciplines: anthropology, history, and sociology. Methods and courses from other disciplines and fields—including epidemiology, political science, business/economics, law, environmental studies, and bioethics—supplement the core disciplines and provide majors with the variety of skills necessary to grasp the forces that have shaped our contemporary health landscapes. The Health and Societies graduate is a "multilingual" scholar and citizen, fluent in the methods and perspectives of several social science disciplines - theoretically informed but practically minded, with a global outlook and local experience.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/health-societies-major (https://hss.sas.upenn.edu/undergraduate/health-societies-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health and Societies: Public Health, BA</td>
<td></td>
</tr>
</tbody>
</table>
|        | The Health and Societies (HSOC) major examines health and medicine in social context, equipping students with the critical faculties and multidisciplinary skills that will prepare them for careers in public health, health services, and a variety of other arenas. The program is built on the foundation of three core disciplines: anthropology, history, and sociology. Methods and courses from other disciplines and fields—including epidemiology, political science, business/economics, law, environmental studies, and bioethics—supplement the core disciplines and provide majors with the variety of skills necessary to grasp the forces that have shaped our contemporary health landscapes. The Health and Societies graduate is a "multilingual" scholar and citizen, fluent in the methods and perspectives of several social science disciplines - theoretically informed but practically minded, with a global outlook and local experience.
|        | The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units. |

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>For more information: <a href="https://hss.sas.upenn.edu/undergraduate/health-societies-major">https://hss.sas.upenn.edu/undergraduate/health-societies-major</a> (<a href="https://hss.sas.upenn.edu/undergraduate/health-societies-major/">https://hss.sas.upenn.edu/undergraduate/health-societies-major/</a>)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>For information about the General Education requirements, please visit the College of Arts &amp; Sciences Curriculum (<a href="https://www.college.upenn.edu/curriculum/">https://www.college.upenn.edu/curriculum/</a>) page.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health and Societies: Race, Gender and Health, BA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Health and Societies (HSOC) major examines health and medicine in social context, equipping students with the critical faculties and multidisciplinary skills that will prepare them for careers in public health, health services, and a variety of other arenas. The program is built on the foundation of three core disciplines: anthropology, history, and sociology. Methods and courses from other disciplines and fields—including epidemiology, political science, business/economics, law, environmental studies, and bioethics—supplement the core disciplines and provide majors with the variety of skills necessary to grasp the forces that have shaped our contemporary health landscapes. The Health and Societies graduate is a &quot;multilingual&quot; scholar and citizen, fluent in the methods and perspectives of several social science disciplines - theoretically informed but practically minded, with a global outlook and local experience.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The minimum total course units (<a href="https://www.college.upenn.edu/credits-needed-major/">https://www.college.upenn.edu/credits-needed-major/</a>) for graduation in this major is 34. Double majors may entail more course units.</td>
<td></td>
</tr>
</tbody>
</table>
For more information: https://hss.sas.upenn.edu/undergraduate/health-societies-major

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>College General Education Requirements and Free Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Foundation Requirement</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HSOC 0480 Health and Societies</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or HSOC 0490 Comparative Medicine</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Quantitative Methods</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HSOC 2002/ SOCI 2000 Sociological Research Methods</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or HSOC 2202/ Health of Populations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 2220</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Core Discipline</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HSOC 0400 Medicine in History</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or HSOC 1411 American Health Policy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or HSOC 1401 The Peoples Health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HSOC 1382 Introduction to Medical Anthropology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or HSOC 1222 Medical Sociology</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>HSOC or STSC Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 3 HSOC or STSC Electives (Attribute AHSN)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Race, Gender and Health courses (Attribute AHSN)</strong></td>
<td>6</td>
</tr>
<tr>
<td></td>
<td><strong>Capstone Research Requirement</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 4000-level HSOC or STSC Research Seminar</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>34</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 HSOC 2002 Sociological Research Methods is cross listed with SOCI 2000 Sociological Research Methods and HSOC 2202 Health of Populations is cross listed with SOCI 2220 Health of Populations.

### Honors

Applicants must have a minimum GPA of 3.6 in the major and 3.3 overall. Students should complete their capstone paper in the spring of their Junior year or Fall of their senior year and must obtain the support of a faculty advisor before applying for an Independent Study (HSOC 4980) to complete the Honors thesis.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Honors Thesis (non-course requirement QST)</strong></td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Hispanic Studies, BA

The demographic, economic and political realities of the United States, the articulation of a mainstream English culture with an ever-increasing diversity of Hispanic and Latino cultures, and the ongoing forging of strong cultural and economic ties throughout the Americas, have moved Spanish out of the bounds of the category of "foreign" language and culture in the United States. Culture is the controlling category in this field; the program is orientated to the knowledge generated by new disciplines such as cultural studies, new historicism, ethics and postcolonial studies. The major in Hispanic Studies orient itself to the types of knowledge generated by new disciplines such as cultural studies, new historicism, ethics, and postcolonial studies. In order to reflect these changing realities, the Department of Romance Languages has changed the name of its Spanish concentration from "Spanish" to "Hispanic Studies."

Hence, the knowledge of Spanish culture gives students much more than the ability to communicate in the third-most-spoken language of the world. It prepares them to account for an entirely different national, continental and global reality in all its complexity.

Majors in Hispanic Studies are overwhelmingly double majors. This means that they bring to their classes a dialogic perspective that engages in the study of Hispanic cultures informed by interest in other fields such as history, government, sociology, economics, medicine, and law. The richness and depth of these interests make for lively and intellectually rewarding classroom discussions.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

All courses must be at or above the 2000 level.

For more information: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies/requirements-majors-minors/major-hispanic-studies/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>College General Education Requirements and Free Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Core Requirement</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPAN 1200 Advanced Spanish II: Grammar and Composition</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>SPAN 1800 Contexts of Hispanic Culture and Civilization</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or SPAN 1900 Introduction to Literary Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>2000 or 3000 Level Courses</strong></td>
<td></td>
</tr>
</tbody>
</table>
Select three 2000 or 3000 Level courses  
3

3000 Level Courses
Select seven 3000 Level courses  
3

Research Requirement
Research Requirement must be completed in the Department at Penn.

Total Course Units  
32

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 Must be taken in the Department at Penn.
3 At least 3 course units must be taken in the Department at Penn.

Honors
Must have minimum 3.5 GPA in the major and a GPA of 3.3 overall.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 4000</td>
<td>Honors Thesis 1</td>
<td>1.0</td>
</tr>
</tbody>
</table>

1 Must be completed in the Department at Penn.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

History of Art, BA
The Major in the History of Art seeks to deepen students’ knowledge of artistic production and practice over the scope of human history, as well as to broaden awareness of the critical and interpretive aims of the discipline itself. Students develop skills in the analysis of works of art, sharpen their understanding of the social, cultural, and personal values embodied by works, and explore the relation of art history to other disciplines. The Department particularly encourages a broad geographic understanding of art production and encourages students to consider the relations and distinctions among different visual cultures.

Students are strongly advised to make an appointment each semester to discuss their progress through the major with the undergraduate chair. Majors are also encouraged to achieve an advanced level of French, German, or other languages as relevant to their subject interests. During their senior year majors may pursue independent research by writing an honors thesis and are invited to become regular participants in the department colloquium series.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://www.sas.upenn.edu/arthistory/undergraduate-major (http://www.sas.upenn.edu/arthistory/undergraduate-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors 1 + Free Electives</td>
<td></td>
</tr>
</tbody>
</table>

Major Requirements

General Surveys
Select 2 course units of the following:  
2

<table>
<thead>
<tr>
<th>Attribute AHAS - ARTH Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 1010 World Art before 1400</td>
</tr>
<tr>
<td>ARTH 1020 The Artist in History,1400-Now</td>
</tr>
<tr>
<td>ARTH 1030 Art and Civilization in East Asia</td>
</tr>
<tr>
<td>ARTH 1040 Art of Global Asia</td>
</tr>
<tr>
<td>ARTH 1060 Architect and History</td>
</tr>
<tr>
<td>ARTH 1080 World Film History to 1945</td>
</tr>
<tr>
<td>ARTH 1090 World Film History 1945-Present</td>
</tr>
<tr>
<td>ARTH 1100 What is Modern Art?</td>
</tr>
<tr>
<td>ARTH 1500 Eye, Mind, and Image</td>
</tr>
<tr>
<td>ARTH 1800 Introduction to Queer Art</td>
</tr>
</tbody>
</table>

Methods Seminar

<table>
<thead>
<tr>
<th>ARTH 3000</th>
<th>Undergraduate Methods Seminar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Seminars
Select 2 course units of any 3000 or 5000-Level Seminar  
2

<table>
<thead>
<tr>
<th>Attribute AHAE - ARTH Elective Major/Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective (Attribute AHAE - ARTH Elective Major/Minor)</td>
</tr>
</tbody>
</table>

Chronological Distribution
Select one 2000-level or higher course from each time period  
2

| Attribute AHAA - ARTH Ancient |
| Attribute AHAR - Medieval/Renaissance |
| Attribute AHAM - ARTH Modern |

Geographic Distribution Areas
Select 1 course unit of Islamic, South Asian, East Asian, African, Native American, Oceanic Geographic Area course at 2000-level or higher  
1

<table>
<thead>
<tr>
<th>Attribute AHAG - ARTH Geographic Non-Western</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic Non-Western (Attribute AHAG - ARTH Geographic Non-Western)</td>
</tr>
</tbody>
</table>

Additional Courses in History of Art
Select 4 course units of Electives  
4

<table>
<thead>
<tr>
<th>Attribute AHAE - ARTH Elective Major/Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective (Attribute AHAE - ARTH Elective Major/Minor)</td>
</tr>
</tbody>
</table>

Total Course Units  
33

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 Double counting between geographic and chronological requirements is not allowed.

Honors
Application for Honors is by petition. Please consult with the Undergraduate Chair.
History: American History, BA

The Department of History offers a variety of courses dealing with the political, social, diplomatic, intellectual, economic, and cultural history of the Americas, Europe, Asia, and Africa, from the early medieval period to the present. The department seeks to give undergraduates both specific mastery of particular times, places, and aspects of the human condition and the critical skills to think historically about both long-term and modern phenomena, emphasizing the dynamics of change and continuity over time. The History Department at the University of Pennsylvania has a long tradition of distinction. Beginning as one of the first programs in the United States to offer doctoral study in history, the department continues to pioneer new areas of scholarship. In the last twenty years, faculty members of the departments in American, European, and World history have assumed a leading role in introducing and promoting new varieties of historical research and writing. Today, no other institution surpasses the Penn history department’s coverage of social history or equals the distinction of its faculty in that field.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

8 courses must be taken in History at the University of Pennsylvania.

For more information: https://www.history.upenn.edu/undergraduate/history-major (https://www.history.upenn.edu/undergraduate/history-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

History: Diplomatic History, BA

The Department of History offers a variety of courses dealing with the political, social, diplomatic, intellectual, economic, and cultural history of the Americas, Europe, Asia, and Africa, from the early medieval period to the present. The department seeks to give undergraduates both specific mastery of particular times, places, and aspects of the human condition and the critical skills to think historically about both long-term and modern phenomena, emphasizing the dynamics of change and continuity over time. The History Department at the University of Pennsylvania has a long tradition of distinction. Beginning as one of the first programs in the United States to offer doctoral study in history, the department continues to pioneer new areas of scholarship. In the last twenty years, faculty members of the departments in American, European, and World history have assumed a leading role in introducing and promoting new varieties of historical research and writing. Today, no other institution surpasses the Penn history department’s coverage of social history or equals the distinction of its faculty in that field.
The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

8 courses must be taken in History at the University of Pennsylvania.

For more information: http://www.history.upenn.edu/undergraduate/history-major/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Geographic Distribution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one distinct course in four of the six geographic regions ²</td>
<td></td>
</tr>
<tr>
<td></td>
<td>United States &amp; Canada</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Europe and Australia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Africa and the Middle East</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Latin America &amp; The Caribbean</td>
<td></td>
</tr>
<tr>
<td></td>
<td>East Asia and South Asia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global Issues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronological Distribution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 Pre-1800 courses ²</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminars</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 Penn History Seminars at 2000-Level or Above</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research requirement fulfilled</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diplomatic History Concentration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Diplomatic History seminar 2000-level or above</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 5 Diplomatic History electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Courses for the Major</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 Other courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>32</td>
</tr>
</tbody>
</table>

¹ You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

² May be taken abroad. No Major-related courses.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### History: Economic History, BA

The Department of History offers a variety of courses dealing with the political, social, diplomatic, intellectual, economic, and cultural history of the Americas, Europe, Asia, and Africa, from the early medieval period to the present. The department seeks to give undergraduates both specific mastery of particular times, places, and aspects of the human condition and the critical skills to think historically about both long-term and modern phenomena, emphasizing the dynamics of change and continuity over time. The History Department at the University of Pennsylvania has a long tradition of distinction. Beginning as one of the first programs in the United States to offer doctoral study in history, the department continues to pioneer new areas of scholarship. In the last twenty years, faculty members of the departments in American, European, and World history have assumed a leading role in introducing and promoting new varieties of historical research and writing. Today, no other institution surpasses the Penn history department's coverage of social history or equals the distinction of its faculty in that field.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

8 courses must be taken in History at the University of Pennsylvania.

For more information: http://www.history.upenn.edu/undergraduate/history-major/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Geographic Distribution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one distinct course in four of the six geographic regions ²</td>
<td></td>
</tr>
<tr>
<td></td>
<td>United States &amp; Canada</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Europe and Australia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Africa and the Middle East</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Latin America &amp; The Caribbean</td>
<td></td>
</tr>
<tr>
<td></td>
<td>East Asia and South Asia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global Issues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronological Distribution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 Pre-1800 courses ²</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminars</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 Penn History Seminars at 2000-Level or Above</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research requirement fulfilled</td>
<td></td>
</tr>
</tbody>
</table>

¹ You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

² May be taken abroad. No Major-related courses.

### Honors

**Required:** A minimum overall GPA of 3.0 and a GPA of 3.5 in Major related courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4997</td>
<td>Junior Honors in History</td>
<td>1</td>
</tr>
<tr>
<td>HIST 4998</td>
<td>Senior Honors in History</td>
<td>1</td>
</tr>
</tbody>
</table>
Economic History Concentration
Select 1 Seminar
Select 5 core courses
ECON 0100 Introduction to Micro Economics
ECON 0200 Introductory Economics: Macro
Other Courses for the Major
Select 4 Other courses

Total Course Units 32

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 May be taken abroad. No Major-related courses.

Honors
Required: A minimum overall GPA of 3.0 and a GPA of 3.5 in Major related courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4997</td>
<td>Junior Honors in History</td>
<td>1</td>
</tr>
<tr>
<td>HIST 4998</td>
<td>Senior Honors in History</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

History: European History, BA

The Department of History offers a variety of courses dealing with the political, social, diplomatic, intellectual, economic, and cultural history of the Americas, Europe, Asia, and Africa, from the early medieval period to the present. The department seeks to give undergraduates both specific mastery of particular times, places, and aspects of the human condition and the critical skills to think historically about both long-term and modern phenomena, emphasizing the dynamics of change and continuity over time. The History Department at the University of Pennsylvania has a long tradition of distinction. Beginning as one of the first programs in the United States to offer doctoral study in history, the department continues to pioneer new areas of scholarship. In the last twenty years, faculty members of the departments in American, European, and World history have assumed a leading role in introducing and promoting new varieties of historical research and writing. Today, no other institution surpasses the Penn history department’s coverage of social history or equals the distinction of its faculty in that field.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

8 courses must be taken in History at the University of Pennsylvania.

For more information: http://www.history.upenn.edu/undergraduate/history-major (http://www.history.upenn.edu/undergraduate/history-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4997</td>
<td>Junior Honors in History</td>
<td>1</td>
</tr>
<tr>
<td>HIST 4998</td>
<td>Senior Honors in History</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
History: Gender History, BA

The Department of History offers a variety of courses dealing with the political, social, diplomatic, intellectual, economic, and cultural history of the Americas, Europe, Asia, and Africa, from the early medieval period to the present. The department seeks to give undergraduates both specific mastery of particular times, places, and aspects of the human condition and the critical skills to think historically about both long-term and modern phenomena, emphasizing the dynamics of change and continuity over time. The History Department at the University of Pennsylvania has a long tradition of distinction. Beginning as one of the first programs in the United States to offer doctoral study in history, the department continues to pioneer new areas of scholarship. In the last twenty years, faculty members of the departments in American, European, and World history have assumed a leading role in introducing and promoting new varieties of historical research and writing. Today, no other institution surpasses the Penn history department’s coverage of social history or equals the distinction of its faculty in that field.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

8 courses must be taken in History at the University of Pennsylvania.

For more information: http://www.history.upenn.edu/undergraduate/history-major (http://www.history.upenn.edu/undergraduate/history-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4997</td>
<td>Junior Honors in History</td>
<td>1</td>
</tr>
<tr>
<td>HIST 4998</td>
<td>Senior Honors in History</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

History: General History, BA

The Department of History offers a variety of courses dealing with the political, social, diplomatic, intellectual, economic, and cultural history of the Americas, Europe, Asia, Africa, and the Middle East, from the early medieval period to the present. The History Major gives undergraduates both specific mastery of particular times, places, and aspects of the human condition and the critical skills to think historically about both long-term and modern phenomena, emphasizing the dynamics of change and continuity over time. The History Department at the University of Pennsylvania has a long tradition of distinction, both in its scholarship and in its undergraduate teaching. Beginning as one of the first programs in the United States to offer doctoral study in history, the department continues to pioneer new areas of scholarship. History faculty have assumed a leading role in introducing and promoting new varieties of historical research and writing.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

8 courses must be taken in History at the University of Pennsylvania.

For more information: http://www.history.upenn.edu/undergraduate/history-major (http://www.history.upenn.edu/undergraduate/history-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4997</td>
<td>Junior Honors in History</td>
<td>1</td>
</tr>
<tr>
<td>HIST 4998</td>
<td>Senior Honors in History</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
History: Intellectual History, BA

The Department of History offers a variety of courses dealing with the political, social, diplomatic, intellectual, economic, and cultural history of the Americas, Europe, Asia, and Africa, from the early medieval period to the present. The department seeks to give undergraduates both specific mastery of particular times, places, and aspects of the human condition and the critical skills to think historically about both long-term and modern phenomena, emphasizing the dynamics of change and continuity over time. The History Department at the University of Pennsylvania has a long tradition of distinction. Beginning as one of the first programs in the United States to offer doctoral study in history, the department continues to pioneer new areas of scholarship. In the last twenty years, faculty members of the departments in American, European, and World history have assumed a leading role in introducing and promoting new varieties of historical research and writing. Today, no other institution surpasses the Penn history department’s coverage of social history or equals the distinction of its faculty in that field.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

8 courses must be taken in History at the University of Pennsylvania.

For more information: http://www.history.upenn.edu/undergraduate/history-major (http://www.history.upenn.edu/undergraduate/history-major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4997</td>
<td>Junior Honors in History</td>
<td>1</td>
</tr>
<tr>
<td>HIST 4998</td>
<td>Senior Honors in History</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**History: Jewish History, BA**

The Department of History offers a variety of courses dealing with the political, social, diplomatic, intellectual, economic, and cultural history of the Americas, Europe, Asia, and Africa, from the early medieval period to the present. The department seeks to give undergraduates both specific mastery of particular times, places, and aspects of the human condition and the critical skills to think historically about both long-term and modern phenomena, emphasizing the dynamics of change and continuity over time. The History Department at the University of Pennsylvania has a long tradition of distinction. Beginning as one of the first programs in the United States to offer doctoral study in history, the department continues to pioneer new areas of scholarship. In the last twenty years, faculty members of the departments in American, European, and World history have assumed a leading role in introducing and promoting new varieties of historical research and writing. Today, no other institution surpasses the Penn history department’s coverage of social history or equals the distinction of its faculty in that field.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

8 courses must be taken in History at the University of Pennsylvania.

For more information: http://www.history.upenn.edu/undergraduate/history-major/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

---

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2. May be taken abroad. No Major-related courses.

**Honors**

**Required:** A minimum overall GPA of 3.0 and a GPA of 3.5 in major related courses.

---

**History: World History, BA**

The Department of History offers a variety of courses dealing with the political, social, diplomatic, intellectual, economic, and cultural history of the Americas, Europe, Asia, and Africa, from the early medieval period to the present. The department seeks to give undergraduates both specific mastery of particular times, places, and aspects of the human condition and the critical skills to think historically about both long-term and modern phenomena, emphasizing the dynamics of change and continuity over time. The History Department at the University of Pennsylvania has a long tradition of distinction. Beginning as one of the first programs in the United States to offer doctoral study in history, the department continues to pioneer new areas of scholarship. In the last twenty years, faculty members of the departments in American, European, and World history have assumed a leading role in introducing and promoting new varieties of historical research and writing. Today, no other institution surpasses the Penn history department’s coverage of social history or equals the distinction of its faculty in that field.
The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

8 courses must be taken in History at the University of Pennsylvania.

For more information: http://www.history.upenn.edu/undergraduate/history-major

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Geographic Distribution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one distinct course in four of the six geographic regions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>United States &amp; Canada</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Europe and Australia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Africa and the Middle East</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Latin America &amp; The Caribbean</td>
<td></td>
</tr>
<tr>
<td></td>
<td>East Asia and South Asia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global Issues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chronological Distribution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 Pre-1800 courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminars</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 Penn History Seminars at 2000-Level or Above</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research requirement fulfilled</td>
<td></td>
</tr>
<tr>
<td></td>
<td>World Concentration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 World History seminar 2000-level or above</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 5 World History electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Courses for the Major</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 Other courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>32</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 May be taken abroad. No Major-related courses.

Honors

Required: A minimum Overall GPA of 3.0 and a GPA of 3.5 in Major related courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 4997</td>
<td>Junior Honors in History</td>
<td>1</td>
</tr>
<tr>
<td>HIST 4998</td>
<td>Senior Honors in History</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Individualized Major, BA

The College recognizes that there are students who find that the standard majors do not satisfy their academic goals and interests. Thus, the individualized major offers an opportunity for exceptional, creative, self motivated students to explore innovative and multidisciplinary fields of knowledge.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

Applicants must earn a minimum GPA of 3.5.

For more information: https://www.college.upenn.edu/individualized-major

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>34</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

Honors

International Relations, BA

International Relations addresses the ways in which governments, private groups, and individuals relate to each other in the global political and economic systems. The program provides a solid grounding in the methodologies of political science, history, and economics. The curriculum draws on the best courses relevant to world politics, offers a well-rounded liberal arts education, and helps prepare students for law or business school, Ph.D. programs, and international careers.
The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: http://www.sas.upenn.edu/irp/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Theory and Method</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Theory:  PSCI 0400 Introduction to International Relations</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Method:  INTR 3500 Research Methods/Practice in IR</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>International History:  Select 2 course units of International History courses</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>International Political Economy:  PSCI 1402 International Political Economy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>International Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 3 course units of Electives comprising a thematic or regional area of concentration</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select 1 course unit of Elective in Non-Western</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select 1 course unit of Elective in International Security/Foreign Policy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select 1 course unit of Elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Thesis Research</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>INTR 4197 Senior Seminar for Thesis Research I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>INTR 4297 Senior Seminar For Thesis Research II</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>34</td>
</tr>
</tbody>
</table>

¹ You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

---

### International Studies, BA

This major is ONLY available to students in the Huntsman Program in International Studies and Business.

The flexible design of the Huntsman curriculum allows students to graduate in four years with a Bachelor of Arts in International Studies (from the College of Arts & Sciences) and a Bachelor of Science in Economics (from Wharton). Students take business fundamentals courses in the Wharton School, and also complete coursework in the humanities and social sciences by completing the College's general education curriculum, while completing the International Studies major that includes advanced language.

International Studies is a major in the College of Arts and Sciences that is unique to the Huntsman Program; non-Huntsman students may not major in International Studies. The interdisciplinary nature of the International Studies major means that each Huntsman student is able to personalize his or her curriculum, and no two Huntsman students will have the exact same educational experience.

For more information: https://huntsman.upenn.edu/international-studies-major/

---

### Curriculum

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Huntsman Program Requirements - BA</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Language</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>All language courses must be in the same subject and should match the subject indicated on the Huntsman Program application.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 CU in one of the following languages:</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ARAB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FREN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GRMN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HIND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ITAL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JPAN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>KORN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PRTG</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RUSS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SPAN</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Area Studies</strong></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>3 CU in Area Studies Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INSP 1001 Huntsman Program First-Year Seminar in International Studies and Business</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>International Studies</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2 CU in International Studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>International Business</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2 CU in International Business</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>International Studies or Business Course</strong></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1 CU in either International Studies or International Business</td>
<td></td>
</tr>
</tbody>
</table>

---

### Honors

Candidates must have a minimum overall GPA of 3.5 and a GPA of 3.6 in the Major. An honors thesis and completion of an upper level language course are required.

---

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Italian Studies: Italian Culture, BA

The Italian Studies section of the Romance Languages Department offers programs in language, literature, film, linguistics, cultural studies and civilization for students with or without a background in Italian. At the core of this program is the study of the Italian language, understood both in the narrow sense of verbal communication, but also in the larger sense of textual messages: literary, cinematic, historical, art-historical, and mass-cultural.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: [http://www.sas.upenn.edu/italians/undergraduate/requirements](http://www.sas.upenn.edu/italians/undergraduate/requirements/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>College General Education Requirements and Free Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>ITAL 1000</td>
<td>Advanced Italian I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ITAL 1200</td>
<td>Advanced Italian II</td>
</tr>
<tr>
<td></td>
<td>ITAL 1890</td>
<td>Masterpieces-Italian Literature</td>
</tr>
<tr>
<td></td>
<td>ITAL 1900</td>
<td>Italian History on Screen: How Movies Tell the Story of Italy</td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 10 course units of Electives</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Research Requirement</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Must be taken in the Department at Penn</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>32</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Courses should cluster around no more than 2 scholarly disciplines or periods in Italian civilization. At least 3 courses must be taken in Italian Studies in Romance Languages, including at least 2 at the 3000-level in Italian. The disciplinary courses should include at least 2 in History, 1 of which may be an Art History course. No more than 6 elective courses can be taken abroad.

Up to 8 courses taught in English may be chosen in Romance Languages or from courses in other departments if they have an Italian focus or an Italian cultural component.

### Honors

Must have a minimum 3.5 GPA in the Major and a GPA of 3.3 overall.

**Code** | **Title** | **Course Units** |
---------|-----------|-----------------|
ITAL 4000 | Honors Thesis | 1.0 |

1 Must be completed in the Department at Penn.

### Italian Studies: Italian Literature, BA

The Italian Studies section of the Romance Languages Department offers programs in language, literature, film, linguistics, cultural studies and civilization for students with or without a background in Italian. At the core of this program is the study of the Italian language, understood both in the narrow sense of verbal communication, but also in the larger sense of textual messages: literary, cinematic, historical, art-historical, and mass-cultural.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: [http://www.sas.upenn.edu/italians/undergraduate/requirements](http://www.sas.upenn.edu/italians/undergraduate/requirements/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>College General Education Requirements and Free Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>ITAL 1000</td>
<td>Advanced Italian I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ITAL 1200</td>
<td>Advanced Italian II</td>
</tr>
<tr>
<td></td>
<td>or ITAL 1890</td>
<td>Masterpieces-Italian Literature</td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 10 course units of Electives</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Research Requirement</strong></td>
<td></td>
</tr>
</tbody>
</table>

2 Courses should cluster around no more than 2 scholarly disciplines or periods in Italian civilization. At least 3 courses must be taken in Italian Studies in Romance Languages, including at least 2 at the 3000-level in Italian. The disciplinary courses should include at least 2 in History, 1 of which may be an Art History course. No more than 6 elective courses can be taken abroad.

Up to 8 courses taught in English may be chosen in Romance Languages or from courses in other departments if they have an Italian focus or an Italian cultural component.
Must be taken in the Department at Penn

Total Course Units  32

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 At least 6 courses in Italian literature or civilization in the Department of Romance Languages; at least 3 of these must be completed at the 3000-level at Penn. Up to 4 courses may be chosen from Italian Studies offerings outside Romance Languages. No more than 6 elective courses may be taken abroad. No more than 2 courses taught in English may count for the major in Italian Literature. For at least 1 English-taught course, students should arrange an Italian component with the professor (e.g., extra class sessions, research, written assignments, or term paper in Italian).

Honors

Must have a minimum 3.5 GPA in the Major and a GPA of 3.3 overall.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL 4000</td>
<td>Honors Thesis ¹</td>
<td>1.0</td>
</tr>
</tbody>
</table>

¹ Must be completed in the Department at Penn.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Jewish Studies, BA

The Jewish Studies Program provides an opportunity for students to study the Jewish experience from several perspectives including: language (Hebrew, Yiddish, and Ladino), literature in the original languages and in translation, the history and culture of the Jewish people from Biblical Israel to 21st-century America and modern Israel, the exploration of Jewish law, and the roles of gender and sex in Judaism. Students may specialize in Jewish Studies through a major or a minor, or though one of the following concentrations: Jewish History within the History Department, Hebraica/Judaica within the Department of Near Eastern Languages & Civilizations, and Judaism within the Department of Religious Studies.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: http://ccat.sas.upenn.edu/jwst/undergraduate (http://ccat.sas.upenn.edu/jwst/undergraduate/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

Honors

Minimum overall GPA must be 3.0 and in major related courses the minimum GPA must be 3.5.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>JWST 3999</td>
<td>Senior Honors Thesis</td>
<td>1</td>
</tr>
</tbody>
</table>

¹ You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

² May be taken as 4 course units of Electives only if the language requirement has been fulfilled.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Latin American & Latinx Studies, BA

The Latin American and Latinx Studies (LALS) Program offers an interdisciplinary major and minor to study the history, arts, languages, cultures, societies, politics, and/or regional organizations of Latin American and Caribbean countries as well as Latinx communities and individuals in the United States. With courses offered across many departments in the School of Arts and Sciences, in study abroad programs taught throughout Latin American cities, and with academically based community service courses with Latinx organizations in the Greater Philadelphia area, the LALS major and minor afford our students a very comprehensive approach to Latin American and Latinx Studies as well as the possibility of a flexible curriculum, where students can pursue and combine their academic interests.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

Students must satisfy the Language Requirement in Spanish or Portuguese. Language courses under 2198 may not be counted.

For more information: https://lals.sas.upenn.edu/undergraduate/major-requirements/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Linguistics, BA

The Linguistics Program is intended to acquaint students with the methods and findings of the scientific study of human language and its relationships to cognition, society, and history. It serves as a preparation for graduate training in linguistics or related areas, and as part of a rigorous general education. Linguistic training is relevant to work in anthropology, philosophy, psychology, and language and literature, as well as to careers in such fields as education, computer science, and law. Founded by Zellig Harris in 1947, the Penn Linguistics Department is the oldest modern linguistics department in the United States. We have outstanding programs in the core disciplines of syntax and phonology, as well as in sociolinguistics, semantics, discourse, historical linguistics, phonetics, and psycholinguistics. Penn is also the home of the Linguistic Data Consortium (LDC), a compiler and distributor of linguistic materials for language engineering research. The graduate group in Linguistics at the University of Pennsylvania is an interdisciplinary team of faculty from the Department of Linguistics and related departments. Our program has strong concentrations in several areas and a tradition of collaboration among its faculty.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: http://www.ling.upenn.edu/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 May be satisfied by any Linguistics courses or relevant courses from other departments with approval from the Undergraduate Chair.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Honors

Required: A minimum overall GPA of 3.0 and 3.5 in Major-related courses.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Logic, Information, & Computation, BA

Modern mathematical logic began with work by Cantor, Frege, and other mathematicians during the last three decades of the nineteenth century who were concerned with providing a sound basis for the development of mathematical analysis. In the wake of "the crisis in the foundations of mathematics" precipitated by the discovery of various logical paradoxes at the turn of the twentieth century, mathematicians and philosophers such as Hilbert and Russell intensively pursued investigations into the logical foundations of mathematics. Connections between logic and the foundations of mathematics remained an important source for scientific developments in logic through the epochal results of Gödel in 1930 and 1931, which indicated both the scope and limits of the mechanization of mathematical reasoning. The great burst of scientific activity occasioned by Gödel's results led directly to Turing's mathematical characterization of mechanical computation in terms of simple devices, now known as Turing machines. The work of Gödel, Turing, and other logicians during the 1930s laid the scientific foundations for the revolution in computer and information technology that began in the last half of the twentieth century and continues today.

The Logic, Information, and Computation Program offers students the opportunity to engage in a systematic, integrative program of study within the School of Arts and Sciences. Logic remains one of the core disciplines in investigations of information and computation. Indeed, logic is playing a major role in advances in computer security, database technology, networking, and software engineering. Moreover, logic has expanded its role within mathematics beyond foundational studies and now enjoys rich connections with areas as diverse as algebra, analysis, and combinatorics. In light of the current importance of the investigation of computation and information from both a scientific and technological point of view, the Major and Minor in Logic, Information, and Computation will provide students with a strong background to pursue computational aspects of the natural, biological, and social sciences and prepare them for careers in information technology.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://logic.sas.upenn.edu/program.html

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>College General Education Requirements and Free Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors(^1) + Free Electives</td>
<td>19</td>
</tr>
<tr>
<td><strong>Major Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
<td>1</td>
</tr>
<tr>
<td>MATH 3700</td>
<td>Algebra</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 5020</td>
<td>Abstract Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH 3710</td>
<td>Algebra</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 5030</td>
<td>Abstract Algebra</td>
<td></td>
</tr>
<tr>
<td><strong>Computer &amp; Info Science Requirement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS 1200</td>
<td>Programming Languages and Techniques I</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1210</td>
<td>Programming Languages and Techniques II</td>
<td>1</td>
</tr>
<tr>
<td>CIS 3200</td>
<td>Introduction to Algorithms</td>
<td>1</td>
</tr>
<tr>
<td><strong>Physics Requirement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 0150</td>
<td>Principles of Physics I: Mechanics and Wave Motion</td>
<td>1.5</td>
</tr>
<tr>
<td>PHYS 0151</td>
<td>Principles of Physics II: Electromagnetism and Radiation</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Logic, Info, &amp; Computation Requirement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGIC 2100/ MATH 3400</td>
<td>Discrete Mathematics I</td>
<td>1</td>
</tr>
<tr>
<td>LGIC 3100/ PHIL 4721/ MATH 5700</td>
<td>Logic and Computability I</td>
<td>1</td>
</tr>
<tr>
<td>LGIC 2200/ MATH 3410</td>
<td>Discrete Mathematics II</td>
<td>1</td>
</tr>
<tr>
<td>LGIC 3200/ PHIL 4722/ MATH 5710</td>
<td>Logic and Computability II</td>
<td>1</td>
</tr>
<tr>
<td><strong>Elective</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Elective (^2)</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Capstone Seminar</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGIC 4960</td>
<td>Topics in Mathematical Logic</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total Course Units</strong></td>
<td></td>
<td>36</td>
</tr>
</tbody>
</table>

\(^1\) You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

\(^2\) Check: http://logic.sas.upenn.edu for for pre-approved courses.

Honors

Applicants must have an overall GPA of 3.0 and a GPA of 3.5 in the Major. Senior research project required.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Mathematical Economics, BA

Economics is a social science and, as such, an important component of the liberal arts curriculum. At the core of economics are theories of how individuals, firms, and other organizations make choices and interact, taking into account constraints on their behaviors. Among the topics studied in economics are the following:

- The determination of prices and quantities in various types of markets, from perfectly competitive commodity markets to highly regulated utility markets and internet auctions.
- The effects of taxes, subsidies, and regulations.
- The determination of aggregate economic activity (e.g., GDP, unemployment).
- Inflation, monetary policy, and financial intermediation.
- Economic growth and income distribution.
- International trade and international finance (e.g., exchange rates).

The Mathematical Economics Major is intended for students with a strong intellectual interest in both mathematics and economics and, in particular, for students who may pursue a graduate degree in economics. Advanced economics makes extensive use of formal mathematical models. The major introduces undergraduate students to rigorous theoretical-quantitative and empirical-quantitative approaches to the analysis of economic problems. In comparison to the Economics Major, the Mathematical Economics Major emphasizes a more formal mathematical analysis, preparing students for academic-style research in economics.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: https://economics.sas.upenn.edu/undergraduate/majors-and-minors/mathematical-economics-major/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH</td>
<td>Core Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 1080 Mathematics of change, Part II</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MATH 1410 Calculus, Part II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 1610 Honors Calculus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Calculus III course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MATH 2400 Calculus, Part III</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 2410 Calculus, Part IV</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 2600 Honors Calculus, Part II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Algebra course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MATH 3120 Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>MATH</td>
<td>Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 3130 Computational Linear Algebra</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 3140 Advanced Linear Algebra</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 3700 Algebra</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 5140 Advanced Linear Algebra</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Option 1:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 3600 Advanced Calculus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 3610 Advanced Calculus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Option 2:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 5080 Advanced Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 5090 Advanced Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT</td>
<td>Core Requirements</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>STAT 4300 Probability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STAT 4310 Statistical Inference</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ESE 3010 Engineering Probability</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ESE 4020 Engineering Probability</td>
<td></td>
</tr>
<tr>
<td>ECON</td>
<td>Core Requirement</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>ECON 0100 Introduction to Micro Economics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ECON 0200 Introductory Economics: Macro</td>
<td>1</td>
</tr>
</tbody>
</table>

2023-24 Catalog | Generated 08/02/23
Waiver Conversion Complete
Intro Micro/Macro - For WHARTON Students Only:

**BEPP 1000** Introductory Economics for Business Students

Select an additional ECON course

### Intermediate Level Micro and Macro Economics

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 2100</td>
<td>Intermediate Microeconomics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 2200</td>
<td>Intermediate Macroeconomics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 6100</td>
<td>Microeconomic Theory</td>
<td>1</td>
</tr>
</tbody>
</table>

**ECON Electives**
Select 3 courses from the following disciplines:

3

### Econometrics

- ECON 2310 Econometric Methods and Models
- ECON 4310 Macro-Econometric Techniques and Applications
- ECON 4320 Micro-econometric Techniques and Applications
- ECON 4330 Econometric Machine Learning Methods and Models
- ECON 4340 Empirical Economics of Climate Change
- ECON 7300 Econometrics I: Fundamentals

### Macroeconomics

- ECON 4200 Economic Growth
- ECON 4210 Numerical Methods for Macroeconomists
- ECON 4220 Monetary and Fiscal Policies
- ECON 4230 Macro-Modeling
- ECON 4240 Money and Banking
- ECON 4520 International Finance
- ECON 4530 Topics in Development

### Microeconomics/Game Theory

- ECON 4120 Social Choice Theory
- ECON 4100 Game Theory
- ECON 4110 Economics of Family
- ECON 4120 Social Choice Theory
- ECON 4130 Market Design
- ECON 4140 Decision Making Under Uncertainty
- ECON 4150 Mathematical Economics
- ECON 4405 Economic Program Evaluation
- ECON 4410 Public Finance
- ECON 4420 Political Economy
- ECON 4430 Labor Economics
- ECON 4440 Law and Economics
- ECON 4450 Industrial Organization
- ECON 4460 Health Economics
- ECON 4470 Urban Fiscal Policy
- ECON 4480 Economics of Education
- ECON 4490 The Digital Economy
- ECON 4510 International Trade
- ECON 6110 Game Theory and Applications

### Independent Studies

- ECON 4999 Independent Study

---

At most one independent study (ECON 4999) can substitute for a 2000-level course in the major. Students wishing to enroll in an Independent Study must have their outline approved and be enrolled prior to the end of the Add Period. No Independent Studies will be accepted afterwards.

### Total Course Units

36

---

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2. Students intending to major in Mathematical Economics are encouraged to take MATH 1610 Honors Calculus and to consider MATH 2600 Honors Calculus, Part II.
3. NOTE: These MATH and ECON courses count toward the MATH and ECON electives.
4. If ECON 2300 Statistics for Economists is taken, one additional ECON or MATH course from the following: MATH 5460 Advanced Applied Probability, ECON 2310 Econometric Methods and Models, ECON 4310 Macro-Econometric Techniques and Applications, or ECON 4320 Micro-econometric Techniques and Applications.
5. LPS academic year courses require approval of Undergraduate Chair EXCEPT for ECON 0100 Introduction to Micro Economics & ECON 0200 Introductory Economics: Macro.
6. ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro are prerequisites for all economics courses. ECON 0100 Introduction to Micro Economics is the prerequisite for ECON 0200 Introductory Economics: Macro.
7. ECON Course Required if BEPP 1000 Introductory Economics for Business Students is taken.
8. Requires the permission of the instructor. Please contact the instructor and be prepared to share information about the ECON and MATH courses you have taken and the grades that you have obtained in these courses. Based on this information, the instructor will determine whether the course is suitable for you.

### Honors

Applicants must have a minimum GPA of 3.5 and an A- or better in 3 graduate level courses that count toward the major. Approved courses may be chosen from the list of Mathematical Economics electives:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESE 5060</td>
<td>Introduction to Optimization Theory</td>
<td></td>
</tr>
<tr>
<td>ESE 6050</td>
<td>Modern Convex Optimization</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Mathematics: Biological Mathematics, BA

At the core of modern theoretical science, mathematics has historically provided an expressive language and a theoretical framework for advances in the physical sciences. It has since become central in the life and social sciences and in computer science. Mathematics at Penn embraces traditional core areas of mathematics and developing areas (Penn is one of the world’s leading centers in the application of logic to theoretical computer science). The goals of the major program are to assist students in acquiring both an understanding of mathematics and the ability to use it. The mathematics major provides a solid foundation for graduate study in mathematics and a background for study in economics, the biological sciences, the physical sciences, and engineering, as well as many non-traditional areas.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

Majors and prospective majors: Please email majoradvisor@math.upenn.edu. You will be assigned to one of the Math Major Advisors who will discuss your current and future plans with you. It is important that you see this advisor at least once per semester thereafter.

Below is a planning tool that is meant to help you but does not replace the web and advisor visit requirements.


For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
<td>17.5-18.5</td>
</tr>
</tbody>
</table>

College General Education Requirements and Free Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mathematics Requirement</td>
</tr>
<tr>
<td></td>
<td>Calculus Requirement:</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II ²</td>
</tr>
<tr>
<td>or MATH 1610</td>
<td>Honors Calculus</td>
</tr>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
</tr>
<tr>
<td>or MATH 2600</td>
<td>Honors Calculus, Part II</td>
</tr>
<tr>
<td>MATH 3610</td>
<td>Advanced Calculus</td>
</tr>
<tr>
<td>or MATH 5090</td>
<td>Advanced Analysis</td>
</tr>
<tr>
<td>MATH 3600</td>
<td>Advanced Calculus</td>
</tr>
<tr>
<td>or MATH 5080</td>
<td>Advanced Analysis</td>
</tr>
<tr>
<td>Algebra Requirement:</td>
<td></td>
</tr>
<tr>
<td>MATH 3700</td>
<td>Algebra</td>
</tr>
<tr>
<td>or MATH 5020</td>
<td>Abstract Algebra</td>
</tr>
<tr>
<td>MATH 3710</td>
<td>Algebra</td>
</tr>
</tbody>
</table>

or MATH 5030 Abstract Algebra

Statistics Requirement:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3200</td>
<td>Computer Methods in Mathematical Science I</td>
<td>1</td>
</tr>
<tr>
<td>STAT 4310</td>
<td>Statistical Inference</td>
<td>1</td>
</tr>
</tbody>
</table>

Upper Level Math Course:

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2410</td>
<td>Calculus, Part IV</td>
</tr>
<tr>
<td>MATH 4200</td>
<td>Ordinary Differential Equations</td>
</tr>
<tr>
<td>MATH 4250</td>
<td>Partial Differential Equations</td>
</tr>
<tr>
<td>MATH 4800</td>
<td>Topics in Modern Math (only if Life Science related)</td>
</tr>
</tbody>
</table>

Other

Biology Requirement

Select one of the following Tracks: 8.5

Track 1:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1121</td>
<td>Introduction to Biology - The Molecular Biology of Life</td>
</tr>
<tr>
<td>BIOL 1124</td>
<td>Introductory Organismal Biology Lab</td>
</tr>
</tbody>
</table>

Select two of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2210</td>
<td>Molecular Biology and Genetics</td>
</tr>
<tr>
<td>BIOL 2410</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>BIOL 2610</td>
<td>Ecology: From individuals to ecosystems</td>
</tr>
</tbody>
</table>

Select three of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 4410</td>
<td>Advanced Evolution</td>
</tr>
<tr>
<td>BIOL 4517</td>
<td>Theoretical Population Biology</td>
</tr>
<tr>
<td>BIOL 4231</td>
<td>Genome Science and Genomic Medicine</td>
</tr>
<tr>
<td>BIOL 4536</td>
<td>Introduction to Computational Biology &amp; Biological Modeling</td>
</tr>
<tr>
<td>BIOL 5536</td>
<td>Fundamentals of Computational Biology</td>
</tr>
</tbody>
</table>

Select one of the following additional science courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1011</td>
<td>Introduction to General Chemistry I</td>
</tr>
<tr>
<td>&amp; CHEM 1101</td>
<td>and General Chemistry Laboratory I</td>
</tr>
<tr>
<td>CHEM 1011</td>
<td>Introduction to General Chemistry I</td>
</tr>
<tr>
<td>&amp; CHEM 1102</td>
<td>and General Chemistry Laboratory II</td>
</tr>
<tr>
<td>PHYS 0151</td>
<td>Principles of Physics II: Electromagnetism and Radiation</td>
</tr>
</tbody>
</table>

Track 2:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
<td>Introduction to Biology A</td>
</tr>
<tr>
<td>BIOL 1102</td>
<td>Introduction to Biology B</td>
</tr>
</tbody>
</table>

Select two of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2210</td>
<td>Molecular Biology and Genetics</td>
</tr>
<tr>
<td>BIOL 2410</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>BIOL 2610</td>
<td>Ecology: From individuals to ecosystems</td>
</tr>
</tbody>
</table>

Select two of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 4410</td>
<td>Advanced Evolution</td>
</tr>
<tr>
<td>BIOL 4231</td>
<td>Genome Science and Genomic Medicine</td>
</tr>
<tr>
<td>BIOL 4235</td>
<td>The RNA World: A functional and computational analysis</td>
</tr>
</tbody>
</table>

Select one of the following additional science courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1011</td>
<td>Introduction to General Chemistry I</td>
</tr>
<tr>
<td>&amp; CHEM 1101</td>
<td>and General Chemistry Laboratory I</td>
</tr>
<tr>
<td>CHEM 1011</td>
<td>Introduction to General Chemistry I</td>
</tr>
<tr>
<td>&amp; CHEM 1102</td>
<td>and General Chemistry Laboratory II</td>
</tr>
</tbody>
</table>
PHYS 0151  Principles of Physics II: Electromagnetism and Radiation

Total Course Units  36-37

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 MATH 1610 Honors Calculus is a Honors Course.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Mathematics: General Mathematics, BA

At the core of modern theoretical science, mathematics has historically provided an expressive language and a theoretical framework for advances in the physical sciences. It has since become central in the life and social sciences and in computer science. Mathematics at Penn embraces traditional core areas of mathematics as well as developing areas (Penn is one of the world's leading centers in the application of logic to theoretical computer science). The goals of the major program are to assist students in developing both an understanding of mathematics and the ability to use it. The mathematics major provides a solid foundation for graduate study in mathematics and a background for study in economics, the biological sciences, the physical sciences, and engineering, as well as many non-traditional areas.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

Majors and prospective majors: Please email majoradvisor@math.upenn.edu. You will be assigned to one of the Math Major Advisors who will discuss your current and future plans with you. It is important that you see this advisor at least once per semester thereafter.

Below is a planning tool that is meant to help you but does not replace the web and advisor visit requirements.


For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
</tbody>
</table>

Calculus Requirement
Select one of the following Options:

Option 1:
- MATH 1400  Calculus, Part I
- MATH 1410/1510  Calculus, Part II
- MATH 2400  Calculus, Part III

Option 2:
- MATH 1610  Honors Calculus
- MATH 2600  Honors Calculus, Part II

Complex Analysis Requirement
- MATH 4100  Complex Analysis  1

Advanced Linear Algebra Requirement
- MATH 3140  Advanced Linear Algebra  1

Differential Equations Requirement
- MATH 2410  Calculus, Part IV  1
  or MATH 4250  Partial Differential Equations

Seminar Requirement
- MATH 2020  Proving Things: Analysis  1
  or MATH 2030  Proving things: Algebra

Algebra Requirement
- MATH 3700  Algebra  2
  & MATH 3710  and Algebra
  or MATH 5020  Abstract Algebra
  & MATH 5030  and Abstract Algebra

Analysis Requirement
- MATH 3600  Advanced Calculus  2
  & MATH 3610  and Advanced Calculus
  or MATH 5080  Advanced Analysis
  & MATH 5090  and Advanced Analysis

Mathematics Electives ²
- Select 5 course units in Math  1-5
- Select 2 course units in Cognate  2

Total Course Units  33

¹ You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
² Number of elective course units will vary based on the manner in which other requirements are fulfilled. Please consult your math major adviser when choosing math electives and cognates.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Modern Middle Eastern Studies, BA

The interdisciplinary Modern Middle Eastern Studies degree is designed to allow students to specialize in the Middle East as a region of the world and human experience by combining course work using both...
social scientific and humanistic approaches, underpinned by relevant language skills. Students will work with faculty committed to supporting interdisciplinary, applied, research-oriented advanced study. The major gives students opportunities to work on problems of politics, policy, history, ideology, social thought, economic development, and international relations.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: https://www.sas.upenn.edu/mec/programs/mmes (https://www.sas.upenn.edu/mec/programs/mmes/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disciplinary Distribution</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 3 course units of Disciplinary Distribution</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Language Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 course units of Middle East Language options: Arabic, Hebrew, Persian, Turkish or Other, with at least 2 course units at Intermediate or above</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Regional Coverage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 3 course units of Foundational courses with one course centered on a culture different from the language selected above</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Seminar/Research Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 course units of Seminars in consultation with your major advisor</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>32</td>
</tr>
</tbody>
</table>

¹ You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

Honors

Candidates must have a minimum overall GPA of 3.3 and a GPA of 3.7 in the major.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Music, BA

The music major is founded on a balance in the core training between the fields of music history, ethnomusicology, theory, and composition. Through a series of requirements, you will acquire a foundation that introduces you to the sheer range of musical traditions available for study and to a series of specialist skills and tools that facilitate and deepen that study.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34.0. Double majors may entail more course units.

For more information: http://www.sas.upenn.edu/music/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Music History Core Courses</td>
<td></td>
</tr>
<tr>
<td>MUSC 2300</td>
<td>Introduction to European Art Music</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2400</td>
<td>Introduction to the Music Life in America</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 2500</td>
<td>Introduction to Ethnomusicology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Music Theory Core Courses</td>
<td></td>
</tr>
<tr>
<td>MUSC 2700</td>
<td>Theory and Musicianship I</td>
<td>1.5</td>
</tr>
<tr>
<td>MUSC 2710</td>
<td>Theory and Musicianship II</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Tier Two Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 course units of Tier Two courses</td>
<td>4</td>
</tr>
<tr>
<td>MUSC 3300</td>
<td>Historical Eras and Topics: Earlier Periods</td>
<td></td>
</tr>
<tr>
<td>MUSC 3310</td>
<td>Historical Eras and Topics: Later Periods</td>
<td></td>
</tr>
<tr>
<td>MUSC 3320</td>
<td>Themes in Music History</td>
<td></td>
</tr>
<tr>
<td>MUSC 3340</td>
<td>Performers: Music, Rhetoric, Performance</td>
<td></td>
</tr>
<tr>
<td>MUSC 3341</td>
<td>Performers: Dancers and Musicians</td>
<td></td>
</tr>
<tr>
<td>MUSC 3342</td>
<td>Performers: The Singer ca. 800-1400</td>
<td></td>
</tr>
<tr>
<td>MUSC 3343</td>
<td>Performers: Celebrity</td>
<td></td>
</tr>
<tr>
<td>MUSC/AFRC 3450</td>
<td>Studies in African-American Music</td>
<td></td>
</tr>
<tr>
<td>MUSC 3520</td>
<td>Music, Religion, Ritual in South and Southeast Asia.</td>
<td></td>
</tr>
<tr>
<td>MUSC 3550</td>
<td>Accords of the New World</td>
<td></td>
</tr>
<tr>
<td>MUSC/AFRC 3560/ANTH 2560</td>
<td>Music and Performance of Africa</td>
<td></td>
</tr>
<tr>
<td>MUSC 3570/ANTH 2570/LALS 3570</td>
<td>Caribbean Music and Diaspora</td>
<td></td>
</tr>
<tr>
<td>MUSC/AFRC/LALS 3580</td>
<td>Latin American Music</td>
<td></td>
</tr>
<tr>
<td>MUSC 3700</td>
<td>Theory and Musicianship III</td>
<td></td>
</tr>
<tr>
<td>MUSC 3710</td>
<td>Composition I: Historical Practices</td>
<td></td>
</tr>
<tr>
<td>MUSC 3720</td>
<td>Composition II: Contemporary Practices</td>
<td></td>
</tr>
<tr>
<td>MUSC 3730</td>
<td>Orchestration</td>
<td></td>
</tr>
<tr>
<td>MUSC 3200</td>
<td>Modular Electronic Music Systems &amp; Performance</td>
<td></td>
</tr>
<tr>
<td>MUSC 3210</td>
<td>Recording Music: Theory &amp; Methods</td>
<td></td>
</tr>
<tr>
<td>MUSC 3740</td>
<td>Composition for Musicians</td>
<td></td>
</tr>
</tbody>
</table>

Tier Three Courses
Select 2 course units of Tier Three courses  
MUSC 4300 Seminar in Music History  
MUSC 4500 Seminar in Ethnomusicology  
MUSC 4700 Seminar in Theory & Composition  
Any Graduate course MUSC 5080 and above  

Performance Requirement  
Select 2 course units of Performance Requirement courses  
MUSC 0070 Ensemble Performance  
MUSC 0100A Marian Anderson Performance Program  
MUSC 0100B Marian Anderson Performance Program  
MUSC 0110A Marian Anderson Group Performance Program  
MUSC 0110B Marian Anderson Group Performance Program  

Total Course Units: 34  

You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).  

Honors  
Applicants must have completed one Guided Reading course, have a G.P.A. of 3.5 or higher, and complete a research paper.  

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Near Eastern Languages & Civilizations: Ancient Near East, BA  
The major in Ancient Near East examines the languages, history, cultures, and archaeology of the Ancient Near East: from Prehistory through the early complex of civilizations in Mesopotamia, Egypt, and Levant. Because of the interdependence of language and culture an emphasis of the major is gaining facility of one or more ancient languages, alongside courses in history, religion, and archaeology.  
The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.  
For more information: https://nelc.sas.upenn.edu/undergraduate/major (https://nelc.sas.upenn.edu/undergraduate/major/)
language, alongside courses in history, literature, and cultures of the medieval and modern Middle East.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https:// nelc.sas.upenn.edu/undergraduate/major

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
</tr>
</tbody>
</table>

**Major Requirements**

**Language Requirement**

Select 6 course units of Language Requirement ² | 6 |

**Breadth Requirement**

NELC 0001/ ANCH 0100/ HIST 0730: Introduction to the Ancient Near East | 1 |

NELC 0002: Introduction to the Middle East | 1 |

Concentration Requirements ³

Select 5 course units in Concentration Requirement | 5 |

Select 1 course unit in Concentration Paper | 1 |

**Total Course Units** | 34 |

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 This requirement may be fulfilled in Arabic, Persian or Turkish.

3 May focus on either Medieval or Modern Periods, to be chosen in consultation with the major advisor.

### Honors

**Required**: A minimum overall GPA of 3.0 and a GPA of 3.5 in major related courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NELC 4995</td>
<td>Senior Conference</td>
<td>1</td>
</tr>
<tr>
<td>NELC 4999</td>
<td>Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Near Eastern Languages & Civilizations: Arabic & Islamic Studies, BA

Arabic and Islamic Studies focuses on languages and cultures of the wider Middle East in the context of Islamic Civilization. Because of the interdependence of language and culture, a primary emphasis is on gaining mastery of Middle Eastern languages such as Arabic, Persian, and Turkish, alongside coursework in history, religion, and culture.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https:// nelc.sas.upenn.edu/undergraduate/major

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
</tr>
</tbody>
</table>

**Major Requirements**

**Language Requirement**

Select 6 course units of Language Requirement ² | 6 |

**Breadth Requirement**

NELC 0001/ ANCH 0100/ HIST 0730: Introduction to the Ancient Near East | 1 |

NELC 0002: Introduction to the Middle East | 1 |

Concentration Requirements ³

Select 5 course units in Concentration Requirement | 5 |

Select 1 course unit in Concentration Paper | 1 |

**Total Course Units** | 34 |

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 This requirement may be fulfilled in Arabic, Persian or Turkish.

3 May focus on either Medieval or Modern Periods, to be chosen in consultation with the major advisor. Minimum of one course each in History, Literature (original language or in translation) and Religion.

### Honors

**Required**: A minimum overall GPA of 3.0 and a GPA of 3.5 in major related courses.
Near Eastern Languages & Civilizations: Cultures and Societies of the Middle East and North Africa, BA

NELC’s Cultures and Societies of the Middle East and North Africa is an interdisciplinary major which allows students to explore broadly the cultures, societies, religions, and literary and visual traditions of the greater Middle East. The geographical scope of this major includes: Arabia, the Levant, Mesopotamia, Iran and the Persianate world, Egypt and the Nile Valley, North Africa (including the Maghreb), and Asia Minor (including present-day Turkey). This major encourages students to develop an understanding of deep continuities through time, and close connections among the cultures of the region and adjacent areas. The major also promotes the humanistic study of Middle Eastern societies across ancient, medieval and modern periods — something that no other majors currently do — while exposing students to the current methodologies and breadth of scholarship in Near Eastern studies at Penn.

Because this concentration does not include language coursework, and does not contribute towards the University’s Language Requirement, the major consists of 12 CU. Students pursuing this major must complete the department’s foundational courses: NELC 0001 (Introduction to the Ancient Near East) and NELC 0002 (Introduction to the Middle East). Additionally, students must complete a breadth requirement consisting of one introductory to intermediate course in each of the following areas: the Ancient Middle East; Hebrew and Judaic Studies; Societies and Cultures of the Islamic World; and the Modern Middle East. To gain grounding in methodology two credits must cover literary or visual cultures and methodologies used to study them (such as NELC 0102, Reading Ancient Mesopotamia, or NELC 0700, Iranian Cinema: Gender, Politics, Religion). The remaining electives (3 CU) should consist of intermediate to advanced coursework in the student’s area of primary interest. To develop experience in researching and writing substantial analytical essays, during their senior year, students must complete a concentration paper within a NELC class in consultation with their Major Advisor.

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum page.

Near Eastern Languages & Civilizations: Hebrew & Judaica, BA

The major concentration in Hebrew and Judaica explores the development of Hebrew culture from the Biblical through Rabbinic and Medieval Periods through modern times. Because of the interrelationship between language and culture an emphasis is placed on gaining facility in the use of Hebrew language alongside courses in history, culture, literature, and religion of Judaism.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://nelc.sas.upenn.edu/undergraduate/major (https://nelc.sas.upenn.edu/undergraduate/major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
Near Eastern Languages & Civilizations: Persian Language & Literature, BA

Language Requirement
Select the following 6 course units if you have no knowledge of Hebrew. With prior knowledge of Hebrew (placement test required), select corresponding number of course units in electives.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEBR/JWST 0100</td>
<td>Elementary Modern Hebrew I</td>
<td>1</td>
</tr>
<tr>
<td>HEBR/JWST 0200</td>
<td>Elementary Modern Hebrew II</td>
<td>1</td>
</tr>
<tr>
<td>HEBR/JWST 0300</td>
<td>Intermediate Modern Hebrew III</td>
<td>1</td>
</tr>
<tr>
<td>HEBR/JWST 0400</td>
<td>Intermediate Modern Hebrew IV</td>
<td>1</td>
</tr>
<tr>
<td>HEBR/JWST 1000</td>
<td>Advanced Modern Hebrew: Conversation &amp; Writing</td>
<td>1</td>
</tr>
<tr>
<td>HEBR/JWST 0350</td>
<td>Intermediate Biblical Hebrew I</td>
<td>1</td>
</tr>
</tbody>
</table>

Breadth Requirement

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NELC 0001/ANCH 0100/HIST 0730</td>
<td>Introduction to the Ancient Near East</td>
<td>1</td>
</tr>
<tr>
<td>NELC 0002</td>
<td>Introduction to the Middle East</td>
<td>1</td>
</tr>
</tbody>
</table>

Concentration Requirements

Select 1 course unit of Biblical Literature | 1
Select 1 course unit of Rabbinic/Medieval Literature | 1
Select 1 course unit of Modern Hebrew Literature | 1
Select 2 course units of Concentration Requirements | 2
Select 1 course unit of Concentration Paper Course | 1

Total Course Units | 34

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 May focus on either Medieval or Modern Periods, to be chosen in consultation with the major advisor.

Honors

Requirements: A minimum overall GPA of 3.0 and a GPA of 3.5 in major related courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NELC 4995</td>
<td>Senior Conference</td>
<td>1</td>
</tr>
<tr>
<td>NELC 4999</td>
<td>Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Near Eastern Languages & Civilizations: Persian Language & Literature

Persian Language and Literature focuses on the language and culture of Iran from the premodern to the modern periods as well as in the context of Islamic Civilization. Because of the interdependence of language and culture, a primary emphasis is on gaining mastery of Persian, alongside coursework in history, religion, and culture.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://nelc.sas.upenn.edu/undergraduate/major (https://nelc.sas.upenn.edu/undergraduate/major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NELC 0001/ANCH 0100/HIST 0730</td>
<td>Introduction to the Ancient Near East</td>
<td>1</td>
</tr>
<tr>
<td>NELC 0002</td>
<td>Introduction to the Middle East</td>
<td>1</td>
</tr>
</tbody>
</table>

Concentration Requirements

Select 5 course units in Concentration Requirement | 5
Concentration Paper | 1

Total Course Units | 34

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement.
2 This requirement must be fulfilled in Persian.
3 May focus on either Medieval or Modern Periods, to be chosen in consultation with the major advisor. Minimum of one course each in History, Literature (original language or in translation) and Religion.

Honors

Requirements: A minimum overall GPA of 3.0 and a GPA of 3.5 in major related courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NELC 4995</td>
<td>Senior Conference</td>
<td>1</td>
</tr>
<tr>
<td>NELC 4999</td>
<td>Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should
consult with their academic program regarding final certifications and requirements for graduation.

### Neuroscience, BA

Neuroscience (formerly Biological Basis of Behavior) is an interdisciplinary program in which students explore the relationship between behavior (both human and animal) and its organic bases. The Program offers courses in virtually all areas of neuroscience ranging from cellular neurobiology to cognitive neuropsychology and integrates these basic interdisciplinary courses with basic science requirements in biology, chemistry and psychology. Students also engage in supervised research in areas as diverse as molecular neurobiology, chemical neuroanatomy, visual sciences and behavioral ecology.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: https://neuroscience.sas.upenn.edu

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College General Education Requirements and Free Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Requirements</td>
</tr>
<tr>
<td>Introductory Chemistry:</td>
</tr>
<tr>
<td>CHEM 1011  Introduction to General Chemistry I</td>
</tr>
<tr>
<td>or CHEM 1012  General Chemistry I</td>
</tr>
<tr>
<td>CHEM 1021  Introduction to General Chemistry II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Introductory Biology:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select one of the following Options:</td>
</tr>
<tr>
<td>Option 1:</td>
</tr>
<tr>
<td>BIOL 1101  Introduction to Biology A</td>
</tr>
<tr>
<td>BIOL 1102  Introduction to Biology B</td>
</tr>
<tr>
<td>Option 2:</td>
</tr>
<tr>
<td>BIOL 1121  Introduction to Biology - The Molecular Biology of Life</td>
</tr>
<tr>
<td>BIOL 1123  Introductory Molecular Biology Laboratory</td>
</tr>
<tr>
<td>BIOL 1124  Introductory Organismal Biology Lab</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Select 1 CU of a 2000-level BIOL course:</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2810  Biochemistry</td>
</tr>
<tr>
<td>or BIOL 2011  Cell Biology</td>
</tr>
<tr>
<td>or BIOL 2311  Human Physiology</td>
</tr>
<tr>
<td>or BIOL 3311  Principles of Human Physiology</td>
</tr>
<tr>
<td>or BIOL 2211  Molecular Biology and Genetics</td>
</tr>
<tr>
<td>or BIOL 2411  Evolutionary Biology</td>
</tr>
<tr>
<td>or BIOL 2611  Ecology: From individuals to ecosystems</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Introduction to Brain &amp; Behavior:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRSC 1110  Introduction to Brain and Behavior</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Neural Systems and Behavior:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRSC 2110  Molecular and Cellular Neurobiology</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statistics:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select one of the following:</td>
</tr>
<tr>
<td>BIOL 2510  Statistics for Biologists</td>
</tr>
<tr>
<td>STAT 1010  Introductory Business Statistics</td>
</tr>
<tr>
<td>STAT 1110  Introductory Statistics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional NRSC Major Elective Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students may pick any 8 courses from the approved electives for the NRSC major ² ³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attribute ABBM - NRSC Major Elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Course Units</td>
</tr>
</tbody>
</table>

¹ You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
² See the NRSC web site for approved courses in areas of specialized study. Students are encouraged to take a research course or do sponsored research in their junior or senior year.
³ NRSC 3999 Independent Research, NRSC 4999 Advanced Independent Research or a 4000-level NRSC course are three of the options.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Honors Option**

Applicants are expected to have a minimum cumulative GPA of 3.5.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| One advanced course (4000 level or above) | 1 |
| NRSC 3999  Independent Research | 1 |
| NRSC 4999  Advanced Independent Research | 1 |

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Nutrition Science, BA

Jointly sponsored by the College of Arts and Sciences and the School of Nursing, the second major in Nutrition Science builds on a student’s basic science skills with a deep dive into the science of nutrition. Linkages of nutritional compounds and dietary approaches with health and disease, novel approaches to the study of nutritional impact on health, and future avenues of exploration in the field are examined. Elective courses in anthropology, biology, economics, physiology, psychology, health care, and public policy provide a rounded context for the study of nutrition science.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://www.nursing.upenn.edu/nutrition-major/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Required Basic Science Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biology</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Recommended for students with A.P., I.B.:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 1121 Introduction to Biology - The Molecular Biology of Life</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>BIOL 1123 Introductory Molecular Biology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>BIOL 1124 Introductory Organismal Biology Lab</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Recommended for students with one year of high school biology:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 1101 Introduction to Biology A</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>BIOL 1102 Introduction to Biology B</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Chemistry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 1011 Introduction to General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CHEM 1021 Introduction to General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CHEM 2410 Principles of Organic Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Biochemistry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 2810 Biochemistry</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Required Nutrition Science Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NURS 1120 Nutrition: Science &amp; Applications</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>NURS 3120 Nutritional Aspects of Disease</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>NURS 5230 Advanced Nutrition: Molecular Basis of Nutrition</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>NURS 5240 Advanced Human Nutrition and Micronutrient Metabolism</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Elective Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 course units of electives (see website for list of suggested courses)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>34</td>
</tr>
</tbody>
</table>

¹ You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

² BIOL 1123 Introductory Molecular Biology Laboratory must be concurrent with BIOL 1121 Introduction to Biology - The Molecular Biology of Life.

³ 3 course units count as 2 for this major.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Philosophy, Politics and Economics: Choice & Behavior, BA

Philosophy, Politics and Economics allows undergraduates to study a variety of comprehensive analytical frameworks that have been developed to understand and justify political and economic structures, particularly constitutional democracy and the market system. The program prepares its graduates for careers in public policy, public services, business, and law among others.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: https://ppe.sas.upenn.edu/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors¹ + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 course of Rigorous Reasoning (Pre Requirement)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 1400 Calculus, Part I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 1410 Calculus, Part II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 1510 Calculus, Part II with Probability and Matrices</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHIL 1710 Introduction to Logic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHIL 0710 Logic and Formal Reasoning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CRIM 1200 Statistics for the Social Sciences I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ECON 2300 Statistics for Economists</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSCI 1800 Introduction to Data Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 2000 Sociological Research Methods</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 2010 Social Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STAT 1010 Introductory Business Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STAT 1020 Introductory Business Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>STAT 1110 Introductory Statistics</td>
<td></td>
</tr>
</tbody>
</table>

¹ You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

² BIOL 1123 Introductory Molecular Biology Laboratory must be concurrent with BIOL 1121 Introduction to Biology - The Molecular Biology of Life.

³ 3 course units count as 2 for this major.
STAT 1120  Introductory Statistics

Common Foundations

Philosophy Foundation

PHIL 1433  The Social Contract 1

Select 1 course of Philosophy Foundation:

PHIL 1330  Ethics
PHIL 1800  Philosophy of Science
PHIL 1342  Bioethics
PHIL 1345  Business Ethics
PHIL 1450  Philosophy of Law
PHIL 1343  Environmental Ethics
PHIL 2620  Introduction to Epistemology and Metaphysics
PHIL 2640  Introduction to Philosophy of Mind
PHIL 2430  Global Justice
PHIL 2450  Justice, Law and Morality

Political Science Foundation

Select 1 course of Political Theory

PSCI 0600  Ancient Political Thought
PSCI 0601  Modern Political Thought
PSCI 1600  Contemporary Political Thought
PSCI 0602  American Political Thought
PSCI 0680  Feminist Political Thought

Select 1 course of Political Science Foundation

PSCI 0100  Introduction to Comparative Politics
PSCI 0101  Comparative Politics of Developing Areas
PSCI 0200  Introduction to American Politics
PSCI 0400  Introduction to International Relations
PSCI 1402  International Political Economy
PSCI 1205  Constitutional Law
PSCI 1206  American Constitutional Law II

Economics Foundation:

ECON 0100  Introduction to Micro Economics
ECON 0200  Introductory Economics: Macro

Psychology Foundation:

PSYC 1440  Social Psychology
PSYC 2737  Judgment and Decisions

Common Core

PPE 3001  Strategic Reasoning
PPE 3002  Public Policy Process
PPE 3003  Behavioral Economics and Psychology

Choice & Behavior Theme

Select 5 courses in any theme

For a description of each theme, including sample concentrations and courses, visit: https://ppe.sas.upenn.edu/study/curriculum/thematic-concentrations/)

Capstone Seminar

PPE's Capstone requirement may be filled by any course listed between PPE 4500 and PPE 4902. Select one of the following:

PPE 4601  PPE Capstone: Social Policy

PPE 4701  PPE Capstone: Political Economy
PPE 4902  PPE Capstone: Networks
PPE 4901  PPE Capstone: Modeling
PPE 4801  PPE Capstone: Judgment and Decision Making
PPE 4802  PPE Capstone: Obedience
PPE 4600  PPE Capstone: Political Science
PPE 4800  PPE Capstone: Psychology
PPE 4700  PPE Capstone: Economics
PPE 4500  PPE Capstone: Philosophy

Total Course Units 36

You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

Honors

Applicants must have a minimum GPA of 3.6 in the major.

Code  Title  Course Units
PPE 4998  Directed Honors Research 1

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Philosophy, Politics and Economics: Distributive Justice, BA

Philosophy, Politics and Economics allows undergraduates to study a variety of comprehensive analytical frameworks that have been developed to understand and justify political and economic structures, particularly constitutional democracy and the market system. The program prepares its graduates for careers in public policy, public services, business, and law among others.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://www.sas.upenn.edu/ppe/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
Common Foundations

Philosophy Foundation:

PHIL 1433 The Social Contract 1

Select 1 course unit in Philosophy Foundation 1

Political Science Foundation:

Select 1 course unit in Political Theory 1

Select 1 course unit in Political Science Foundation 1

Economics Foundation:

ECON 0100 Introduction to Micro Economics 1

ECON 0200 Introductory Economics: Macro 1

Psychology Foundation:

PSYC 1440 Social Psychology 1

Common Core

PPE 3001 Strategic Reasoning 1

PPE 3002 Public Policy Process 1

PPE 3003 Behavioral Economics and Psychology 1

Distributive Justice Theme

Select 5 course units in Distributive Justice Theme 5

Capstone Seminar

Select one of the following: 1

PPE 4601 PPE Capstone: Social Policy

PPE 4701 PPE Capstone: Political Economy

PPE 4902 PPE Capstone: Networks

PPE 4901 PPE Capstone: Modeling

PPE 4801 PPE Capstone: Judgment and Decision Making

PPE 4802 PPE Capstone: Obedience

PPE 4600 PPE Capstone: Political Science

PPE 4800 PPE Capstone: Psychology

PPE 4700 PPE Capstone: Economics

PPE 4500 PPE Capstone: Philosophy

Total Course Units 36

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

 honors

Applicants must have a minimum GPA of 3.6 in the major.

Code Title Course Units
PPE 4998 Directed Honors Research 1

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Philosophy, Politics and Economics: Globalization, BA

Philosophy, Politics and Economics allows undergraduates to study a variety of comprehensive analytical frameworks that have been developed to understand and justify political and economic structures, particularly constitutional democracy and the market system. The program prepares its graduates for careers in public policy, public services, business, and law among others.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://www.sas.upenn.edu/ppe/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPE 4601</td>
<td>PPE Capstone: Social Policy</td>
<td>1</td>
</tr>
<tr>
<td>PPE 4701</td>
<td>PPE Capstone: Political Economy</td>
<td>1</td>
</tr>
<tr>
<td>PPE 4902</td>
<td>PPE Capstone: Networks</td>
<td>1</td>
</tr>
<tr>
<td>PPE 4901</td>
<td>PPE Capstone: Modeling</td>
<td>1</td>
</tr>
<tr>
<td>PPE 4801</td>
<td>PPE Capstone: Judgment and Decision Making</td>
<td>1</td>
</tr>
<tr>
<td>PPE 4802</td>
<td>PPE Capstone: Obedience</td>
<td>1</td>
</tr>
<tr>
<td>PPE 4600</td>
<td>PPE Capstone: Political Science</td>
<td>1</td>
</tr>
<tr>
<td>PPE 4800</td>
<td>PPE Capstone: Psychology</td>
<td>1</td>
</tr>
</tbody>
</table>

Globalization Theme

Select 5 course units in Globalization Theme 5

Capstone Seminar

Select one of the following: 1

PPE 4601 PPE Capstone: Social Policy

PPE 4701 PPE Capstone: Political Economy

PPE 4902 PPE Capstone: Networks

PPE 4901 PPE Capstone: Modeling

PPE 4801 PPE Capstone: Judgment and Decision Making

PPE 4802 PPE Capstone: Obedience

PPE 4600 PPE Capstone: Political Science

PPE 4800 PPE Capstone: Psychology

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
PPE 4700  PPE Capstone: Economics
PPE 4500  PPE Capstone: Philosophy

Total Course Units 36

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

**Honors**

Applicants must have a minimum GPA of 3.6 in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPE 4998</td>
<td>Directed Honors Research</td>
<td>1</td>
</tr>
</tbody>
</table>

**Philosophy, Politics and Economics:**

**Public Policy & Governance, BA**

Philosophy, Politics, and Economics allows undergraduates to study a variety of comprehensive analytical frameworks that have been developed to understand and justify political and economic structures, particularly constitutional democracy and the market system. The program prepares its graduates for careers in public policy, public services, business, and law among others.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://www.sas.upenn.edu/ppe/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPE 4998</td>
<td>Directed Honors Research</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Philosophy: General Philosophy, BA**

Philosophy seeks to illuminate fundamental aspects of the world, of our relation to and knowledge of the world, and of our own nature as rational, purposive, and social beings. The study of philosophy aims at an appreciation of the ways this enterprise has been, is, and might be approached. It also provides a vantage point for reflecting on the nature and achievement of other disciplines, such as science, the arts, and the humanities. Philosophical topics can be divided roughly into value theory (ethics, politics, aesthetics) and theoretical philosophy (epistemology,
metaphysics, mind, and logic). The four concentrations available within the major allow students to emphasize different sets of questions.

The General Philosophy Concentration requires a balanced selection of coursework from within both practical and theoretical philosophy as well as the history of these enterprises.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.


For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Code | Title | Course Units
--- | --- | ---

#### College General Education Requirements and Free Electives
Foundational Approaches + Sectors \(^1\) + Free Electives | 20

#### Major Requirements

**Distribution Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 1110</td>
<td>Ancient Greek Philosophy</td>
<td>1</td>
</tr>
<tr>
<td>PHIL 1170</td>
<td>History of Modern Philosophy</td>
<td>1</td>
</tr>
<tr>
<td>PHIL 1710</td>
<td>Introduction to Logic</td>
<td>1</td>
</tr>
</tbody>
</table>

Select 2 courses in Contemporary Theoretical Philosophy (attribute APLT)

Select 1 course in Value Theory (attribute APLV)

**Level Requirements**

Select 4 course units of Philosophy with at least 2 course units above 2000 and 2 course units at the 3000 or 5000 level

Select 5 other courses in Philosophy

Select 2 courses outside the Philosophy Department by approval of the Undergraduate Chair

Total Course Units | 32

\(^1\) You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

---

The Humanistic Philosophy Concentration emphasizes practical philosophy and its history, it pairs philosophy courses with courses in one or more humanistic disciplines.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

**Required:** 8 course units in Philosophy and 8 course units in Humanities and/or Political Science (Non-Philosophy courses need permission of the Undergraduate Chair).


For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Code | Title | Course Units
--- | --- | ---

#### College General Education Requirements and Free Electives
Foundational Approaches + Sectors \(^1\) + Free Electives | 20

#### Major Requirements

**Distribution Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 1110</td>
<td>Ancient Greek Philosophy</td>
<td>1</td>
</tr>
<tr>
<td>PHIL 1170</td>
<td>History of Modern Philosophy</td>
<td>1</td>
</tr>
<tr>
<td>PHIL 1710</td>
<td>Introduction to Logic</td>
<td>1</td>
</tr>
</tbody>
</table>

Select 1 course in Contemporary Theoretical Philosophy (attribute APLT)

Select 2 courses in Value Theory (attribute APLV)

**Level Requirements**

Select 2 course units of Philosophy at 2000 level or above

Select 1 course unit of Philosophy at 3000 or 5000 level

**Humanities and/or PSCI Courses**
**Philosophy: Philosophy and Science, BA**

Philosophy seeks to illuminate fundamental aspects of the world, of our relation to and knowledge of the world, and of our own nature as rational, purposive, and social beings. The study of philosophy aims at an appreciation of the ways this enterprise has been, is, and might be approached. It also provides a vantage point for reflecting on the nature and achievement of other disciplines, such as science, the arts, and the humanities. Philosophical topics can be divided roughly into value theory (ethics, politics, aesthetics) and theoretical philosophy (epistemology, metaphysics, mind, and logic). The four concentrations available within the major allow students to emphasize different sets of questions.

The Philosophy and Science Concentration emphasizes theoretical philosophy and philosophy of science; it pairs courses in philosophy with courses in one or more scientific disciplines.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

**Required:** 8 course units in Philosophy and 8 course units in either Natural or Social Science, or Science, Technology, and Society (STSC, previously HSSC).


For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Honors

Must be a Senior Major in Philosophy and have a minimum 3.33 GPA in the major. Applicants must have completed the distribution requirements for the major including two courses above 2000 one of which must be above 3010. Please consult with the Undergraduate Chair for other specific criteria.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 4998</td>
<td>Directed Honors Research (or a 5000-level course)</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Select 8 courses of HUM or PSCI courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANCH 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARCH 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARTH 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASAM 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIMS 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLST 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COML 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EALC 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENLG 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNAR 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GSWS 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSOC 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JWST 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LALS 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUSC 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NELC 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSCI 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REES 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RELS 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAST 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPAN 1000:4999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THAR 1000:4999</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Other Courses in Philosophy**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 4998</td>
<td>Directed Honors Research (or a 5000-level course)</td>
<td>1</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Minimally, 4 course units must be from one department - No Introductory or Theater Performance Courses.
Philosophy: Political and Moral Philosophy, BA

Philosophy seeks to illuminate fundamental aspects of the world, of our relation to and knowledge of the world, and of our own nature as rational, purposive, and social beings. The study of philosophy aims at an appreciation of the ways this enterprise has been, is, and might be approached. It also provides a vantage point for reflecting on the nature and achievement of other disciplines, such as science, the arts, and the humanities. Philosophical topics can be divided roughly into value theory (ethics, politics, aesthetics) and theoretical philosophy (epistemology, metaphysics, mind, and logic). The four concentrations available within the major allow students to emphasize different sets of questions.

The new Political and Moral Philosophy Concentration emphasizes the philosophical treatment of normative questions. Its coursework focuses on questions about ethics, morality, politics, and law.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://philosophy.sas.upenn.edu/undergraduate (http://philosophy.sas.upenn.edu/undergraduate/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

和其他课程

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Minimally, 4 course units must be from one department - No Introductory or Laboratory courses.

### Honors

Must be a Senior Major in Philosophy and have a minimum 3.33 GPA in the major. Applicants must have completed the distribution requirement for the major including two courses above 2000 one of which must be above 3010. Please consult with the Undergraduate Chair for other specific criteria.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 4998</td>
<td>Directed Honors Research (or a 5000-level course)</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Philosophy: Political and Moral Philosophy, BA**

Philosophy seeks to illuminate fundamental aspects of the world, of our relation to and knowledge of the world, and of our own nature as rational, purposive, and social beings. The study of philosophy aims at an appreciation of the ways this enterprise has been, is, and might be approached. It also provides a vantage point for reflecting on the nature and achievement of other disciplines, such as science, the arts, and the humanities. Philosophical topics can be divided roughly into value theory (ethics, politics, aesthetics) and theoretical philosophy (epistemology, metaphysics, mind, and logic). The four concentrations available within the major allow students to emphasize different sets of questions.

The new Political and Moral Philosophy Concentration emphasizes the philosophical treatment of normative questions. Its coursework focuses on questions about ethics, morality, politics, and law.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://philosophy.sas.upenn.edu/undergraduate (http://philosophy.sas.upenn.edu/undergraduate/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Honors

Must be a Senior Major in Philosophy and have a minimum 3.33 GPA in the major. Applicants must have completed the distribution requirement for the major including two courses above 2000 one of which must be above 3010. Please consult with the Undergraduate Chair for other specific criteria.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 4998</td>
<td>Directed Honors Research (or a 5000-level course)</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Philosophy: Political and Moral Philosophy, BA**

Philosophy seeks to illuminate fundamental aspects of the world, of our relation to and knowledge of the world, and of our own nature as rational, purposive, and social beings. The study of philosophy aims at an appreciation of the ways this enterprise has been, is, and might be approached. It also provides a vantage point for reflecting on the nature and achievement of other disciplines, such as science, the arts, and the humanities. Philosophical topics can be divided roughly into value theory (ethics, politics, aesthetics) and theoretical philosophy (epistemology, metaphysics, mind, and logic). The four concentrations available within the major allow students to emphasize different sets of questions.

The new Political and Moral Philosophy Concentration emphasizes the philosophical treatment of normative questions. Its coursework focuses on questions about ethics, morality, politics, and law.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://philosophy.sas.upenn.edu/undergraduate (http://philosophy.sas.upenn.edu/undergraduate/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Honors

Must be a Senior Major in Philosophy and have a minimum 3.33 GPA in the major. Applicants must have completed the distribution requirement for the major including two courses above 2000 one of which must be above 3010. Please consult with the Undergraduate Chair for other specific criteria.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 4998</td>
<td>Directed Honors Research (or a 5000-level course)</td>
<td>1</td>
</tr>
</tbody>
</table>
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Physics: Astrophysics, BA

Physics and astronomy are fundamental sciences aimed at discovering the basic principles that govern our universe. Physicists study the interplay between space, time, matter, and energy. Complex behavior in nature is explained in terms of elementary relations between constituent elements and the forces that bind them, over distances ranging from subatomic to cosmic scale. Astronomy encompasses the entire physical universe beyond the earth: the solar system, stars, galaxies, galaxy clusters and superclusters, quasars, and the large-scale structure of the universe. The basic tools in physics and astronomy are mathematics and experimental investigation and observation of the world around us.

At Penn, the curriculum for undergraduate Physics majors, which includes extensive laboratory experience, is based on faculty strengths in Condensed Matter Physics, Elementary Particle Physics, and Astrophysics. Undergraduate teaching is linked to faculty research efforts in these areas, and participation by undergraduates in research is strongly encouraged.

This concentration is particularly appropriate for students planning to attend graduate school in Astrophysics. In addition to core Physics courses, students choose from a selection of courses in Astronomy and Astrophysics.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://www.physics.upenn.edu/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Honors

Applicants must have a minimum GPA of 3.3 in major-related courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 4498</td>
<td>Senior Honor Thesis (Semester 1)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 4498</td>
<td>Senior Honor Thesis (Semester 2)</td>
<td>1</td>
</tr>
</tbody>
</table>

Thesis Accepted

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Physics: Biological Science, BA

Physics and astronomy are fundamental sciences aimed at discovering the basic principles that govern our universe. Physicists study the interplay between space, time, matter, and energy. Complex behavior in nature is explained in terms of elementary relations between constituent elements and the forces that bind them, over distances ranging from subatomic to cosmic scale. Astronomy encompasses the entire physical universe beyond the earth: the solar system, stars, galaxies, galaxy clusters and superclusters, quasars, and the large-scale structure of the universe. The basic tools in physics and astronomy are mathematics and experimental investigation and observation of the world around us.

At Penn, the curriculum for undergraduate Physics majors, which includes extensive laboratory experience, is based on faculty strengths
in Condensed Matter Physics, Elementary Particle Physics, and Astrophysics. Undergraduate teaching is linked to faculty research efforts in these areas, and participation by undergraduates in research is strongly encouraged.

This concentration reflects increasing contributions of physicists (including members of our faculty) to implications of Physics to Biological Sciences. Undergraduate students choosing this concentration will prepare themselves for careers in scientific research or professional Medical Physics programs that have been instituted at Penn and other universities, among other possibilities.

The proposed concentration is distinct from the existing Biophysics Major, although the two share several required courses. The Biophysics Major requires much more chemistry, making it appropriate for students interested in protein science and other topics within the well-established field of Biophysics. The Physics major with a Concentration in Biological Science targets students with interests in the emerging field of Biological Physics, where researchers directly apply physical concepts and techniques to investigate biological systems; the emphasis is on developing new insights regarding biological systems from a perspective strongly rooted in Physics.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://www.physics.upenn.edu/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Code | Title | Course Units
--- | --- | ---

**College General Education Requirements and Free Electives**

0.5 |

Foundation Approaches + Sectors 1 + Free Electives | 16.5 |

**Major Requirements**

**Core Requirements**

MATH 1400 Calculus, Part I | 1 |
MATH 1410 Calculus, Part II | 1 |
MATH 2400 Calculus, Part III | 1 |
MATH 2410 Calculus, Part IV | 1 |

PHYS 1230 Principles of Physics III: Thermal Physics and Waves | 1 |

PHYS 1240 Principles of Physics IV: Modern Physics (without laboratory) 2 | 1 |

PHYS 3361 Electromagnetism I: Electricity and Potential Theory | 1 |

PHYS 3362 Electromagnetism II: Magnetism, Maxwell’s Equations, and Electromagnetic Waves | 1 |

PHYS 4411 Introduction to Quantum Mechanics I | 1 |

PHYS 0150 Principles of Physics I: Mechanics and Wave Motion | 1.5 |

or PHYS 0170 Honors Physics I: Mechanics and Wave Motion |

PHYS 0151 Principles of Physics II: Electromagnetism and Radiation | 1.5 |

or PHYS 0171 Honors Physics II: Electromagnetism and Radiation |

**Concentration Requirements**

BIOL 1121 Introduction to Biology - The Molecular Biology of Life | 1 |

BIOL 1123 Introductory Molecular Biology Laboratory | 0.5 |

BIOL 2810 Biochemistry | 1 |

or BIOL 2010 Cell Biology |

BIOL 2210 Molecular Biology and Genetics | 1 |

PHYS 2280 Physical Models of Biological Systems | 1 |

or PHYS 5580 Biological Physics |

PHYS 4401 Thermodynamics and the Introduction to Statistical Mechanics and Kinetic Theory | 1 |

Select 2 course units of Approved Electives | 2 |

**Total Course Units** | 36 |

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2. PHYS 1250 Principles of Physics IV: Modern Physics recommended.

**Honors**

Applicants must have a minimum GPA of 3.3 in major-related courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 4498 Senior Honor Thesis (Semester 1)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PHYS 4498 Senior Honor Thesis (Semester 2)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Thesis Accepted</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Physics: Business & Technology, BA**

Physics and astronomy are fundamental sciences aimed at discovering the basic principles that govern our universe. Physicists study the interplay between space, time, matter, and energy. Complex behavior in nature is explained in terms of elementary relations between constituent elements and the forces that bind them, over distances ranging from subatomic to cosmic scale. Astronomy encompasses the entire physical universe beyond the earth: the solar system, stars, galaxies, galaxy clusters and superclusters, quasars, and the large-scale structure of the universe. The basic tools in physics and astronomy are mathematics and experimental investigation and observation of the world around us.

At Penn, the curriculum for undergraduate Physics majors, which includes extensive laboratory experience, is based on faculty strengths in Condensed Matter Physics, Elementary Particle Physics, and Astrophysics. Undergraduate teaching is linked to faculty research efforts in these areas, and participation by undergraduates in research is strongly encouraged.

This concentration is particularly appropriate for students whose ultimate goal is a career in modern industry involving both technical and managerial components. A student choosing this concentration will
have a solid background in Physics, be comfortable with electronics and computers, and have some appreciation of modern business methods and economics.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://www.physics.upenn.edu/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 4498</td>
<td>Senior Honor Thesis (Semester 1)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 4498</td>
<td>Senior Honor Thesis (Semester 2)</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Physics: Chemical Principles, BA**

Physics and astronomy are fundamental sciences aimed at discovering the basic principles that govern our universe. Physicists study the interplay between space, time, matter, and energy. Complex behavior in nature is explained in terms of elementary relations between constituent elements and the forces that bind them, over distances ranging from subatomic to cosmic scale. Astronomy encompasses the entire physical universe beyond the earth: the solar system, stars, galaxies, galaxy clusters and superclusters, quasars, and the large-scale structure of the universe. The basic tools in physics and astronomy are mathematics and experimental investigation and observation of the world around us.

At Penn, the curriculum for undergraduate Physics majors, which includes extensive laboratory experience, is based on faculty strengths in Condensed Matter Physics, Elementary Particle Physics, and Astrophysics. Undergraduate teaching is linked to faculty research efforts in these areas, and participation by undergraduates in research is strongly encouraged.

This concentration is particularly appropriate for students planning to enter the health professions. Such students should be aware that, although not part of the concentration requirements, laboratories in general and organic chemistry and lecture and laboratory work in biology are generally required by professional schools in the health area. The concentration may also be appropriate for other students pursuing double majors in Physics and Chemistry or Biochemistry.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

**Note:** For Biology concentration, see Biophysics track outlined below.

For more information: http://www.physics.upenn.edu/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 3364</td>
<td>Laboratory Electronics</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 4414</td>
<td>Laboratory in Modern Physics</td>
<td>1</td>
</tr>
</tbody>
</table>

Select 4 course units in Business

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 4414</td>
<td>Laboratory in Modern Physics</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
</tbody>
</table>

### Honors

Applicants must have a minimum GPA of 3.3 in major-related courses.
Applicants must have a minimum GPA of 3.3 in major-related courses.

Honors
Applicants must have a minimum GPA of 3.3 in major-related courses.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Physics: Computer Techniques, BA

Physics and astronomy are fundamental sciences aimed at discovering the basic principles that govern our universe. Physicists study the interplay between space, time, matter, and energy. Complex behavior in nature is explained in terms of elementary relations between constituent elements and the forces that bind them, over distances ranging from subatomic to cosmic scale. Astronomy encompasses the entire physical universe beyond the earth: the solar system, stars, galaxies, galaxy clusters and superclusters, quasars, and the large-scale structure of the universe. The basic tools in physics and astronomy are mathematics and experimental investigation and observation of the world around us.

At Penn, the curriculum for undergraduate Physics majors, which includes extensive laboratory experience, is based on faculty strengths in Condensed Matter Physics, Elementary Particle Physics, and Astrophysics. Undergraduate teaching is linked to faculty research efforts in these areas, and participation by undergraduates in research is strongly encouraged.

This concentration is particularly appropriate for students planning a career in the computer or electronics industries or contemplating a dual degree in Physics and either Computer Science or Electrical Engineering. The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://www.physics.upenn.edu/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2410</td>
<td>Calculus, Part IV</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1230</td>
<td>Principles of Physics III: Thermal Physics and Waves</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1250</td>
<td>Principles of Physics IV: Modern Physics</td>
<td>1.5</td>
</tr>
<tr>
<td>PHYS 3351</td>
<td>Analytical Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 3361</td>
<td>Electromagnetism I: Electricity and Potential Theory</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 3362</td>
<td>Electromagnetism II: Magnetism, Maxwell's Equations, and Electromagnetic Waves</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 4411</td>
<td>Introduction to Quantum Mechanics I</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0150</td>
<td>Principles of Physics I: Mechanics and Wave Motion</td>
<td>1.5</td>
</tr>
<tr>
<td>or PHYS 0170</td>
<td>Honors Physics I: Mechanics and Wave Motion</td>
<td>1.5</td>
</tr>
<tr>
<td>PHYS 0151</td>
<td>Principles of Physics II: Electromagnetism and Radiation</td>
<td>1.5</td>
</tr>
<tr>
<td>or PHYS 0171</td>
<td>Honors Physics II: Electromagnetism and Radiation</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**Concentration Requirements**

Select one of the following Concentrations: 5

**Chemical Principles Concentration:**

- CHEM 1011 Introduction to General Chemistry I
- CHEM 1021 Introduction to General Chemistry II
- CHEM 2120 Physical Chemistry I
- & CHEM 2220 Physical Chemistry II
- or CHEM 241 Principles of Organic Chemistry I
- & CHEM 242 Principles of Organic Chemistry II
- PHYS 4401 Thermodynamics and the Introduction to Statistical Mechanics and Kinetic Theory

**Biology Concentration: Biophysics Track Requirements:**

- BIOL 1121 Introduction to Biology - The Molecular Biology of Life
- BIOL 2210 Molecular Biology and Genetics
- BIOL 2110 Molecular and Cellular Neurobiology
- BIOL 4004 Immunobiology
- PHYS 2280 Physical Models of Biological Systems

**Foundational Approaches + Sectors**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2410</td>
<td>Calculus, Part IV</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1230</td>
<td>Principles of Physics III: Thermal Physics and Waves</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1250</td>
<td>Principles of Physics IV: Modern Physics</td>
<td>1.5</td>
</tr>
<tr>
<td>PHYS 3351</td>
<td>Analytical Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 3361</td>
<td>Electromagnetism I: Electricity and Potential Theory</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 3362</td>
<td>Electromagnetism II: Magnetism, Maxwell's Equations, and Electromagnetic Waves</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 4411</td>
<td>Introduction to Quantum Mechanics I</td>
<td>1</td>
</tr>
</tbody>
</table>

### College General Education Requirements and Free Electives

**Foundational Approaches + Sectors** + Free Electives 17.5

**Major Requirements**

**Core Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2410</td>
<td>Calculus, Part IV</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1230</td>
<td>Principles of Physics III: Thermal Physics and Waves</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1250</td>
<td>Principles of Physics IV: Modern Physics</td>
<td>1.5</td>
</tr>
<tr>
<td>PHYS 3351</td>
<td>Analytical Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 3361</td>
<td>Electromagnetism I: Electricity and Potential Theory</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 3362</td>
<td>Electromagnetism II: Magnetism, Maxwell's Equations, and Electromagnetic Waves</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 4411</td>
<td>Introduction to Quantum Mechanics I</td>
<td>1</td>
</tr>
</tbody>
</table>
Physics and astronomy are fundamental sciences aimed at discovering the basic principles that govern our universe. Physicists study the interplay between space, time, matter, and energy. Complex behavior in nature is explained in terms of elementary relations between constituent elements and the forces that bind them, over distances ranging from subatomic to cosmic scale. Astronomy encompasses the entire physical universe beyond the earth: the solar system, stars, galaxies, galaxy clusters and superclusters, quasars, and the large-scale structure of the universe. The basic tools in physics and astronomy are mathematics and experimental investigation and observation of the world around us.

At Penn, the curriculum for undergraduate Physics majors, which includes extensive laboratory experience, is based on faculty strengths in Condensed Matter Physics, Elementary Particle Physics, and Astrophysics. Undergraduate teaching is linked to faculty research efforts in these areas, and participation by undergraduates in research is strongly encouraged.

This concentration is particularly appropriate for students contemplating graduate study in Physics. It provides a sound basis in Physics and Mathematics with ample opportunities to take elective or even graduate courses and participate in research.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

For more information: http://www.physics.upenn.edu/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 4498</td>
<td>Senior Honor Thesis (Semester 1)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 4498</td>
<td>Senior Honor Thesis (Semester 2)</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Physics: Physical Theory and Experimental Technique, BA**

Applicants must have a minimum GPA of 3.3 in major-related courses.
Honors

Applicants must have a minimum GPA of 3.3 in major-related courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 4498</td>
<td>Senior Honor Thesis (Semester 1)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 4498</td>
<td>Senior Honor Thesis (Semester 2)</td>
<td>1</td>
</tr>
</tbody>
</table>

Thesis Accepted

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Political Science: American Politics, BA

Political Science explores systematic approaches to understanding politics. Students may choose to take a general approach to the subject or pursue a concentration in the sub-fields of American politics, comparative politics, international relations or political theory. In addition students may select a world region for an area studies concentration. The Political Science Department's course offerings span the discipline of political science, from American political institutions, to the politics of world regions, the emergence of a new international order, and recent and ancient political ideas. The Department's curriculum is divided into the four standard fields of American politics, comparative politics, international relations, and political theories. There are also other opportunities for study in political processes of elections and communications and public policy.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

A minimum of 9 course units in Political Science are required, of which 6 must be taken in the Political Science Department at the University of Pennsylvania (includes Washington, DC Semester). See Major Program Booklet for Transfer and AP credit restrictions.

For more information: http://www.sas.upenn.edu/polisci/content/undergraduate-program/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

American Politics Concentration

Select 5 course units of Concentration courses in consultation with the faculty advisor with three course units in PSCI

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
</table>

Honors

Required: A minimum overall GPA of 3.3 and a 3.6 GPA in all PSCI courses taken in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
</table>

Political Science: Comparative Politics, BA

Political Science explores systematic approaches to understanding politics. Students may choose to take a general approach to the subject or pursue a concentration in the sub-fields of American politics, comparative politics, international relations or political theory. In addition students may select a world region for an area studies concentration. The Political Science Department’s course offerings span the discipline of political science, from American political institutions, to the politics of world regions, the emergence of a new international order, and recent and ancient political ideas. The Department’s curriculum is divided into the four standard fields of American politics, comparative politics, international relations, and political theories. There are also other opportunities for study in political processes of elections and communications and public policy.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

A minimum of 9 course units in Political Science are required, of which 6 must be taken in the Political Science Department at the University of Pennsylvania (includes Washington, DC Semester). See Major Program Booklet for Transfer and AP credit restrictions.

For more information: http://www.sas.upenn.edu/polisci/content/undergraduate-program/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
of world regions, the emergence of a new international order, and recent and ancient political ideas. The Department’s curriculum is divided into the four standard fields of American politics, comparative politics, international relations, and political theories. There are also other opportunities for study in political processes of elections and communications and public policy.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

A minimum of 9 course units in Political Science are required, of which 6 must be taken in the Political Science Department at the University of Pennsylvania (includes Washington, DC Semester). See Major Program Booklet for Transfer and AP credit restrictions.

For more information: http://www.sas.upenn.edu/polisci/content/undergraduate-program (http://www.sas.upenn.edu/polisci/content/undergraduate-program/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Approaches + Sectors 1 + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 course units of the following: 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSCI 0100 Introduction to Comparative Politics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or PSCI 0101 Comparative Politics of Developing Areas</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSCI 0200 Introduction to American Politics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSCI 0400 Introduction to International Relations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSCI 0600 Ancient Political Thought</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or PSCI 0601 Modern Political Thought</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subfield Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 course in three of the four subfields: 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>American Politics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comparative Politics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Political Theory</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSCI or Major Related Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 7 course units in PSCI or Major Related Electives 2</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>32</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 A maximum of three non-PSCI allowed.

Comparison Politics Concentration

Select 5 course units of Concentration courses in consultation with the faculty advisor with three course units in PSCI

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Course Units</td>
<td>5</td>
</tr>
</tbody>
</table>

Honors

Required: A minimum overall GPA of 3.3 and a 3.6 GPA in all PSCI courses taken in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 4997</td>
<td>Political Science Honors</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 4999</td>
<td>Honors Thesis Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Political Science: General Political Science, BA

Political Science explores systematic approaches to understanding politics. Students may choose to take a general approach to the subject or pursue a concentration in the sub-fields of American politics, comparative politics, international relations or political theory. In addition students may select a world region for an area studies concentration. The Political Science Department’s course offerings span the discipline of political science, from American political institutions, to the politics of world regions, the emergence of a new international order, and recent and ancient political ideas. The Department’s curriculum is divided into the four standard fields of American politics, comparative politics, international relations, and political theories. There are also other opportunities for study in political processes of elections and communications and public policy.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

A minimum of 9 course units in Political Science is required, of which 6 must be taken in the Political Science Department at the University of Pennsylvania (includes Washington, DC Semester). See Major Program Booklet for Transfer and AP credit restrictions.

For more information: http://www.sas.upenn.edu/polisci/content/undergraduate-program (http://www.sas.upenn.edu/polisci/content/undergraduate-program/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.
### College General Education Requirements and Free Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
</tbody>
</table>

### Major Requirements

#### Core Requirement

Select 2 course units in the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 0100</td>
<td>Introduction to Comparative Politics</td>
<td>1</td>
</tr>
<tr>
<td>or PSCI 0101</td>
<td>Comparative Politics of Developing Areas</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 0200</td>
<td>Introduction to American Politics</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 0400</td>
<td>Introduction to International Relations</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 0600</td>
<td>Ancient Political Thought</td>
<td>1</td>
</tr>
<tr>
<td>or PSCI 0601</td>
<td>Modern Political Thought</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Subfield Requirement

Select 1 course in three of the four subfields:

- American Politics
- Comparative Politics
- International Relations
- Political Theory

#### PSCI or Major Related Electives

Select 7 course units in PSCI or Major Related Electives

### Total Course Units

32

---

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2. A maximum of three non-PSCI courses are allowed.

## Honors

Applicants must have 3.3 overall GPA and a 3.6 GPA in all PSCI courses taken in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 4997</td>
<td>Political Science Honors (Fall of Senior Year)</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 4999</td>
<td>Honors Thesis Independent Study (Spring of Senior Year)</td>
<td>1</td>
</tr>
</tbody>
</table>

## Political Science: Individualized, BA

Political Science explores systematic approaches to understanding politics. Students may choose to take a general approach to the subject or pursue a concentration in the sub-fields of American politics, comparative politics, international relations or political theory. In addition students may select a world region for an area studies concentration. The Political Science Department's course offerings span the discipline of political science, from American political institutions, to the politics of world regions, the emergence of a new international order, and recent and ancient political ideas. The Department's curriculum is divided into the four standard fields of American politics, comparative politics, international relations, and political theories. There are also other opportunities for study in political processes of elections and communications and public policy.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

A minimum of 9 course units in Political Science are required, of which 6 must be taken in the Political Science Department at the University of Pennsylvania (includes Washington, DC Semester). See Major Program Booklet for Transfer and AP credit restrictions.

For more information: [www.sas.upenn.edu/polisci/content/undergraduate-program/](http://www.sas.upenn.edu/polisci/content/undergraduate-program/)

For information about the General Education requirements, please visit the [College of Arts & Sciences Curriculum](https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
</tbody>
</table>

#### Core Requirement

Select 2 course units in the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 0100</td>
<td>Introduction to Comparative Politics</td>
<td>1</td>
</tr>
<tr>
<td>or PSCI 0101</td>
<td>Comparative Politics of Developing Areas</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 0200</td>
<td>Introduction to American Politics</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 0400</td>
<td>Introduction to International Relations</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 0600</td>
<td>Ancient Political Thought</td>
<td>1</td>
</tr>
<tr>
<td>or PSCI 0601</td>
<td>Modern Political Thought</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Subfield Requirement

Select 1 course in three of the four subfields:

- American Politics
- Comparative Politics
- International Relations
- Political Theory

#### PSCI or Major Related Electives

Select 7 course units in PSCI or Major Related Electives

### Total Course Units

32

---

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2. A maximum of three non-PSCI courses are allowed.
**Individualized Concentration**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select 6 course units of Concentration courses in consultation with the faculty advisor with two course units in PSCI</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total Course Units**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 4997</td>
<td>Political Science Honors</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 4999</td>
<td>Honors Thesis Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

**Honors**

**Required:** A minimum overall GPA of 3.3 and a 3.6 GPA in all PSCI courses taken in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 4997</td>
<td>Political Science Honors</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 4999</td>
<td>Honors Thesis Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Political Science: International Relations, BA**

Political Science explores systematic approaches to understanding politics. Students may choose to take a general approach to the subject or pursue a concentration in the sub-fields of American politics, comparative politics, international relations or political theory. In addition students may select a world region for an area studies concentration. The Political Science Department's course offerings span the discipline of political science, from American political institutions, to the politics of world regions, the emergence of a new international order, and recent and ancient political ideas. The Department's curriculum is divided into the four standard fields of American politics, comparative politics, international relations, and political theories. There are also other opportunities for study in political processes of elections and communications and public policy.

The minimum total course units ([https://www.college.upenn.edu/credits-needed-major/](https://www.college.upenn.edu/credits-needed-major/)) for graduation in this major is 32. Double majors may entail more course units.

A minimum of 9 course units in Political Science are required, of which 6 must be taken in the Political Science Department at the University of Pennsylvania (includes Washington, DC Semester). See Major Program Booklet for Transfer and AP credit restrictions.

**For more information:** [http://www.sas.upenn.edu/polisci/content/undergraduate-program](http://www.sas.upenn.edu/polisci/content/undergraduate-program/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum ([https://www.college.upenn.edu/curriculum/](https://www.college.upenn.edu/curriculum/)) page.

**International Relations Concentration**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select 5 course units of Concentration courses in consultation with the faculty advisor with three course units in PSCI</td>
<td>5</td>
</tr>
</tbody>
</table>

**Total Course Units**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 4997</td>
<td>Political Science Honors</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 4999</td>
<td>Honors Thesis Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement ([http://www.college.upenn.edu/sectors-policy/](http://www.college.upenn.edu/sectors-policy/)).

2 A maximum of three non-PSCI courses are allowed.
Political Science: Political Economy, BA

Political Science explores systematic approaches to understanding politics. Students may choose to take a general approach to the subject or pursue a concentration in the sub-fields of American politics, comparative politics, international relations or political theory. In addition students may select a world region for an area studies concentration. The Political Science Department's course offerings span the discipline of political science, from American political institutions, to the politics of world regions, the emergence of a new international order, and recent and ancient political ideas. The Department's curriculum is divided into the four standard fields of American politics, comparative politics, international relations, and political theories. There are also other opportunities for study in political processes of elections and communications and public policy.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

A minimum of 9 course units in Political Science are required, of which 6 must be taken in the Political Science Department at the University of Pennsylvania (includes Washington, DC Semester). See Major Program Booklet for Transfer and AP credit restrictions.

For more information: http://www.sas.upenn.edu/polisci/content/undergraduate-program/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 course units in the following:</td>
<td>2</td>
</tr>
<tr>
<td>PSCI 0100</td>
<td>Introduction to Comparative Politics</td>
<td></td>
</tr>
<tr>
<td>or PSCI 0101</td>
<td>Comparative Politics of Developing Areas</td>
<td></td>
</tr>
<tr>
<td>PSCI 0200</td>
<td>Introduction to American Politics</td>
<td></td>
</tr>
<tr>
<td>PSCI 0400</td>
<td>Introduction to International Relations</td>
<td></td>
</tr>
<tr>
<td>PSCI 0600</td>
<td>Ancient Political Thought</td>
<td></td>
</tr>
<tr>
<td>or PSCI 0601</td>
<td>Modern Political Thought</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Subfield Requirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 course in three of the four subfields:</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>American Politics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Comparative Politics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>International Relations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Political Theory</td>
<td></td>
</tr>
<tr>
<td>PSCI or</td>
<td>PSCI or Major Related Electives</td>
<td>7</td>
</tr>
<tr>
<td>Major Related Electives</td>
<td>Select 7 course units in PSCI or Major Related Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>32</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 A maximum of three non-PSCI courses are allowed.

Political Economy Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select 5 course units of Concentration courses in</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>consultation with the faculty advisor with three course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>units in PSCI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>5</td>
</tr>
</tbody>
</table>

Honors

Required: A minimum overall GPA of 3.3 and a 3.6 GPA in all PSCI courses taken in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 4997</td>
<td>Political Science Honors</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 4999</td>
<td>Honors Thesis Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Political Science: Political Theory, BA

Political Science explores systematic approaches to understanding politics. Students may choose to take a general approach to the subject or pursue a concentration in the sub-fields of American politics, comparative politics, international relations or political theory. In addition students may select a world region for an area studies concentration. The Political Science Department's course offerings span the discipline of political science, from American political institutions, to the politics of world regions, the emergence of a new international order, and recent and ancient political ideas. The Department's curriculum is divided into the four standard fields of American politics, comparative politics, international relations, and political theories. There are also other opportunities for study in political processes of elections and communications and public policy.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

A minimum of 9 course units in Political Science are required, of which 6 must be taken in the Political Science Department at the University of Pennsylvania (includes Washington, DC Semester). See Major Program Booklet for Transfer and AP credit restrictions.

For more information: http://www.sas.upenn.edu/polisci/content/undergraduate-program/
For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors(^1) + Free Electives</td>
<td>20</td>
</tr>
</tbody>
</table>

**Major Requirements**

**Core Requirement**

Select 2 course units of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 0100</td>
<td>Introduction to Comparative Politics</td>
<td>2</td>
</tr>
<tr>
<td>or PSCI 0101</td>
<td>Comparative Politics of Developing Areas</td>
<td></td>
</tr>
<tr>
<td>PSCI 0200</td>
<td>Introduction to American Politics</td>
<td></td>
</tr>
<tr>
<td>PSCI 0400</td>
<td>Introduction to International Relations</td>
<td></td>
</tr>
<tr>
<td>PSCI 0600</td>
<td>Ancient Political Thought</td>
<td></td>
</tr>
<tr>
<td>or PSCI 0601</td>
<td>Modern Political Thought</td>
<td></td>
</tr>
</tbody>
</table>

**Subfield Requirement**

Select 1 course in three of the four subfields:

- American Politics
- Comparative Politics
- International Relations
- Political Theory

**PSCI or Major Related Electives**

Select 7 course units in PSCI or Major Related Electives\(^2\) 7

**Total Course Units** 32

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 A maximum of three non-PSCI courses are allowed.

**Political Theory Concentration**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select 5 course units of Concentration courses in consultation with the faculty advisor with three course units in PSCI</td>
<td></td>
</tr>
</tbody>
</table>

**Honors**

**Required:** A minimum overall GPA of 3.3 and a 3.6 GPA in all PSCI courses taken in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 4997</td>
<td>Political Science Honors</td>
<td>1</td>
</tr>
<tr>
<td>PSCI 4999</td>
<td>Honors Thesis Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Psychology, BA**

Studies in psychology introduce students to contemporary understandings of how organisms perceive, learn, think and interact with one another, how they develop, how they are motivated and how, individually and as members of species, they may be compared with one another. Psychology at Penn is a diverse discipline, with topics ranging from neuroscience to psychopathology.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

A minimum GPA of 2.0 is required.

6 course units of Psychology courses must be taken at the University of Pennsylvania.

For more information: https://psychology.sas.upenn.edu/penn-undergraduate-psychology (https://psychology.sas.upenn.edu/penn-undergraduate-psychology/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors(^1) + Free Electives</td>
<td>20</td>
</tr>
</tbody>
</table>

**Major Requirements**

**Introductory Psychology**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 0001</td>
<td>Introduction to Experimental Psychology (or Replacement PSYC course)(^2)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Distribution**

Biological Basis of Behavior:

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 1210</td>
<td>Introduction to Brain and Behavior</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 1212</td>
<td>Physiology of Motivated Behavior</td>
<td></td>
</tr>
<tr>
<td>PSYC 1230</td>
<td>Cognitive Neuroscience</td>
<td></td>
</tr>
<tr>
<td>PSYC 1530</td>
<td>Memory</td>
<td></td>
</tr>
</tbody>
</table>

Select 1 course unit of Lecture

Cognitive Basis of Behavior:

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 1340</td>
<td>Perception</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 1310</td>
<td>Language and Thought</td>
<td></td>
</tr>
<tr>
<td>PSYC 1530</td>
<td>Memory</td>
<td></td>
</tr>
<tr>
<td>PSYC 1777</td>
<td>Introduction to Developmental Psychology</td>
<td></td>
</tr>
</tbody>
</table>

Select 1 course unit of Lecture

Social Science Bases of Behavior:

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 1462</td>
<td>Abnormal Psychology</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 1440</td>
<td>Social Psychology</td>
<td></td>
</tr>
<tr>
<td>PSYC 1777</td>
<td>Introduction to Developmental Psychology</td>
<td></td>
</tr>
</tbody>
</table>

Select 1 course unit of Lecture

*Research Experience*
### Religious Studies, BA

Religion is a complex network of ideas and actions (ethical and ritual) that express a group’s sense of ultimate meaning of life. The academic study of religion examines how the beliefs and values of contemporary and historical cultures shape and are shaped by societal factors, long-standing traditions, and distinctive forms of literary and artistic expression.

Because of the multi-faceted nature of the subject matter, the University of Pennsylvania’s Religious Studies major program of study is open to students looking to tailor their educational experience to fit with their own personal and academic areas of interest. Each undergraduate who wishes to major in Religious Studies will meet with the Chair of the Department prior to claiming the major to discuss their desired coursework and create an individualized plan of execution.

As our core faculty shares research foci and skills in the study of material culture (art, manuscripts, archaeology, inscriptions, and other primary historical sources), we are well-suited to lead serious students in intensive research to better prepare them for graduate study which requires research and evaluation skills.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: [https://www.sas.upenn.edu/religious_studies/undergraduate/major/](https://www.sas.upenn.edu/religious_studies/undergraduate/major/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Honors

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select 1 course unit of Second Statistics</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 4997</td>
<td>Senior Honors Seminar in Psychology</td>
<td>0.5</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Elective Psychology Courses

Select 2 course units in Psychology

Select 2 course units in Psychology or Approved Psychology Cognate Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1040</td>
<td>Sex and Human Nature</td>
<td></td>
</tr>
<tr>
<td>ASAM 1800</td>
<td>Psychology of Asian Americans</td>
<td></td>
</tr>
<tr>
<td>NRSC 2233</td>
<td>Neuroethology</td>
<td></td>
</tr>
<tr>
<td>NRSC 2240</td>
<td>Chronobiology and Sleep</td>
<td></td>
</tr>
<tr>
<td>NRSC 3310</td>
<td>Functional Neuroanatomy</td>
<td></td>
</tr>
<tr>
<td>NRSC 2350</td>
<td>Developmental Neurobiology</td>
<td></td>
</tr>
<tr>
<td>NRSC 4421</td>
<td>Functional Imaging of the Human Brain</td>
<td></td>
</tr>
<tr>
<td>NRSC 4430</td>
<td>The Cognitive Neuroscience of Autism</td>
<td></td>
</tr>
<tr>
<td>NRSC 4469</td>
<td>Stress Neuroscience</td>
<td></td>
</tr>
<tr>
<td>NRSC 4470</td>
<td>Animal Models of Neuropsychiatric Disorders</td>
<td></td>
</tr>
<tr>
<td>NRSC 4480</td>
<td>Biological Basis of Psychiatric Disorders</td>
<td></td>
</tr>
<tr>
<td>NRSC 4482</td>
<td>Clinical Psychopharmacology</td>
<td></td>
</tr>
<tr>
<td>CRIM 2070</td>
<td>Biopsychosocial Criminology</td>
<td></td>
</tr>
<tr>
<td>EDUC 2535</td>
<td>Psychology of Women</td>
<td></td>
</tr>
<tr>
<td>EDUC 2541</td>
<td>Educational Psychology</td>
<td></td>
</tr>
<tr>
<td>EDUC 2551</td>
<td>SNF Paideia Course: Mindfulness and Human Development</td>
<td></td>
</tr>
<tr>
<td>EDUC 3545</td>
<td>Psychology of Personal Growth</td>
<td></td>
</tr>
<tr>
<td>LING 2700</td>
<td>Language Acquisition</td>
<td></td>
</tr>
<tr>
<td>PHIL 4843</td>
<td>Philosophy and Visual Perception</td>
<td></td>
</tr>
<tr>
<td>PHIL 4840</td>
<td>Philosophy of Psychology</td>
<td></td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 1120</td>
<td>Introductory Statistics</td>
<td></td>
</tr>
</tbody>
</table>

### Total Course Units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select 1 course unit of Second Statistics</td>
<td>1</td>
</tr>
<tr>
<td>PSYC 4997</td>
<td>Senior Honors Seminar in Psychology</td>
<td>0.5</td>
</tr>
</tbody>
</table>

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

**1** You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

**2** Replacement PSYC course if PSYC 0001 Introduction to Experimental Psychology waived by an AP score of 5.
### Culminating Experience

Select 1 course unit in Independent Study/Culminating Experience

### Electives

5 Credits in RELS 0000-4999 (Or, course with Attribute = ARRS)

**Total Course Units:** 32

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

### Honors

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELS 3999</td>
<td>Directed Reading</td>
<td>1</td>
</tr>
<tr>
<td>RELS 3099</td>
<td>Honors Thesis Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Romance Languages: French and Italian, BA

The Dual Romance Languages Major allows students to pursue advanced course work across two Romance Languages: French, Spanish, and/or Italian. It is an 18-credit major, with nine advanced courses in each language. Interested students should contact the Undergraduate Coordinator or the appropriate undergraduate chairs for more information and guidance.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

Students are required to meet with the appropriate undergraduate chairs prior to beginning course work. Study Abroad courses must be pre-approved by the Undergraduate Chair to count for the major.

**For more information:** http://ccat.sas.upenn.edu/roml/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 1212</td>
<td>Advanced French Grammar and Composition or FREN 1214</td>
<td>Advanced French Conversation and Composition</td>
</tr>
<tr>
<td>FREN 1231</td>
<td>Perspectives in French Literature: Love and Passion or FREN 1232</td>
<td>Perspectives in French Literature: The Individual and Society</td>
</tr>
<tr>
<td>FREN 1226</td>
<td>French History and Culture to 1774</td>
<td>1</td>
</tr>
<tr>
<td>FREN 1227</td>
<td>French History and Culture 1789-1945</td>
<td>1</td>
</tr>
<tr>
<td>2000 or 3000 Level Courses</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Select 2 course units</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3000 Level Courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 3 course units of 3000-level courses, with only 1 course unit in major-related courses</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

#### Italian Studies

**Core Requirement:** 2

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL 1000</td>
<td>Advanced Italian I</td>
<td>1</td>
</tr>
<tr>
<td>ITAL 1890</td>
<td>Masterpieces-Italian Literature</td>
<td>1</td>
</tr>
<tr>
<td>ITAL 1200</td>
<td>Advanced Italian II</td>
<td>1</td>
</tr>
</tbody>
</table>

**Electives:**

Select 6 course units of electives, with no more than two courses taught in English

**Research Requirement**

Complete Research Requirement in the Department at Penn

**Total Course Units:** 36

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Must be taken in the Department at Penn.

### Honors

Applicant must have a minimum GPA of 3.5 in the major and a GPA of 3.3 overall. Only one of the courses below need to be taken, and it must be taken in the Department at Penn.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 4000</td>
<td>Honors Thesis</td>
<td></td>
</tr>
<tr>
<td>ITAL 4000</td>
<td>Honors Thesis</td>
<td></td>
</tr>
<tr>
<td>SPAN 4000</td>
<td>Honors Thesis</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Romance Languages: French and Spanish, BA

The Dual Romance Languages Major allows students to pursue advanced course work across two Romance Languages: French, Spanish, and/or Italian. It is an 18-credit major, with nine advanced courses in each language. Interested students should contact the Undergraduate Coordinator or the appropriate undergraduate chairs for more information and guidance.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

Students are required to meet with the appropriate undergraduate chairs prior to beginning course work. Study Abroad courses must be pre-approved by the Undergraduate Chair to count for the major.

For more information: http://ccat.sas.upenn.edu/roml/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>Foundational Approaches + Sectors + Free Electives</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td>French Studies</td>
</tr>
<tr>
<td></td>
<td>Core Requirement:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FREN 1212</td>
<td>Advanced French Grammar and Composition</td>
</tr>
<tr>
<td></td>
<td>or FREN 1214</td>
<td>Advanced French Conversation and Composition</td>
</tr>
<tr>
<td></td>
<td>FREN 1231</td>
<td>Perspectives in French Literature: Love and Passion</td>
</tr>
<tr>
<td></td>
<td>or FREN 1232</td>
<td>Perspectives in French Literature: The Individual and Society</td>
</tr>
<tr>
<td></td>
<td>FREN 1226</td>
<td>French History and Culture to 1774</td>
</tr>
<tr>
<td></td>
<td>FREN 1227</td>
<td>French History and Culture 1789-1945</td>
</tr>
<tr>
<td></td>
<td>2000- or 3000 Level Courses</td>
<td>Select 2 course units of 2000 or 3000 level courses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3000 Level Courses:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Select 3 course units from 3000-level courses, with only 1 course unit in a major-related course</td>
</tr>
<tr>
<td></td>
<td>Hispanic Studies</td>
<td>Core Requirement:</td>
</tr>
<tr>
<td></td>
<td>SPAN 1200</td>
<td>Advanced Spanish II: Grammar and Composition</td>
</tr>
<tr>
<td></td>
<td>SPAN 1800</td>
<td>Contexts of Hispanic Culture and Civilization</td>
</tr>
<tr>
<td></td>
<td>or SPAN 1900</td>
<td>Introduction to Literary Analysis</td>
</tr>
<tr>
<td></td>
<td>2000 or 3000 Level Course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3000 Level Courses:</td>
<td>Select six 3000-level courses</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Romance Languages: Italian and Spanish, BA

The Dual Romance Languages Major allows students to pursue advanced course work across two Romance Languages: French, Spanish, and/or Italian. It is an 18-credit major, with nine advanced courses in each language. Interested students should contact the Undergraduate Coordinator or the appropriate undergraduate chairs for more information and guidance.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

Students are required to meet with the appropriate undergraduate chairs prior to beginning course work. Study Abroad courses must be pre-approved by the Undergraduate Chair to count for the major.

For more information: http://ccat.sas.upenn.edu/roml/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>Foundational Approaches + Sectors + Free Electives</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td>Hispanic Studies</td>
</tr>
</tbody>
</table>
The major in Russian and East European Studies provides a program of study that enables a broad multi-disciplinary and multi-cultural understanding of the languages, literatures, cultures, histories, and societies of Russia, Central and Eastern European, and the Balkan and Baltic regions. For the language requirement, students can choose any regional language offered at Penn (i.e. Bosnian/Croatian/Serbian, Hungarian, Polish, Russian, Ukrainian) or in which they can demonstrate an equivalent proficiency. In addition to linguistic flexibility, the major allows students to pursue their specific disciplinary interests through three concentrations: Language, Literature, and Culture; History, Politics, and Society; and Cinema, Arts, and Letters. Majors are encouraged to complete a summer or semester abroad to gain first-hand understanding of the communities they study and to advance their language competency. The major offers an honors option.

Knowledge of Russian and East European languages and cultures is a marketable and impressive skill, whether you are in academia, arts, law, medicine, governmental service, public interest, business, or politics. Russian and East European majors and minors land jobs in a variety of settings. They go on to work in business as financial and policy analysts for American and foreign companies. They work for NGOs, publishing houses, or the media. They teach abroad and consult in marketing, advertising, aerospace, or computer engineering. And, of course, some work as educators in universities and schools and as employees of the US government.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: http://ccat.sas.upenn.edu/Slavic (http://ccat.sas.upenn.edu/slavic/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Russian and East European Studies: Cinema, Arts and Letters, BA

Applicant must have a minimum GPA of 3.5 in the major and a GPA of 3.3 overall. Only one of the courses below needs to be taken, and it must be taken in the Department at Penn.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN 1200</td>
<td>Advanced Spanish II: Grammar and Composition</td>
<td>1</td>
</tr>
<tr>
<td>SPAN 1800</td>
<td>Contexts of Hispanic Culture and Civilization</td>
<td>1</td>
</tr>
<tr>
<td>or SPAN 1900</td>
<td>Introduction to Literary Analysis</td>
<td>1</td>
</tr>
<tr>
<td>2000 or 3000 level course</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3000 level courses</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**Italian Studies**

<table>
<thead>
<tr>
<th>Core Requirement</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL 1000 Advanced Italian I</td>
<td>1</td>
</tr>
<tr>
<td>ITAL 1200 Advanced Italian II</td>
<td>1</td>
</tr>
<tr>
<td>ITAL 1890 Masterpieces-Italian Literature</td>
<td>1</td>
</tr>
</tbody>
</table>

Electives:

Select six electives with no more than two courses taught in English

<table>
<thead>
<tr>
<th>Research Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Research Requirement in the Department at Penn</td>
</tr>
</tbody>
</table>

**Honors**

Applicant must have a minimum GPA of 3.5 in the major and a GPA of 3.3 overall. Only one of the courses below needs to be taken, and it must be taken in the Department at Penn.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 4000</td>
<td>Honors Thesis</td>
<td></td>
</tr>
<tr>
<td>ITAL 4000</td>
<td>Honors Thesis</td>
<td></td>
</tr>
<tr>
<td>SPAN 4000</td>
<td>Honors Thesis</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Russian and East European Studies Core Requirements

- The major allows students to pursue their specific disciplinary interests through three concentrations: Language, Literature, and Culture; History, Politics, and Society; and Cinema, Arts, and Letters.
- Majors are encouraged to complete a summer or semester abroad to gain first-hand understanding of the communities they study and to advance their language competency.
- The major offers an honors option.
- Knowledge of Russian and East European languages and cultures is a marketable and impressive skill, whether you are in academia, arts, law, medicine, governmental service, public interest, business, or politics.
- Russian and East European majors and minors land jobs in a variety of settings.
- They go on to work in business as financial and policy analysts for American and foreign companies.
- They work for NGOs, publishing houses, or the media.
- They teach abroad and consult in marketing, advertising, aerospace, or computer engineering.
- And, of course, some work as educators in universities and schools and as employees of the US government.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: [http://ccat.sas.upenn.edu/Slavic](http://ccat.sas.upenn.edu/Slavic)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>REES 0010</td>
<td>Central and Eastern Europe: Cultures, Histories, Societies</td>
<td></td>
</tr>
</tbody>
</table>

### Concentration Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 7 courses</td>
<td>3,4,5</td>
<td></td>
</tr>
</tbody>
</table>

### Electives

Select 4 Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

| Total Course Units | 32 |

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2. Students take seven REES courses* with cinema studies, art history, and literature content. 4000-level or 5000-level (or equivalent) content-based language courses may be counted towards this requirement. * Note that some REES courses (defined as those with RUSS and EEUR course numbers) are offered through Penn Language Center (PLC) (http://plc.sas.upenn.edu/)
3. Chronological, Disciplinary, and Geographical requirements must be met with concentration and free elective courses.
4. Because the language of cinema in this part of the world is deeply historical and cultural, students must take at least one broad survey course that covers the period before 1800, one that covers the period before 1900 and one that covers the period after 1900 to fulfill the Chronological Distribution requirement.

---

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2. Must be taken in the Department at Penn.
3. At least 2 course units must be taken in the Department at Penn.
Students must take at least one course with cinema studies content, one course with art history content, and one with literature content to fulfill the Disciplinary Distribution requirement.

## Honors

Applicants must have a minimum overall 3.3 and a GPA of 3.6 in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>REES 4998</td>
<td>Honors Thesis</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Russian and East European Studies: History, Politics and Society, BA

The major in Russian and East European Studies provides a program of study that enables a broad multi-disciplinary and multi-cultural understanding of the languages, literatures, cultures, histories, and societies of Russia, Central and Eastern European, and the Balkan and Baltic regions. For the language requirement, students can choose any regional language offered at Penn (i.e. Bosnian/Croatian/Serbian, Hungarian, Polish, Russian, Ukrainian) or in which they can demonstrate an equivalent proficiency. In addition to linguistic flexibility, the major allows students to pursue their specific disciplinary interests through three concentrations: Language, Literature, and Culture; History, Politics, and Society; and Cinema, Arts, and Letters. Majors are encouraged to complete a summer or semester abroad to gain first-hand understanding of the communities they study and to advance their language competency. The major offers an honors option.

Knowledge of Russian and East European languages and cultures is a marketable and impressive skill, whether you are in academia, arts, law, medicine, governmental service, public interest, business, or politics. Russian and East European majors and minors land jobs in a variety of settings. They go on to work in business as financial and policy analysts for American and foreign companies. They work for NGOs, publishing houses, or the media. They teach abroad and consult in marketing, advertising, aerospace, or computer engineering. And, of course, some work as educators in universities and schools and as employees of the US government.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: http://ccat.sas.upenn.edu/slavic (http://ccat.sas.upenn.edu/slavic/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

### Honors

Applicants must have a minimum overall 3.3 and a GPA of 3.6 in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>REES 4998</td>
<td>Honors Thesis</td>
<td>1.0</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Russian and East European Studies: Language, Literature and Culture, BA

The major in Russian and East European Studies provides a program of study that enables a broad multi-disciplinary and multi-cultural understanding of the languages, literatures, cultures, histories, and societies of Russia, Central and Eastern European, and the Balkan...
and Baltic regions. For the language requirement, students can choose any regional language offered at Penn (i.e. Bosnian/Croatian/Serbian, Hungarian, Polish, Russian, Ukrainian) or in which they can demonstrate an equivalent proficiency. In addition to linguistic flexibility, the major allows students to pursue their specific disciplinary interests through three concentrations: Language, Literature, and Culture; History, Politics, and Society; and Cinema, Arts, and Letters. Majors are encouraged to complete a summer or semester abroad to gain first-hand understanding of the communities they study and to advance their language competency. The major offers an honors option.

Knowledge of Russian and East European languages and cultures is a marketable and impressive skill, whether you are in academia, arts, law, medicine, governmental service, public interest, business, or politics. Russian and East European majors and minors land jobs in a variety of settings. They go on to work in business as financial and policy analysts for American and foreign companies. They work for NGOs, publishing houses, or the media. They teach abroad and consult in marketing, advertising, aerospace, or computer engineering. And, of course, some work as educators in universities and schools and as employees of the US government.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: http://ccat.sas.upenn.edu/slavic

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors(^1) + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Russian and East European Studies Core</td>
<td></td>
</tr>
<tr>
<td>REES 0010</td>
<td>Central and Eastern Europe: Cultures, Histories, Societies</td>
<td>1</td>
</tr>
<tr>
<td>Concentration Requirements(^2)</td>
<td>Select 2 courses to fulfill the Advanced Language Requirement (^3)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Select 5 Literature and Culture courses (^4)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 Electives (^4, 5)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>32</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 Students take seven REES courses* with language, literature, and cultural studies content. * Note that some REES courses (defined as those with RUSS and EEUR course numbers) are offered through Penn Language Center (PLC) (http://plc.sas.upenn.edu/)
3 Students must complete the advanced language program in any regional language approved by the Undergraduate Chair or demonstrate equivalent proficiency. In most cases, students fulfill this requirement by taking two advanced 4000-level or 5000-level language courses or their equivalent in any regional language approved by the Undergraduate Chair.
4 Chronological, Disciplinary, and Distribution requirements must be met with Literature & Culture and free elective courses.
5 Students must take at least one broad survey course that covers the period before 1800, one that covers the period before 1900 and one that covers the period after 1900 to fulfill the Chronological Distribution requirement.

### Honors

Applicants must have a minimum overall 3.3 and a GPA of 3.6 in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>REES 4998</td>
<td>Honors Thesis</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Science, Technology and Society: Biotechnology & Biomedicine, BA**

Science, Technology & Society (STSC) examines the social contexts in which science and technology occur, the organizations of people and things that make up science and technology systems, and the social and cultural consequences of scientific and technological change over time. In a wide array of courses, STSC majors explore the relationship between scientific knowledge, technological innovations, technological systems, and society past and present.

This program equips students with sophisticated critical faculties, multidisciplinary skills, and wide knowledge that enables our graduates to go into business, law, government, journalism, research, and education. STSC provides a foundation for citizenship in a globalizing, diversifying world with rapid technological and scientific change.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/stsc-major/science-technology-society-requirements (https://hss.sas.upenn.edu/undergraduate/stsc-major/science-technology-society-requirements/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors(^1) + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
</tbody>
</table>

---

2023-24 Catalog | Generated 08/02/23
### Core Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 0100</td>
<td>Emergence of Modern Science</td>
<td>1</td>
</tr>
<tr>
<td>or STSC 0600</td>
<td>Technology &amp; Society</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 1600</td>
<td>The History of the Information Age</td>
<td>1</td>
</tr>
<tr>
<td>or STSC 1888</td>
<td>Environment and Society</td>
<td></td>
</tr>
<tr>
<td>or STSC 1112</td>
<td>Science Technology and War</td>
<td></td>
</tr>
<tr>
<td>or STSC 2088</td>
<td>Science and Religion: Global Perspectives</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 0100 &amp; STSC 0600</td>
<td>Emergence of Modern Science and Technology &amp; Society</td>
<td>1</td>
</tr>
</tbody>
</table>

### STSC Electives

Select 7 course units in STSC Electives (Attribute ASTL)  
Select 4 course units in Biotechnology and Biomedicine (Attribute ASTB)  
Select 1 course unit in STSC Electives (Attribute ASTL)

### Biotechnology & Biomedicine

Select 7 course units in STSC Electives (Attribute ASTL)

### STSC Electives

Select 7 course units in STSC Electives (Attribute ASTL)

### Energy & Environment

Select 4 course units in Energy & Environment (Attribute ASTE)

### Capstone Research Requirement

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 4000</td>
<td>Capstone Research Seminar in Science, Technology and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Course Units**: 34

---

### Honors

Applicants must have a minimum GPA of 3.5 in the major and 3.0 overall. Students should complete STSC 4000 in the spring of their Junior year and must obtain the support of a faculty advisor before applying for an Independent Study (STSC 4980) to complete the Honors thesis.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 0100</td>
<td>Emergence of Modern Science</td>
<td>1</td>
</tr>
<tr>
<td>or STSC 0600</td>
<td>Technology &amp; Society</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 1600</td>
<td>The History of the Information Age</td>
<td>1</td>
</tr>
<tr>
<td>or STSC 1888</td>
<td>Environment and Society</td>
<td></td>
</tr>
<tr>
<td>or STSC 1112</td>
<td>Science Technology and War</td>
<td></td>
</tr>
<tr>
<td>or STSC 2088</td>
<td>Science and Religion: Global Perspectives</td>
<td></td>
</tr>
</tbody>
</table>

Or

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 0100 &amp; STSC 0600</td>
<td>Emergence of Modern Science and Technology &amp; Society</td>
<td>1</td>
</tr>
</tbody>
</table>

### STSC Electives

Select 7 course units in STSC Electives (Attribute ASTL)

### Energy & Environment

Select 4 course units in Energy & Environment (Attribute ASTE)

### Capstone Research Requirement

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 4000</td>
<td>Capstone Research Seminar in Science, Technology and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Course Units**: 34

---

For more information: https://hss.sas.upenn.edu/undergraduate/stsc-major/science-technology-society-requirements/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

---

Science, Technology and Society: Energy and Environment, BA

Science, Technology & Society (STSC) examines the social contexts in which science and technology occur, the organizations of people and things that make up science and technology systems, and the social and cultural consequences of scientific and technological change over time. In a wide array of courses, STSC majors explore the relationship between scientific knowledge, technological innovations, technological systems, and society past and present.

This program equips students with sophisticated critical faculties, multidisciplinary skills and wide knowledge that enables our graduates to go into business, law, government, journalism, research, and education.

STSC provides a foundation for citizenship in a globalizing, diversifying world with rapid technological and scientific change.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

Honors

Applicants must have a minimum GPA of 3.5 in the major and 3.0 overall. Students should complete STSC 4000 in the spring of their Junior year and must obtain the support of a faculty advisor before applying for an Independent Study (STSC 4980) to complete the Honors thesis.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 0100</td>
<td>Emergence of Modern Science</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 1600</td>
<td>The History of the Information Age</td>
<td>1</td>
</tr>
<tr>
<td>or STSC 1888</td>
<td>Environment and Society</td>
<td></td>
</tr>
<tr>
<td>or STSC 1112</td>
<td>Science Technology and War</td>
<td></td>
</tr>
</tbody>
</table>

Or

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 0100 &amp; STSC 0600</td>
<td>Emergence of Modern Science and Technology &amp; Society</td>
<td>1</td>
</tr>
</tbody>
</table>

### STSC Electives

Select 1 course unit in STSC Electives (Attribute ASTL)

### Energy & Environment

Select 1 course unit in Energy & Environment (Attribute ASTE)

### Capstone Research Requirement

Select 1 course unit in Capstone Research Seminar in Science, Technology and Society

**Total Course Units**: 34

---

For more information: https://hss.sas.upenn.edu/undergraduate/stsc-major/science-technology-society-requirements/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

---

Science, Technology and Society: Energy and Environment, BA

Science, Technology & Society (STSC) examines the social contexts in which science and technology occur, the organizations of people and things that make up science and technology systems, and the social and cultural consequences of scientific and technological change over time. In a wide array of courses, STSC majors explore the relationship between scientific knowledge, technological innovations, technological systems, and society past and present.

This program equips students with sophisticated critical faculties, multidisciplinary skills and wide knowledge that enables our graduates to go into business, law, government, journalism, research, and education.

STSC provides a foundation for citizenship in a globalizing, diversifying world with rapid technological and scientific change.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/stsc-major/science-technology-society-requirements/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

---

Honors

Applicants must have a minimum GPA of 3.5 in the major and 3.0 overall. Students should complete STSC 4000 in the spring of their Junior year and must obtain the support of a faculty advisor before applying for an Independent Study (STSC 4980) to complete the Honors thesis.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 0100</td>
<td>Emergence of Modern Science</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 1600</td>
<td>The History of the Information Age</td>
<td>1</td>
</tr>
<tr>
<td>or STSC 1888</td>
<td>Environment and Society</td>
<td></td>
</tr>
<tr>
<td>or STSC 1112</td>
<td>Science Technology and War</td>
<td></td>
</tr>
</tbody>
</table>

Or

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 0100 &amp; STSC 0600</td>
<td>Emergence of Modern Science and Technology &amp; Society</td>
<td>1</td>
</tr>
</tbody>
</table>

### STSC Electives

Select 1 course unit in STSC Electives (Attribute ASTL)

### Energy & Environment

Select 1 course unit in Energy & Environment (Attribute ASTE)

### Capstone Research Requirement

Select 1 course unit in Capstone Research Seminar in Science, Technology and Society

**Total Course Units**: 34

---

For more information: https://hss.sas.upenn.edu/undergraduate/stsc-major/science-technology-society-requirements/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

---

Science, Technology and Society: Energy and Environment, BA

Science, Technology & Society (STSC) examines the social contexts in which science and technology occur, the organizations of people and things that make up science and technology systems, and the social and cultural consequences of scientific and technological change over time. In a wide array of courses, STSC majors explore the relationship between scientific knowledge, technological innovations, technological systems, and society past and present.

This program equips students with sophisticated critical faculties, multidisciplinary skills and wide knowledge that enables our graduates to go into business, law, government, journalism, research, and education.

STSC provides a foundation for citizenship in a globalizing, diversifying world with rapid technological and scientific change.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/stsc-major/science-technology-society-requirements/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

---

Honors

Applicants must have a minimum GPA of 3.5 in the major and 3.0 overall. Students should complete STSC 4000 in the spring of their Junior year and must obtain the support of a faculty advisor before applying for an Independent Study (STSC 4980) to complete the Honors thesis.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 0100</td>
<td>Emergence of Modern Science</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 1600</td>
<td>The History of the Information Age</td>
<td>1</td>
</tr>
<tr>
<td>or STSC 1888</td>
<td>Environment and Society</td>
<td></td>
</tr>
<tr>
<td>or STSC 1112</td>
<td>Science Technology and War</td>
<td></td>
</tr>
</tbody>
</table>

Or

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STSC 0100 &amp; STSC 0600</td>
<td>Emergence of Modern Science and Technology &amp; Society</td>
<td>1</td>
</tr>
</tbody>
</table>

### STSC Electives

Select 1 course unit in STSC Electives (Attribute ASTL)

### Energy & Environment

Select 1 course unit in Energy & Environment (Attribute ASTE)

### Capstone Research Requirement

Select 1 course unit in Capstone Research Seminar in Science, Technology and Society

**Total Course Units**: 34

---

For more information: https://hss.sas.upenn.edu/undergraduate/stsc-major/science-technology-society-requirements/

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

---
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Science, Technology and Society: Global Science and Technology, BA**

Science, Technology & Society (STSC) examines the social contexts in which science and technology occur, the organizations of people and things that make up science and technology systems, and the social and cultural consequences of scientific and technological change over time. In a wide array of courses, STSC majors explore the relationship between scientific knowledge, technological innovations, technological systems, and society past and present.

This program equips students with sophisticated critical faculties, multidisciplinary skills and wide knowledge that enables our graduates to go into business, law, government, journalism, research, and education. STSC provides a foundation for citizenship in a globalizing, diversifying world with rapid technological and scientific change.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/stsc-major/science-technology-society-requirements (https://hss.sas.upenn.edu/undergraduate/stsc-major/science-technology-society-requirements/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>College General Education Requirements and Free Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Courses</td>
<td></td>
</tr>
<tr>
<td>STSC</td>
<td>0100 Emergence of Modern Science</td>
<td>1</td>
</tr>
<tr>
<td>or STSC</td>
<td>0600 Technology &amp; Society</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>STSC</td>
<td>1600 The History of the Information Age</td>
<td>1</td>
</tr>
<tr>
<td>or STSC</td>
<td>1880 Environment and Society</td>
<td></td>
</tr>
<tr>
<td>or STSC</td>
<td>1120 Science Technology and War</td>
<td></td>
</tr>
<tr>
<td>or STSC</td>
<td>0100 Emergence of Modern Science</td>
<td></td>
</tr>
<tr>
<td>or STSC</td>
<td>0600 Technology &amp; Society</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>STSC Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 7 course units in STSC electives (Attribute ASTL)</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td><strong>Global Science &amp; Technology</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 course units in Global Science &amp; Technology courses (Attribute ASTG)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Capstone Research Requirement</strong></td>
<td></td>
</tr>
<tr>
<td>STSC</td>
<td>4000 Capstone Research Seminar in Science, Technology and Society</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>34</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

---

**Honors**

Applicants must have a minimum GPA of 3.5 in the major and 3.0 overall. Students should complete STSC 4000 in the spring of their Junior year and must obtain the support of a faculty advisor before applying for an Independent Study (STSC 4980) to complete the Honors thesis.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Honors Thesis (non-course requirement QST)</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Science, Technology and Society: Information and Organizations, BA**

Science, Technology & Society (STSC) examines the social contexts in which science and technology occur, the organizations of people and things that make up science and technology systems, and the social and cultural consequences of scientific and technological change over time. In a wide array of courses, STSC majors explore the relationship between scientific knowledge, technological innovations, technological systems, and society past and present.

This program equips students with sophisticated critical faculties, multidisciplinary skills and wide knowledge that enables our graduates to go into business, law, government, journalism, research, and education. STSC provides a foundation for citizenship in a globalizing, diversifying world with rapid technological and scientific change.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

For more information: https://hss.sas.upenn.edu/undergraduate/stsc-major/science-technology-society-requirements (https://hss.sas.upenn.edu/undergraduate/stsc-major/science-technology-society-requirements/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>College General Education Requirements and Free Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
</tbody>
</table>
Major Requirements

Core Courses

STSC 0100  Emergence of Modern Science  1
or STSC 0600  Technology & Society
Select any one of the following:  1
STSC 1600  The History of the Information Age
or STSC 1880  Environment and Society
or STSC 1120  Science Technology and War
Or
STSC 0100  Emergence of Modern Science
or STSC 0600  Technology & Society

STSC Electives

Select 7 course units in STSC electives (Attribute ASTL)  7

Information & Organizations

Select 4 course units in Information Technologies & Organizations Concentration courses (Attribute ASTI)  4

Capstone Research Requirement

STSC 4000  Capstone Research Seminar in Science, Technology and Society  1

Total Course Units  34

1  You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

Honors

Applicants must have a minimum GPA of 3.5 in the major and 3.0 overall. Students should complete STSC 4000 in the spring of their Junior year and must obtain the support of a faculty advisor before applying for an Independent Study (STSC 4980) to complete the Honors thesis.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Honors Thesis (non-course requirement QST)</td>
<td></td>
</tr>
</tbody>
</table>

Honors

Applicants must have a minimum GPA of 3.5 in the major and 3.0 overall. Students should complete STSC 4000 in the spring of their Junior year and must obtain the support of a faculty advisor before applying for an Independent Study (STSC 4980) to complete the Honors thesis.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Honors Thesis (non-course requirement QST)</td>
<td></td>
</tr>
</tbody>
</table>
Sociology: Applied Research and Data Analysis, BA

The Sociology major helps students identify and explain patterns of social life and human behavior by emphasizing how large-scale social phenomena (such as class, race, and gender inequality) affect the everyday experiences of individuals and vice versa. The major prepares students for a career in a variety of fields such as law, medicine and healthcare, marketing, education, scholarly and applied social research, social work, demography, journalism and media, management in the public and private sectors, administration, and government. The program offers comprehensive advising and significant research and independent study opportunities. Our program is dedicated to nurturing a strong community of scholars, helping them grow academically and professionally under the large-scale mission of the College of Arts & Sciences.

Sociologists pursue knowledge in many ways, one of which is through the examination of society through surveys, demographic data, and statistical models. In this concentration, students will become familiar with quantitative and/or qualitative methods in sociology, both with respect to how to use them in general and how they are applied for specific topics.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

A minimum of 11 course units must be in Sociology.

For more information: https://sociology.sas.upenn.edu/urban_sociology
(https://sociology.sas.upenn.edu/urban_sociology/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td>20</td>
</tr>
</tbody>
</table>

| Foundational Approaches + Sectors¹ + Free Electives |

**Major Requirements**

**Introductory Course**

SOCI 1000 Introduction to Sociology 1

**Sociological Theory**

Select 1 course unit in Sociological Theory 1

**Social Research Methods**

SOCI 2000 Sociological Research Methods 1

Select 1 course unit in Advanced Research Methods 1

Select 1 course unit in Statistics 1

**Applied Research and Data Analysis Concentration**

Select 3 Course Units in Concentration 3

- SOCI 2220 Health of Populations
- SOCI 3220 Basic Demographic Methods
- SOCI 3210 Sample Survey Methods
- SOCI 3200 Qualitative Methods

Additional SOCI Courses

Select 4 course units in SOCI Free ² 4

SOCI or Related Courses

Select 2 course units in SOCI or Related 2

Research Poster

Complete Research Poster

Total Course Units 34

¹ You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

² Students are encouraged to take some courses outside of their concentration.

**Honors**

Applicants must have an overall GPA of 3.3 and a GPA of 3.5 in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCI 4100</td>
<td>Thesis Workshop I</td>
<td>.5</td>
</tr>
<tr>
<td>SOCI 4101</td>
<td>Thesis Workshop II</td>
<td>.5</td>
</tr>
<tr>
<td>SOCI 4998</td>
<td>Honors Independent Study (Or Approved Course)</td>
<td>1</td>
</tr>
</tbody>
</table>

Senior Thesis

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Sociology: Cities, Markets, and the Global Economy, BA

The Sociology major helps students identify and explain patterns of social life and human behavior by emphasizing how large-scale social phenomena (such as class, race, and gender inequality) affect the everyday experiences of individuals and vice versa. The major prepares students for a career in a variety of fields such as law, medicine and healthcare, marketing, education, scholarly and applied social research, social work, demography, journalism and media, management in the public and private sectors, administration, and government. The program offers comprehensive advising and significant research and independent study opportunities. Our program is dedicated to nurturing a strong community of scholars, helping them grow academically and professionally under the large-scale mission of the College of Arts & Sciences.
professionally under the large-scale mission of the College of Arts & Sciences.

Neighborhoods, cities, and metropolitan areas are communities defined by geographic, economic, legal, political, cultural, and social boundaries. This concentration allows students to advance their knowledge on the intersection of these elements, the impact they have on populations and what is considered a "market," and the resulting economic impact on a global scale.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

A minimum of 11 course units must be in Sociology.

For more information: https://sociology.sas.upenn.edu/urban_sociology (https://sociology.sas.upenn.edu/urban_sociology/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Introductory Course</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 1000 Introduction to Sociology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><em>Sociological Theory</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 course unit in Sociological Theory</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><em>Social Research Methods</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 2000 Sociological Research Methods</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select 1 course unit in Advanced Research Methods</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select 1 course unit in Statistics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><em>Cities, Markets, and the Global Economy Concentration</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 3 course units in Concentration</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SOCI 1040 Population and Society</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 1090 Urban Sociology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 2910 Globalization And Its Historical Significance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 2940 Homelessness &amp; Urban Inequality</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 2942 Cities, Suburbs, Regions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 2943 Global Urban Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 2944 Perspectives on Urban Poverty</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 2931 Latinx Communities and the Role of CBO's in Social Change</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 2945 Globalization &amp; The City: Global Urbanization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOCI 2410 Metropolitan Growth and Poverty</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Additional SOCI Courses</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 course units in SOCI Free</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><em>SOCI or Related Courses</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 course units in SOCI or Related</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><em>Research Poster</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete Research Poster</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>34</td>
</tr>
</tbody>
</table>

You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

Students are encouraged to take some courses outside of their concentration.

**Honors**

Applicants must have an overall GPA of 3.3 and a GPA of 3.5 in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCI 4100</td>
<td>Thesis Workshop I</td>
<td>.5</td>
</tr>
<tr>
<td>SOCI 4101</td>
<td>Thesis Workshop II</td>
<td>.5</td>
</tr>
<tr>
<td>SOCI 4998</td>
<td>Honors Independent Study (Or Approved Course)</td>
<td>1</td>
</tr>
</tbody>
</table>

Senior Thesis

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Sociology: Culture and Diversity, BA

The Sociology major helps students identify and explain patterns of social life and human behavior by emphasizing how large-scale social phenomena (such as class, race, and gender inequality) affect the everyday experiences of individuals and vice versa. The major prepares students for a career in a variety of fields such as law, medicine and healthcare, marketing, education, scholarly and applied social research, social work, demography, journalism and media, management in the public and private sectors, administration, and government. The program offers comprehensive advising and significant research and independent study opportunities. Our program is dedicated to nurturing a strong community of scholars, helping them grow academically and professionally under the large-scale mission of the College of Arts & Sciences.

This concentration investigates the aspects of human life central to its definition, origins, and development of meaning, as well as how diversity within and resulting from these aspects impacts everyday society.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

A minimum of 11 course units must be in Sociology.

For more information: https://sociology.sas.upenn.edu/urban_sociology (https://sociology.sas.upenn.edu/urban_sociology/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
</tbody>
</table>

2023-24 Catalog | Generated 08/02/23
**Introductory Course**

- SOCI 1000 Introduction to Sociology 1

**Sociological Theory**

Select 1 course unit in Sociological Theory 1

**Social Research Methods**

- SOCI 2000 Sociological Research Methods 1

Select 1 course unit in Advanced Research Methods 1

Select 1 course unit in Statistics 1

**Culture and Diversity Concentration**

Select 3 course units in Concentration 3

- SOCI 1060 Race and Ethnic Relations
- SOCI 1090 Urban Sociology
- SOCI 1140 Asian Americans In Contemporary Society
- SOCI 1070 Media and Popular Culture
- SOCI 2200 Religion
- SOCI 2210 Race and the Media
- SOCI 2610 Latinos in the United States

**Additional SOCI Courses**

Select 4 course units in SOCI Free 2

- SOCI 1000 Introduction to Sociology 1
- SOCI 1090 Urban Sociology 1
- SOCI 1140 Asian Americans In Contemporary Society 1
- SOCI 1070 Media and Popular Culture 1
- SOCI 2200 Religion 1
- SOCI 2210 Race and the Media 1
- SOCI 2610 Latinos in the United States 1

**Research Poster**

Complete Research Poster

**Total Course Units** 34

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Students are encouraged to take some courses outside of their concentration.

**Honors**

Applicants must have an overall GPA of 3.3 and a GPA of 3.5 in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCI 4100</td>
<td>Thesis Workshop I</td>
<td>.5</td>
</tr>
<tr>
<td>SOCI 4101</td>
<td>Thesis Workshop II</td>
<td>.5</td>
</tr>
<tr>
<td>SOCI 4998</td>
<td>Honors Independent Study (Or Approved Course)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Senior Thesis**

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Curriculum**

**College General Education Requirements and Free Electives**

Foundational Approaches + Sectors + Free Electives 20

**Major Requirements**

**Introductory Course**

- SOCI 1000 Introduction to Sociology 1

**Social Research Methods**

- SOCI 2000 Sociological Research Methods 1

**Sociological Theory**

Select 1 course unit in Sociological Theory 1

- SOCI 3000 Sociological Theory 1
- SOCI 3010 Contemporary Sociological Theory 1

**Sociology Advanced Methods**

Select 1 course unit in Advanced Research Methods 1

- SOCI 2220 Health of Populations 1
- SOCI 3200 Qualitative Methods 1
- SOCI 3210 Sample Survey Methods 1
- SOCI 3220 Basic Demographic Methods 1
- SOCI 3230 Demography of Race 1

**Social Statistics**

- SOCI 2010 Social Statistics 1

**Education and Society Concentration**

Select 3 CU from the following: 3

- SOCI 1050 Social Stratification 1
- SOCI 2280 Sociology of Education 1
- SOCI 2281 Demography of Education 1
- SOCI 2690 Comparative and International Education - Focus on East Asian Education 1
- SOCI 2943 Global Urban Education 1

Courses outside of Sociology that can count toward the concentration:

- URBS 2020 Urban Education 1
- EDUC 2140 Education in American Culture 1
- EDUC 5538 Stereotype Threat, Impostor Phenomenon, and African Americans 1
- EDUC 5841 Access & Choice in American Higher Education 1
- EDUC 5782 Sociology of Education 1

**Additional SOCI Courses**

Select 4 course units in SOCI Free 1

The Education and Society concentration in Sociology gives Penn undergraduates the opportunity to engage the sociological imagination as they consider pertinent issues in education; from its role in stratification and cultural reproduction to its consideration as an engine of social mobility and a marker of privilege. Through this analysis of education, students will be able to approach jobs in elementary, secondary, and postsecondary institutions with a critical understanding of the impact of these institutions on the populations they serve and don’t serve. Alternatively, students can leverage the academic training within this concentration to approach a wide array of careers related to educational policy.

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

---

**Sociology: Education and Society, BA**

The Education and Society concentration in Sociology gives Penn undergraduates the opportunity to engage the sociological imagination as they consider pertinent issues in education; from its role in
The Sociology major helps students identify and explain patterns of social life and human behavior by emphasizing how large-scale social phenomena (such as class, race, and gender inequality) affect the everyday experiences of individuals and vice versa. The major prepares students for a career in a variety of fields such as law, medicine and healthcare, marketing, education, scholarly and applied social research, social work, demography, journalism and media, management in the public and private sectors, administration, and government. The program offers comprehensive advising and significant research and independent study opportunities. Our program is dedicated to nurturing a strong community of scholars, helping them grow academically and professionally under the large-scale mission of the College of Arts & Sciences.

The family is one of the most important institutions in any society. It is critical to the socialization of each generation and to the stability and functioning of the larger society. Family systems vary across cultures and have changed dramatically in the United States in recent decades. Our understanding of gender plays an important role in this. This concentration enables students to study this intersection between family and gender, and the impacts it has on society through aspects such as fertility, marriage, divorce, migration, and mortality.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

A minimum of 11 course units must be in Sociology.

For more information: https://sociology.sas.upenn.edu/urban_sociology (https://sociology.sas.upenn.edu/urban_sociology/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCI 4100</td>
<td>Thesis Workshop I</td>
<td>0.5</td>
</tr>
<tr>
<td>SOCI 4101</td>
<td>Thesis Workshop II</td>
<td>0.5</td>
</tr>
<tr>
<td>SOCI 4998</td>
<td>Honors Independent Study</td>
<td>1</td>
</tr>
<tr>
<td>Senior Thesis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Students are encouraged to take some courses outside of their concentration.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCI 4100</td>
<td>Thesis Workshop I</td>
<td>.5</td>
</tr>
<tr>
<td>SOCI 4101</td>
<td>Thesis Workshop II</td>
<td>.5</td>
</tr>
<tr>
<td>SOCI 4998</td>
<td>Honors Independent Study (Or Approved Course)</td>
<td>1</td>
</tr>
<tr>
<td>Senior Thesis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Students are encouraged to take some courses outside of their concentration.

Honors

Applicants must have an overall GPA of 3.3 and a GPA of 3.5 in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCI 4100</td>
<td>Thesis Workshop I</td>
<td></td>
</tr>
<tr>
<td>SOCI 4101</td>
<td>Thesis Workshop II</td>
<td></td>
</tr>
<tr>
<td>SOCI 4998</td>
<td>Honors Independent Study</td>
<td></td>
</tr>
<tr>
<td>Senior Thesis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Sociology: Law and Society, BA

The Sociology major helps students identify and explain patterns of social life and human behavior by emphasizing how large-scale social phenomena (such as class, race, and gender inequality) affect the everyday experiences of individuals and vice versa. The major prepares students for a career in a variety of fields such as law, medicine and healthcare, marketing, education, scholarly and applied social research, social work, demography, journalism and media, management in the public and private sectors, administration, and government. The program offers comprehensive advising and significant research and independent study opportunities. Our program is dedicated to nurturing a strong community of scholars, helping them grow academically and professionally under the large-scale mission of the College of Arts & Sciences.

Sociologists study institutions, and among the most important is the law. This concentration examines issues such as: What is deviance and how do we define it? What is the relationship between the law and other social institutions? The concentration is suitable for students with a variety of interests, but may be especially well-suited to those interested in careers in law and criminal justice.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

A minimum of 11 course units must be in Sociology.

For more information: https://sociology.sas.upenn.edu/content/concentrations-sociology-law-and-society (https://sociology.sas.upenn.edu/content/concentrations-sociology-law-and-society/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introductory Course</td>
<td></td>
</tr>
<tr>
<td>SOCI 1000</td>
<td>Introduction to Sociology</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sociological Theory</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 course unit in Sociological Theory</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Social Research Methods</td>
<td></td>
</tr>
<tr>
<td>SOCI 2000</td>
<td>Sociological Research Methods</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select 1 course unit in Advanced Research Methods</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select 1 course unit in Statistics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Law &amp; Society Concentration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 3 course units in Concentration</td>
<td>3</td>
</tr>
<tr>
<td>SOCI 2420</td>
<td>Social Problems and Public Policy</td>
<td></td>
</tr>
<tr>
<td>SOCI 1030</td>
<td>Deviance and Social Control</td>
<td></td>
</tr>
<tr>
<td>SOCI 1130</td>
<td>Discrimination: Sexual and Racial Conflict</td>
<td></td>
</tr>
<tr>
<td>SOCI 1120</td>
<td>Law and Society</td>
<td></td>
</tr>
<tr>
<td>SOCI 2921</td>
<td>Criminal Justice</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Additional SOCI Courses</strong></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Select 4 course units in SOCI Free</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>SOCI or Related Courses</strong></td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Select 2 course units in SOCI or Related</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Research Poster</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete Research Poster</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>34</td>
</tr>
</tbody>
</table>

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 Students are encouraged to take some courses outside of their concentration.

Honors

Applicants must have an overall GPA of 3.3 and a GPA of 3.5 in the major.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCI 4100</td>
<td>Thesis Workshop I</td>
<td>0.5</td>
</tr>
<tr>
<td>SOCI 4101</td>
<td>Thesis Workshop II</td>
<td>0.5</td>
</tr>
<tr>
<td>SOCI 4998</td>
<td>Honors Independent Study (Or Approved Course)</td>
<td>1</td>
</tr>
</tbody>
</table>

Senior Thesis

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Sociology: Medical Sociology, BA

The Sociology major helps students identify and explain patterns of social life and human behavior by emphasizing how large-scale social phenomena (such as class, race, and gender inequality) affect the everyday experiences of individuals and vice versa. The major prepares students for a career in a variety of fields such as law, medicine and healthcare, marketing, education, scholarly and applied social research, social work, demography, journalism and media, management in the public and private sectors, administration, and government. The program offers comprehensive advising and significant research and independent study opportunities. Our program is dedicated to nurturing a strong community of scholars, helping them grow academically and professionally under the large-scale mission of the College of Arts & Sciences.

Conceptions of health and illness, although not uniform the world over or even in any one society, are of fundamental importance in every society. In this concentration, students focus on the following topics: How health is defined in various societies; how the ill are viewed by the well; how illness is treated; who the healers are, how they are trained, and what their position is in society, the relationships among the religion, class,
gender, and age of the ill and their healers; and when and how public health policies are inaugurated.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

A minimum of 11 course units must be in Sociology.

For more information: https://sociology.sas.upenn.edu/sociology_health_and_medicine (https://sociology.sas.upenn.edu/sociology_health_and_medicine/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>College General Education Requirements and Free Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundational Approaches + Sectors 1 + Free Electives</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Major Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCI 1000 Introduction to Sociology</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sociological Theory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit in Sociological Theory</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Social Research Methods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCI 2000 Sociological Research Methods</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit in Advanced Research Methods</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit in Statistics</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Medical Sociology Concentration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 3 course units in Concentration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SOCI 2971 Bioethics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCI 2220 Health of Populations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCI 1110 Medical Sociology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCI 2450 Poverty, Race and Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCI 1111 Mental Illness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional SOCI Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 4 course units in SOCI Free 2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SOCI or Related Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 2 course units in SOCI or Related</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Research Poster</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete Research Poster</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>34</td>
<td></td>
</tr>
</tbody>
</table>

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2. Students are encouraged to take some courses outside of their concentration.

For more information: https://sociology.sas.upenn.edu/sociology_health_and_medicine (https://sociology.sas.upenn.edu/sociology_health_and_medicine/)

The Sociology major helps students identify and explain patterns of social life and human behavior by emphasizing how large-scale social phenomena (such as class, race, and gender inequality) affect the everyday experiences of individuals and vice versa. The major prepares students for a career in a variety of fields such as law, medicine and healthcare, marketing, education, scholarly and applied social research, social work, demography, journalism and media, management in the public and private sectors, administration, and government. The program offers comprehensive advising and significant research and independent study opportunities. Our program is dedicated to nurturing a strong community of scholars, helping them grow academically and professionally under the large-scale mission of the College of Arts & Sciences.

What is the balance of individual self-determination and institutionalized constraint in shaping people's lives? Social institutions such as the educational system and the economy sort people and distribute rewards, but their workings are profoundly shaped by persistent inequalities of class, ethnicity, gender, age, race, and nationality. How and why do such inequalities persist? How might opportunities be more fairly distributed? What sorts of individual and collective action affect existing structures of constraint?

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

A minimum of 11 course units must be in Sociology.

For more information: https://sociology.sas.upenn.edu/structures_opportunity_inequality (https://sociology.sas.upenn.edu/structures_opportunity_inequality/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>College General Education Requirements and Free Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundational Approaches + Sectors 1 + Free Electives</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Major Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCI 1000 Introduction to Sociology</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sociological Theory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCI 4998 Honors Independent Study (Or Approved Course)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Senior Thesis

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>College General Education Requirements and Free Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundational Approaches + Sectors 1 + Free Electives</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Major Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introductory Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCI 1000 Introduction to Sociology</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sociological Theory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCI 4998 Honors Independent Study (Or Approved Course)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Senior Thesis
Select 1 course unit in Sociological Theory

Social Research Methods

SOCI 2000 Sociological Research Methods 1

Select 1 course unit in Advanced Research Methods 1

Select 1 course units in Statistics 1

Structures of Opportunity and Inequality Concentration

Select 3 course units in Concentration 3

SOCI 1060 Race and Ethnic Relations
SOCI 1050 Social Stratification
SOCI 1051 Class Matters: Poverty, Prosperity, and the American Dream
SOCI 1130 Discrimination: Sexual and Racial Conflict
SOCI 2250 Work in a Changing World - The Sociology of Work
SOCI 1100 Sociology of Gender
SOCI 2620 Social Movements
SOCI 2946 The History & Theory of Community Organizing

Select 4 course units in SOCI Free 2 4

SOCI or Related Courses

Select 2 course units in SOCI or Related 2

Research Poster

Complete Research Poster

Total Course Units 34

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 Students are encouraged to take some courses outside of their concentration.

Honors

Applicants must have an overall GPA of 3.3 and a GPA of 3.5 in the major.

Code Title Course Units
SOCI 4100 Thesis Workshop I .5
SOCI 4101 Thesis Workshop II .5
SOCI 4998 Honors Independent Study (Or Approved Course) 1

Senior Thesis

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

South Asia Studies, BA

South Asia Studies is an interdisciplinary field focusing on the history, languages, society, literature, and art from India, Pakistan, Bangladesh, Nepal, Sri Lanka, Afghanistan, and Bhutan. We are America’s oldest and arguably most distinguished South Asia regional studies program dealing with the past and contemporary life of one-fifth of the world’s population and teaching more languages than any other South Asian studies program in the US. Having a deep knowledge of the country set to outpace the US as the second largest economy in the world in an increasingly competitive global job market gives graduates a competitive edge over others with more generic skills. Make your home in a department where you get to know your Faculty and they know you as an individual, whether as a major or double major. You don’t have to know anything about India or be South Asian to find a home with us; just be curious!

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 32. Double majors may entail more course units.

For more information: http://www.southasia.upenn.edu/undergraduate (http://www.southasia.upenn.edu/undergraduate/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAST 0001</td>
<td>Introduction to Modern India</td>
<td></td>
</tr>
<tr>
<td>SAST 0002</td>
<td>The City in South Asia</td>
<td></td>
</tr>
<tr>
<td>SAST 0003</td>
<td>History, Culture, and Religion in Early India</td>
<td></td>
</tr>
<tr>
<td>SAST 0004</td>
<td>India’s Literature: Love, War, Wisdom and Humor</td>
<td></td>
</tr>
<tr>
<td>SAST 0005</td>
<td>Performing Arts of Modern South India</td>
<td></td>
</tr>
<tr>
<td>SAST 0006</td>
<td>Hindu Mythology</td>
<td></td>
</tr>
<tr>
<td>SAST 0007</td>
<td>Introduction to Modern South Asian Literatures</td>
<td></td>
</tr>
<tr>
<td>SAST 0008</td>
<td>India: Culture and Society</td>
<td></td>
</tr>
<tr>
<td>SAST 0009</td>
<td>Introduction to Hinduism</td>
<td></td>
</tr>
<tr>
<td>SAST Freshman Seminar</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Major Courses

Select 8 course units 8

Total Course Units 32

1 You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).
2 A South Asian language with a grade of “B” or higher. Students may be exempted from this requirement by passing a language proficiency test administered by the department. Students who pass the proficiency test are required to fulfill the necessary credits with a distribution of other courses. While only 2 course units in a South Asian language are required, 4 course units are encouraged.
Honors
Applicants must have a minimum GPA of 3.5.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAST 4998</td>
<td>UNDERGRADUATE THESIS (or Research Paper)</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Theatre Arts, BA

The Theatre Arts program focuses on all intellectual and creative aspects of theatre and performance studies. Our courses link academic approaches to the theatre such as the study of dramatic literature, theory, history, and criticism, to practical aspects of performance such as acting, directing, designing, devising, and playwriting. Special features of our program include faculty-directed productions, which are taught as courses for credit, and extracurricular programs such as workshops and talks with visiting artists, staged readings, and theatre outings. One special highlight of our program is the Edinburgh Project. On alternating years, majors are selected to enroll in a course that develops a performance piece that travels to the Edinburgh Festival Fringe in Scotland. The honors thesis is another special opportunity in which majors who are accomplished in both academic and production work are invited to work on honors thesis projects, which may be based on practice such as acting, directing, and design or on scholarly research.

Penn Theatre Arts graduates proceed to a wide array of successful careers, both in and out of the theatre. Our majors are well-prepared to enter professional MFA programs in acting, directing, or design, as well as doctoral programs. We also count among our alumni not only those who are successful in theatre and film as artists, producers, and business people, but also those who flourish in unrelated fields, such as medicine and law.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 33. Double majors may entail more course units.

For more information: http://theatre.sas.upenn.edu

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College General Education Requirements and Free Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Approaches + Sectors 1 + Free Electives</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>THAR 0101 Theatre, History, Culture I: From Classical to the Middle Classes</td>
<td>1</td>
</tr>
</tbody>
</table>

Urban Studies, BA

Urban Studies students are interested in making a difference and connecting to real world issues. To do this well, students learn about urban history and current challenges. They come to understand how policy at the national level and global economic trends affect what we see at the local, even neighborhood level. In a broad, theoretical sense, the central intellectual frame of Urban Studies is about understanding people and place at different spatial scales. Individuals, groups, and public officials make decisions and design policy that in turn affects how people and resources are distributed in space and defines what kinds of places result. Urban Studies students take this understanding to explain the conditions of urban places and work towards creating places that foster equity, better health outcomes, environmental sustainability, and a better quality of life. In addition to urban studies coursework and coursework in a disciplinary concentration, all of our students complete an internship for credit and carry out an original research project.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 34. Double majors may entail more course units.

Urban Studies is a flexible major and requires conferring with an advisor to tailor a set of courses that fit your interests. This online worksheet is meant as a planning tool; before you will be accepted to the major, you are required to meet with an Urban Studies advisor to go over your plans and address your questions.
For more information: https://urban.sas.upenn.edu/students/requirements-major

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Major Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Introduction to Urban Research</strong></td>
<td>1</td>
</tr>
<tr>
<td>URBS 2000</td>
<td>Introduction to Urban Research</td>
<td>1</td>
</tr>
<tr>
<td>URBS 3000</td>
<td>Fieldwork Seminar</td>
<td>2</td>
</tr>
<tr>
<td>URBS 4000</td>
<td>Senior Seminar</td>
<td>1</td>
</tr>
<tr>
<td>URBS 4010</td>
<td>Urban Studies Honors (or Honors Paper)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Honors Requirement.** A minimum grade of A- in URBS 4000 Senior Seminar.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>URBS 4010</td>
<td>Urban Studies Honors (or Honors Paper)</td>
<td>1</td>
</tr>
</tbody>
</table>

Visual Studies: Architecture Practice and Technology, BA

Visual Studies at the University of Pennsylvania prepares students to forge innovative connections across the disciplines that study vision and images. Students acquire a critical awareness of seeing and the problems and possibilities for investigating, thinking, and writing about seeing in the 21st century. Fundamentally interdisciplinary, the Visual Studies Program partners with the Departments of Philosophy, Psychology, History of Art, Fine Arts, and Architecture. Students may also find interest in Penn Programs such as Cinema Studies and Gender, Sexuality, and Women's Studies or outside of the School of Arts and Sciences in the Annenberg School of Communication, and the School of Engineering and Applied Science.

Sector C enables students to develop skills in the making of art ranging from the two- and three-dimensional to digital and time-based media, and includes both fine arts and architecture tracks.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 36. Double majors may entail more course units.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
or VLST 3030 The Rise of Image Culture: History and Theories
Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 1030/ EALC 0100/ VLST 2330</td>
<td>Art and Civilization in East Asia</td>
<td></td>
</tr>
<tr>
<td>ARTH 1040/ VLST 2340</td>
<td>Art of Global Asia</td>
<td></td>
</tr>
<tr>
<td>ARTH/VLST 2350</td>
<td>Introduction to Visual Culture of the Islamic World</td>
<td></td>
</tr>
</tbody>
</table>

C. Architecture Practice and Technology:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 1020</td>
<td>Introduction to Architecture</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 2010</td>
<td>Design Fundamentals I</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Stage 3 - Concentration Requirements

Architecture Practice and Technology: 3

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 2020</td>
<td>Design Fundamentals II (required)</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Select 3 course units in ARCH Practice/Technology 3

Select 1 course unit in Philosophy/Science or Art/Culture of Seeing 1

Stage 4 - Capstone Course

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>VLST 3950A</td>
<td>Senior Project</td>
<td>0.5</td>
</tr>
<tr>
<td>VLST 3950B</td>
<td>Senior Project</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Total Course Units 36

1 You may count no more than one course toward both a major and a sector requirement. For Exceptions, check the Policy Statement (http://www.college.upenn.edu/sectors-policy/).

2 Important - Check for pre-requisites on PSYC and some FNAR courses.

3 Four courses (4.5 course units) in your concentration and one course (1 course unit) from another sector. (No Stage 2 courses may be double-counted in Stage 3).

Honors

Applicants must have a minimum GPA of 3.70 in the major.

- Senior Project Completed (Grade of A)

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Visual Studies: Art and Culture of Seeing, BA

Visual Studies at the University of Pennsylvania prepares students to forge innovative connections across the disciplines that study vision and images. Students acquire a critical awareness of seeing and the problems and possibilities for investigating, thinking, and writing about seeing in the 21st century. Fundamentally interdisciplinary, the Visual Studies Program partners with the Departments of Philosophy, Psychology, History of Art, Fine Arts, and Architecture. Students may also find interest in Penn Programs such as Cinema Studies and Gender, Sexuality, and Women's Studies or outside of the School of Arts and Sciences in the Annenberg School of Communications, and the School of Engineering and Applied Sciences.

In Sector B, students explore the status of images as representations or models of visual experience and as bearers of information, and they develop skills in interpreting artifacts visually.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 35. Double majors may entail more course units.

For more information: https://www.sas.upenn.edu/visual-studies (https://www.sas.upenn.edu/visual-studies/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 1340/ VLST 2110</td>
<td>Perception</td>
<td></td>
</tr>
<tr>
<td>or NRSC 2217/ PSYC 2240/ VLST 2170</td>
<td>Visual Neuroscience</td>
<td></td>
</tr>
<tr>
<td>PSYC 4340/ VLST 2120</td>
<td>Research Experience in Perception</td>
<td></td>
</tr>
<tr>
<td>or VLST 3050</td>
<td>What is an Image?</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2640/ VLST 2210</td>
<td>Introduction to Philosophy of Mind</td>
<td></td>
</tr>
<tr>
<td>PHIL 4843/2843/ VLST 2230</td>
<td>Philosophy and Visual Perception</td>
<td></td>
</tr>
<tr>
<td>PHIL 3623</td>
<td>Philosophy of Perception</td>
<td></td>
</tr>
</tbody>
</table>

B. Art and the Culture of Seeing:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 1020/ VLST 2320</td>
<td>The Artist in History, 1400-Now</td>
<td></td>
</tr>
<tr>
<td>or ARTH 2780</td>
<td>American Art</td>
<td></td>
</tr>
<tr>
<td>or ARTH 2850</td>
<td>Modern Art: Picasso to Pollock</td>
<td></td>
</tr>
<tr>
<td>ARTH 2940/ VLST 2360</td>
<td>Art Now</td>
<td></td>
</tr>
<tr>
<td>or VLST 3030</td>
<td>The Rise of Image Culture: History and Theories</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 1030/ EALC 0100/ VLST 2330</td>
<td>Art and Civilization in East Asia</td>
<td></td>
</tr>
</tbody>
</table>
Visual Studies: Art, Practice and Technology, BA

Visual Studies at the University of Pennsylvania prepares students to forge innovative connections across the disciplines that study vision and images. Students acquire a critical awareness of seeing and the problems and possibilities for investigating, thinking, and writing about seeing in the 21st century. Fundamentally interdisciplinary, the Visual Studies Program partners with the Departments of Philosophy, Psychology, History of Art, Fine Arts, and Architecture. Students may also find interest in Penn Programs such as Cinema Studies and Gender, Sexuality, and Women's Studies or outside of the School of Arts and Sciences in the Annenberg School of Communications, and the School of Engineering and Applied Sciences.

Sector C enables students to develop skills in the making of art ranging from the two- and three-dimensional to the digital and time-based media, and includes both fine arts and architecture tracks.

The minimum total course units (https://www.college.upenn.edu/credits-needed-major/) for graduation in this major is 35. Double majors may entail more course units.

For more information: https://www.sas.upenn.edu/visual-studies (https://www.sas.upenn.edu/visual-studies/)

For information about the General Education requirements, please visit the College of Arts & Sciences Curriculum (https://www.college.upenn.edu/curriculum/) page.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Honors

Applicants must have a minimum GPA of 3.70 in the major.

- Senior Project Completed (Grade of A)
Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTH 1030/ EALC 0100/ VLST 2330</td>
<td>Art and Civilization in East Asia</td>
<td></td>
</tr>
<tr>
<td>ARTH 1040/ VLST 2340</td>
<td>Art of Global Asia</td>
<td></td>
</tr>
<tr>
<td>ARTH/VLST 2350</td>
<td>Introduction to Visual Culture of the Islamic World</td>
<td></td>
</tr>
</tbody>
</table>

C. Art Practice and Technology:

- VLST 1020 Form and Meaning (course not used in Stage 1)
- or VLST 1031 Dimensions: Time and Space

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNAR 1010/ VLST 2610</td>
<td>Video I</td>
<td>1</td>
</tr>
<tr>
<td>FNAR 0010/ VLST 2530</td>
<td>Drawing I</td>
<td>1</td>
</tr>
<tr>
<td>DSGN 0010/ VLST 2640</td>
<td>Art, Design and Digital Culture</td>
<td>1</td>
</tr>
<tr>
<td>or one approved alternate course (See Website)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Stage 3 - Concentration Requirements**

Art Practice and Technology:

- Select 4 course units of Art Practice & Tech 4
- Select 1 course unit of Philos/Science or Art/Culture 1

**Stage 4 - Capstone Course**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>VLST 3950A</td>
<td>Senior Project</td>
<td>0.5</td>
</tr>
<tr>
<td>VLST 3950B</td>
<td>Senior Project</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**Total Course Units**: 35

1. You may count no more than one course toward both a Major and a Sector requirement. For Exceptions, check the Policy Statement (http://www.sas.upenn.edu/sectors-policy/).

2. Important - Check for Pre-Requisites on PSYC and some FNAR courses.

3. Four courses (4 course units) in your concentration and one course (1 course unit) from another Sector. (Note: No Stage 2 courses may be double-counted in Stage 3).

**Honors**

Applicants must have a minimum GPA of 3.70 in the Major.

- Senior Project Completed (Grade of A)

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Visual Studies: Philosophy and Science of Seeing, BA**

Visual Studies at the University of Pennsylvania prepares students to forge innovative connections across the disciplines that study vision and images. Students acquire a critical awareness of seeing and the problems and possibilities for investigating, thinking, and writing about seeing in the 21st century. Fundamentally interdisciplinary, the Visual Studies Program partners with the Departments of Philosophy, Psychology, History of Art, Fine Arts, and Architecture. Students may also find interest in Penn Programs such as Cinema Studies and Gender, Sexuality, and Women's Studies or outside of the School of Arts and Sciences in the Annenberg School of Communications, and the School of Engineering and Applied Sciences.

In Sector A, students learn about the physiology and psychology of seeing; perception of color, movement, space, objects, and events; and issues in philosophy of vision from ancient to contemporary.

**For more information:** [Visual Studies](https://www.sas.upenn.edu/visual-studies)

For information about the General Education requirements, please visit the [College of Arts & Sciences Curriculum](https://www.college.upenn.edu/curriculum/) page.

**College General Education Requirements and Free Electives**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSYC 1340/ VLST 2110</td>
<td>Perception</td>
<td></td>
</tr>
<tr>
<td>or NRSC 2217/ PSYC 2240/ VLST 2170</td>
<td>Visual Neuroscience</td>
<td></td>
</tr>
<tr>
<td>PSYC 4340/ VLST 2120</td>
<td>Research Experience in Perception</td>
<td></td>
</tr>
<tr>
<td>or VLST 305</td>
<td>What is an Image?</td>
<td></td>
</tr>
</tbody>
</table>

**Select one of the following:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 2640/ VLST 2210</td>
<td>Introduction to Philosophy of Mind</td>
<td></td>
</tr>
<tr>
<td>PHIL 4843/ VLST 2230</td>
<td>Philosophy and Visual Perception</td>
<td></td>
</tr>
<tr>
<td>PHIL 3623</td>
<td>Philosophy of Perception</td>
<td></td>
</tr>
</tbody>
</table>

**B. Art and the Culture of Seeing:**

- ARTH 1020/ VLST 2320 The Artist in History, 1400-Now
- or ARTH 278/ American Art
- or ARTH 286/ Modern Art: Picasso to Pollock

- ARTH 2940/ VLST 2360 Art Now
- or VLST 303/ The Rise of Image Culture: History and Theories

Select one of the following:
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Minors**

- Actuarial Mathematics, Minor (p. 152)
- Africana Studies, Minor (p. 152)
- American Public Policy, Minor (p. 153)
- American Sign Language and Deaf Studies, Minor (p. 153)
- Ancient History, Minor (p. 153)
- Anthropology, Minor (p. 154)
- Archaeological Science, Minor (p. 154)
- Architectural History, Minor (p. 154)
- Architecture, Minor (p. 154)
- Asian American Studies, Minor (p. 155)
- Bioethics, Minor (p. 155)
- Biology, Minor (p. 155)
- Biophysics, Minor (p. 156)
- Chemistry, Minor (p. 156)
- Cinema and Media Studies, Minor (p. 157)
- Classical Studies, Minor (p. 157)
- Cognitive Science, Minor (p. 158)
- Comparative Literature, Minor (p. 158)
- Computational Neuroscience, Minor (p. 158)
- Consumer Psychology, Minor (p. 159)
- Creative Writing, Minor (p. 160)
- Data Science and Analytics, Minor (p. 160)
- Design, Minor (p. 161)
- Digital Humanities, Minor (p. 161)
- East Asian Area Studies, Minor (p. 162)
- East Asian Languages and Civilizations
  - Chinese, Minor (p. 163)
  - Japanese, Minor (p. 163)
  - Korean, Minor (p. 164)
- East Central European Studies, Minor (p. 164)
- East European Studies, Minor (p. 168)
- Economic Policy, Minor (p. 164)
- Economics, Minor (p. 165)
- English, Minor (p. 165)
- Environmental Humanities, Minor (p. 166)
- Environmental Science, Minor (p. 167)
- Environmental Studies, Minor (p. 167)
- European Studies, Minor (p. 168)
- Fine Arts, Minor (p. 171)
- French and Francophone Studies, Minor (p. 172)
- Gender, Sexuality, and Women's Studies, Minor (p. 172)
- Geology, Minor (p. 173)
- German, Minor (p. 173)
- Global Medieval Studies, Minor (p. 173)
- Hispanic Studies, Minor (p. 174)
- History of Art, Minor (p. 175)
- History, Minor (p. 174)
- International Development, Minor (p. 175)
- International Relations, Minor (p. 175)
- Italian Studies
  - Italian Culture, Minor (p. 176)
  - Italian Literature, Minor (p. 176)
- Jewish Studies, Minor (p. 177)
- Journalistic Writing, Minor (p. 177)
- Landscape Studies, Minor (p. 177)
- Latin American and Latinx Studies, Minor (p. 178)
- Law and Society, Minor (p. 178)
• Legal Studies & History, Minor (p. 178)
• Linguistics, Minor (p. 179)
• Logic, Information, & Computation, Minor (p. 179)
• Mathematics, Minor (p. 180)
• Medical Sociology, Minor (p. 181)
• Modern Middle Eastern Studies, Minor (p. 181)
• Music
  • Jazz and Popular Music, Minor (p. 182)
  • Music, Minor (p. 181)
• Native American and Indigenous Studies, Minor (p. 183)
• Near Eastern Languages & Civilizations
  • Ancient Near East, Minor (p. 183)
  • Arabic & Hebrew Studies, Minor (p. 183)
  • Arabic & Islamic Studies, Minor (p. 184)
  • Cultures and Societies of the Middle East and North Africa, Minor (p. 184)
  • Hebrew & Judaica, Minor (p. 185)
  • Persian Language & Literature, Minor (p. 185)
• Neuroscience and Health Care Management, Minor (p. 186)
• Neuroscience, Minor (p. 186)
• Nutrition, Minor (p. 186)
• Philosophy, Minor (p. 187)
• Physics, Minor (p. 187)
• Political Science, Minor (p. 187)
• Psychoanalytic Studies, Minor (p. 188)
• Psychology, Minor (p. 188)
• Religious Studies, Minor (p. 189)
• Russian and East European Studies
  • Russian Culture and History, Minor (p. 189)
  • Russian Language, Literature and Culture, Minor (p. 190)
• Science, Technology and Society, Minor (p. 190)
• Sociology, Minor (p. 190)
• South Asia Studies, Minor (p. 190)
• Statistics and Data Science, Minor (p. 191)
• Survey Research and Data Analytics, Minor (p. 191)
• Sustainability and Environmental Management, Minor (p. 192)
• Theatre Arts, Minor (p. 192)
• Urban Education, Minor (p. 192)
• Urban Real Estate and Development, Minor (p. 193)
• Urban Studies, Minor (p. 193)

Actuarial Mathematics, Minor

Actuarial Science stands at the intersection of risk and money. Actuaries use their knowledge of mathematics and probability theory to define, analyze and solve complex business, financial, and social problems. Actuaries evaluate individual and corporate risks, and design financially sound insurance and pension plans. Graduates from the University of Pennsylvania with an Actuarial Mathematics Minor are expected to be in great demand by the insurance and banking industry.

For more information: https://www.math.upenn.edu/undergraduate/math-majors-and-minors/minor-actuarial-mathematics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
<td>1</td>
</tr>
<tr>
<td>STAT 4300</td>
<td>Probability</td>
<td>1</td>
</tr>
<tr>
<td>STAT 4310</td>
<td>Statistical Inference</td>
<td>1</td>
</tr>
<tr>
<td>STAT 4510</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>STAT 4520</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>STAT 4530</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>other</td>
<td>Select an additional INSR course (see list on web)</td>
<td>1</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Africana Studies, Minor

Africana Studies is an interdisciplinary field of study devoted to the critical and systematic examination of the cultural, political, social, economic, and historical experiences of African Americans, Africans, and peoples of African descent around the world. Our course of study is designed to provide students with an integrated understanding and appreciation for a new global black studies. An undergraduate degree in Africana Studies prepares students for graduate work in the humanities, social sciences, and professional schools, as well as a range of careers in teaching, business, public service, and the arts, among others.

For more information: https://africana.sas.upenn.edu/department/undergraduate

African Language courses do not count toward the Minor Requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRC 1001</td>
<td>Introduction to Africana Studies</td>
<td>1</td>
</tr>
<tr>
<td>AFRC 1002</td>
<td>Introduction to Africa</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>Select 5 course units of African American or Caribbean or Latin American centered courses with 3 course units intermediate or upper level and no more than 2 African Caribbean or Latin American centered courses</td>
<td>5</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

American Public Policy, Minor

The minor in American Public Policy enables undergraduates interested in American Public Policy to construct an integrated program across the University. The minor — for students who do not major or concentrate in PSCI or BEPP — requires six courses, three from each department, in addition to the course work required for their major or concentration.

For more information: https://www.sas.upenn.edu/polisci/node/867

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSCI 0200</td>
<td>Introduction to American Politics</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2010</td>
<td>Public Finance and Policy</td>
<td>1</td>
</tr>
</tbody>
</table>

Elective Requirements

Select 2 course units of PSCI courses 2
Select 2 course units of BEPP courses 2

Total Course Units 6

For more information: http://www.sas.upenn.edu/polisci/node/867/

American Sign Language and Deaf Studies, Minor

The ASL/Deaf Studies Program at Penn offers ASL instruction grounded in Deaf cultural experiences and perspectives for the purpose of attaining ASL proficiency for real-world applications in both coursework and future professional endeavors. The course of study for the minor in ASL and Deaf Studies is interdisciplinary, with foundations in language, content, and theory-based courses. Furthermore, as our program has long-standing and steadfast commitment to working in and with local Deaf community organizations for meaningful, mutually beneficial outcomes, we partner with local Deaf community organizations to integrate academic rigor and Deaf cultural values into our coursework. We do so with two organizations primarily, the Deaf-Hearing Communication Centre in Swarthmore, PA and Pennsylvania School for the Deaf in the Germantown section of Philadelphia. Ultimately, these collaborative relationships manifest in a research-based capstone course, Academically Based Community Service in ASL and Deaf Studies, providing opportunities for merging research with practice in a Deaf community setting.

For more information: http://www.ling.upenn.edu/undergraduate/minor-asl

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASLD 1030</td>
<td>Advanced ASL and Deaf History</td>
<td>1.0</td>
</tr>
<tr>
<td>ASLD 1031</td>
<td>Deaf Literature, Performance, Art, and Film</td>
<td></td>
</tr>
<tr>
<td>ASLD 1032</td>
<td>Deaf Culture</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Linguistic Foundational Courses

LING 0001 Introduction to Linguistics 1
LING 0600 Introduction to Sociolinguistics 1

Capstone Fieldwork

ASLD 1033 ASL/Deaf Studies - ABCS 1.0

Cross-Disciplinary Elective

Select 1 course unit of Cross-Disciplinary elective 1

Total Course Units 6

Ancient History, Minor

Classical Studies encompasses the civilization of the ancient Greeks and Romans from prehistory to the Middle Ages, with emphasis on the literature, philosophy and history of the classical Greek and Roman periods. It includes economic, political and social and intellectual history as well as philosophy, archaeology, religion and myth. Students may choose a track that emphasizes the study of texts in Greek and/or Latin, or they may opt for a program of courses that do not require any knowledge of the ancient languages.

For more information: http://www.classics.upenn.edu/

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANCH 0100</td>
<td>Introduction to the Ancient Near East</td>
<td>1</td>
</tr>
<tr>
<td>ANCH 0101</td>
<td>Ancient Greece</td>
<td></td>
</tr>
<tr>
<td>ANCH 0102</td>
<td>Ancient Rome</td>
<td></td>
</tr>
</tbody>
</table>

Electives

Select 5 course units of electives in consultation with the Undergrad Chair from the following Area Groupings: 5

- Graeco-Roman Culture in the Broader Context
- Languages of the Ancient Mediterranean World
- Comparative Studies of Premodern Cultures

Total Course Units 6
Anthropology, Minor

Anthropology is the global social science. It is the study of the human condition everywhere; its cultural, linguistic, and biological diversity; and how it evolved and developed from the prehistoric past into the globalizing present. The Anthropology minor is a 6 credit minor, in which students are encouraged to draw from all sub-fields of the discipline.

For more information: https://www.sas.upenn.edu/anthropology/

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minor Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 6 course units of Anthropology courses</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>6</td>
</tr>
</tbody>
</table>

1 No more than 4 courses from any one field (Cultural/Linguistic, Archaeology, Human Biology) can be applied to the minor.

Archaeological Science, Minor

The Minor in Archaeological Science consists of six course units. Of these six, four will be CAAM classes from introductory, intermediate and advanced levels; one must be an advanced class with an archaeological science research component (the capstone class); and one must be a class in the archaeology or culture of a relevant area.

To Declare:

Students interested in declaring a Minor in Archaeological Science should contact Dr. Marie-Claude Boileau at mboileau@upenn.edu.

For more information: https://www.penn.museum/teachers-and-students/for-penn-students/caam/minor-in-archaeological-science/

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minor Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Survey Requirements</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Select two of the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ARTH 1010 World Art before 1400</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ARTH 1020 The Artist in History, 1400-Now</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ARTH 1060 Architect and History</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Architectural History Electives</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Select four courses at the 2000-level or above. One course may also be in a related field, taken outside the Art History department, subject to the approval of the Undergraduate Chair.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>6</td>
</tr>
</tbody>
</table>

Architecture, Minor

The minor in Architecture is for students with another major who seek to gain a basic knowledge of architecture and acquire basic skills in architectural design.

For more information: www.architecture.sas.upenn.edu (http://www.architecture.sas.upenn.edu)
### Asian American Studies, Minor

Asian American Studies explores the historical and contemporary experiences of Asian immigrants and of persons of Asian ancestry in North America, and the relevance of those experiences for understanding race and ethnicity in national and global contexts. The program introduces students to the methods and concerns of a wide spectrum of disciplines: anthropology and ethnography, economics, history, law, literature, sociology and demography, political science, and urban studies, as well as creative and expository writing.

For more information: [http://asam.sas.upenn.edu/](http://asam.sas.upenn.edu/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASAM 0100</td>
<td>Introduction to Asian American Studies</td>
<td>3</td>
</tr>
<tr>
<td>ASAM 0103</td>
<td>Asian American Literature</td>
<td></td>
</tr>
<tr>
<td>or ASAM 01</td>
<td>Introduction to Asian American History</td>
<td></td>
</tr>
<tr>
<td>ASAM 0101</td>
<td>Asian American Communities</td>
<td></td>
</tr>
<tr>
<td>Other ASAM Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 2 courses of other ASAM courses</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of ASAM or Related courses chosen in consultation with your Minor advisor</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units: 6

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Bioethics, Minor

The Penn Bioethics minor is designed to give students a broad overview of the methods, core content areas and central ethical questions in the field of bioethics. The Bioethics minor is an interdisciplinary program created through a collaboration of the Departments of Anthropology, History and Sociology of Science, Philosophy, Political Science, and Sociology in the College of Arts and Sciences, and Medical Ethics & Health Policy in the Perelman Medical School.

For more information: [http://www.sas.upenn.edu/bioethics/](http://www.sas.upenn.edu/bioethics/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Historical</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1 Course Unit with Attribute ABEH - Historical Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Normative</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1 Course Unit with Attribute ABEN - Normative Courses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Policy &amp; Culture</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1 Course Unit with Attribute ABEP - Policy and Culture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Allocation</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1 Course Unit with Attribute ABEA - Allocation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clinical Ethics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1 Course Unit with Attribute ABEC - Clinical Ethics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research Ethics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1 Course Unit with Attribute ABER - Research Ethics</td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units: 6

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Biology, Minor

The Biology minor introduces students to fundamental topics in the areas of cell and molecular biology, genetics, physiology, and ecology and evolution. This broad range of coursework is designed to provide students with a sufficient background to understand the basics underlying many of the current advances in the field.

For more information: [https://www.bio.upenn.edu/undergraduate/minor-requirements/](https://www.bio.upenn.edu/undergraduate/minor-requirements/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Introductory Biology</td>
<td>2-3</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Track 1:

BIOL 1121 Introduction to Biology - The Molecular Biology of Life
BIOL 1123 Introductory Molecular Biology Laboratory
BIOL 1124 Introductory Organismal Biology Lab

Track 2:

BIOL 1101 Introduction to Biology A
BIOL 1102 Introduction to Biology B

Introductory Chemistry

Select 2 course units of Introductory Chemistry courses 2

Attribute ABIC - Chemistry

Intermediate Level Biology

Select four courses from four different groups: 4

Group 1:
BIOL 2810 Biochemistry
CHEM 2510 Principles of Biological Chemistry
BIOL 2010 Cell Biology

Group 2:
BIOL 2210 Molecular Biology and Genetics

Group 3:
BIOL 3310 Principles of Human Physiology
or BIOL 2311 Human Physiology
BIOL 2140 Evolution of Behavior: Animal Behavior
BIOL 2110 Molecular and Cellular Neurobiology

Group 4:
BIOL 2410 Evolutionary Biology
BIOL 2610 Ecology: From individuals to ecosystems

Additional Biology Course

Select 1 course unit of Additional Biology Course (Track 1 only) 1

Total Course Units 9

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Biophysics, Minor

Bridging the biological sciences and the physical sciences, Biophysics is concerned with physical and chemical explanations of living processes, especially at the cellular and molecular levels. Detailed molecular descriptions are emerging for genetic elements and for the mechanisms that control their propagation and expression. Biophysical studies include the investigation of protein structure, nucleic acid structure, enzyme mechanisms, the phenomena underlying cellular behavior, excitable phenomena in nerve, muscle and visual cells, and integrative neural phenomena.

For more information: http://www.physics.upenn.edu/biophysics/biophpages/Minor.html

Chemistry, Minor

Chemistry is concerned with the study of matter and the changes matter can undergo. The chemistry program provides a basic foundation for career opportunities in chemical research and teaching, in scientific communication and information transfer, and in the health professions.
The chemistry minor provides an introduction to several areas of chemistry, providing exposure to both lecture and laboratory courses.

For more information: http://www.chem.upenn.edu/node/9

Note: Other departments’ courses may not be substituted.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minor Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Core Courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 1011</td>
<td>Introduction to General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 1151</td>
<td>Honors Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Introduction to General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 1161</td>
<td>Honors Chemistry II</td>
<td></td>
</tr>
<tr>
<td><strong>General Chemistry Laboratories:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>General Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>&amp; CHEM 1102</td>
<td>General Chemistry Laboratory II</td>
<td></td>
</tr>
<tr>
<td><strong>Upper Level Chemistry</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2230</td>
<td>Experimental Physical Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 2460</td>
<td>Advanced Synthesis and Spectroscopy Laboratory</td>
<td></td>
</tr>
<tr>
<td>Select 3 course units of Upper Level Chemistry courses at the 2000 level and above</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Course Units</strong></td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

For more information: http://cinemastudies.sas.upenn.edu/undergraduate/minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minor Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Core Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIMS 1010</td>
<td>World Film History to 1945</td>
<td>1</td>
</tr>
<tr>
<td>CIMS 1020</td>
<td>World Film History 1945-Present</td>
<td>1</td>
</tr>
<tr>
<td>CIMS 1030</td>
<td>Television and New Media</td>
<td>1</td>
</tr>
<tr>
<td><strong>Electives</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Non-American Cinema</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Select 3 course units of Elective (Production &amp; Craft of Cinema maximum 2 course units)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Course Units</strong></td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Classical Studies, Minor

Classical Studies encompasses the civilization of the ancient Greeks and Romans from prehistory to the Middle Ages, with emphasis on the literature, philosophy and history of the classical Greek and Roman periods. It includes economic, political and social and intellectual history as well as philosophy, archaeology, religion and myth. Students may choose a track that emphasizes the study of texts in Greek and/or Latin, or they may opt for a program of courses that do not require any knowledge of the ancient languages. The Classical Studies Department provides extensive training at the Undergraduate level as well as graduate training in both Classical Studies and Ancient History.

For more information: http://www.classics.upenn.edu/

Please see Undergraduate Chair for for details on course approval.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minor Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANCH 0101</td>
<td>Ancient Greece</td>
<td>1</td>
</tr>
<tr>
<td>or ANCH 0102</td>
<td>Ancient Rome</td>
<td></td>
</tr>
<tr>
<td>Select 5 course units of CLST or Other courses</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td><strong>Total Course Units</strong></td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Cinema and Media Studies, Minor

The Penn Cinema and Media Studies major and minor are traditional humanities programs involving the critical study of film and media history, theory, and aesthetics. Reflecting the hybrid nature of the field of Cinema and Media Studies, our faculty members are housed in departments across SAS and the university, and we cross-list courses with various departments and schools, including Africana Studies, Anthropology, Communications, East Asian Language and Civilizations, English, Fine Arts, German, History, History of Art, Near Eastern Languages and Civilizations, Romance Languages, Slavic Languages and Literatures, and Women's Studies. This truly interdisciplinary program will introduce students to the wide range of methodologies used to study film and media, and this intersection with other disciplines makes Cinema and Media Studies an ideal component of a double major.
Cognitive Science, Minor

Cognitive science is the empirical study of intelligent systems, including the human mind. An interdisciplinary science, it combines results from biology, computer science, linguistics, mathematics, neuroscience, philosophy and psychology to the study of language processing, perception, action, learning, concept formation, inference and other activities of the mind, with applications for information technology and the study of artificial intelligence.

For more information: https://web.sas.upenn.edu/cogsci/program/minor/

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COGS 1001/ CIS 1400/ LING 1005/ PHIL 1840/ PSYC 1333</td>
<td>Introduction to Cognitive Science</td>
<td>1</td>
</tr>
</tbody>
</table>

**Breadth Requirement**

Select one course each from three of the following areas: | 3 |

**Psychology:**
- PSYC 0001 Introduction to Experimental Psychology
- PSYC 1310 Language and Thought

**Computation:**
- CIS 1100 Introduction to Computer Programming
- CIS 1200 Programming Languages and Techniques I
- PHIL/LGIC 1710 Introduction to Logic

**Language:**
- LING 0001 Introduction to Linguistics
- LING 0500 Introduction to Formal Linguistics

**Philosophy:**
- PHIL 1170 History of Modern Philosophy
- PHIL 2640 Introduction to Philosophy of Mind
- PHIL 4660 Philosophy of Language
- PHIL 4840 Philosophy of Psychology

**Neuroscience:**
- NRSC 2249 Cognitive Neuroscience
- NRSC 1110 Introduction to Brain and Behavior

**Concentration Requirement**

Select two courses from a single concentration: | 2 |

- Cognitive Neuroscience
- Computation and Cognition
- Language and Mind

Total Course Units | 6

Consult with Undergraduate Chair.

Comparative Literature, Minor

The undergraduate program in Comparative Literature welcomes students interested in the study of literature from theoretical, interdisciplinary, cross-cultural, and global perspectives. The core courses train students to appreciate the variety of meanings that texts acquire in different institutional and philosophical contexts and different socio-political frameworks. There are three concentrations within the major: National and Transnational Literatures (four courses in each of two languages), Theory, and Globalization.

Comparative Literature is a flexible program, allowing students to take courses in a variety of departments in the College. Students with interests in more than one national literature and in fields such as philosophy and political theory, art and aesthetics, and film and music will find the requirements congenial. The program provides students with a cosmopolitan intellectual background that is increasingly in demand in an era of globalization.

The minor in Comparative Literature requires students to take an introductory course and a course in theory, along with an open selection of four literature and film courses.

For more information: http://ccat.sas.upenn.edu/Complit/undergraduate.htm

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COML 1000 or COML 1025</td>
<td>Introduction to Literary Study or Narrative Across Cultures</td>
<td>1</td>
</tr>
<tr>
<td>COML 1400</td>
<td>Introduction to Literary Theory</td>
<td>1</td>
</tr>
<tr>
<td>Select 1 course unit of COML Elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 3 course units of courses in any national or comparative literature</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units | 6

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Computational Neuroscience, Minor

The Neuroscience Program has established a new cross-school, interdisciplinary Minor in Computational Neuroscience, which is an emerging field involving the application of quantitative methods to the analysis of neural circuits and the brain. In brief, the Minor requires eight courses, four core classes and four electives, the latter encouraging breadth. No more than five of these courses can also be used to fulfill requirements for another major or minors.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

1 Consult with Undergraduate Chair.
### Consumer Psychology, Minor

The goal of the interschool Consumer Psychology Minor is to create a program that fosters the natural link between Psychology in the College and Marketing in Wharton. To fulfill the Minor in Consumer Psychology students must complete four courses from the Psychology Department in the College and four courses from the Marketing Department in Wharton, and the stats requirement. Both College and Wharton requirements will consist of core courses along with a set of elective courses. College students who wish to minor in Consumer Psychology must count two of the four required psychology (PSYC) courses towards only the Consumer Psychology minor (and towards no other major or minor).

For more information: https://psychology.sas.upenn.edu/more-information-minors/

Or

For more information: https://marketing.wharton.upenn.edu/programs/undergraduate/consumer-psychology-minor/

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NRSC 1120</td>
<td>Introduction to Brain and Behavior</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1100</td>
<td>Introduction to Computer Programming</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 1200</td>
<td>Programming Languages and Techniques I</td>
<td></td>
</tr>
<tr>
<td>NRSC/PHYS</td>
<td>Theoretical and Computational</td>
<td>1</td>
</tr>
<tr>
<td>Neuroscience</td>
<td>5585/NGG 5940</td>
<td></td>
</tr>
<tr>
<td>Independent Research in NRSC, COGS, CIS, BE, PHYS, BIOL, or other relevant major</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**Electives**

Select 4 course units of Electives: 4 units

**Total Course Units:** 8 units

---

**Statistics Requirement**

Select one of the following:

- STAT 1010: Introductory Business Statistics
- STAT 1020: Introductory Business Statistics
- STAT 1110: Introductory Statistics (day or summer only)
- STAT 4300: Probability
- BIOL 2510: Statistics for Biologists
- SOCI 2010: Social Statistics
- ANTH 3454: Quantitative Analysis of Anthropological Data
- NURS 2300: Statistics for Research and Measurement
- PSYC 0001: Introduction to Experimental Psychology
- PSYC 1440: Social Psychology
- PSYC 2400: Introduction to Positive Psychology (SNF Paideia Program Course)
- PSYC 1310: Language and Thought
- PSYC 1530: Memory
- PSYC 1333: Introduction to Cognitive Science
- PSYC 2737: Judgment and Decisions
- PSYC 2750: Behavioral Economics and Psychology
- PSYC 2555: Neuroeconomics
- PSYC 1333: Introduction to Cognitive Science
- PSYC 2737: Judgment and Decisions
- PSYC 2750: Behavioral Economics and Psychology
- PSYC 2555: Neuroeconomics

Select 1 course unit of any of the courses not used, or a 4000-level course in Social Psychology or Decision Making: 1 unit

**Marketing Requirement**

- MKTG 1010: Introduction to Marketing
- MKTG 2110: Consumer Behavior
- MKTG 2120: Data and Analysis for Marketing Decisions
- MKTG 2710: Models for Marketing Strategy
- MKTG 3090: Special Topics: Experiments for Business Decision Making
- MKTG 4760: Applied Probability Models in Marketing
- MKTG 9400 & MKTG 9410: Measurement and Data Analysis in Marketing - Part A and Measurement and Data Analysis in Marketing - Part B
- MKTG 9420 & MKTG 9430: Research Methods in Marketing - Part A and Research Methods in Marketing - Part B

Select one of the following: 1 unit

- Two 0.5 course unit Electives
- One 1 course unit Elective

**Total Course Units:** 9 units

---

1 Note: Two of the four courses must count ONLY toward the CNPS minor, no other major or minor.
Creative Writing, Minor

Creative Writing is the study of writing and literature with an emphasis on cultivating students’ own approach to craft. Students can choose from a range of workshops in fiction, creative nonfiction, poetry, screenwriting, playwriting, or journalism, all of which expose them to a range of writing in the field and give them opportunities to craft their own original work. Students can minor in Creative Writing by completing four workshop courses and two courses in the study of literature.

Journalistic Writing is the study of nonfiction writing and literature with an emphasis on cultivating students’ own skills in reporting, editing, interviewing, investigative journalism, media scholarship, and writing for a range of platforms. Students can minor in Journalistic Writing by completing six workshop courses in journalism and creative nonfiction, including one required course in long-form journalism.

For more information: https://creative.writing.upenn.edu/

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 0051, 0700:0799, 3000:3999</td>
<td>Creative Writing Workshops</td>
<td>4</td>
</tr>
<tr>
<td>ENGL 0100:2999 or 4000:5999</td>
<td>Study of Literary Writing</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 0100:2999 or 4000:5999</td>
<td>Total Course Units</td>
<td>6</td>
</tr>
</tbody>
</table>

1 course unit may be taken in the literature of a language other than English if approved by the advisor.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Data Science and Analytics, Minor

Data science is the study of methods for extracting knowledge from data, combining programming, statistical, and communication skills. The Data Science & Analytics minor is intended for students who wish to complement their major field of study with data science skills. Students will learn the foundational data and programming tools, fundamental statistical inference methods, and modern machine learning approaches – with a focus on application in the social and natural sciences. The minor consists of six courses, three of which are foundational and must fall into specific components (data and programming, statistics, machine learning) and the remaining three are electives that must have a strong link to data science. The minor is not exclusive to a single department, but rather recognizes the wide range of data science courses available in SAS and helps students organize their coursework into a focused data science minor.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Introductory Data Science and Programming</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 2510</td>
<td>Statistics for Biologists</td>
<td></td>
</tr>
<tr>
<td>CRIM 1200</td>
<td>Statistics for the Social Sciences I</td>
<td></td>
</tr>
<tr>
<td>ECON 2300</td>
<td>Statistics for Economists</td>
<td></td>
</tr>
<tr>
<td>ENM 3600</td>
<td>Introduction to Data-driven Modeling</td>
<td></td>
</tr>
<tr>
<td>ENM 3750</td>
<td>Biological Data Science I - Fundamentals of Biostatistics</td>
<td></td>
</tr>
<tr>
<td>ESE 3010</td>
<td>Engineering Probability</td>
<td></td>
</tr>
<tr>
<td>PHYS 3358</td>
<td>Data Analysis for the Natural Sciences I: Fundamentals</td>
<td></td>
</tr>
<tr>
<td>PSCI 1801</td>
<td>Statistical Methods PSCI</td>
<td></td>
</tr>
<tr>
<td>SOCI 2010</td>
<td>Social Statistics</td>
<td></td>
</tr>
<tr>
<td>STAT 1120</td>
<td>Introductory Statistics</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Applied Data Science</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 4511</td>
<td>Biological Data Analysis</td>
<td></td>
</tr>
<tr>
<td>ECON 4330</td>
<td>Econometric Machine Learning Methods and Models</td>
<td></td>
</tr>
<tr>
<td>PSCI 3800</td>
<td>Applied Data Science</td>
<td></td>
</tr>
<tr>
<td>STAT 4420</td>
<td>Introduction to Bayesian Data Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 4710</td>
<td>Modern Data Mining</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Electives</td>
<td>3</td>
</tr>
<tr>
<td>ASTR 1250</td>
<td>Astronomical Techniques</td>
<td></td>
</tr>
<tr>
<td>BIOL 4536</td>
<td>Introduction to Computational Biology &amp; Biological Modeling</td>
<td></td>
</tr>
<tr>
<td>COMM 3130</td>
<td>Computational Text Analysis for Communication Research</td>
<td></td>
</tr>
<tr>
<td>ENVS 3700</td>
<td>GIS: Mapping Places &amp; Analyzing Spaces</td>
<td></td>
</tr>
<tr>
<td>CIS 4210</td>
<td>Artificial Intelligence</td>
<td></td>
</tr>
<tr>
<td>CIS 4500</td>
<td>Database and Information Systems</td>
<td></td>
</tr>
<tr>
<td>COGS 4290</td>
<td>Big Data, Memory and the Human Brain</td>
<td></td>
</tr>
<tr>
<td>LING 2220</td>
<td>Phonetics II: Data Science</td>
<td></td>
</tr>
</tbody>
</table>
LING 2250  Computer Analysis and Modeling of Biological Signals and Systems
PHIL 0341  Ethics of Artificial Intelligence
PHYS 2280  Physical Models of Biological Systems
PSCI 3801  Survey Research and Design
SOCI 2220  Health of Populations
STAT 4240  Text Analytics
URBS 3300  GIS Applications in Social Science

Total Course Units 6

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Design, Minor

The Design Minor is a six-credit program available to undergraduate students in the College of Arts and Sciences, School of Engineering, Wharton and the School of Nursing. This minor introduces students to a broad range of design disciplines and methodologies with the ability to take multiple classes in one area of study.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSGN 0010</td>
<td>Art, Design and Digital Culture 1</td>
<td>1</td>
</tr>
<tr>
<td>DSGN 0020</td>
<td>Design 21: Design After the Digital</td>
<td>1</td>
</tr>
</tbody>
</table>

Integrative Design Studio Requirements

Select two of the following: 2

- DSGN 1020  Art of the web: Interactive Concepts for Art & Design
- DSGN 1070  Graphic Design I: Creative Technologies
- DSGN 2070  Graphic Design II
- DSGN 2260  Pixel to Print
- DSGN 2510  Biological Design
- DSGN 2530  Functions for Form and Material
- DSGN 2540  Information Design and Visualization
- DSGN 2550  Interfacing Cultures: Designing for Mobile, Web and Public Media
- DSGN 2570  User Experience (UX) and User Interface (UI) Design
- DSGN 3050  Design Tools and Technologies

History & Theory Requirements

Select one of the following: 1

- DSGN 3020  Contemporary Theories of Design
- DSGN 3040  Language of Design
- DSGN 3060  Futures for All: Reimagining social equality through art and technology
- DSGN 3070  Feminist Technoscience: Art, Technology, & Gender
- FNAR 3050  Critical Issues in Art

Total Course Units 6

1 Course fulfills a College of Arts and Sciences sector requirement (Sector IV: Humanities and Social Sciences).

Digital Humanities, Minor

The Undergraduate Minor in Digital Humanities is offered by the School of Arts and Sciences at the University of Pennsylvania. It has been designed for students who want to augment their disciplinary studies in the humanities or humanistic social sciences with advanced digital research techniques and in-depth engagement with theoretical and practical questions raised by digital humanities. Students who are not majoring in humanities fields are also welcome to complete the minor.

For more information: https://pricelab.sas.upenn.edu/education/digital-humanities-minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1650</td>
<td>Introduction to Digital Humanities</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 1670</td>
<td>Data Science for the Humanities</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 1050</td>
<td>Computational Data Exploration</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 1100</td>
<td>Introduction to Computer Programming</td>
<td>1</td>
</tr>
</tbody>
</table>

Tier 2

Complete at least 1 but no more than 3 of the following courses (or other qualifying classes): 1-3

- CLST 1303  The Material Past in a Digital World
- COMM 2100  Quantitative Research Methods in Communication
- FNAR 1010  Video I
- PSCI 1800  Introduction to Data Science
- SOCI 2010  Social Statistics

Tier 3

Complete at least 1 but no more than 3 Additional Courses designated as DH electives (or other qualifying classes): 1-3
Students may also fulfill the Tier 3 requirement by completing a significant digital project as part of a class that is not an officially designated DH course. Students must receive permission from the instructor early in the semester and have their project approved by the director of the minor program. One Tier 3 courses may also be a project-centered independent study.

Total Course Units 6

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

East Asian Area Studies, Minor

East Asian Area Studies focuses on East Asia as a region of the world and human experience, and provides an integrated curriculum drawing on the approaches of the social sciences and the humanities. The program requires relevant courses in areas including history, international relations, political science, sociology, legal studies, and East Asian arts and cultures, while maintaining high standards in language study.

For more information: https://ealc.sas.upenn.edu/undergraduate/minor (https://ealc.sas.upenn.edu/undergraduate/minor/)

With intensive language courses (4 course units) the Minor will require 8 course units.

Code Title Course Units

Minor Requirements

Language Requirement

Select a minimum of 2 course units in one language: 2

JPAN 0700 Advanced Japanese I
JPAN 0760 Japanese for the Professions I
JPAN 0800 Advanced Japanese II
JPAN 0860 Japanese for the Professions II
JPAN 1040 Advanced Japanese III
JPAN 1045 Advanced Japanese IV
JPAN 1050 Readings in Classical Japanese I
JPAN 1080 Advanced Japanese for Proficiency I
JPAN 1085 Advanced Japanese for Proficiency II
JPAN 1140 Readings in Advanced Japanese
JPAN 1145 Readings Advanced Japanese II
JPAN 1148 Japanese-English Translation
KORN 0210 Intensive Beginning Korean I & II
KORN 0220 Korean for Heritage Speakers I
KORN 0420 Korean for Heritage Speakers II
KORN 0560 Business Communication in Korean
KORN 0700 Advanced Korean
KORN 0800 Advanced Korean II
KORN 0860 Business Korean I
KORN 0865 Business Korean II
KORN 0870 Current Korean Media I
KORN 0875 Current Korean Media II
KORN 1040 Advanced Readings in Modern Korean I
KORN 1045 Advanced Readings in Modern Korean II
KORN 1060 Advanced Business Korean I
KORN 1065 Advanced Business Korean II
KORN 1140 Advanced Academic Korean I
KORN 1145 Advanced Academic Korean II
CHIN 0160 Beginning Business Chinese I
CHIN 0260 Beginning Business Chinese II
CHIN 0320 Reading and Writing in Chinese I (for Fluent Speakers)
CHIN 0420 Reading and Writing in Chinese II (for Fluent Speakers)
CHIN 0520 Reading and Writing Chinese III (for Fluent Speakers)
CHIN 0620 Reading and Writing Chinese IV (for Fluent Speakers)
CHIN 0700 Advanced Chinese I
CHIN 0701 Advanced Chinese I
CHIN 0800 Advanced Chinese II
CHIN 0840 Chinese Short Stories
CHIN 0860 Business Chinese I
CHIN 0865 Business Chinese II
CHIN 0870 Media Chinese
CHIN 1040 Readings in Modern Chinese: Literature I
CHIN 1045 Readings Modern Chinese: Literature II
CHIN 1048 Readings in Modern Chinese: Documents
CHIN 1055 Introduction to Classical Chinese II
CHIN 1060 Advanced Business Chinese I
CHIN 1065 Advanced Business Chinese II
CHIN 1140 Advanced Readings in Chinese Culture
CHIN 1147 Advanced Readings in Modern Chinese Literature
CHIN 0100 Beginning Chinese I
CHIN 0200 Beginning Chinese II
CHIN 0210 Intensive Beginning Chinese I & II
CHIN 0300 Intermediate Chinese I
CHIN 0400 Intermediate Chinese II
CHIN 0410 Intensive Intermediate Chinese I & II
CHIN 0500 High Intermediate Chinese I
CHIN 0600 High Intermediate Chinese II
JPAN 0100 Beginning Japanese I
JPAN 0200 Beginning Japanese II
East Asian Languages and Civilizations: Japanese, Minor

All students minoring in the Department of East Asian Languages and Civilizations must fulfill a set of Basic Requirements. These requirements are to be met within one of three linguistic and cultural concentrations:

- Chinese Studies
- Japanese Studies
- Korean Studies

In addition to the Basic Requirements, there are further requirements specific to each concentration.

For more information: https://ealc.sas.upenn.edu/undergraduate/minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Requirement</td>
<td>Select 4 CU in CHIN 0100-4999, except CHIN 0105, CHIN 0205, CHIN 0305, CHIN 0405, CHIN 0705, CHIN 0805</td>
<td>4</td>
</tr>
<tr>
<td>Survey Requirement</td>
<td>EALC 0020 Introduction to Chinese Civilization</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>Select 3 course units of Electives with one of the following attributes:</td>
<td>3</td>
</tr>
<tr>
<td>AEAN - Chinese and Inner Asia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AETR - Translational or Comparative East Asia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

Note: No more than 4 CU from Transfer Credit or Study Abroad allowed for the Minor.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

East Asian Languages and Civilizations: Chinese, Minor

All students minoring in the Department of East Asian Languages and Civilizations must fulfill a set of Basic Requirements. These requirements are to be met within one of three linguistic and cultural concentrations:

- Chinese Studies
- Japanese Studies
- Korean Studies

In addition to the Basic Requirements, there are further requirements specific to each concentration.

For more information: https://ealc.sas.upenn.edu/undergraduate/minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Requirement</td>
<td>Select 4 CU in JPAN 0100-4999, except JPAN 0103, JPAN 0105</td>
<td>4</td>
</tr>
<tr>
<td>Survey Requirement</td>
<td>EALC 0040 Introduction to Japanese Civilization</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>Select 3 course units of Electives with one of the following attributes:</td>
<td>3</td>
</tr>
<tr>
<td>AEAN - Chinese and Inner Asia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AETR - Translational or Comparative East Asia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

## East Central European Studies, Minor

The Minor program in East Central European Studies offers students the opportunity for the interdisciplinary study of the language, history, politics, literature, and culture of Eastern and Central Europe. The minor requires a total of six courses (6 CU) beyond the language requirement (two semesters), which students can satisfy by choosing any regional language currently offered at Penn (i.e. Bosnian/Croatian/Serbian, Hungarian, Polish, Ukrainian, Yiddish), by completing language coursework through a study abroad program, or by demonstrating equivalent proficiency.

For more information: [http://ccat.sas.upenn.edu/slavic/](http://ccat.sas.upenn.edu/slavic/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Requisites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completion of at least two semesters of language study or the demonstration of equivalent proficiency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Courses</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Select 4 course units of core courses with at least 2 course units with comparative topics covering more than one country in ECE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 2 course units of Electives</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

## Economic Policy, Minor

Economics is a social science and as such an important component of the liberal arts curriculum. At the core of economics are theories of how individuals, firms, and other organizations make choices and interact, taking into account constraints on their behaviors. Among the topics studied in economics are: the determination of prices and quantities in various types of markets (from perfectly competitive commodity markets to highly regulated utility markets and internet auctions); the effects of taxes, subsidies, and regulations; the determination of aggregate economic activity (e.g., GDP, unemployment); inflation, monetary policy, and financial intermediation; economic growth and income distribution; international trade and international finance (e.g., exchange rates). Economic policy questions stand at the center of public policy debates in the U.S. and countries all around the world. The goal of the Economic Policy Minor is to provide students who are not majoring in economics with the analytical tools that are necessary to participate in and shape public policy debates. The foundation for the minor is provided by the microeconomics and macroeconomics principles courses. After having completed the principles courses, the student can choose a minimum of four elective courses, which apply the basic tools of economic analysis to specific policy questions. The completion of the Economic Policy Minor does not require university-level calculus courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Requirement</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>4 CU in KORN 0100 or above, except for KORN 0103, KORN 0105</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Core Requirement</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>EALC 0060 Introduction to Korean Civilization</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Select 3 course units of Electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Attribute AEAK or AETR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 0100</td>
<td>Introduction to Micro Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 0200</td>
<td>Introductory Economics: Macro</td>
<td>1</td>
</tr>
</tbody>
</table>

Electives

Select four of the following: 1

- ECON 0120 Strategic Reasoning
- ECON 0510 Development Economics
- ECON 0620 Financial Meltdown, Past and Present
- ECON 0420 Political Economy
- ECON 0430 Labor Economics
- ECON 0450 Industrial Organization
- ECON 0440 Law and Economics
- ECON 0460 Economics and Theories of Fairness
- ECON 0465 Economics and Philosophy
- ECON 0500 International Economics
- ECON 0615 The History of the International Monetary System and the Rise of the US Dollar
- ECON 0625 Introduction to Business, Economic and Financial History
- ECON 0630 The Economics and Financing of Health Care Delivery
- ECON 2300 Statistics for Economists

Total Course Units 6

1 Students may substitute a 0-level for a 2000-level in the same subject area provided they fulfill the prerequisites.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

English, Minor

Students minoring in English at Penn explore language, literature, and culture across the globe and in a wide array of forms. From books and manuscripts to theater, film, TV, and digital media, English Minors go everywhere English goes in order to cultivate their critical and expressive skills.

Minors need to take six courses: one must be an upper-level Literature Seminar, one must focus on literature before 1800, and the remaining four can be any English courses.

With prior approval of the Undergraduate Chair or the Associate Director of Undergraduate Studies, students may count one literature course from another department. Note that courses in the Critical Writing Program (those coded as WRIT) do not count in the Minor.

For more information: http://www.english.upenn.edu/undergraduate/minor (http://www.english.upenn.edu/undergraduate/minor/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 0100</td>
<td>Introduction to Micro Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 0200</td>
<td>Introductory Economics: Macro</td>
<td>1</td>
</tr>
<tr>
<td>ECON 2100</td>
<td>Intermediate Microeconomics</td>
<td>1</td>
</tr>
<tr>
<td>Select 1 course unit at 2000 level</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 2 course units of ECON Electives</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units 6

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Economics, Minor

Economics is a social science and as such an important component of the liberal arts curriculum. At the core of economics are theories of how individuals, firms, and other organizations make choices and interact, taking into account constraints on their behaviors. Among the topics studied in economics are: the determination of prices and quantities in various types of markets (from perfectly competitive commodity markets to highly regulated utility markets and internet auctions); the effects of taxes, subsidies, and regulations; the determination of aggregate economic activity (e.g., GDP, unemployment); inflation, monetary policy, and financial intermediation; economic growth and income distribution; international trade and international finance (e.g., exchange rates). The Economics Minor is intended for students with a strong interest in rigorous economics who are majoring in related fields. For instance, this minor should be attractive for students who are majoring in political science or sociology, who are interested in quantitative data analysis, or students looking for an applied field that accompanies a major in mathematics.

For more information: https://economics.sas.upenn.edu/undergraduate/majors-and-minors/economics-minor (https://economics.sas.upenn.edu/undergraduate/majors-and-minors/economics-minor/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 0100</td>
<td>Introduction to Micro Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 0200</td>
<td>Introductory Economics: Macro</td>
<td>1</td>
</tr>
<tr>
<td>ECON 0615</td>
<td>The History of the International Monetary System and the Rise of the US Dollar</td>
<td>1</td>
</tr>
</tbody>
</table>

Literature Before 1800

A course primarily focused on pre-1800 literature, such as English 1020, English 1820, or anything with attributes AE18, AEB7, or AEMR

Upper-Level English Literature Seminar

Any course numbered ENGL 0500-0599; 0700-0799; 2000-2999; 4500-4998; 5000-5999

English Electives 4
Four English electives, one of which can be in Literature other than English

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 0350</td>
<td>First Year Seminar: Climate Fiction</td>
<td>2</td>
</tr>
<tr>
<td>ENGL 2222</td>
<td>August Wilson and Beyond</td>
<td></td>
</tr>
<tr>
<td>or AFRC 2322</td>
<td>August Wilson and Beyond</td>
<td></td>
</tr>
<tr>
<td>ARCH 0111</td>
<td>Architecture in the Anthropocene</td>
<td></td>
</tr>
<tr>
<td>ENVS 1440</td>
<td>Liquid Histories and Floating Archives</td>
<td></td>
</tr>
<tr>
<td>or HIST 0877</td>
<td>Liquid Histories and Floating Archives</td>
<td></td>
</tr>
<tr>
<td>or GRMN 11</td>
<td>Liquid Histories and Floating Archives</td>
<td></td>
</tr>
<tr>
<td>or ENGL 158</td>
<td>Liquid Histories and Floating Archives</td>
<td></td>
</tr>
<tr>
<td>ENVS 1040</td>
<td>Water Worlds: Cultural Responses to Sea Level Rise &amp; Catastrophic Flooding</td>
<td></td>
</tr>
<tr>
<td>or COML 1058</td>
<td>War and Representation</td>
<td></td>
</tr>
<tr>
<td>or GRMN 1139</td>
<td>Water Worlds: Cultural Responses to Sea Level Rise &amp; Catastrophic Flooding</td>
<td></td>
</tr>
<tr>
<td>ENVS 1550</td>
<td>Forest Worlds: Mapping the Arboreal Imaginary in Literature and Film</td>
<td></td>
</tr>
<tr>
<td>or GRMN 11</td>
<td>Forest Worlds: Mapping the Arboreal Imaginary in Literature and Film</td>
<td></td>
</tr>
<tr>
<td>ENVS 1540</td>
<td>Comparative Cultures of Sustainability</td>
<td></td>
</tr>
<tr>
<td>or GRMN 11</td>
<td>Comparative Cultures of Sustainability</td>
<td></td>
</tr>
<tr>
<td>GRMN 1160</td>
<td>Sustainability &amp; Utopianism</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Environmental Humanities, Minor

The minor in Environmental Humanities allows students to explore how attitudes and perceptions, ethics and social structures, arts, cultures and language respond to and shape our environments. The program places special emphasis on arts-driven inquiry into place, integrating the methods and modes of analysis traditionally associated with the arts and humanities with those of the social and natural sciences. The minor also emphasizes public research, training students to engage with publics outside the university in the processes of environmental knowledge-making. Students will complete both a customizable public engagement requirement and a final capstone project. The minor is open to undergraduates in all disciplines.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS 1000</td>
<td>Introduction to Environmental Science</td>
<td></td>
</tr>
<tr>
<td>ENVS 1615</td>
<td>Urban Environments: Speaking About Lead in West Philadelphia</td>
<td></td>
</tr>
<tr>
<td>ENVS 1625</td>
<td>Community Based Environmental Health</td>
<td></td>
</tr>
<tr>
<td>ENVS 1665</td>
<td>Air Pollution: Sources &amp; Effects in Urban Environments</td>
<td></td>
</tr>
<tr>
<td>ENVS 3100</td>
<td>Environmental Case Studies</td>
<td></td>
</tr>
<tr>
<td>ENVS 4200</td>
<td>The anthropocene: Human-dominated Earth</td>
<td></td>
</tr>
<tr>
<td>BIOL 1604</td>
<td>Humans and the Environment</td>
<td></td>
</tr>
<tr>
<td>BIOL 2140</td>
<td>Evolution of Behavior: Animal Behavior</td>
<td></td>
</tr>
<tr>
<td>BIOL 2610</td>
<td>Ecology: From individuals to ecosystems</td>
<td></td>
</tr>
<tr>
<td>CHEM 1200</td>
<td>Environmental Chemistry</td>
<td></td>
</tr>
<tr>
<td>EESC 1060</td>
<td>Natural Disturbances and Disasters</td>
<td></td>
</tr>
<tr>
<td>EESC 1030</td>
<td>Oceanography</td>
<td></td>
</tr>
<tr>
<td>EESC 2300</td>
<td>Global Climate Change</td>
<td></td>
</tr>
<tr>
<td>EESC 3300</td>
<td>Glaciers, Ice &amp; Climate</td>
<td></td>
</tr>
</tbody>
</table>

### Social Science Approaches to Environmental Inquiry

Select one of the following:

- ANTH 0905 Water in the Middle East Throughout History
- ANTH 0103 Origin and Culture of Cities
- ANTH 1340 Making the Natural World: An Introduction to Political Ecology
- ANTH 2970 Nature Culture Environmentalism
- ANTH 2317 The Politics of Matter and the Matter of Politics
- ANTH 3310 Historical Ecology
- ANTH 3240 Plants and Society
- OIDD 5250 Thinking with Models: Business Analytics for Energy and Sustainability
- STSC 1880 Environment and Society
- STSC 1897 Environmental History
- STSC 2829 Nature's Nation: Americans and Their Environment
- STSC 3607 Data Dreams
- HSOC 3824 Animals in Science Medicine Technology
- HSOC 4588 Environments and Health
- HSSC 5800 Environmental History

### Natural Science Approaches to Environmental Inquiry

Select one of the following:

- ENVS 1000 Introduction to Environmental Science
- ENVS 1615 Urban Environments: Speaking About Lead in West Philadelphia
- ENVS 1625 Community Based Environmental Health
- ENVS 1665 Air Pollution: Sources & Effects in Urban Environments
- ENVS 3100 Environmental Case Studies
- ENVS 4200 The anthropocene: Human-dominated Earth
- BIOL 1604 Humans and the Environment
- BIOL 2140 Evolution of Behavior: Animal Behavior
- BIOL 2610 Ecology: From individuals to ecosystems
- CHEM 1200 Environmental Chemistry
- EESC 1060 Natural Disturbances and Disasters
- EESC 1030 Oceanography
- EESC 2300 Global Climate Change
- EESC 3300 Glaciers, Ice & Climate
### Environmental Science, Minor

The Environmental Science minor is designed to achieve an understanding of the breadth of contemporary environmental issues through a series of courses in environmental studies, while ensuring that each student pursue a purposeful course of study in some traditionally defined area of scholarship. Graduates of the program are trained for professions directly or indirectly involved with problems of environmental quality.

For more information: [https://www.sas.upenn.edu/earth/minors/environmental-science-minor](https://www.sas.upenn.edu/earth/minors/environmental-science-minor)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS 1000</td>
<td>Introduction to Environmental Science</td>
<td>1</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>ENVS 3100</td>
<td>Environmental Case Studies</td>
<td></td>
</tr>
<tr>
<td>ENVS 3991</td>
<td>Topics in Environmental Studies</td>
<td></td>
</tr>
<tr>
<td>EESC 1000</td>
<td>Earth Systems Science</td>
<td></td>
</tr>
<tr>
<td>EESC 1060</td>
<td>Natural Disturbances and Disasters</td>
<td></td>
</tr>
<tr>
<td>EESC 1050</td>
<td>Earth and Life Through Time</td>
<td></td>
</tr>
<tr>
<td>EESC 1030</td>
<td>Oceanography</td>
<td></td>
</tr>
</tbody>
</table>

#### Earth & Environmental Science

Select 1 upper level course approved by advisor | 1 |

**Total Course Units**: 6-7

---

### Environmental Studies, Minor

The Environmental Studies minor is designed to achieve an understanding of the breadth of contemporary environmental issues through a series of courses in environmental studies, while ensuring that each student pursue a purposeful course of study in some traditionally defined area of scholarship. Graduates of the program are trained for professions directly or indirectly involved with problems of environmental quality.

For more information: [http://www.sas.upenn.edu/earth/minors/environmental-studies-minor](http://www.sas.upenn.edu/earth/minors/environmental-studies-minor)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS 1000</td>
<td>Introduction to Environmental Science</td>
<td>1</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1101 &amp; BIOL 1102</td>
<td>Introduction to Biology A and Introduction to Biology B</td>
<td></td>
</tr>
<tr>
<td>BIOL 1121 &amp; BIOL 2610</td>
<td>Introduction to Biology - The Molecular Biology of Life and Ecology. From individuals to ecosystems</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Course Units**: 6

---

1 BIOL 1121 Introduction to Biology - The Molecular Biology of Life and AP BIOL Credit and BIOL 2610 Ecology. From individuals to ecosystems

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
European Studies, Minor

European Studies at Penn is an interdisciplinary minor that trains students to understand European Union institutions and the history and context of their development. It supplements majors in history, political science, sociology and art history as well as in French, German, English, Spanish, Italian and Central and East European languages. It is designed to give students access to:

- The institutions of a today’s Europe—European Union, Council of Europe, European Court of Human Rights—reflecting the largest experiment in building a global system of governance in human history.
- An understanding of Europe as a historical and cultural entity and its world leadership in business, politics and culture.
- A great variety of countries, cultures and languages whose interaction with each other and with the United States is an essential part of transatlantic culture.

For more information: https://www.sas.upenn.edu/polisci/node/867

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Code | Title | Course Units
--- | --- | ---

| **Minor Requirements** |  |  |
| **Core Courses** | 1 |  |
| **European Institutions:** |  |  |
| PSCI 1171 | The European Union |  |
| **European History** | 1 |  |
| Select one of the following: |  |  |
| HIST 0200 | The Emergence of Modern Europe |  |
| HIST 0210 | Early Modern Europe, 1450-1750 |  |
| HIST 0250 | Making and Breaking European Hegemony |  |
| HIST 0255 | Modern Europe, 1789-1919 |  |
| HIST 1203 | Economic History of Europe I |  |

### Non-English Language

Two Courses Beyond Language Requirement, Normally at Advanced Level, in Any Non-English European Language

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 1000</td>
<td>Advanced French</td>
<td></td>
</tr>
<tr>
<td>FREN 1212</td>
<td>Advanced French Grammar and Composition</td>
<td></td>
</tr>
<tr>
<td>FREN 1214</td>
<td>Advanced French Conversation and Composition</td>
<td></td>
</tr>
<tr>
<td>FREN 0800</td>
<td>Advanced French in Residence</td>
<td></td>
</tr>
<tr>
<td>GRMN 1120</td>
<td>Translating Cultures: Literature on and in Translation</td>
<td></td>
</tr>
<tr>
<td>GRMN 1130</td>
<td>Water Worlds: Cultural Responses to Sea Level Rise &amp; Catastrophic Flooding</td>
<td></td>
</tr>
<tr>
<td>GRMN 1132</td>
<td>Forest Worlds: Mapping the Arboreal Imaginary in Literature and Film</td>
<td></td>
</tr>
<tr>
<td>GRMN 1140</td>
<td>Liquid Histories and Floating Archives</td>
<td></td>
</tr>
<tr>
<td>GRMN 1160</td>
<td>Sustainability &amp; Utopianism</td>
<td></td>
</tr>
<tr>
<td>GRMN 1170</td>
<td>Global Sustainabilities</td>
<td></td>
</tr>
<tr>
<td>ITAL 1000</td>
<td>Advanced Italian I</td>
<td></td>
</tr>
<tr>
<td>ITAL 1200</td>
<td>Advanced Italian II</td>
<td></td>
</tr>
<tr>
<td>ITAL 1211</td>
<td>Business Italian</td>
<td></td>
</tr>
<tr>
<td>ITAL 1212</td>
<td>Business Italian: Italian for Special Purposes</td>
<td></td>
</tr>
<tr>
<td>ITAL 1213</td>
<td>Business Italian: Italian for Professions</td>
<td></td>
</tr>
<tr>
<td>ITAL 1214</td>
<td>Business Italian: Translation and Interpreting</td>
<td></td>
</tr>
<tr>
<td>RUSS 1100</td>
<td>Russian Society Today</td>
<td></td>
</tr>
<tr>
<td>RUSS 1200</td>
<td>Russia Society Today II</td>
<td></td>
</tr>
<tr>
<td>SPAN 1000</td>
<td>Advanced Spanish</td>
<td></td>
</tr>
<tr>
<td>SPAN 1005</td>
<td>Advanced Spanish for the Medical Professions</td>
<td></td>
</tr>
<tr>
<td>SPAN 1010</td>
<td>Business Spanish I</td>
<td></td>
</tr>
<tr>
<td>SPAN 1110</td>
<td>Business Spanish II</td>
<td></td>
</tr>
<tr>
<td>SPAN 1200</td>
<td>Advanced Spanish II: Grammar and Composition</td>
<td></td>
</tr>
<tr>
<td>SPAN 1210</td>
<td>Spanish for the Professions</td>
<td></td>
</tr>
</tbody>
</table>

### European Electives

Select 2 course units from the following list:

- Other European History Classes Listed Above May Be Used as Electives
- Other European studies courses not listed here may be credited at advisor discretion.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCS 0100</td>
<td>Bosnian-Croatian-Serbian I</td>
<td></td>
</tr>
<tr>
<td>BCS 0200</td>
<td>Bosnian-Croatian-Serbian II</td>
<td></td>
</tr>
<tr>
<td>BCS 0300</td>
<td>Bosnian-Croatian-Serbian III</td>
<td></td>
</tr>
<tr>
<td>BCS 0400</td>
<td>Bosnian-Croatian-Serbian IV</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>COML 1010</td>
<td>Freud: The Invention of Psychoanalysis</td>
<td></td>
</tr>
<tr>
<td>COML 1020</td>
<td>Marx, Marxism, and the Culture of Revolution</td>
<td></td>
</tr>
<tr>
<td>COML 1030</td>
<td>Nietzsche's Modernity and the Death of God</td>
<td></td>
</tr>
<tr>
<td>COML 1071</td>
<td>Fascist Cinemas</td>
<td></td>
</tr>
<tr>
<td>COML 1080</td>
<td>German Cinema</td>
<td></td>
</tr>
<tr>
<td>COML 2011</td>
<td>Literature of Dissent: Art as Protest in 20th-Century Poland and Czechoslovakia</td>
<td></td>
</tr>
<tr>
<td>COML 2251</td>
<td>Machiavelli and Modern Political Thought</td>
<td></td>
</tr>
<tr>
<td>CZCH 0010</td>
<td>Czech Through Film</td>
<td></td>
</tr>
<tr>
<td>CZCH 0100</td>
<td>Czech I</td>
<td></td>
</tr>
<tr>
<td>CZCH 0120</td>
<td>Czech through Short Stories</td>
<td></td>
</tr>
<tr>
<td>CZCH 0200</td>
<td>Czech II</td>
<td></td>
</tr>
<tr>
<td>CZCH 0300</td>
<td>Czech III</td>
<td></td>
</tr>
<tr>
<td>CZCH 0400</td>
<td>Czech IV</td>
<td></td>
</tr>
<tr>
<td>FREN 1226</td>
<td>French History and Culture to 1774</td>
<td></td>
</tr>
<tr>
<td>FREN 1227</td>
<td>French History and Culture 1789-1945</td>
<td></td>
</tr>
<tr>
<td>FREN 1230</td>
<td>Masterpieces of French Cinema</td>
<td></td>
</tr>
<tr>
<td>FREN 1231</td>
<td>Perspectives in French Literature: Love and Passion</td>
<td></td>
</tr>
<tr>
<td>FREN 1232</td>
<td>Perspectives in French Literature: The Individual and Society</td>
<td></td>
</tr>
<tr>
<td>FREN 1233</td>
<td>Francophone Literature and Film</td>
<td></td>
</tr>
<tr>
<td>FREN 2130</td>
<td>French for Business I</td>
<td></td>
</tr>
<tr>
<td>FREN 2170</td>
<td>French Phonetics</td>
<td></td>
</tr>
<tr>
<td>FREN 2250</td>
<td>Paris during the German Occupation and its Places of [Non-]Memory</td>
<td></td>
</tr>
<tr>
<td>FREN 2280</td>
<td>Contemporary France</td>
<td></td>
</tr>
<tr>
<td>FREN 2500</td>
<td>The Novel and Marriage</td>
<td></td>
</tr>
<tr>
<td>FREN 3010</td>
<td>French Identity in the Twentieth Century</td>
<td></td>
</tr>
<tr>
<td>FREN 3080</td>
<td>Topics in French Culture</td>
<td></td>
</tr>
<tr>
<td>FREN 3100</td>
<td>Literary History</td>
<td></td>
</tr>
<tr>
<td>FREN 3110</td>
<td>French Thought After 1968</td>
<td></td>
</tr>
<tr>
<td>FREN 3130</td>
<td>French for Business II</td>
<td></td>
</tr>
<tr>
<td>FREN 3220</td>
<td>France and the European Union</td>
<td></td>
</tr>
<tr>
<td>FREN 3250</td>
<td>Advanced French: Translation</td>
<td></td>
</tr>
<tr>
<td>FREN 3290</td>
<td>Le français dans le monde/French in the World</td>
<td></td>
</tr>
<tr>
<td>FREN 3300</td>
<td>Medieval Literature</td>
<td></td>
</tr>
<tr>
<td>FREN 3600</td>
<td>The Enlightenment</td>
<td></td>
</tr>
<tr>
<td>FREN 3700</td>
<td>French Literature of the 19th Century</td>
<td></td>
</tr>
<tr>
<td>FREN 3800</td>
<td>Literature of the Twentieth Century</td>
<td></td>
</tr>
<tr>
<td>FREN 3810</td>
<td>Animal Words, Animal Worlds: Introduction to Zoopoetics</td>
<td></td>
</tr>
<tr>
<td>FREN 3820</td>
<td>Horror Cinema</td>
<td></td>
</tr>
<tr>
<td>FREN 3830</td>
<td>French &amp; Italian Modern Horror</td>
<td></td>
</tr>
<tr>
<td>FREN 3840</td>
<td>The French Novel of the Twentieth Century</td>
<td></td>
</tr>
<tr>
<td>FREN 3850</td>
<td>Modern French Theater</td>
<td></td>
</tr>
<tr>
<td>FREN 3860</td>
<td>Paris in Film</td>
<td></td>
</tr>
<tr>
<td>FREN 3890</td>
<td>France and Its Others</td>
<td></td>
</tr>
<tr>
<td>GRMN 0013</td>
<td>Euro Zone Crisis - The EU in a Currency War for Survival?</td>
<td></td>
</tr>
<tr>
<td>GRMN 0016</td>
<td>Babylon Berlin: German Crime Books</td>
<td></td>
</tr>
<tr>
<td>GRMN 017</td>
<td>Politics of Commemoration</td>
<td></td>
</tr>
<tr>
<td>GRMN 1010</td>
<td>Freud: The Invention of Psychoanalysis</td>
<td></td>
</tr>
<tr>
<td>GRMN 1015</td>
<td>Freud's Objects</td>
<td></td>
</tr>
<tr>
<td>GRMN 1020</td>
<td>Marx, Marxism, and the Culture of Revolution</td>
<td></td>
</tr>
<tr>
<td>GRMN 1030</td>
<td>Nietzsche's Modernity and the Death of God</td>
<td></td>
</tr>
<tr>
<td>GRMN 1040</td>
<td>Berlin: History, Politics, Culture</td>
<td></td>
</tr>
<tr>
<td>GRMN 1050</td>
<td>Metropolis: Culture of the City</td>
<td></td>
</tr>
<tr>
<td>GRMN 1060</td>
<td>The Fantastic and Uncanny in Literature: Ghosts, Spirits &amp; Machines</td>
<td></td>
</tr>
<tr>
<td>GRMN 1070</td>
<td>Fascist Cinemas</td>
<td></td>
</tr>
<tr>
<td>GRMN 1080</td>
<td>German Cinema</td>
<td></td>
</tr>
<tr>
<td>GRMN 1090</td>
<td>Jewish Films and Literature</td>
<td></td>
</tr>
<tr>
<td>GRMN 1146</td>
<td>Queer German Cinema</td>
<td></td>
</tr>
<tr>
<td>GRMN 1150</td>
<td>Comparative Cultures of Sustainability</td>
<td></td>
</tr>
<tr>
<td>GRMN 1151</td>
<td>Comparative Cultures of Resilience and Sustainability in the Netherlands and the United States</td>
<td></td>
</tr>
<tr>
<td>GRMN 1153</td>
<td>Is Europe Facing a Spiritual Crisis?</td>
<td></td>
</tr>
<tr>
<td>GRMN 1300</td>
<td>Topics German Cinema</td>
<td></td>
</tr>
<tr>
<td>GRMN 1301</td>
<td>Northern Renaissance Art</td>
<td></td>
</tr>
<tr>
<td>GRMN 1304</td>
<td>Global Modernism Seminar</td>
<td></td>
</tr>
<tr>
<td>GRMN 1306</td>
<td>Origins of Nazism: From Democracy to Race War and Genocide</td>
<td></td>
</tr>
<tr>
<td>GRMN 2190</td>
<td>Business German: A Macro Perspective</td>
<td></td>
</tr>
<tr>
<td>GRMN 2290</td>
<td>Business German: A Micro Perspective</td>
<td></td>
</tr>
<tr>
<td>GRMN 2300</td>
<td>Topics in Dutch Studies</td>
<td></td>
</tr>
<tr>
<td>GRMN 3110</td>
<td>Handschrift-Hypertext: Deutsche Medien</td>
<td></td>
</tr>
<tr>
<td>GRMN 3120</td>
<td>Places of Memory. Lieux de memoire. Erinnerungsorte.</td>
<td></td>
</tr>
<tr>
<td>GRMN 3210</td>
<td>Krautrock und die Folgen</td>
<td></td>
</tr>
<tr>
<td>GRMN 3212</td>
<td>Seeing Green: Environmentalism in Germany and Austria</td>
<td></td>
</tr>
<tr>
<td>GRMN 3215</td>
<td>German Youth Cultures</td>
<td></td>
</tr>
<tr>
<td>GRMN 3220</td>
<td>Writing in Dark Times: German Literature</td>
<td></td>
</tr>
<tr>
<td>GRMN 3221</td>
<td>German Ideas and Nazi ideology</td>
<td></td>
</tr>
<tr>
<td>GRMN 3240</td>
<td>Crime and Detection - Dark Deeds</td>
<td></td>
</tr>
<tr>
<td>GRMN 3250</td>
<td>Theater and Language: Staging the 20th Century</td>
<td></td>
</tr>
<tr>
<td>GRMN 3250</td>
<td>Topics in German Literature</td>
<td></td>
</tr>
<tr>
<td>GRMN 3265</td>
<td>Kafka's Creatures</td>
<td></td>
</tr>
<tr>
<td>GRMN 3270</td>
<td>German Literature after 1945</td>
<td></td>
</tr>
<tr>
<td>GRMN 3273</td>
<td>Critical Theory of Christa Wolf: What remains?</td>
<td></td>
</tr>
<tr>
<td>GRMN 3280</td>
<td>Decadence</td>
<td></td>
</tr>
<tr>
<td>GRMN 3290</td>
<td>Topics in German Culture</td>
<td></td>
</tr>
<tr>
<td>GRMN 5260</td>
<td>The Trouble with Freud: Psychoanalysis, Literature, Culture</td>
<td></td>
</tr>
<tr>
<td>GLBS 3800</td>
<td>Putin's Russia</td>
<td></td>
</tr>
<tr>
<td>HIST 0723</td>
<td>The Enlightenment</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td></td>
</tr>
<tr>
<td>HIST 0270</td>
<td>Modern Britain, 1700-present: Empire, Industry and Democracy</td>
<td></td>
</tr>
<tr>
<td>HIST 0220</td>
<td>England and the British Isles to 1707</td>
<td></td>
</tr>
<tr>
<td>HIST 0240</td>
<td>The Rise and Fall of the Russian Empire, 1552-1917</td>
<td></td>
</tr>
<tr>
<td>HIST 0820</td>
<td>Freud: The Invention of Psychoanalysis</td>
<td></td>
</tr>
<tr>
<td>HIST 0821</td>
<td>Berlin: History, Politics, Culture</td>
<td></td>
</tr>
<tr>
<td>HUNG 0100</td>
<td>Hungarian I</td>
<td></td>
</tr>
<tr>
<td>HIST 0823</td>
<td>Portraits of Russian Society: Art, Fiction, Drama</td>
<td></td>
</tr>
<tr>
<td>HIST 0824</td>
<td>Russia and the West</td>
<td></td>
</tr>
<tr>
<td>HIST 0825</td>
<td>Portraits of Soviet Society: Literature, Film, Drama</td>
<td></td>
</tr>
<tr>
<td>HIST 1200</td>
<td>Foundations of European Thought: from Rome to the Renaissance</td>
<td></td>
</tr>
<tr>
<td>HIST 1201</td>
<td>Foundations of Law</td>
<td></td>
</tr>
<tr>
<td>HUNG 0200</td>
<td>Hungarian II</td>
<td></td>
</tr>
<tr>
<td>HUNG 0299</td>
<td>Independent Study in Hungarian</td>
<td></td>
</tr>
<tr>
<td>HUNG 0300</td>
<td>Hungarian III</td>
<td></td>
</tr>
<tr>
<td>HUNG 0400</td>
<td>Hungarian IV</td>
<td></td>
</tr>
<tr>
<td>ITAL 2200</td>
<td>Florence in History</td>
<td></td>
</tr>
<tr>
<td>ITAL 2201</td>
<td>The City of Rome: From Constantine to the Borgias</td>
<td></td>
</tr>
<tr>
<td>ITAL 2204</td>
<td>Food and Diet in Early Europe: Farm to Table in the Renaissance</td>
<td></td>
</tr>
<tr>
<td>ITAL 2500</td>
<td>Cultura E Letteratura</td>
<td></td>
</tr>
<tr>
<td>ITAL 2510</td>
<td>Black Italy: Transnational Identities and Narratives in Afro-Italian Literature</td>
<td></td>
</tr>
<tr>
<td>ITAL 2512</td>
<td>Introduction to Italian Cinema</td>
<td></td>
</tr>
<tr>
<td>ITAL 2520</td>
<td>Contemporary Italy: Pop Culture, Politics, and Peninsular Identity</td>
<td></td>
</tr>
<tr>
<td>ITAL 2522</td>
<td>Modern Italian Culture</td>
<td></td>
</tr>
<tr>
<td>ITAL 2540</td>
<td>Titian and Venetian Painting</td>
<td></td>
</tr>
<tr>
<td>ITAL 2541</td>
<td>Caravaggio</td>
<td></td>
</tr>
<tr>
<td>ITAL 2550</td>
<td>Michelangelo and the Art of the Italian Renaissance</td>
<td></td>
</tr>
<tr>
<td>ITAL 2560</td>
<td>Italian Theater</td>
<td></td>
</tr>
<tr>
<td>ITAL 2950</td>
<td>Palermo: Urban Migration, the Built Environment, and Global Justice</td>
<td></td>
</tr>
<tr>
<td>ITAL 3300</td>
<td>Historical Eras and Topics: Earlier Periods</td>
<td></td>
</tr>
<tr>
<td>ITAL 3328</td>
<td>The Holocaust in Italian Literature and Film</td>
<td></td>
</tr>
<tr>
<td>ITAL 3330</td>
<td>Dante's Divine Comedy</td>
<td></td>
</tr>
<tr>
<td>ITAL 3335</td>
<td>BFS–Med/Red Dante in English: Creative Responses to the Divine Comedy</td>
<td></td>
</tr>
<tr>
<td>ITAL 3401</td>
<td>Contemporary Italy</td>
<td></td>
</tr>
<tr>
<td>ITAL 3402</td>
<td>Italian Film and Media Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3403</td>
<td>Race and Ethnicity in Italy</td>
<td></td>
</tr>
<tr>
<td>ITAL 3404</td>
<td>Italian Gender Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3405</td>
<td>Italian Fashion</td>
<td></td>
</tr>
<tr>
<td>ITAL 3406</td>
<td>Italian Visual Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3407</td>
<td>Italian Foods and Cultures</td>
<td></td>
</tr>
<tr>
<td>ITAL 3408</td>
<td>Italian Literature</td>
<td></td>
</tr>
<tr>
<td>ITAL 3409</td>
<td>Italian Innovations</td>
<td></td>
</tr>
<tr>
<td>ITAL 3410</td>
<td>Italian Renaissance Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3411</td>
<td>Mediterranean Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3412</td>
<td>Italian Performance Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3413</td>
<td>Italian Science and Philosophy</td>
<td></td>
</tr>
<tr>
<td>ITAL 3414</td>
<td>Italian Material Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3415</td>
<td>Italian Digital Humanities</td>
<td></td>
</tr>
<tr>
<td>ITAL 3416</td>
<td>Boccaccio</td>
<td></td>
</tr>
<tr>
<td>ITAL 3417</td>
<td>Machiavelli</td>
<td></td>
</tr>
<tr>
<td>ITAL 3418</td>
<td>Petrarch</td>
<td></td>
</tr>
<tr>
<td>ITAL 3419</td>
<td>Italian Music</td>
<td></td>
</tr>
<tr>
<td>ITAL 3420</td>
<td>ITALIAN HISTORIES</td>
<td></td>
</tr>
<tr>
<td>ITAL 3501</td>
<td>Contemporary Italy</td>
<td></td>
</tr>
<tr>
<td>ITAL 3502</td>
<td>Italian Film and Media Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3503</td>
<td>Race and Ethnicity in Italy</td>
<td></td>
</tr>
<tr>
<td>ITAL 3504</td>
<td>Italian Gender Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3505</td>
<td>Italian Fashion</td>
<td></td>
</tr>
<tr>
<td>ITAL 3506</td>
<td>Italian Visual Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3507</td>
<td>Italian Foods and Cultures</td>
<td></td>
</tr>
<tr>
<td>ITAL 3508</td>
<td>Italian Literature</td>
<td></td>
</tr>
<tr>
<td>ITAL 3509</td>
<td>Italian Innovations</td>
<td></td>
</tr>
<tr>
<td>ITAL 3510</td>
<td>Italian Renaissance Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3511</td>
<td>Mediterranean Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3512</td>
<td>Italian Performance Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3513</td>
<td>Italian Science and Philosophy</td>
<td></td>
</tr>
<tr>
<td>ITAL 3514</td>
<td>Italian Material Studies</td>
<td></td>
</tr>
<tr>
<td>ITAL 3515</td>
<td>Italian Digital Humanities</td>
<td></td>
</tr>
<tr>
<td>ITAL 3516</td>
<td>Boccaccio</td>
<td></td>
</tr>
<tr>
<td>ITAL 3517</td>
<td>Machiavelli</td>
<td></td>
</tr>
<tr>
<td>ITAL 3518</td>
<td>Petrarch</td>
<td></td>
</tr>
<tr>
<td>ITAL 3519</td>
<td>Italian Music</td>
<td></td>
</tr>
<tr>
<td>ITAL 3520</td>
<td>Italian Histories</td>
<td></td>
</tr>
<tr>
<td>ITAL 3599</td>
<td>Independent Study</td>
<td></td>
</tr>
<tr>
<td>JWST 0020</td>
<td>Religions of the West</td>
<td></td>
</tr>
<tr>
<td>JWST 0160</td>
<td>Beginning Yiddish I</td>
<td></td>
</tr>
<tr>
<td>JWST 0260</td>
<td>Beginning Yiddish II</td>
<td></td>
</tr>
<tr>
<td>JWST 0330</td>
<td>Themes Jewish Tradition: Iberian Conversos: Jew-Christian?</td>
<td></td>
</tr>
<tr>
<td>JWST 0550</td>
<td>Readings in Modern Yiddish Literature</td>
<td></td>
</tr>
<tr>
<td>JWST 5650</td>
<td>Reading Benjamin Reading Kafka</td>
<td></td>
</tr>
<tr>
<td>MUSC 1321</td>
<td>Composers: Verdi and Shakespeare</td>
<td></td>
</tr>
<tr>
<td>MUSC 1322</td>
<td>Composers: Mozart/DaPonte</td>
<td></td>
</tr>
<tr>
<td>MUSC 1325</td>
<td>Composers: Fryderyk Chopin</td>
<td></td>
</tr>
<tr>
<td>MUSC 1326</td>
<td>Composers: Ludwig van Beethoven</td>
<td></td>
</tr>
<tr>
<td>MUSC 1430</td>
<td>History of Opera</td>
<td></td>
</tr>
<tr>
<td>MUSC 2300</td>
<td>Introduction to European Art Music</td>
<td></td>
</tr>
<tr>
<td>PHIL 3435</td>
<td>Marx's Moral, Social, and Political Philosophy</td>
<td></td>
</tr>
<tr>
<td>PHIL 4181</td>
<td>Kant I</td>
<td></td>
</tr>
</tbody>
</table>
PHIL 4182 Kant II
PHIL 4191 Hegel
PLSH 0100 Polish I
PLSH 0200 Polish II
PLSH 0201 Polish for Heritage Speakers I
PLSH 0300 Polish III
PLSH 0400 Polish IV
PLSH 0401 Polish for Heritage Speakers II
RELS 5340 Christian Thought From 1000 to 1800
RELS 5010 Sacred Stuff in Medieval & Early Modern Europe
REES 0130 Portraits of Soviet Society: Literature, Film, Drama
REES 0131 Putin's Russia: Culture, Society and History
REES 0170 Europe: From an Idea to the Union
REES 0190 Russia and the West
REES 0410 Masterpieces of 19th-Century Russian Literature
REES 0430 Masterpieces of 20th-Century Russian Literature
REES 0471 Russian Short Story
REES 0479 Literature of Dissent: Art as Protest in 20th-Century Poland and Czechoslovakia
REES 0480 Dostoevsky
REES 0481 Tolstoy
REES 0630 Behind the Iron Curtain
REES 1179 War and Representation
REES 1230 Russian and East European Film from the October Revolution to World War II
REES 1370 Cold War: Global History
REES 1380 Tolstoy's War and Peace and the Age of Napoleon
REES 1470 Chekhov: Stage & Screen
REES 1530 Communism
REES 1531 Socialism
REES 1535 Russian Politics
REES 1570 Russia and Eastern Europe in International Affairs
REES 1630 Soviet and Post-Soviet Economy
REES 1670 Population and Public Health in Eastern Europe
REES 1680 Sex and Socialism
SPAN 1300 Foundations of Spanish Culture and Civilization
SPAN 3200 Studies in the Spanish Middle Ages
SPAN 3350 Don Quijote
SPAN 3400 Studies in Spanish Literature and Culture: 1700-Present
SPAN 3402 The Evolution of the Don Juan Myth in the Western Literary Tradition
SPAN 3404 The Spanish Short Story
SPAN 3406 The Gothic Tradition in Spanish Literature
SPAN 3430 Studies in Modern and Contemporary Spanish Literature
SPAN 3432 The Generation of 1898
SPAN 3434 Spanish Post-Franco Narrative by Women
SPAN 3500 Studies in Modern and Contemporary Spanish Culture
SPAN 3502 The Spanish Avant-Garde
SPAN 3504 Spanish Surrealism: The Works of Salvador Dalí
SWED 0100 Elementary Swedish I
SWED 0200 Elementary Swedish II
SWED 0300 Intermediate Swedish I
SWED 0400 Intermediate Swedish II
UKRN 0100 Ukrainian I
UKRN 0200 Ukrainian II
UKRN 0300 Ukrainian III
UKRN 0400 Ukrainian IV
YDSH 0100 Beginning Yiddish I
YDSH 0200 Beginning Yiddish II
YDSH 0300 Intermediate Yiddish I
YDSH 0400 Intermediate Yiddish II
YDSH 0550 Readings in Modern Yiddish Literature
ITAL 1320 Composers: Opera Composers 1600-1900
ITAL 1322 Composers: Mozart/DaPonte
ITAL 1440 Film Music in Post 1950 Italy
ITAL 1890 Masterpieces-Italian Literature

Total Course Units 6

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Fine Arts, Minor**

The Undergraduate Fine Arts Program combines studio practices, seminar courses, and interactions with visiting artists and professionals in order to provide an open intellectual framework to foster critical awareness and independent methods of artistic research and learning. The Fine Arts Department offers a diverse range of studio courses in the areas of animation and 3D modeling, ceramics, design, drawing and painting, photography, printmaking, sculpture and video. The dynamic curriculum also provides students with the opportunity to thoroughly examine contemporary art, creative research, interactive design and public art through seminar-based instruction.

The Undergraduate Fine Arts Program offers a Fine Arts Major for students in the College of Arts and Sciences and School of Engineering, and a Fine Arts Minor for undergraduate students across the university. The Fine Arts program works in conjunction with three interdisciplinary degree programs in Cinema Studies, Digital Media Design and Visual...
French and Francophone Studies courses are available to all students at the university to take as electives in order to enhance multidisciplinary learning.

A goal of the Undergraduate Fine Arts program is to facilitate an environment where the potentialities of art are considered in relation to the real life conditions of our students. Encouraged to test themselves against the rigors of divergent artistic approaches and their histories, our students develop a more complex set of skills to creatively and critically negotiate the turbulent shifts taking place globally in terms of human experiences.

For more information: http://www.design.upenn.edu/fine-arts/undergraduate/program

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Requirement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following Options:</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Option I:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNR 0010 Drawing I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNR: Drawing Studio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option II:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNR 1060 Sculpture I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNR: Sculpture Studio or Ceramic Studio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option III:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNR 1020 Photography Practices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNR: Photography Studio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option IV:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNR 1090 Painting I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNR: Painting Studio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option V:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DSGN 0010 Art, Design and Digital Culture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNR: Design, Animation, or Video Studio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art History Requirement</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of ARTH course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Studio Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Select 3 course units of FNAR courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

French and Francophone Studies, Minor

French and Francophone Studies introduces students to the full span of historical and cultural traditions from France and the French-speaking world. Languages courses - from introductory to advanced - promote linguistic fluency, building on the skills students have acquired in high school or at Penn. Upper-level seminars explore a range of topics pertaining to literature, history, visual arts, and/or the media, and they offer majors and minors the opportunity to engage in research on French and global Francophone cultures across periods into contemporary times.

For more information: https://www.sas.upenn.edu/french/undergraduate/requirements-majors-and-minors/minor-french-francophone-studies

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Requirements 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FREN 1212 Advanced French Grammar and Composition</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>or FREN 1214 Advanced French Conversation and Composition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>FREN 1226 French History and Culture to 1774</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FREN 1227 French History and Culture 1789-1945</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FREN 2280 Contemporary France</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FREN 3290 Le français dans le monde/French in the World</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FREN 1231 Perspectives in French Literature: Love and Passion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FREN 1232 Perspectives in French Literature: The Individual and Society</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Select 4 course units of Electives at 2000 and 3000 level courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

1 At least 3 courses must be taken in the department at Penn. ALL courses must be taken in French.
2 Must be taken in the Department at Penn.
3 At least one must be taken in the Department at Penn.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Gender, Sexuality, and Women's Studies, Minor

The Gender, Sexuality and Women's Studies Program is an interdisciplinary program that provides exciting intellectual opportunities to explore the role of gender in human affairs. The Gender, Sexuality and Women's Studies Program offers over 50 courses each year, many cross-listed with other departments. GSWS offers a major, a minor, and a graduate certificate.

For more information: http://www.sas.upenn.edu/gsws/
### Minor Requirements

**Core Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSWS 0002</td>
<td>Gender and Society</td>
<td>1</td>
</tr>
<tr>
<td>GSWS 0003</td>
<td>Introduction to Sexuality Studies and Queer Theory</td>
<td>1</td>
</tr>
</tbody>
</table>

**Electives**

Select 4 course units of Electives

**Total Course Units**

6

---

Electives should be selected in consultation with the undergraduate chair of Gender, Sexuality, and Women's Studies.

---

**German, Minor**

The major and minor programs in the Department of Germanic Languages and Literatures provide deep understandings of language and cultures. Building from basic language competency to synthesizing significant literary works, historical context and current media and politics, the program offers a comprehensive education through engaged, active learning in a combination of core courses with a wide range of electives. Your learning experiences can be broadened and applied in study abroad as well as internship programs.

For more information: [https://www.sas.upenn.edu/germanic/](https://www.sas.upenn.edu/germanic/)

---

**Geology, Minor**

The Geology minor is designed to provide the graduates with skills to determine the environmental and/or geologic events that have led to the structures and features of a location and to analyze a field site or geologic region. Areas of interest include mineralogy, petrology, volcanology, stratigraphy, economic geology and paleontology. Geology also includes subjects as varied as environmental geology, evolutionary biology, solid-state chemistry, oceanography, mineral economics and geochronology.

For more information: [http://www.sas.upenn.edu/earth/minors/earth-science-minor](http://www.sas.upenn.edu/earth/minors/earth-science-minor)

---

**Global Medieval Studies, Minor**

Eleven Penn departments contribute to the interdisciplinary program in Global Medieval Studies, which allows students to discover the pre-modern world together, as the root and necessary precondition to the modern. The program is broad geographically and temporally; it includes Europe, the Middle East, Asia, and Africa, and in the latter part of our period even the New World, from Late Antiquity to 1700. This was a formative historical and cultural period in a variety of civilizations, from the north-western corner of Europe, across the Mediterranean and the Middle East, and on to southern and eastern Asia, south to Africa and over the Atlantic Ocean to the New World. The program encourages students to view the world through the lens of various disciplinary and geographic perspectives and discover the interaction of diverse civilizations and religions. As the era that gave birth to contemporary nations and a time before the formation of modern geopolitical concepts, this period provides a critical space for thinking about the composite nature of contemporary identities.

The minor program in Global Medieval Studies can easily be combined with a major in a language and literature tradition, philosophy, science, international relations, or even natural sciences, to name a few. As broadly educated historians and humanists, students of Global Medieval
Hispanic Studies, Minor

The demographic, economic and political realities of the United States, the articulation of a mainstream English culture with an always increasing diversity of Hispanic and Latino cultures, and the ongoing forging of strong cultural and economic ties throughout the Americas, have moved Spanish out of the bounds of the category of “foreign” language and culture in this country. There are many instances that point to the fact that Spanish will become—de facto if not officially—a second national language and culture of the United States. Furthermore, in Europe, Spain is assuming an ever-more significant role in the affairs of the European Union. The Spanish transition to democracy in the 1970s fostered an environment of cultural, linguistic and political diversity that for half a century has served as a fascinating model for the rest of Europe, both east and west.

Hence, the knowledge of Spanish culture gives students much more than the ability to communicate in the third-most-spoken language of the world. It prepares them to account for an entirely different national, continental and global reality in all its complexity. Since culture is the controlling category in this field of studies, the major in Hispanic Studies orients itself to the types of knowledge generated by new disciplines such as cultural studies, new historicism, ethics, and postcolonial studies.

Majors in Hispanic Studies are overwhelmingly double majors. This means that they bring to their classes a dialogic perspective that engages in the study of Hispanic cultures informed by interest in other fields such as history, government, sociology, economics, medicine, and law. The richness and depth of these interests make for lively and intellectually rewarding classroom discussions.

For more information: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies/requirements-majors-minors/minor-hispanic-studies/
East Asia and South Asia

Chronological Distribution
Select 1 Pre-1800 course 1
Select 1 Post-1800 course 1

Penn History Seminar
Select 1 Penn History Seminar at 2000-Level or Above 1

Other Courses for the Minor
Select 3 courses 3

Total Course Units 9

History of Art, Minor

The Minor in the History of Art, like the Major, aims to deepen students’ knowledge of artistic production and practice over the scope of human history. A Minor program in art history may complement the student’s Major in a cognate field, or it may be unrelated to the student’s primary field instruction.

For more information: [http://www.sas.upenn.edu/arthistory/undergraduate/minor](http://www.sas.upenn.edu/arthistory/undergraduate/minor)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td>Survey Course Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Take 2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Attribute AHAS - ARTH Survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ARTH 1010 World Art before 1400</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or ARTH 1020 The Artist in History 1400-Now</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or ARTH 1030 Art and Civilization in East Asia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or ARTH 1040 Art of Global Asia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or ARTH 1060 Architect and History</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or ARTH 1080 World Film History to 1945</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or ARTH 1090 World Film History 1945-Present</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or ARTH 1100 What is Modern Art?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or ARTH 1500 Eye, Mind, and Image</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or ARTH 1800 Introduction to Queer Art</td>
<td></td>
</tr>
<tr>
<td>Special Study Areas</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Any 2000-level or above. One course may also be in a related field, taken outside the Art History department, subject to the approval of the Undergraduate Chair</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attribute AHAE - ARTH Elective Major/Minor</td>
<td></td>
</tr>
</tbody>
</table>

International Development, Minor

The International Development minor is intended for students who wish to complement their primary area of study with an interdisciplinary focus on complex social problems associated with international development. The minor is intended to expand a student’s chosen major by focusing on critical development issues from several different academic perspectives. Approved courses emphasize problems of development in poor countries and poorer regions of wealthier countries. The interdisciplinary nature of the minor allows students to embrace a global perspective on the processes of change and development, critically assess internal and external influences on the development process, and gain a deeper perspective on the interconnectedness of complex problems.

For more information: [http://www.sas.upenn.edu/polisci/node/867](http://www.sas.upenn.edu/polisci/node/867)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td>PSCI Requirement</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select 3 course units of PSCI courses</td>
<td>3</td>
</tr>
<tr>
<td>Other (or PSCI) Requirement</td>
<td>Select 3 course units of Other or PSCI courses</td>
<td>3</td>
</tr>
<tr>
<td>Total Course Units</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

1 Minimum 3 course units in PSCI and no more than 3 course units in non-PSCI subjects (see pre-approved list [http://www.sas.upenn.edu/polisci/node/867/])

International Relations, Minor

International Relations addresses the ways in which governments, private groups and individuals relate to each other in the global political and economic systems. The program provides a solid grounding in the methodologies of political science, history and economics. The curriculum draws on the best courses relevant to world politics, offers a well-rounded liberal arts education and helps prepare students for law or business school, Ph.D. programs and international careers.

For more information: [http://www.sas.upenn.edu/irp/](http://www.sas.upenn.edu/irp/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td>International Relations in Theory &amp; Practice</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PSCI 0400 Introduction to International Relations</td>
<td>1</td>
</tr>
</tbody>
</table>
International Political Economy

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 0500</td>
<td>International Economics (Option 1:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>International Economics)</td>
<td></td>
</tr>
<tr>
<td>PSCI 1402</td>
<td>International Political Economy (Option 2:</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>International Political Economy w/ PSCI)</td>
<td></td>
</tr>
<tr>
<td>ECON 4510</td>
<td>International Trade (Option 3: (For</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ECON majors) International Trade and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>International Monetary Economics)</td>
<td></td>
</tr>
<tr>
<td>or ECON 4520</td>
<td>International Finance</td>
<td></td>
</tr>
</tbody>
</table>

International History

Select one of the following (no exceptions):

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 3920</td>
<td>European Diplomatic History 1789-1914</td>
<td>1</td>
</tr>
<tr>
<td>HIST 1190</td>
<td>American Diplomatic History Since 1776</td>
<td>1</td>
</tr>
<tr>
<td>HIST 1191</td>
<td>The U.S. and the World since 1898</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1759</td>
<td>Technology, Policy &amp; War</td>
<td>1</td>
</tr>
<tr>
<td>HIST 1760</td>
<td>Strategy, Policy and War</td>
<td>1</td>
</tr>
<tr>
<td>HIST 3921</td>
<td>European International Relations 1914-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>present</td>
<td></td>
</tr>
</tbody>
</table>

Electives

Select 1 course units of IR Elective, College or Other. We strongly advise students to refer to our curriculum webpage, for a clearer depiction of courses that comprise the IR minor: https://ir.sas.upenn.edu/curriculum

Select 1 course units of IR Elective, College or Other. We strongly advise students to refer to our curriculum webpage, for a clearer depiction of courses that comprise the IR minor: https://ir.sas.upenn.edu/curriculum

Total Course Units

6

1. Core courses must be taken at U of P.
2. Only 1 course unit may be Non-College.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Italian Studies: Italian Culture, Minor

The Italian Studies section of the Romance Languages Department offers programs in language, literature, film, linguistics, cultural studies and civilization for students with or without a background in Italian. At the core of this program is the study of the Italian language, understood both in the narrow sense of verbal communication, but also in the larger sense of textual messages: literary, cinematic, historical, art-historical, and mass-cultural.

For more information: http://www.sas.upenn.edu/italians/

Italian Studies: Italian Literature, Minor

The Italian Studies section of the Romance Languages Department offers programs in language, literature, film, linguistics, cultural studies and civilization for students with or without a background in Italian. At the core of this program is the study of the Italian language, understood both in the narrow sense of verbal communication, but also in the larger sense of textual messages: literary, cinematic, historical, art-historical, and mass-cultural.

For more information: http://www.sas.upenn.edu/italians/

Minor Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL 1000</td>
<td>Advanced Italian I</td>
<td>1</td>
</tr>
<tr>
<td>ITAL 1200</td>
<td>Advanced Italian II</td>
<td>1</td>
</tr>
<tr>
<td>or ITAL 1890</td>
<td>Masterpieces-Italian Literature</td>
<td></td>
</tr>
</tbody>
</table>

Electives

Select 4 course units of Electives

Total Course Units

6

1. At least 2 of the 4 electives must be taught in Italian. At least 1 of these 2 must be at the 3000-level. No more that 2 extra-departmental Italian Studies courses taught in English may be counted towards the minor. No more than 3 courses may be taken abroad.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
consult with their academic program regarding final certifications and requirements for graduation.

Jewish Studies, Minor

The Jewish Studies Program provides an opportunity for students to study the Jewish experience from several perspectives including: language (Hebrew, Yiddish, and Ladino), literature in the original languages and in translation, the history and culture of the Jewish people from Biblical Israel to 21st-century America and modern Israel, the exploration of Jewish law, and the roles of gender and sex in Judaism. Students may specialize in Jewish Studies through a major or a minor, or through one of the following concentrations: Jewish History within the History Department, Hebraica/Judaica within the Department of Near Eastern Languages & Civilizations, and Judaism within the Department of Religious Studies.

For more information: http://ccat.sas.upenn.edu/jwst/undergraduate

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jewish History</td>
<td>Select 2 course units of Jewish History courses</td>
<td>2</td>
</tr>
<tr>
<td>Jewish Literature</td>
<td>Select 2 course units of Jewish Literature courses from at least two different historical periods</td>
<td>2</td>
</tr>
<tr>
<td>Jewish Religion or Culture</td>
<td>Select 2 course units of Jewish Religion or Culture courses</td>
<td>2</td>
</tr>
<tr>
<td>Elective</td>
<td>Select 1 course unit of Elective</td>
<td>1</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Journalistic Writing, Minor

Creative Writing is the study of writing and literature with an emphasis on cultivating students' own approach to craft. Students can choose from a range of workshops in fiction, creative nonfiction, poetry, screenwriting, playwriting, or journalism, all of which expose them to a range of writing in the field and give them opportunities to craft their own original work. Students can minor in Creative Writing by completing six workshop courses in journalism and creative nonfiction, including one required course in long-form journalism.

For more information: https://creative.writing.upenn.edu/

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Journalistic Writing Workshops</td>
<td>ENGL 3408</td>
<td>Long-Form Journalism</td>
</tr>
<tr>
<td>Select 5 course units of Journalistic Writing</td>
<td>ENGL 3011:3020, 3024:3026, or 3300:3499</td>
<td>5</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Landscape Studies, Minor

The Landscape Studies Minor focuses on the role of the landscape in the cultural imagination, on its legibility as a representation of political, social, artistic, and environmental values; and on its potential to reflect and change our ideas about relationships between the natural world and society.

For more information: http://www.design.upenn.edu/landscape-architecture/undergraduate-minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Architecture &amp; Landscape Architecture Requirements</td>
<td>ARCH 4120</td>
<td>Theory II: Architecture as Cultural Ecology</td>
</tr>
<tr>
<td>LARP 5350</td>
<td>Theory I: Histories and Theories of Landscape and Environment</td>
<td>1</td>
</tr>
<tr>
<td>LARP 5400</td>
<td>Theory II: The Culture of Nature</td>
<td>1</td>
</tr>
<tr>
<td>Environmental Studies Requirements</td>
<td>Select 1 course unit of LARP Elective</td>
<td>1</td>
</tr>
<tr>
<td>Select 2 course units of ENVS courses</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Latin American and Latinx Studies, Minor

The Latin American and Latinx Studies (LALS) Program offers an interdisciplinary major and minor to study the history, arts, languages, cultures, societies, politics, and/or regional organizations of Latin American and Caribbean countries as well as Latinx communities and individuals in the United States. With courses offered across many departments in the School of Arts and Sciences, in study abroad programs taught throughout Latin American cities, and with academically based community service courses with Latinx organizations in the Greater Philadelphia area, the LALS major and minor afford our students a very comprehensive approach to Latin American and Latinx Studies as well as the possibility of a flexible curriculum, where students can pursue and combine their academic interests.

For more information: https://lals.sas.upenn.edu/undergraduate/minor-requirements/

Requirements: Language competence equal to two semesters of college study in Spanish or Portuguese.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td>Select 6 course units of courses with Latin American content</td>
<td>6</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

1 Only two courses counted toward a major may be double-counted toward the LALS Minor. Study Abroad courses may count. Consult with your Minor Advisor.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Law and Society, Minor

The Law and Society Minor program gives students the opportunity to study and understand the law within a sociological framework, by examining both the factors that affect variations in the law, as well as how those variations affect individuals and populations differently. In addition to a theoretical foundation in Sociology, students in the minor will study issues involving the state, its relationship to other institutions such as religions, corporations, civil liberties, the organization of courts, punishment and detention, legislatures, international bodies and trade agreements (such as NAFTA and the EU), race, class and gender and discrimination, reproductive rights, LGBT rights and the legal profession in general. Although the focus of this minor will be on U.S. laws and the U.S. society, laws and societies of other countries as well as international law and the international society will be used for comparative analysis.

For more information: https://sociology.sas.upenn.edu/lawandsociety

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIST 1119</td>
<td>History of American Law to 1877</td>
<td>1</td>
</tr>
<tr>
<td>HIST 1169</td>
<td>History of American Law Since 1877</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1010</td>
<td>Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>Philosophical Foundations of Law (choose 1):</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>HIST 1201</td>
<td>Foundations of Law</td>
<td></td>
</tr>
<tr>
<td>HIST 2202</td>
<td>Taking Things: A History of Property and Law</td>
<td></td>
</tr>
<tr>
<td>HIST 3202</td>
<td>Medieval Justice</td>
<td></td>
</tr>
<tr>
<td>PHIL 1433</td>
<td>The Social Contract</td>
<td></td>
</tr>
<tr>
<td>PHIL 1450</td>
<td>Philosophy of Law</td>
<td></td>
</tr>
<tr>
<td>PHIL 2450</td>
<td>Justice, Law and Morality</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Legal Studies & History, Minor

The University of Pennsylvania's Wharton School and the College of Arts and Sciences are pleased to offer a unique program of study for undergraduate students that enables them to explore multiple perspectives on law as an inter-school supplement to their major field of study.

For more information: https://www.history.upenn.edu/undergraduate/minor-legal-studies-and-history-lshs/
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Linguistics, Minor**

The Linguistics Program is intended to acquaint students with the methods and findings of the scientific study of human language and its relationships to cognition, society, and history. It serves as a preparation for graduate training in linguistics or related areas, and as part of a rigorous general education. Linguistic training is relevant to work in anthropology, philosophy, psychology, and language and literature, as well as to careers in such fields as education, computer science and law. Founded by Zellig Harris in 1947, the Penn Linguistics Department is the oldest modern linguistics department in the United States. We have outstanding programs in the core disciplines of syntax and phonology, as well as in sociolinguistics, semantics, discourse, historical linguistics, phonetics, and psycholinguistics. Penn is also the home of the Linguistic Data Consortium (LDC), a compiler and distributor of linguistic materials for language engineering research. The graduate group in Linguistics at the University of Pennsylvania is an interdisciplinary team of faculty from the Department of Linguistics and related departments. Our program has strong concentrations in several areas and a tradition of collaboration among its faculty.

For more information: http://www.ling.upenn.edu/undergraduate/minor-linguistics (http://www.ling.upenn.edu/undergraduate/minor-linguistics/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGST 2020</td>
<td>Law of Corporate Management and Finance</td>
</tr>
<tr>
<td>LGST 2050</td>
<td>Innovation, Marketing Strategy, and Antitrust</td>
</tr>
<tr>
<td>LGST 2080</td>
<td>The Law at Work: Employment Law for Managers</td>
</tr>
<tr>
<td>LGST 2120</td>
<td>Economic Analysis of Law</td>
</tr>
<tr>
<td>LGST 2130</td>
<td>Legal Aspect of Entrepreneurship</td>
</tr>
<tr>
<td>LGST 2150</td>
<td>Environmental Management: Law &amp; Policy</td>
</tr>
<tr>
<td>LGST 2180</td>
<td>Diversity and the Law</td>
</tr>
<tr>
<td>LGST 2210</td>
<td>Constitutional Law and Free Enterprise</td>
</tr>
<tr>
<td>LGST 2220</td>
<td>Internet Law, Privacy, and Cybersecurity</td>
</tr>
<tr>
<td>LGST 2230</td>
<td>Securities Regulation</td>
</tr>
<tr>
<td>LGST 2280</td>
<td>Sports Law</td>
</tr>
<tr>
<td>LGST 2430</td>
<td>Other People's Money: The Law, Politics, and History of Financial Institutions</td>
</tr>
<tr>
<td>LGST 2440</td>
<td>Blockchain &amp; Cryptocurrencies: Business, Legal, and Regulatory Considerations</td>
</tr>
<tr>
<td>LGST 2450</td>
<td>Business, Law, and Democracy</td>
</tr>
<tr>
<td>LGST 2460</td>
<td>Corporate Distress and Reorganization Law</td>
</tr>
<tr>
<td>BEPP 2010</td>
<td>Public Finance and Policy</td>
</tr>
<tr>
<td>BEPP 2030</td>
<td>Business in the Global Political Environment</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
</tr>
</tbody>
</table>

**Minor Requirements**

Select 6 course units of Linguistics courses ¹

Total Course Units 6

¹ Must be taken in the Linguistics Dept. at Penn. Please consult with the Undergraduate Chair for selection of courses to match interests.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

--

**Logic, Information, & Computation, Minor**

Modern mathematical logic began with work by Cantor, Frege, and other mathematicians during the last three decades of the nineteenth century who were concerned with providing a sound basis for the development of mathematical analysis. In the wake of "the crisis in the foundations of mathematics" precipitated by the discovery of various logical paradoxes at the turn of the twentieth century, mathematicians and philosophers such as Hilbert and Russell intensively pursued investigations into the logical foundations of mathematics. Connections between logic and the foundations of mathematics remained an important source for scientific developments in logic through the epochal results of Gödel in 1930 and 1931, which indicated both the scope and limits of the mechanization of
Mathematics, Minor

At the core of modern theoretical science, mathematics has historically provided an expressive language as well and theoretical framework for advances in the physical sciences. It has since become central in the life and social sciences and computer science. Mathematics at Penn embraces traditional core areas of mathematics as well as developing areas (Penn is one of the world’s leading centers in the application of logic to theoretical computer science). The goals of the major program are to assist students in acquiring both an understanding of mathematics and an ability to use it. The mathematics major provides a solid foundation for graduate study in mathematics as well as background for study in economics, the biological sciences, the physical sciences and engineering, as well as many non-traditional areas.

For more information: https://www.math.upenn.edu/undergraduate/math-majors-and-minors/mathematics-minor/

Review the math minor first by visiting, http://www.math.upenn.edu/ugrad/minor.html. Below is a planning tool that is meant to help you but does not replace the web and adviser visit requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1510</td>
<td>Calculus, Part II with Probability and Matrices</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 3120</td>
<td>Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>MATH 3130</td>
<td>Computational Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>MATH 3500</td>
<td>Number Theory</td>
<td>1</td>
</tr>
<tr>
<td>MATH 3700</td>
<td>Algebra</td>
<td>1</td>
</tr>
<tr>
<td>MATH 5020</td>
<td>Abstract Algebra</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 4300</td>
<td>Probability</td>
<td>1</td>
</tr>
<tr>
<td>STAT 4310</td>
<td>Statistical Inference</td>
<td>1</td>
</tr>
<tr>
<td>STAT 5100</td>
<td>Probability</td>
<td>1</td>
</tr>
<tr>
<td>ECON 2300</td>
<td>Statistics for Economists</td>
<td>1</td>
</tr>
<tr>
<td>ECON 2310</td>
<td>Econometric Methods and Models</td>
<td>1</td>
</tr>
<tr>
<td>ECON 4320</td>
<td>Micro-econometric Techniques and Applications</td>
<td>1</td>
</tr>
<tr>
<td>ESE 3010</td>
<td>Engineering Probability</td>
<td>1</td>
</tr>
<tr>
<td>ESE 4020</td>
<td>Statistics for Data Science</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5300</td>
<td>Elements of Probability Theory</td>
<td>1</td>
</tr>
<tr>
<td>ESE 6740</td>
<td>Information Theory</td>
<td>1</td>
</tr>
<tr>
<td>ENM 5030</td>
<td>Introduction to Probability and Statistics</td>
<td>1</td>
</tr>
</tbody>
</table>

"Check: http://logic.sas.upenn.edu for pre-approved courses."

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Medical Sociology, Minor

The Medical Sociology minor gives students the opportunity to engage in the sociological study of medicine and the health of populations. A sociological perspective on medicine allows students to critically engage with the social and cultural framing of what is defined as “illness”; the structural factors that may contribute to those illnesses; and the interactive dynamics between healthcare providers and patients.

Students will be able to critically connect the organization of social groups with the profession of medicine, the practice of medical care, and the social factors that contribute to sickness and well-being. Students who complete this minor will have a theoretical foundation in Sociology, and a dynamic perspective on health and healthcare in the world today.

For more information: https://sociology.sas.upenn.edu/medicalsociologyminor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCI 1000</td>
<td>Introduction to Sociology</td>
<td>1</td>
</tr>
<tr>
<td>SOCI 2000</td>
<td>Sociological Research Methods</td>
<td>1</td>
</tr>
<tr>
<td>SOCI 1110</td>
<td>Medical Sociology</td>
<td>1</td>
</tr>
</tbody>
</table>

**Advanced Methods Course**
- Select 1 course unit of Advanced Methods course 1
- Select 1 course unit of Substantive course 1
- Select 1 course unit of Sociology or related course 1

**Total Course Units** 6

- Bioethics and Medical Sociology minors cannot double count more than 1 course unit.
- HSOC majors and Medical Sociology minors cannot double count more than 1 course unit.

Modern Middle Eastern Studies, Minor

The interdisciplinary Modern Middle Eastern Studies degree is designed to allow students to specialize in the Middle East as a region of the world and human experience by combining course work using both social scientific and humanistic approaches, underpinned by relevant language skills. Students will work with faculty committed to supporting interdisciplinary, applied, research-oriented advanced study. The minor gives students opportunities to work on problems of politics, policy, history, ideology, social thought, economic development, and international relations.

For more information: https://www.sas.upenn.edu/mec/programs/mmes

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
</table>
| Humanities
- Select 2 course units of Humanities courses 2
| Social Sciences
- Select 2 course units of Social Sciences courses 2
| Electives
- Select 2 course units of Electives 1 2

**Total Course Units** 6

- May include two language courses - in a single language.

Music: Music, Minor

There are two paths of study for the Music minor. One flexible path allows students to draw together five courses on a wide array of topics in History, Theory, and Ethnomusicology. The other path is the Interdisciplinary minor in Jazz and Popular music studies, which is intended for students who wish to integrate their interest in music in the contemporary world and in academically-based community service as a form of learning. This minor is also for music majors who wish to include knowledge of jazz and popular music performance into their degrees.

For more information: https://www.sas.upenn.edu/music/undergraduate
# Music: Jazz and Popular Music, Minor

There are two paths of study for the Music minor. One flexible path allows students to draw together five courses on a wide array of topics in History, Theory, and Ethnomusicology. The other path is the Interdisciplinary minor in Jazz and Popular Music studies, which is intended for students who wish to integrate their interest in music in the contemporary world and in academically-based community service as a form of learning. This minor is also for music majors who wish to include knowledge of jazz and popular music performance into their degrees.

For more information: [https://www.sas.upenn.edu/music/undergraduate](https://www.sas.upenn.edu/music/undergraduate)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1700</td>
<td>Introduction to Theory and Musicianship</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>electives</strong></td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>total course units</strong></td>
<td>6</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

1. Only 1 course unit of performance coursework may be used toward minor elective requirements from the list below: MUSC 0070 Ensemble Performance (0.5 course unit)

2. If MUSC 0070 Ensemble Performance (0.5 course unit) is chosen as an elective, additional semesters are required.

---

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Native American and Indigenous Studies, Minor

The Native American and Indigenous Studies (NAIS) Initiative at Penn features an inter-disciplinary Minor that focuses on the cultures and histories of Native Americans, First Nations, and other Indigenous peoples. Students can explore a diverse range of topics, including cross-cultural historical encounters, heritage landscapes, language recovery, cultural performance, law and sovereignty, museum anthropology, archaeology, decolonizing methods, and more. Many NAIS courses are cross-listed in more than one department (e.g., Anthropology, History). NAIS Faculty often use comparative case studies of Indigenous communities in different world settings, past and present, to illuminate current issues, locally and globally.

For more information: https://nais.sas.upenn.edu/

NAIS courses must be taken for a grade (not pass/fail). Students must achieve a grade no lower than a C in each course.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Requirement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANTH 1490 Introduction to Native American and Indigenous Studies</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>or ANTH 2307 Contemporary Native Americans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thematic Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 3 course units of Thematic courses</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Related Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 2 course units of Related courses</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Near Eastern Languages & Civilizations: Arabic & Hebrew Studies, Minor

This minor explores the inter-relationships between Arabic and Hebrew cultures within the modern and/or medieval periods. Emphasis is paced on language facility in Arabic and/or Hebrew, alongside courses in history, religion, literature and culture.

For more information: https://nelc.sas.upenn.edu/undergraduate/minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Requirement 1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Concentration Requirement 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NELC 0001/ANCH 0100/HIST 0730 Introduction to the Ancient Near East</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 3 course units of Concentration Requirement courses</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

1 Please check the online description of the minor for the possible combinations of ancient language courses that can fulfill this requirement.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Near Eastern Languages & Civilizations: Ancient Near East, Minor

This minor explores the cultures of the ancient Near East, including Mesopotamian, Egyptian, Israelite, Hittite and Persian civilizations. Along with gaining familiarity with an ancient Near Eastern language, coursework includes history, religion and archaeology of the ancient Near East.

For more information: https://nelc.sas.upenn.edu/undergraduate/minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Requirement 1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Concentration Requirement 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NELC 0001 (Introduction to the Ancient Near East) or NELC 0002 (Introduction to the Middle East)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 3 course units of Concentration Requirement courses</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

1 Normally fulfilled by 2nd-year level of Arabic and Hebrew. If already proficient in one language, you must choose the other language.
2 Student must take either NELC 0001 (Introduction to the Ancient Near East) or NELC 0002 (Introduction to the Middle East) as a breadth requirement. Remaining electives must include courses on Arabic and Hebrew cultures: modern and/or medieval in history, literature and religion. NOTE: No more than one PSCI course may be taken as an elective.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Near Eastern Languages & Civilizations: Arabic & Islamic Studies, Minor

Arabic and Islamic Studies focuses on languages and cultures of the wider Middle East in the context of Islamic Civilization. Because of the interdependence of language and culture, a primary emphasis is on gaining mastery of Middle Eastern languages such as Arabic and Turkish, alongside coursework in history, religion, and culture.

For more information: https://nelc.sas.upenn.edu/undergraduate/major

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Requirement</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Concentration Requirement</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

1 May be fulfilled in Arabic, Persian or Turkish.
2 Minors in Arabic and Islamic Studies must take NELC 0002 (Introduction to the Middle East) as a breadth requirement. Other credits may be fulfilled in Arabic, Persian or Turkish. Arabic, Persian or Turkish culture courses to be chosen in consultation with the advisor.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Near Eastern Languages & Civilizations: Cultures and Societies of the Middle East and North Africa, Minor

Like the corresponding major, the Cultures and Societies of the Middle East minor broadly explores the cultures, societies, religions, and literary traditions of the greater Middle East including Arabia, the Levant, Mesopotamia, Iran and the Persianate world, Egypt and the Nile Valley, North Africa (including the Maghreb), and Asia Minor (including present-day Turkey). It enables students to develop an understanding of deep continuities through time, and close connections among the cultures of the region and adjacent areas. The minor does not include language coursework and consists of 6 CU. Students in this minor must complete the department’s two foundational courses: NELC 0001 (Introduction to the Ancient Near East) and NELC 0002 (Introduction to the Middle East). Additionally, students must fulfill 1 CU in introductory or upper-level coursework in Ancient Middle East or Hebrew and Judaic Studies (1 CU); and Societies and Cultures of the Islamic World or the Modern Middle East (1 CU). The final 2 CU are electives in intermediate or more advanced coursework. These courses should be chosen as appropriate in consultation with the student’s minor advisor after discussing the student’s particular intellectual interests.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Requirement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NELC 0001</td>
<td>Introduction to the Ancient Near East</td>
<td>1</td>
</tr>
<tr>
<td>NELC 0002</td>
<td>Introduction to the Middle East</td>
<td>1</td>
</tr>
<tr>
<td>Ancient Middle East or Hebrew and Judaic Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 1 CU in either Ancient Middle East or Hebrew and Judaic Studies:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NELC 0003</td>
<td>Origin and Culture of Cities</td>
<td></td>
</tr>
<tr>
<td>Ancient Middle East</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NELC 0004</td>
<td>Myths and Religions of the Ancient World</td>
<td></td>
</tr>
<tr>
<td>NELC 0050</td>
<td>Ancient Civilizations of the World</td>
<td></td>
</tr>
<tr>
<td>NELC 0100</td>
<td>Archaeology &amp; The Bible</td>
<td></td>
</tr>
<tr>
<td>NELC 0102</td>
<td>Reading Ancient Mesopotamia</td>
<td></td>
</tr>
<tr>
<td>NELC 0200</td>
<td>Land of the Pharaohs</td>
<td></td>
</tr>
<tr>
<td>NELC 0205</td>
<td>Literary Legacy of Ancient Egypt</td>
<td></td>
</tr>
<tr>
<td>NELC 0210</td>
<td>Art and Architecture in Ancient Egypt</td>
<td></td>
</tr>
<tr>
<td>NELC 0215</td>
<td>The Religion of Ancient Egypt</td>
<td></td>
</tr>
<tr>
<td>NELC 0225</td>
<td>The World of Cleopatra</td>
<td></td>
</tr>
<tr>
<td>NELC 0905</td>
<td>Water in the Middle East Throughout History</td>
<td></td>
</tr>
<tr>
<td>NELC 1000</td>
<td>Iraq: Ancient Cities and Empires</td>
<td></td>
</tr>
<tr>
<td>NELC 1010</td>
<td>History and Society of Early Mesopotamia</td>
<td></td>
</tr>
<tr>
<td>NELC 1100</td>
<td>History of Ancient Egypt</td>
<td></td>
</tr>
<tr>
<td>Hebrew and Judaic Studies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NELC 0305</td>
<td>Great Books of Judaism</td>
<td></td>
</tr>
<tr>
<td>NELC 0325</td>
<td>Jewish Mysticism</td>
<td></td>
</tr>
<tr>
<td>NELC 0330</td>
<td>Themes Jewish Tradition: Iberian Conversos: Jew-Christian?</td>
<td></td>
</tr>
<tr>
<td>NELC 0335</td>
<td>Jewish Humor</td>
<td></td>
</tr>
<tr>
<td>NELC 1300</td>
<td>Jewish Folklore</td>
<td></td>
</tr>
<tr>
<td>NELC 1310</td>
<td>Introduction to Modern Hebrew Literature</td>
<td></td>
</tr>
<tr>
<td>NELC 1325</td>
<td>Jews and Christians</td>
<td></td>
</tr>
<tr>
<td>NELC 1400</td>
<td>The Making of Scripture: From Revelation to Canon</td>
<td></td>
</tr>
<tr>
<td>NELC 3300</td>
<td>Jewish Magic</td>
<td></td>
</tr>
<tr>
<td>NELC 4305</td>
<td>Spirit and Law</td>
<td></td>
</tr>
<tr>
<td>HEBR 4000</td>
<td>Rabbinic Writers on Rabbinic Culture</td>
<td></td>
</tr>
<tr>
<td>Select 1 CU in either Societies and Cultures of the Islamic World or Modern Middle East:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Societies and Cultures of the Islamic World</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NELC 0400</td>
<td>Getting Crusaded</td>
<td></td>
</tr>
<tr>
<td>NELC 0500</td>
<td>Introduction to the Qur’an</td>
<td></td>
</tr>
<tr>
<td>NELC 0510</td>
<td>Muhammad and Society</td>
<td></td>
</tr>
<tr>
<td>NELC 2510</td>
<td>Introduction to Islamic Law</td>
<td></td>
</tr>
<tr>
<td>NELC 1001</td>
<td>The Arabian Nights</td>
<td></td>
</tr>
<tr>
<td>NELC 3400</td>
<td>Age of Caliphs, 600-1100</td>
<td></td>
</tr>
</tbody>
</table>
NELC 4505  Islamic Intellectual Tradition

Modern Middle East

NELC 0600  The Middle East through Many Lenses
NELC 0620  Food in the Islamic Middle East: History, Memory, Identity
NELC 1600  North Africa: History, Culture, Society
NELC 1605  Muslims, Christians, and Jews in the Middle East: Historical Perspectives
NELC 1610  Nationalism and Communal Identity in the Middle East
NELC 1615  Migration and the Middle East
NELC 1620  Middle Eastern Jews in Israel
NELC 2900  Who Owns the Past? Archaeology and Politics in the Middle East

Intermediate or Advanced Electives

Select 2 CU from all of the above categories or courses in the Literary and Visual Cultures

Methods in Literary and Visual Cultures

NELC 0102  Reading Ancient Mesopotamia
& NELC 0205  and Literary Legacy of Ancient Egypt
NELC 0305  Great Books of Judaism
NELC 0610  Modern Middle Eastern Literature in Translation
NELC 0615  Modern Arabic Literature
NELC 0700  Iranian Cinema: Gender, Politics and Religion
NELC 1200  The Bible in Translation
NELC 1310  Introduction to Modern Hebrew Literature
NELC 1700  Introduction to Persian Poetic Tradition
NELC 2705  Media and Culture in Contemporary Iran
HEBR 4000  Rabbinic Writers on Rabbinic Culture

Total Course Units 6

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Near Eastern Languages & Civilizations: Persian Language & Literature, Minor

This concentration explores Persian and Iranian culture from the premodern to the modern periods as well as in the context of Islamic Civilization.

For more information: https://nelc.sas.upenn.edu/undergraduate/minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NELC 0001</td>
<td>Introduction to the Ancient Near East</td>
<td>4</td>
</tr>
<tr>
<td>NELC 0002</td>
<td>Introduction to the Middle East</td>
<td>4</td>
</tr>
<tr>
<td>Total Course Units</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

1. This requirement must be fulfilled in Persian.
2. Students with a minor in Persian Languages and Literature must take NELC 0002 (Introduction to the Middle East) as a breadth requirement. Remaining courses relevant to the minor should be chosen in consultation with the advisor.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Neuroscience, Minor

Neuroscience (formerly Biological Basis of Behavior) is an interdisciplinary program in which students explore the relationship between behavior (both human and animal) and its organic bases. The Program offers courses in virtually all areas of neuroscience ranging from cellular neurobiology to cognitive neuropsychology and integrates these basic interdisciplinary courses with basic science requirements in biology, chemistry and psychology. Students also engaged in supervised research in areas as diverse as molecular neurobiology, chemical neuroanatomy, visual sciences and behavioral ecology.

For more information: http://www.sas.upenn.edu/bbb/requirements/minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required NRSC Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NRSC 1110</td>
<td>Introduction to Brain and Behavior</td>
<td>1</td>
</tr>
<tr>
<td>Select 3 course units of NRSC courses</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Additional Courses from Areas of Interest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 4 course units of Areas of Interest</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

1 See web site for approved courses in areas of specialized study.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Nutrition, Minor

Jointly sponsored by the Schools of Nursing and Arts and Sciences, the Nutrition Minor presents a broad view of the field, and illustrates the pervasiveness of nutrition-related issues in such diverse fields as anthropology, economics, folklore, history, physiology, psychology, health care and public policy.

For more information: https://www.nursing.upenn.edu/nutrition-minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit from each Core A, B and C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core A - Basic Nutrition:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NURS 0065</td>
<td>Fundamentals of Nutrition</td>
<td>1</td>
</tr>
<tr>
<td>or NURS 1120</td>
<td>Nutrition: Science &amp; Applications</td>
<td></td>
</tr>
<tr>
<td>Core B - Scientific Basis of Nutrition:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following Options:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Option 1:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NURS 0068</td>
<td>Integrated Cell Biology and Microbiology with Recitation</td>
<td></td>
</tr>
<tr>
<td>Option 2:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 1017</td>
<td>The Biology of Food</td>
<td></td>
</tr>
<tr>
<td>BIOL 1101</td>
<td>Introduction to Biology A</td>
<td></td>
</tr>
<tr>
<td>BIOL 1121</td>
<td>Introduction to Biology - The Molecular Biology of Life</td>
<td></td>
</tr>
<tr>
<td>Core C - Advanced Nutrition:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NURS 5230</td>
<td>Advanced Nutrition: Molecular Basis of Nutrition</td>
<td>1</td>
</tr>
<tr>
<td>or NURS 5240</td>
<td>Advanced Human Nutrition and Micronutrient Metabolism</td>
<td></td>
</tr>
</tbody>
</table>

Electives
It is strongly recommended that Core A & B courses be taken prior to the Elective courses.

2 See website (http://www.nursing.upenn.edu/nutrition-minor/plans-of-study/) for list of approved elective courses.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Philosophy, Minor**

Philosophy seeks to illuminate fundamental aspects of the world, of our relation to and knowledge of the world, and of our own nature as rational, purposive, and social beings. The study of philosophy aims at an appreciation of the ways this enterprise has been, is, and might be approached. It also provides a vantage point for reflecting on the nature and achievement of other disciplines, such as science, the arts, and the humanities. Philosophical topics can be divided roughly into value theory (ethics, politics, aesthetics) and theoretical philosophy (epistemology, metaphysics, mind, and logic). The Philosophy Minor requires a Philosophy balanced selection of courses in the various fields of philosophy and its history.

For more information: http://philosophy.sas.upenn.edu/undergraduate/philosophy-majors-and-minor/philosophy-minor/

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Distribution Requirements</strong></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Select 1 course unit each from the three of the following categories:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of Philosophy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logic/Philosophy of Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epistemology/Metaphysics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethics/Political Philosophy</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Level Requirements</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 2 course units of Level Requirements at 2000 or above</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td><strong>Electives</strong></td>
<td></td>
<td>1-3</td>
</tr>
<tr>
<td>Select up to 3 course units of Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Course Units</strong></td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

**Physics, Minor**

The aim of physicists is to discover the most fundamental principles of nature. Their tools are mathematics and experiment. The physical world as we perceive it is very complex, yet the principles of physics are inherently simple. A physicist’s forte is the ability to analyze a problem, reduce its complexity, and arrive at an understanding of the underlying patterns of nature in terms of simple relationships among constituent elements. Learning to do this gives Physics minors an intellectual versatility that can serve them well in a variety of future activities ranging from research and teaching in Physics or related sciences to careers in law, the health professions, and high-technology companies.

For more information: http://www.physics.upenn.edu/undergraduate/physics-astronomy-major#minor

Total 6 courses (not course units but courses). No more than two (2) courses can be at the 1000 (introductory) level.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td>0-6</td>
</tr>
<tr>
<td>Select one of the following Options:</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Option I - Recommended Minor</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 0150 Principles of Physics I: Mechanics and Wave Motion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 0151 Principles of Physics II: Electromagnetism and Radiation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 1230 Principles of Physics III: Thermal Physics and Waves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 1250 Principles of Physics IV: Modern Physics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS 2280 Physical Models of Biological Systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One course 3000 level or above</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Option II - Individualized Minor</strong></td>
<td></td>
<td>0-6</td>
</tr>
<tr>
<td>Select 6 courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Course Units</strong></td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Political Science, Minor**

The Political Science Department’s course offerings span the discipline of political science, from American political institutions, to the politics of world regions, the emergence of a new international order, and recent and ancient political ideas. The Department’s curriculum is divided into the four standard fields of American politics, comparative politics, international relations, and political theories. There are also other opportunities for study in political processes of elections and communications and public policy. A minor involves one introductory political science course and five political science electives.
Psychoanalytic Studies, Minor

Psychoanalytic ideas provide a coherent basis for understanding how people feel and think, and how they function as individuals and in groups. These ideas, centered on unconscious emotional processes and human relationships, continue to evolve and develop. They form a bridge across many disciplines throughout the humanities, social sciences, and some of the natural sciences. Penn is now one of very few schools in the country (and the world) to offer the exciting opportunity of a minor in Psychoanalytic Studies.

As it provides a unifying body of ideas, Psychoanalytic Studies comprises courses in many departments. The minor is designed in partnership with the Psychoanalytic Center of Philadelphia, and students who sign up for the minor also have the opportunity to meet monthly with a practicing psychoanalyst to learn about contemporary psychoanalytic theories and therapies. Students who complete six courses that count toward the minor as well as a series of meetings with a psychoanalytic mentor will receive both the minor on their transcript and a Certificate of Accomplishment from the Psychoanalytic Center of Philadelphia.

For more information: http://web.sas.upenn.edu/psys/

### Minor Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 4 course units must be taken in PSCI Dept at U of P.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
The Religious Studies minor is a great way to gain background in the scholarly study of religion in order to supplement or enhance major studies in other fields like Jewish Studies, History, Anthropology, Art History, Psychology, Political Science, or even Nursing, Engineering, Pre-Med, Pre-Law, and Business. Students in Wharton or the College of Nursing have taken a Religious Studies minor to gain some fluency in matters of business ethics, bio-ethics, cross-cultural analysis, inter-religious affairs, and the like.

Every minor program must include six courses in at least two different religious traditions. At least two of the six courses must be taken with core Department faculty. RELS also offers many course options which can count towards College Sector requirements, which makes it easier to incorporate the RELS minor into a typical undergraduate course-load.

For more information: https://www.sas.upenn.edu/religious_studies/undergraduate/minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RELS 0130</td>
<td>Gods, Ghosts, and Monsters</td>
<td>1</td>
</tr>
<tr>
<td>Select 1 course unit of any RELS Arts/Letters Elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of RELS Arts/Letters Elective at 2000 or Above</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Hist/Trad OR Society Elective course</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 2 course units of Elective, RELS or Other courses</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Religious Studies, Minor

The Religious Studies minor is a great way to gain background in the scholarly study of religion in order to supplement or enhance major studies in other fields like Jewish Studies, History, Anthropology, Art History, Psychology, Political Science, or even Nursing, Engineering, Pre-Med, Pre-Law, and Business. Students in Wharton or the College of Nursing have taken a Religious Studies minor to gain some fluency in matters of business ethics, bio-ethics, cross-cultural analysis, inter-religious affairs, and the like.

Every minor program must include six courses in at least two different religious traditions. At least two of the six courses must be taken with core Department faculty. RELS also offers many course options which can count towards College Sector requirements, which makes it easier to incorporate the RELS minor into a typical undergraduate course-load.

For more information: https://www.sas.upenn.edu/religious_studies/undergraduate/minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RELS 0130</td>
<td>Gods, Ghosts, and Monsters</td>
<td>1</td>
</tr>
<tr>
<td>Select 1 course unit of any RELS Arts/Letters Elective</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of RELS Arts/Letters Elective at 2000 or Above</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Hist/Trad OR Society Elective course</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 2 course units of Elective, RELS or Other courses</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>
Russian and East European Studies: Russian Language, Literature and Culture, Minor

The Department of Slavic Languages and Literatures offers programs in Russian and, with the support of the Penn Language Center, courses in the Czech and Polish languages. The department also offers a series of courses for students who have spoken Russian at home and wish to gain literacy and/or improve their language skills or to pursue the study of Russian literature and culture in Russian. Students of Russian at Penn are invited to reside in the Russian House (which brings together students interested in daily use of the language) and encouraged to spend a semester of study abroad.

For more information: https://rees.sas.upenn.edu/undergraduate/minor-russian-studies

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-Requisite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RUSS 0400 Russian IV (or literacy courses for Russian speakers or Equivalents)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Requirement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select two of the following courses taught in Russian:</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>RUSS 1100 Russian Society Today</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RUSS 1200 Russian Society Today II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4000-Level course taught in Russian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russian Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 2 courses</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Russian Related Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 2 Russian Related courses (History, Politics, Economics, etc.)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Science, Technology and Society, Minor

Science, Technology & Society (STSC) examines the social contexts in which science and technology occur, the organizations of people and things that make up science and technology systems, and the social and cultural consequences of scientific and technological change over time. In a wide array of courses, STSC majors explore the relationship between scientific knowledge, technological innovations, technological systems, and society past and present.

For more information: https://hss.sas.upenn.edu/undergraduate/stsc-major/stsc-minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STSC 0100 Emergence of Modern Science</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>STSC 0600 Technology &amp; Society</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 4 course units of STSC Elective (Attribute ASTL)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Sociology, Minor

The Sociology Minor program allows students to get an introduction to major sociological concepts and theories, along with methods for sociological research, and a broad foundation of substantive, empirical, and theoretical knowledge rooted in the discipline.

For more information: https://sociology.sas.upenn.edu/sociologyminor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Courses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOCI 1000 Introduction to Sociology</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select 1 course unit of Sociological Theory</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SOCI 2000 Sociological Research Methods</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 3 course units of Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

South Asia Studies, Minor

South Asia Studies is an interdisciplinary field focusing on the history, languages, society, literature, and art from India, Pakistan, Bangladesh, Nepal, Sri Lanka, Afghanistan, and Bhutan. We are America's oldest and arguably most distinguished South Asia regional studies program dealing with the past and contemporary life of one-fifth of the world's population and teaching more languages than any other South Asian studies program in the US. Having a deep knowledge of the country set...
to outpace the US as the second largest economy in the world in an increasingly competitive global job market gives graduates a competitive edge over others with more generic skills. You don’t have to know anything about India or be South Asian to enjoy our great, flexible minor. So ask us about it today!

For more information: http://www.southasia.upenn.edu/undergraduate/major-and-minor-requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundational Requirements</td>
<td>Select 2 course units of SAST 0001 - SAST 0008 or SAST Freshman or Writing Seminars</td>
<td>2</td>
</tr>
<tr>
<td>Electives</td>
<td>Select one of the following:</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>2 course units of Language &amp; 2 course units of courses relevant to South Asia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 course units of courses relevant to South Asia</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Statistics and Data Science, Minor

The aim of statistical modeling is to empower effective decision making, and the field’s unique contribution is its ability to incorporate multiple levels of uncertainty in the framing of wise decisions. Over the last few years, the development of new computational tools and the unprecedented evolution of “big data” have propelled statistical modeling to new levels. Today, statistical modeling and machine learning have reached a level of impact that no large organization can afford to ignore. The information landscape is changing as it has never changed before.

For more information: https://statistics.wharton.upenn.edu/programs/undergraduate/statistics-minor/

Statistics and Data Science, Minor

This minor is for students outside of Wharton. Single-degree and dual-degree students with Wharton may pursue a statistics concentration instead.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Requisites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 1410 Calculus, Part II</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>or MATH 1510 Calculus, Part II with Probability and Matrices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>STAT 1010 Introductory Business Statistics &amp; STAT 1020 Introductory Business Statistics</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Statistics and Data Science, Minor

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Statistics and Data Science, Minor

This minor is for students outside of Wharton. Single-degree and dual-degree students with Wharton may pursue a statistics concentration instead.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Requisites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 1410 Calculus, Part II</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>or MATH 1510 Calculus, Part II with Probability and Matrices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>STAT 1010 Introductory Business Statistics &amp; STAT 1020 Introductory Business Statistics</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The prerequisite may also be satisfied with 2 course units of Economic Statistics, such as ECON 2300 and 104. These students do not need to take any other introductory courses, but they must take all upper-level course from within the Statistics and Data Science Department.

Since STAT 4300 Probability is also a core course, students who complete STAT 4300 Probability and STAT 4310 Statistical Inference as an introductory sequence must complete four additional electives for the minor.

Survey Research and Data Analytics, Minor

The Survey Research and Data Analytics minor is intended for students who wish to complement their primary area of study with an interdisciplinary focus on using data and survey methods for conducting research and evaluating programs, policies, and outcomes in the social sciences.

For more information: http://pores.upenn.edu/students/survey-research-data-analytics-minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Politics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSCI 0200 Introduction to American Politics</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PSCI 1200/ PPE 3002 Public Policy Process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSCI 1201 Public Opinion and American Democracy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistics</td>
<td>1-2</td>
<td></td>
</tr>
<tr>
<td>PSCI 1800 Introduction to Data Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSCI 1801 Statistical Methods PSCI</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Survey Research and Data Analytics, Minor

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Survey Research and Data Analytics, Minor

The Survey Research and Data Analytics minor is intended for students who wish to complement their primary area of study with an interdisciplinary focus on using data and survey methods for conducting research and evaluating programs, policies, and outcomes in the social sciences.

For more information: http://pores.upenn.edu/students/survey-research-data-analytics-minor
Sustainability and Environmental Management, Minor

The Sustainability and Environmental Management minor is focused on sustainability and is designed to help students understand the nature of environmental constraints which face organizations and individuals in the modern world, and to understand how these constraints can be effectively considered as part of the decision-making process in for-profit and non-profit organizations.

For more information: https://www.sas.upenn.edu/earth/minors/sustainability-and-environmental-management-minor

Code | Title | Course Units
---|---|---
ENVS 1000 | Introduction to Environmental Science | 1
EAS 4010 | Energy and Its Impacts: Technology, Environment, Economics, Sustainability | 1
or EAS 4020 | Renewable Energy and Its Impacts: Technology, Environment, Economics, Sustainability. | 1
or EAS 4030 | Energy Systems and Policy | 1

And take any 2 of the following: 2

LGST 2150 | Environmental Management: Law & Policy | 1
BEPP 2610 | Risk Analysis and Environmental Management | 1
BEPP 2630 | Environmental & Energy Economics and Policy | 1

Select 2 course units of Electives from Pre-approved courses 2

Total Course Units 6

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Theatre Arts, Minor

The Theatre Arts Program offers a six-course minor, with three courses that focus on academic approaches to the theatre, such as the study of dramatic literature, theory, history and criticism, and three that focus practical aspects of performance, such as acting, directing, designing, devising, and playwriting. English majors concentrating on drama will find courses that cross-list; a diverse group of students with a wide array of major fields of study find it possible to pursue their interest in Theatre Arts with a minor.

For more information: http://theatre.sas.upenn.edu

Code | Title | Course Units
---|---|---

Minor Requirements

Dramatic Literature, Theory or History
Select 3 course units of Dramatic Literature, Theory or History courses 3

Performance or Design
Select 3 course units of Performance or Design courses 3

Total Course Units 6

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Urban Education, Minor

The Urban Education Minor is open to undergraduates in all disciplines, and requires seven CUs. Students choose from among three concentrations depending on interest in pursuing teaching certification or deepening one’s background in urban education policy: Elementary Education; Secondary Education; Urban Education Policy, Research, and Practice. Students in all three concentrations take three core courses. The additional four requirements vary depending on the track.

For more information: http://www.sas.upenn.edu/urban/students/urban-education-minor
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>URBS 2020</td>
<td>Urban Education</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select 1 Child or Adolescent Development course</td>
<td>1</td>
</tr>
<tr>
<td>URED Capstone</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

The remaining 4 course units are specific to one of the following Tracks:

### Urban Education Policy, Research, and Practice Track
- Select 1 Urban Context course
- Select 1 Teaching and Learning course
- Select 1 ABCS course related to Urban Education
- Select 1 of the following options to complete course #7:
  - Option 1: Policy Elective course
  - Option 2: EDUC 5335
  - Option 3: Select 1 Elective course

### Elementary Education Track
- EDUC 4014 Children's Literature
- EDUC 5021 Science Methods: Project-Based Learning Approaches
  - or EDUC 5023 Social Studies in the Elementary and Middle Schools
- EDUC 5020 Literacy in Elementary/Middle Schools

### Secondary Education Track
- Select 1 Pedagogy & Curriculum (ABCS) course
- Select 1 Content Area (ABCS) course
- EDUC 6027 Teaching in the Middle and Secondary Schools: Math
  - or EDUC 6329 Teaching English/Language and Literacy in Middle and Secondary Schools
- EDUC 6057 Advanced Methods in Middle & Secondary Schools: Math

**Total Course Units:** 7

1. Taken as Senior Thesis course or an Independent Study
2. If you plan to sub-matric into the Master’s Program in Elementary Education
3. If you plan to sub-matric into the Master’s Program in Secondary Education, take any graduate course "not" listed in the Secondary Education core
4. Includes two half-days in the field
5. Includes three half-days in the field
6. Requires Fall field placement
7. Requires Spring field placement

---

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Urban Real Estate and Development, Minor

This minor, co-sponsored by Real Estate (Wharton) and Urban Studies (Arts and Sciences), is designed to enable students to combine an interest in Urban Studies and Real Estate Development. Students take a total of seven Urban Studies and Real Estate courses, in consultation with the minor advisor.

**For more information:** http://www.sas.upenn.edu/urban/students/real-estate-development-minor (http://www.sas.upenn.edu/urban/students/real-estate-development-minor/)

Prerequisite to taking any Wharton courses: ECON 0001 Introduction to Micro Economics and ECON 0002 Introductory Economics: Macro. Also, check prerequisites for Wharton courses and fulfill.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>URBS 1153</td>
<td>Transformations of Urban America: Making the Unequal Metropolis, 1945 to Today</td>
<td>2</td>
</tr>
<tr>
<td>URBS 2040</td>
<td>Urban Law</td>
<td>1</td>
</tr>
<tr>
<td>URBS 4500</td>
<td>Urban Redevelopment</td>
<td></td>
</tr>
<tr>
<td>HIST 1153</td>
<td>Transformations of Urban America: Making the Unequal Metropolis, 1945 to Today</td>
<td></td>
</tr>
</tbody>
</table>

**Minor Requirements**

### Core Courses
- Select two of the following URBS Core courses:
  - URBS 1153 Transformations of Urban America: Making the Unequal Metropolis, 1945 to Today
  - URBS 2040 Urban Law
  - URBS 4500 Urban Redevelopment
  - HIST 1153 Transformations of Urban America: Making the Unequal Metropolis, 1945 to Today

- Select two of the following REAL Core courses:
  - REAL 2040 Real Estate Law
  - REAL 2150 Urban Real Estate Economics
  - REAL 2300 Urban Fiscal Policy

### Electives
- Select 3 course units of URBS and REAL Electives

**Total Course Units:** 7

1. Take either URBS 2040 Urban Law or REAL 2040 Real Estate Law, not both.
2. See lists of approved electives on website.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Urban Studies, Minor

The Urban Studies minor offers students an opportunity to think and learn about cities in an informed, disciplined and integrated way. The program introduces a variety of perspectives on the origins, development, and nature of cities, stressing the application of theory to practice.

Students take four Urban Studies courses, and complete an internship for an additional two CUs in this six CU minor. The internship component
allows students the opportunity to work closely with a community group, public agency, non-profit or private organization in the city.

For more information: http://www.sas.upenn.edu/urban/students/urban-studies-minor (http://www.sas.upenn.edu/urban/students/urban-studies-minor/)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Requirements</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Theme Choice**
Select 1 course unit of Urban Studies theme course in either 1

**History of Cities or Comparative and Theoretical Dimensions**

**Theme Choice**
Select 3 course units of Urban Studies Electives (can include up to one advisor-approved urban related course) 3

**Field Work**
URBS 3000 Fieldwork Seminar (or Approved Alternative Work) 2

Total Course Units 6

1 Can be an Urban Studies course or an approved Urban related course.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Liberal and Professional Studies

The College of Liberal and Professional Studies (LPS) is the home of lifelong learning at the University of Pennsylvania. Housed within the School of Arts and Sciences, we offer high school, undergraduate, post-baccalaureate, graduate, summer and online studies as well as customizable professional training with courses that span across disciplines.

Our outstanding students—engaged, curious and driven—come to Penn from all over the world with diverse academic and professional backgrounds. Whether you want to learn English while immersed in an Ivy League institution, join the global classroom in a MOOC, spend your summer abroad or start a new career, LPS offers the very best opportunities.

No matter where you are in life, or in the world—preparing for college, living overseas, working full-time, active in the military or studying on-campus—the College of Liberal and Professional Studies opens the Ivy League to you.

For more information: https://www.sas.upenn.edu/lps/undergraduate (https://www.sas.upenn.edu/lps/undergraduate/)

Undergraduate Programs

- Creative Studies, BAAS (p. 194)
- Data Analytics and Psychological Sciences, BAAS (p. 196)
- Data Analytics and Social Sciences, BAAS (p. 197)
- Fine Arts, BFA (p. 198)
- Individualized, BAAS (p. 199)
- Leadership and Communication, BAAS (p. 200)
- Literature, Culture and Tradition, BAAS (p. 201)
- Organizational Studies, BAAS (p. 203)
- Physical and Life Sciences, BAAS (p. 204)

Undergraduate Certificates

- Applied Positive Psychology, Certificate (p. 205)
- Climate Change, Certificate (p. 206)
- Creative Writing, Certificate (p. 207)
- Data Analytics, Certificate (p. 208)
- Digital Strategies and Culture, Certificate (p. 209)
- Global and Regional Studies, Certificate (p. 210)
- Leadership & Communication, Certificate (p. 211)
- Neuroscience, Certificate (p. 212)
- Organizational Anthropology, Certificate (p. 212)
- Professional Writing, Certificate (p. 213)
- Social Difference, Diversity, Equity and Inclusion, Certificate (p. 215)
- UpSkill, Certificate (p. 216)

Post-Baccalaureate Preparatory Programs

- Pre-Health Core Studies (p. 217)
- Pre-Health Specialized Studies (p. 217)

Creative Studies, BAAS

By studying the transformative creations of others in the social, cultural, and historical contexts in which they were produced, you can nurture your own creative expression and develop a deeper understanding of the creative process in action. A concentration in Creative Studies offered by Penn LPS Online combines experiential and applied humanities through the study of the creative arts, expanding your ability to critically analyze, compare, and evaluate the meanings and significance of creativity as expressed across a variety of media. In this degree concentration, you engage in individual and collaborative creative writing and explore a range of creative accomplishments in fields including literature, cinema studies, theater, and other arts.

For more information: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-concentrations/creative-studies (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-concentrations/creative-studies/)

Curriculum

The Bachelor of Applied Arts and Sciences (BAAS) recognizes the power of an applied liberal arts education to provide students with strong communication skills, understanding of different cultures and perspectives, and the ability to apply their knowledge to nuanced, complex scenarios with insight, perspective, and empathy.

Overview of degree requirements

30 course units are required for the Bachelor of Applied Arts and Sciences degree.
Foundational requirements

The foundational requirements of the BAAS degree reflect the core competencies and values of Penn LPS Online: the skills and knowledge needed to understand and solve complex problems, the ability to communicate effectively with a wide variety of audiences and an appreciation for diverse cultures and traditions. Students can transfer a maximum of 4 course units of foundational courses from a regionally accredited institution. Our program team can also give a preliminary evaluation of transfer credits before students officially apply. Visit the Transfer Preparation & Policies (https://lpsonline.sas.upenn.edu/admissions/transfer-preparation-policies/) page for more details.

In addition to course requirements, BAAS students complete a capstone project in their degree concentration as well as an e-portfolio.

Concentrations

Just as a college major serves to focus your studies during a four-year degree, the BAAS concentrations enable students to tailor their undergraduate education to specific personal and professional goals. Concentrations progress from introductory-level courses to higher-level courses so that students develop skills and knowledge with greater complexity as they move through the curriculum. Many concentrations are interdisciplinary, to provide students with opportunities to explore their areas of interest from multiple perspectives and develop a flexible approach to solving complex problems in professional as well as academic contexts.

Electives

Electives are courses that do not apply toward your foundational or degree concentration requirements. You may choose to deepen your field of study by taking additional classes within your concentration, develop a new skill by completing all of the courses within a course block outside of your degree concentration, or discover new interests and abilities by taking individual courses that appeal to your interests. Students choose 10 electives from any of Penn LPS Online's areas of study. Transfer students can apply a maximum of 8 course units from a regionally accredited institution toward this requirement.

Senior Portfolio Requirements

Throughout the BAAS degree, students draw on their coursework to build a digital collection of materials, or Senior Portfolio. The Senior Portfolio Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRWR 1010</td>
<td>The Craft of Creative Writing</td>
<td>4</td>
</tr>
<tr>
<td>CRWR 1600</td>
<td>Modern and Contemporary US Poetry</td>
<td></td>
</tr>
<tr>
<td>CRWR 2010</td>
<td>Poetry Workshop</td>
<td></td>
</tr>
<tr>
<td>CRWR 2600</td>
<td>Fiction Workshop</td>
<td></td>
</tr>
<tr>
<td>CRWR 3000</td>
<td>Writing About Place</td>
<td></td>
</tr>
<tr>
<td>CRWR 3200</td>
<td>Screenwriting</td>
<td></td>
</tr>
<tr>
<td>CRWR 3600</td>
<td>Advanced Nonfiction</td>
<td></td>
</tr>
<tr>
<td>CRWR 3700</td>
<td>Journalism Workshop</td>
<td></td>
</tr>
<tr>
<td>DIGC 1200</td>
<td>Digital Literacy &amp; Cultural Change</td>
<td>2</td>
</tr>
<tr>
<td>DIGC 1600</td>
<td>A History of Digital Culture</td>
<td></td>
</tr>
<tr>
<td>DIGC 2000</td>
<td>Introduction to Working with Code</td>
<td></td>
</tr>
<tr>
<td>DIGC 2200</td>
<td>Design Thinking for Digital Projects</td>
<td></td>
</tr>
<tr>
<td>DIGC 3000</td>
<td>Intermediate Coding for Digital Strategies</td>
<td></td>
</tr>
<tr>
<td>DIGC 3200</td>
<td>Designing Critical Futures</td>
<td></td>
</tr>
<tr>
<td>DIGC 3600</td>
<td>Applications of Digital Culture</td>
<td></td>
</tr>
<tr>
<td>ORGC 2010</td>
<td>Virtual Collaboration</td>
<td></td>
</tr>
<tr>
<td>PROW 4000</td>
<td>Writing for Social Media</td>
<td></td>
</tr>
<tr>
<td>PROW 4010</td>
<td>Composing a Professional Identity</td>
<td></td>
</tr>
<tr>
<td>Advisor Approved Electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Courses can be chosen from:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>APOP 3400</td>
<td>Flourishing through Creativity and the Arts</td>
<td></td>
</tr>
<tr>
<td>PROW 3010</td>
<td>The Power of Storytelling</td>
<td></td>
</tr>
<tr>
<td>SDEI 2600</td>
<td>Addressing Inequity through Art and Design</td>
<td></td>
</tr>
</tbody>
</table>

For other course options consult with your advisor
Portfolio is a powerful tool to ensure students are aligning their academic studies with their individual professional, personal, and academic goals. Developing the Senior Portfolio provides students with the opportunity to reflect on selected assignments and discover how they can be applied to the broader context of their current and future careers. Students can share their Senior Portfolio with prospective and current employers to provide evidence of the skills and knowledge they have developed through coursework.

BAAS degree students who are working on their Senior Portfolio and seeking to connect with other students about the process can do so on our virtual discussion boards through the Canvas Senior Portfolio website. Ask a question, answer a question, and meet other talented, career-focused students.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Data Analytics and Psychological Sciences, BAAS

The Data Analytics and Psychological Sciences concentration offers the opportunity to improve your data literacy while developing strategies that support personal, organizational, and community well-being. In this degree concentration, you learn how well-being is measured, what activities can increase human flourishing, and how to apply analytical and statistical methods to effectively interpret and communicate data.

For more information: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-concentrations/data-analytics-and-psychological-sciences/

Curriculum

The Bachelor of Applied Arts and Sciences (BAAS) recognizes the power of an applied liberal arts education to provide students with strong communication skills, understanding of different cultures and perspectives, and the ability to apply their knowledge to nuanced, complex scenarios with insight, perspective, and empathy.

Overview of degree requirements

30 course units are required for the Bachelor of Applied Arts and Sciences degree.

In addition to course requirements, BAAS students complete a Senior portfolio.

Foundational requirements

The foundational requirements of the BAAS degree reflect the core competencies and values of Penn LPS Online: the skills and knowledge needed to understand and solve complex problems, the ability to communicate effectively with a wide variety of audiences and an appreciation for diverse cultures and traditions. Students can transfer a maximum of 4 course units of foundational courses from a regionally accredited institution. Our program team can also give a preliminary evaluation of transfer credits before students officially apply. Visit the Transfer Preparation & Policies (https://lpsonline.sas.upenn.edu/admissions/transfer-preparation-policies/) page for more details.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundational Requirements</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Concentrations</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

Concentrations

Just as a college major serves to focus your studies during a four-year degree, the BAAS concentrations enable students to tailor their undergraduate education to specific personal and professional goals. Concentrations progress from introductory-level courses to higher-level courses so that students develop skills and knowledge with greater complexity as they move through the curriculum. Many concentrations are interdisciplinary, to provide students with opportunities to explore their areas of interest from multiple perspectives and develop a flexible approach to solving complex problems in professional as well as academic contexts.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATA 1010</td>
<td>Introduction to Data Analytics</td>
<td>1</td>
</tr>
<tr>
<td>DATA 2100</td>
<td>Intermediate Data Analytics</td>
<td>1</td>
</tr>
<tr>
<td>DATA 3100</td>
<td>Introduction to Statistical Methods</td>
<td>1</td>
</tr>
<tr>
<td>DATA 4010</td>
<td>Advanced Data Analytics</td>
<td>1</td>
</tr>
<tr>
<td>APOP 1000</td>
<td>Introduction to Positive Psychology</td>
<td>1</td>
</tr>
</tbody>
</table>
with insight into historical, political, economic, or behavioral contexts. In Sciences concentration offers the opportunity to integrate data analytics understanding of the social sciences. The Data Analytics and Social Sciences, BAAS degree and major requirements displayed are intended as a guide to provide evidence of the skills and knowledge they have developed through coursework.

Senior Portfolio Requirements
Throughout the BAAS degree, students draw on their coursework to build a digital collection of materials, or Senior Portfolio. The Senior Portfolio is a powerful tool to ensure students are aligning their academic studies with their individual professional, personal, and academic goals. Developing the Senior Portfolio provides students with the opportunity to reflect on selected assignments and discover how they can be applied to the broader context of their current and future careers. Students can share their Senior Portfolio with prospective and current employers to provide evidence of the skills and knowledge they have developed through coursework.

BAAS degree students who are working on their Senior Portfolio and seeking to connect with other students about the process can do so on our virtual discussion boards through the Canvas Senior Portfolio website. Ask a question, answer a question, and meet other talented, career-focused students.

Overview of degree requirements
30 course units are required for the Bachelor of Applied Arts and Sciences degree.

In addition to course requirements, BAAS students complete a Senior portfolio.

Foundational requirements
The foundational requirements of the BAAS degree reflect the core competencies and values of Penn LPS Online: the skills and knowledge needed to understand and solve complex problems, the ability to communicate effectively with a wide variety of audiences and an appreciation for diverse cultures and traditions. Students can transfer a maximum of 4 course units of foundational courses from a regionally accredited institution toward this requirement.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Data Analytics and Social Sciences, BAAS
Combine the analytical tools of data science with an applied understanding of the social sciences. The Data Analytics and Social Sciences concentration offers the opportunity to integrate data analytics with insight into historical, political, economic, or behavioral contexts. In this degree concentration, you develop statistical and data programming skills to address real-world problems, learn to make and persuasively communicate data-driven decisions, and customize your studies with courses in global and area studies, organizational anthropology, leadership, and other social sciences.


Curriculum
The Bachelor of Applied Arts and Sciences (BAAS) recognizes the power of an applied liberal arts education to provide students with strong communication skills, understanding of different cultures and perspectives, and the ability to apply their knowledge to nuanced, complex scenarios with insight, perspective, and empathy.

Electives
Electives are courses that do not apply toward your foundational or degree concentration requirements. You may choose to deepen your field of study by taking additional classes within your concentration, develop a new skill by completing all of the courses within a course block outside of your degree concentration, or discover new interests and abilities by taking individual courses that appeal to your interests. Students choose 10 electives from any of Penn LPS Online’s areas of study. Transfer students can apply a maximum of 8 course units from a regionally accredited institution toward this requirement.

Senior Portfolio Requirements
Throughout the BAAS degree, students draw on their coursework to build a digital collection of materials, or Senior Portfolio. The Senior Portfolio is a powerful tool to ensure students are aligning their academic studies with their individual professional, personal, and academic goals. Developing the Senior Portfolio provides students with the opportunity to reflect on selected assignments and discover how they can be applied to the broader context of their current and future careers. Students can share their Senior Portfolio with prospective and current employers to provide evidence of the skills and knowledge they have developed through coursework.

BAAS degree students who are working on their Senior Portfolio and seeking to connect with other students about the process can do so on our virtual discussion boards through the Canvas Senior Portfolio website. Ask a question, answer a question, and meet other talented, career-focused students.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Developing the Senior Portfolio provides students with the opportunity to reflect on selected assignments and discover how they can be applied to the broader context of their current and future careers. Students can share their Senior Portfolio with prospective and current employers to provide evidence of the skills and knowledge they have developed through coursework.

BAAS degree students who are working on their Senior Portfolio and seeking to connect with other students about the process can do so on our virtual discussion boards through the Canvas Senior Portfolio website. Ask a question, answer a question, and meet other talented, career-focused students.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Concentrations

Just as a college major serves to focus your studies during a four-year degree, the BAAS concentrations enable students to tailor their undergraduate education to specific personal and professional goals. Concentrations progress from introductory-level courses to higher-level courses so that students develop skills and knowledge with greater complexity as they move through the curriculum. Many concentrations are interdisciplinary, to provide students with opportunities to explore their areas of interest from multiple perspectives and develop a flexible approach to solving complex problems in professional as well as academic contexts.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATA 1010</td>
<td>Introduction to Data Analytics</td>
<td>1</td>
</tr>
<tr>
<td>DATA 2100</td>
<td>Intermediate Data Analytics</td>
<td>1</td>
</tr>
<tr>
<td>DATA 3100</td>
<td>Introduction to Statistical Methods</td>
<td>1</td>
</tr>
<tr>
<td>DATA 4010</td>
<td>Advanced Data Analytics</td>
<td>1</td>
</tr>
<tr>
<td>PROW 2000</td>
<td>Writing with Numbers</td>
<td>1</td>
</tr>
<tr>
<td>PROW 2010</td>
<td>Writing for Presentations and Public Speaking</td>
<td>1</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>Select six additional courses in the Social Sciences with attribute BBDS</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total Course Units**: 12

* With input from your academic advisor, choose six additional Penn LPS Online courses (https://lposonline.sas.upenn.edu/academics/courses/) in the social sciences to complete this degree concentration. Up to 3 of these courses can be transferred in with approval of your academic advisor.

### Electives

Electives are courses that do not apply toward your foundational or degree concentration requirements. You may choose to deepen your field of study by taking additional classes within your concentration, develop a new skill by completing all of the courses within a course block outside of your degree concentration, or discover new interests and abilities by taking individual courses that appeal to your interests. Students choose 10 electives from any of Penn LPS Online’s areas of study. Transfer students can apply a maximum of 8 course units from a regionally accredited institution toward this requirement.

### Senior Portfolio Requirements

Throughout the BAAS degree, students draw on their coursework to build a digital collection of materials, or Senior Portfolio. The Senior Portfolio is a powerful tool to ensure students are aligning their academic studies with their individual professional, personal, and academic goals. Developing the Senior Portfolio provides students with the opportunity to work on their professional development, reflecting on their experiences and accomplishments throughout their academic careers.

<table>
<thead>
<tr>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROW 2010 Writing for Presentations and Public Speaking</td>
<td>1</td>
</tr>
<tr>
<td>PROW 2000 Writing with Numbers</td>
<td>1</td>
</tr>
<tr>
<td>PROW 2010 Writing for Presentations and Public Speaking</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Course Units**: 8

* Must be taken at Penn

---

### Fine Arts, BFA

For nearly 100 years, the University of Pennsylvania has partnered with the Pennsylvania Academy of the Fine Arts to provide students with an unparalleled opportunity to pursue their artistic passions and intellectual pursuits in the Ivy League.

The Bachelor of Fine Arts offers self-motivated and committed students the chance to design a curriculum at the intersection of your interests. As a Penn BFA student, you have access to a broad range of more than 500 courses taught throughout the School of Arts and Sciences and more than 300 courses within the College of Liberal and Professional Studies, in more than 50 areas of study. The Bachelor of Fine Arts program prioritizes the power of personal connection—between students, teachers, and program staff.

For more information: [https://www.sas.upenn.edu/lps/undergraduate/bfa](https://www.sas.upenn.edu/lps/undergraduate/bfa)

### Curriculum

As a Bachelor of Fine Arts (BFA) student, you’ll have access to a broad range of courses taught within the College of Liberal and Professional Studies and have choices from throughout the School of Arts and Sciences. Upon acceptance into the program, you will be assigned an advisor who will help you choose your coursework.

To earn the Bachelor of Fine Arts degree at Penn, you must complete the 90-credit, three-year program at PAFA, as well as a minimum of 16 course units (CU) at Penn.

Curriculum requirements at Penn include the completion of four course units chosen from within the History of Art Department and 12 free electives chosen from throughout the School of Arts and Sciences.

Participation in the joint Bachelor of Fine Arts degree program is a unique opportunity designed with specific curricular goals. As a result, some types of courses cannot be counted toward your degree. These include:

- Other Penn courses outside the School of Arts & Sciences (the School of Engineering and Applied Sciences, the Wharton School of Business, the School of Nursing, etc.)
• Studio-based courses offered by or cross-listed with the Fine Arts department at Penn
• Courses from any other educational institution

**Minors**

As a Bachelor of Fine Arts degree student, you may wish to complete a minor chosen from within the School of Arts and Sciences offerings. The number of courses required to complete a minor varies between departments but is usually between six and eight courses. If you would like to explore the possibility of minoring, please be sure to consult with your academic advisor in the College of Liberal Arts and an advisor in your minor department of interest. Once you have declared a minor, you will have a minor advisor assigned to you, who will provide guidance with appropriate course selection to meet requirements.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Individualized, BAAS**

The Bachelor of Applied Arts and Sciences is designed to meet your unique needs—including the ability to design your own degree concentration to develop the knowledge and skills you need to fulfill your life goals and career ambitions. While most BAAS degree concentrations are interdisciplinary, combining areas of study to encourage greater complexity and flexibility as you explore your interests, the Individualized Studies concentration goes a step further. With input from your academic advisor, you can combine courses from any three certificates or course blocks for a highly personalized learning experience.

**Curriculum**

Students in the Bachelor of Applied Arts and Sciences degree will choose a concentration to tailor their undergraduate education to specific personal and professional goals. Courses within each concentration may be taken in any order, unless prerequisites are specified.

Students must complete foundational courses for the Bachelor of Applied Arts and Sciences degree. In addition, students in the Individualized Studies degree concentration can work with an academic advisor to focus their studies toward any three certificates or course blocks; complete four courses in each of your selected course blocks for a total of 12 courses (12 C.U.*). Once the plan is approved, the student’s concentration in individualized studies will be officially declared.

Declaraton of the individualized studies concentration is a two-step process.

Step 1. Work with your academic advisor to select the structure of your individualized studies concentration.

Students with applicable transfer credits can select 2 certificates/course blocks plus 1 additional Penn LPS online course for a total of 9 courses and identify up to 3 applicable transfer courses for their individualized studies concentration proposal for a total of 12 courses (12 C.U.*).

Students without applicable transfer credit will choose 3, 4-course blocks for their concentration. The proposed concentration must be significantly different than a concentration that currently exists.

Step 2. Once the individualized studies program of study is approved by your advisor, the student submits the electronic program declaration from via Path@Penn.

Take four courses from any two or three of the following course blocks:

- Applied Positive Psychology (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/applied-positive-psychology/)
- Cinema (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/cinema-studies/)
- Classics (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/classics/)
- Climate Change (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/climate-change/)
- Creative Writing (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/creative-writing/)
- Data Analytics (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/data-analytics/)
- Digital Strategies (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/digital-culture/)
- English Literature (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/english-literature/)
- Global and Regional Studies (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/course-blocks/global-and-regional-studies/)
- Leadership and Communication (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/leadership-and-communication/)
- Mathematical Sciences (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/mathematical-sciences/)
- Music Studies (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/music-studies/)
- Neuroscience (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/neuroscience/)
- Organizational Culture and Collaboration (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/organizational-anthropology/)
- Professional Writing (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/professional-writing/)
- Religion and Culture (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/religion-and-culture/)
- Social Difference, Diversity, Equity, and Inclusion (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/social-difference-diversity-equity-inclusion/)
- Social Sciences (https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/social-sciences/)

Students completing certain course blocks while enrolled in the Bachelor of Applied Arts and Sciences (BAAS) degree are awarded a certificate upon completion of the degree.

- Applied Positive Psychology Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/applied-positive-psychology/)
• Climate Change Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/climate-change/)
• Creative Writing Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/certificate-creative-writing/)
• Data Analytics Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/data-analytics/)
• Digital Strategies Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/digital-strategies-and-culture/)
• Global and Regional Studies Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/global-and-regional-studies/)
• Leadership and Communication Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/leadership-and-communication/)
• Neuroscience Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/neuroscience/)
• Organizational Culture and Collaboration Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/organizational-culture-and-collaboration/)
• Professional Writing Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/professional-writing/)
• Science Foundations Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/science-foundations/)
• Social Difference, Diversity, Equity, and Inclusion Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/social-difference-diversity-equity-inclusion/)
• Upskill Certificate (https://lpsonline.sas.upenn.edu/academics/certificates/upskill/)

Any course with Attribute = BBIS

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Leadership and Communication, BAAS

The Leadership and Communication concentration is an exciting skills-building and career-enhancing program designed by distinguished, award-winning Ivy League academic experts and researchers in consultation with top executives and leaders from the real worlds of business, government, and the nonprofit sector.

An Ivy League degree path to effective, ethical and career-boosting leadership

Drawing expertly on the social sciences, humanities, and data sciences, each of the twelve Leadership and Communication courses is scheduled especially for working adults and taught by dedicated and experienced Penn-affiliated scholars. Each Leadership and Communication course brings you one step closer to having the intellectual understanding and professional skills needed for effective, ethical, career-boosting leadership and communication. Each course meets for eight weeks in an accelerated semester format. The curriculum is divided into four parts:

Leadership Foundations; Leading Across Sectors; Leading Positively; and Global Leadership.

For more information: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-concentrations/leadership-and-communication

The Bachelor of Applied Arts and Sciences (BAAS) recognizes the power of an applied liberal arts education to provide students with strong communication skills, understanding of different cultures and perspectives, and the ability to apply their knowledge to nuanced, complex scenarios with insight, perspective, and empathy.

Overview of degree requirements

30 course units are required for the Bachelor of Applied Arts and Sciences degree.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Requirements</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Concentrations</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>30</td>
</tr>
</tbody>
</table>

In addition to course requirements, BAAS students complete a Senior Portfolio.

Foundational requirements

The foundational requirements of the BAAS degree reflect the core competencies and values of Penn LPS Online: the skills and knowledge needed to understand and solve complex problems, the ability to communicate effectively with a wide variety of audiences and an appreciation for diverse cultures and traditions. Students can transfer a maximum of 4 course units of foundational courses from a regionally accredited institution. Our program team can also give a preliminary evaluation of transfer credits before students officially apply. Visit the Transfer Preparation & Policies (https://lpsonline.sas.upenn.edu/admissions/baas-admissions/transfer-preparation-policies/) page for more details.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethical Reasoning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Ethical Reasoning course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Qualitative Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 Qualitative Analysis courses</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Quantitative Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 Quantitative Analysis courses</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Scientific Process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Scientific Process course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Writing course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Cross-Cultural Interactions &amp; Diversity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Cross-cultural Interactions &amp; Diversity course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>8</td>
</tr>
</tbody>
</table>
Leadership Foundations

Concentrations

Just as a college major serves to focus your studies during a four-year degree, the BAAS concentrations enable students to tailor their undergraduate education to specific personal and professional goals. Concentrations progress from introductory-level courses to higher-level courses so that students develop skills and knowledge with greater complexity as they move through the curriculum. Many concentrations are interdisciplinary, to provide students with opportunities to explore their areas of interest from multiple perspectives and develop a flexible approach to solving complex problems in professional as well as academic contexts.

Students in this concentration focus their studies by completing a total of 12 courses (12 c.u.*). Transfer credits cannot be used toward any of the 12 Leadership and Communication Concentration courses. Students who pursue this concentration should begin with LEAD 1010: Leadership Theory and Practice or LEAD 3040: Professional Communication and Personal Development. Otherwise, courses may be taken in any order unless prerequisites are specified.

Please note: To be admitted to the Leadership and Communication Concentration, you must have:

- Completed two Leadership and Communication courses (LEAD 1010 plus any one of the following LEAD courses: LEAD 2020, LEAD 2030, LEAD 3150, LEAD 3200 or LEAD 3300)
- Maintained an average of B or better, and received a grade of B+ or better in at least one of those two courses

Leadership Foundations

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD 1010</td>
<td>Leadership Theory, Practice and Purpose</td>
<td>1</td>
</tr>
<tr>
<td>LEAD 2020</td>
<td>Leadership Lessons from Social Sciences</td>
<td>1</td>
</tr>
<tr>
<td>LEAD 2030</td>
<td>Leadership Lessons from Humanities</td>
<td>1</td>
</tr>
<tr>
<td>LEAD 3040</td>
<td>Professional Communication and Personal Development</td>
<td>1</td>
</tr>
</tbody>
</table>

Plus, one of the following:

- DATA 1010 Introduction to Data Analytics 1
- MTHS 1000 Mathematical Foundations for Data Analytics 1
- MTHS 2000 Mathematics All Around You 1
- MTHS 2200 Introduction to Applied Statistics 1

Leading Across Sectors

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD 3100</td>
<td>Leadership and Public Administration</td>
<td>1</td>
</tr>
<tr>
<td>LEAD 3200</td>
<td>Leadership and Business Organization</td>
<td>1</td>
</tr>
<tr>
<td>LEAD 3300</td>
<td>Leadership and Nonprofit Management</td>
<td>1</td>
</tr>
</tbody>
</table>

Leading Positively

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOP 1000</td>
<td>Introduction to Positive Psychology</td>
<td>1</td>
</tr>
<tr>
<td>APOP 1200</td>
<td>Human Flourishing: Strengths and Resilience</td>
<td>1</td>
</tr>
<tr>
<td>APOP 2000</td>
<td>Positive Psychology at Work</td>
<td>1</td>
</tr>
</tbody>
</table>

Global Leadership

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD 4000</td>
<td>Global Leadership and Problem-Solving</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Course Units

Electives

Electives are courses that do not apply toward your foundational or degree concentration requirements. You may choose to deepen your field of study by taking additional classes within your concentration, develop a new skill by completing all of the courses within a course block outside of your degree concentration, or discover new interests and abilities by taking individual courses that appeal to your interests. Students choose 10 electives from any of Penn LPS Online’s areas of study. Transfer students can apply a maximum of 8 course units from a regionally accredited institution toward this requirement.

Senior Portfolio Requirements

Throughout the BAAS degree, students draw on their coursework to build a digital collection of materials, or Senior Portfolio. The Senior Portfolio is a powerful tool to ensure students are aligning their academic studies with their individual professional, personal, and academic goals. Developing the Senior Portfolio provides students with the opportunity to reflect on selected assignments and discover how they can be applied to the broader context of their current and future careers. Students can share their Senior Portfolio with prospective and current employers to provide evidence of the skills and knowledge they have developed through coursework.

BAAS degree students who are working on their Senior Portfolio and seeking to connect with other students about the process can do so on our virtual discussion boards through the Canvas Senior Portfolio website. Ask a question, answer a question, and meet other talented, career-focused students.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Literature, Culture and Tradition, BAAS

The humanities and social sciences help us to understand cultures through historical and contemporary lenses. In the Literature, Culture, and Tradition concentration, offered by Penn LPS Online, you study and analyze the worldview of different cultures, exploring cultural change and continuity over time and place. Through historical, literary, and cultural analysis of sources and artifacts, you develop research skills and learn to evaluate complex cultures and scenarios. You also apply the same analytical approaches to gain critical insights into current world challenges.

For more information: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-concentrations/literature-culture-and-tradition/
Curriculum
The Bachelor of Applied Arts and Sciences (BAAS) recognizes the power of an applied liberal arts education to provide students with strong communication skills, understanding of different cultures and perspectives, and the ability to apply their knowledge to nuanced, complex scenarios with insight, perspective, and empathy.

Overview of degree requirements
30 course units are required for the Bachelor of Applied Arts and Sciences degree.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Requirements</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Concentrations</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>10</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

In addition to course requirements, BAAS students complete a Senior Portfolio.

Foundational requirements
The foundational requirements of the BAAS degree reflect the core competencies and values of Penn LPS Online: the skills and knowledge needed to understand and solve complex problems, the ability to communicate effectively with a wide variety of audiences and an appreciation for diverse cultures and traditions. Students can transfer a maximum of 4 course units of foundational courses from a regionally accredited institution. Our program team can also give a preliminary evaluation of transfer credits before students officially apply. Visit the Transfer Preparation & Policies (https://lpsonline.sas.upenn.edu/admissions/baas-admissions/transfer-preparation-policies/) page for more details.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ethical Reasoning</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Qualitative Analysis</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Quantitative Analysis</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Scientific Process</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Cross-Cultural Interactions &amp; Diversity</td>
<td>1</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

* Must be taken at Penn

Concentrations
Just as a college major serves to focus your studies during a four-year degree, the BAAS concentrations enable students to tailor their undergraduate education to specific personal and professional goals. Concentrations progress from introductory-level courses to higher-level courses so that students develop skills and knowledge with greater complexity as they move through the curriculum. Many concentrations are interdisciplinary, to provide students with opportunities to explore their areas of interest from multiple perspectives and develop a flexible approach to solving complex problems in professional as well as academic contexts.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Literature, Culture, and Tradition</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Classics course block</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Creative Writing course block</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Digital Culture course block</td>
<td></td>
</tr>
<tr>
<td></td>
<td>English Literature course block</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Global and Regional Studies course block</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Music Studies course block</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Religion and Culture course block</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 additional courses with attribute</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>BBLT</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

* With input from an academic advisor.

**Classics**
courses: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/classics
Creative Writing courses: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/creative-writing
Digital Culture courses: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/digital-culture
English Literature courses: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/english-literature
Global and Regional Studies courses: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/course-blocks/global-and-regional-studies
Music Studies courses: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/music
Religion and Culture courses: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/religion-and-culture

Electives
Electives are courses that do not apply toward your foundational or degree concentration requirements. You may choose to deepen your field of study by taking additional classes within your concentration, develop a new skill by completing all of the courses within a course block outside of your degree concentration, or discover new interests and abilities by taking individual courses that appeal to your interests. Students choose 10 electives from any of Penn LPS Online’s areas of study. Transfer students can apply a maximum of 8 course units from a regionally accredited institution toward this requirement.

Senior Portfolio Requirements
Throughout the BAAS degree, students draw on their coursework to build a digital collection of materials, or Senior Portfolio. The Senior Portfolio is a powerful tool to ensure students are aligning their academic studies with their individual professional, personal, and academic goals. Developing the Senior Portfolio provides students with the opportunity
to reflect on selected assignments and discover how they can be applied to the broader context of their current and future careers. Students can share their Senior Portfolio with prospective and current employers to provide evidence of the skills and knowledge they have developed through coursework.

BAAS degree students who are working on their Senior Portfolio and seeking to connect with other students about the process can do so on our virtual discussion boards through the Canvas Senior Portfolio website. Ask a question, answer a question, and meet other talented, career-focused students.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Organizational Studies, BAAS

The Organizational Studies concentration offered by Penn LPS Online provides you with the critical and interpersonal skills required to work effectively in any professional context. Through integrated and applied courses in writing, speaking, and group dynamics, you learn to identify your communication goals, understand your audience, and adapt your messaging and strategy to achieve a successful outcome. To meet the challenges of today's complex work environments, you also develop the skills to build and work effectively in diverse teams, both in physical and virtual professional environments.

For more information: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-concentrations/organizational-studies

Curriculum

The Bachelor of Applied Arts and Sciences (BAAS) recognizes the power of an applied liberal arts education to provide students with strong communication skills, understanding of different cultures and perspectives, and the ability to apply their knowledge to nuanced, complex scenarios with insight, perspective, and empathy.

Overview of degree requirements

30 course units are required for the Bachelor of Applied Arts and Sciences degree.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Requirements</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Concentrations</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>30</td>
</tr>
</tbody>
</table>

In addition to course requirements, BAAS students complete a Senior portfolio.

Foundational requirements

The foundational requirements of the BAAS degree reflect the core competencies and values of Penn LPS Online: the skills and knowledge needed to understand and solve complex problems, the ability to communicate effectively with a wide variety of audiences and an appreciation for diverse cultures and traditions. Students can transfer a maximum of 4 course units of foundational courses from a regionally accredited institution. Our program team can also give a preliminary evaluation of transfer credits before students officially apply. Visit the Transfer Preparation & Policies page for more details.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethical Reasoning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Ethical Reasoning course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Qualitative Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 Qualitative Analysis courses</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Quantitative Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 Quantitative Analysis courses</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Scientific Process</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Scientific Process course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Writing course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Cross-Cultural Interactions &amp; Diversity</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 Cross-cultural Interactions &amp; Diversity course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>8</td>
</tr>
</tbody>
</table>

* Must be taken at Penn

Concentrations

Just as a college major serves to focus your studies during a four-year degree, the BAAS concentrations enable students to tailor their undergraduate education to specific personal and professional goals. Concentrations progress from introductory-level courses to higher-level courses so that students develop skills and knowledge with greater complexity as they move through the curriculum. Many concentrations are interdisciplinary, to provide students with opportunities to explore their areas of interest from multiple perspectives and develop a flexible approach to solving complex problems in professional as well as academic contexts.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Organizational Studies Concentration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 4 courses from the Applied Positive Psychology course block</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Select 4 courses from the Organizational Anthropology course block</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PROW 2000 Writing with Data</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PROW 2010 Writing for Presentations and Public Speaking</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select 2 additional courses with attribute BBOS</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>12</td>
</tr>
</tbody>
</table>
Applied Positive Psychology courses: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/applied-positive-psychology
Organizational Anthropology courses: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/organizational-anthropology
**With input from an academic advisor, which could be transferred in with advisor's approval.

**Electives**
Electives are courses that do not apply toward your foundational or degree concentration requirements. You may choose to deepen your field of study by taking additional classes within your concentration, develop a new skill by completing all of the courses within a course block outside of your degree concentration, or discover new interests and abilities by taking individual courses that appeal to your interests. Students choose 10 electives from any of Penn LPS Online’s areas of study. Transfer students can apply a maximum of 8 course units from a regionally accredited institution toward this requirement.

Senior Portfolio Requirements
Throughout the BAAS degree, students draw on their coursework to build a digital collection of materials, or Senior Portfolio. The Senior Portfolio is a powerful tool to ensure students are aligning their academic studies with their individual professional, personal, and academic goals. Developing the Senior Portfolio provides students with the opportunity to reflect on selected assignments and discover how they can be applied to the broader context of their current and future careers. Students can share their Senior Portfolio with prospective and current employers to provide evidence of the skills and knowledge they have developed through coursework.

BAAS degree students who are working on their Senior Portfolio and seeking to connect with other students about the process can do so on our virtual discussion boards through the Canvas Senior Portfolio website. Ask a question, answer a question, and meet other talented, career-focused students.

Curriculum
The Bachelor of Applied Arts and Sciences (BAAS) recognizes the power of an applied liberal arts education to provide students with strong communication skills, understanding of different cultures and perspectives, and the ability to apply their knowledge to nuanced, complex scenarios with insight, perspective, and empathy.

Overview of degree requirements
30 course units are required for the Bachelor of Applied Arts and Sciences degree.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundational Requirements</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Concentrations</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Electives</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>30</td>
</tr>
</tbody>
</table>

In addition to course requirements, BAAS students complete a Senior portfolio.

Foundational requirements
The foundational requirements of the BAAS degree reflect the core competencies and values of Penn LPS Online: the skills and knowledge needed to understand and solve complex problems, the ability to communicate effectively with a wide variety of audiences and an appreciation for diverse cultures and traditions. Students can transfer a maximum of 4 course units of foundational courses from a regionally accredited institution. Our program team can also give a preliminary evaluation of transfer credits before students officially apply. Visit the Transfer Preparation & Policies page for more details.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundational Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethical Reasoning</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Qualitative Analysis</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Quantitative Analysis</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Scientific Process</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Cross-Cultural Interactions &amp; Diversity</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Course Units 8

* Must be taken at Penn

Physical and Life Sciences, BAAS
The physical and life sciences share fundamental principles that lie at the heart of scientific discovery and innovation. In this concentration, you develop a solid foundation in both branches of science by completing interdisciplinary foundation requirements covering biology, chemistry, and physics.

For more information: https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-concentrations/physical-and-life-sciences
undergraduate education to specific personal and professional goals. Concentrations progress from introductory-level courses to higher-level courses so that students develop skills and knowledge with greater complexity as they move through the curriculum. Many concentrations are interdisciplinary, to provide students with opportunities to explore their areas of interest from multiple perspectives and develop a flexible approach to solving complex problems in professional as well as academic contexts.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical and Life Sciences Concentration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students are required to take a minimum of 3 of the required 12 courses at the 3000 and/or 4000 level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPRO 1000</td>
<td>Scientific Reasoning</td>
<td>1</td>
</tr>
<tr>
<td>Complete 4 Science Foundation courses *</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Complete 2 Climate Change courses **</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Complete 2 Neuroscience courses ***</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Complete 3 other science electives with attribute BBPL (Can include applicable transfer courses)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total Course Units</strong></td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

* Foundational Science courses: [https://lpsonline.sas.upenn.edu/academics/bachelors-degree/course-blocks/science-foundations](https://lpsonline.sas.upenn.edu/academics/bachelors-degree/course-blocks/science-foundations)

**Climate Change courses: [https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/climate-change](https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/climate-change)

**Neuroscience courses: [https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/neuroscience](https://lpsonline.sas.upenn.edu/academics/bachelors-degree/baas-course-blocks/neuroscience)

**Electives**

Electives are courses that do not apply toward your foundational or degree concentration requirements. You may choose to deepen your field of study by taking additional classes within your concentration, develop a new skill by completing all of the courses within a course block outside of your degree concentration, or discover new interests and abilities by taking individual courses that appeal to your interests. Students choose 10 electives from any of Penn LPS Online’s areas of study. Transfer students can apply a maximum of 8 course units from a regionally accredited institution toward this requirement.

**Senior Portfolio Requirements**

Throughout the BAAS degree, students draw on their coursework to build a digital collection of materials, or Senior Portfolio. The Senior Portfolio is a powerful tool to ensure students are aligning their academic studies with their individual professional, personal, and academic goals. Developing the Senior Portfolio provides students with the opportunity to reflect on selected assignments and discover how they can be applied to the broader context of their current and future careers. Students can share their Senior Portfolio with prospective and current employers to provide evidence of the skills and knowledge they have developed through coursework.

BAAS degree students who are working on their Senior Portfolio and seeking to connect with other students about the process can do so on our virtual discussion boards through the Canvas Senior Portfolio website. Ask a question, answer a question, and meet other talented, career-focused students.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Applied Positive Psychology, Certificate**

Applied Positive Psychology is a discipline that examines the intersections of body, brain, culture, and science to develop tools and practices that enhance human flourishing and well-being. In this 4-course, 4 course unit course of study, you will be introduced to the field of positive psychology and will learn tools and practice strategies that support personal, organizational, and community well-being. The courses teach you the theoretical and empirical foundations of human flourishing, how well-being is measured, and what activities increase human flourishing in various contexts and settings.

Penn LPS Online courses in the Certificate in Applied Positive Psychology are offered on an accelerated (8-week) schedule. Courses in the certificate program are largely asynchronous with some optional synchronous sessions to be scheduled by the instructors. For more information about specific course dates, please visit the Course Schedule ([https://lpsonline.sas.upenn.edu/academics/course-schedule/](https://lpsonline.sas.upenn.edu/academics/course-schedule/)) page.

You have the option to enroll in individual courses without committing to the entire certificate, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests. Courses within the Certificate in Applied Positive Psychology may be applied to our Bachelor of Applied Arts and Sciences degree, but do not count toward Penn’s Master of Applied Positive Psychology degree.

For more information: [https://lpsonline.sas.upenn.edu/academics/certificates/applied-positive-psychology](https://lpsonline.sas.upenn.edu/academics/certificates/applied-positive-psychology)

The Certificate in Applied Positive Psychology prepares you to:

- Learn the historical and empirical foundations of positive psychology and the science of well-being
- Explore key research themes (e.g., positive emotions, strengths, engagement, relationships, meaning, and accomplishment) and their relevance in personal and organizational settings
- Apply research in positive psychology by practicing strategies that influence well-being
- Investigate applications of positive psychology in different professional settings, including business, education, healthcare, and the nonprofit sector
- Learn the basics of research, measurement, and evaluation in positive psychology

**Curriculum**

It is strongly recommended that students earning the certificate first complete APOP 1000: Introduction to Positive Psychology. Certificate students who complete any four of the online courses listed below earn a Certificate in Applied Positive Psychology. Those students are
then eligible to pursue an Advanced Certificate in Applied Positive Psychology by taking two additional positive psychology courses.

### Applied Positive Psychology Certificate

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOP 1000</td>
<td>Introduction to Positive Psychology</td>
<td>4</td>
</tr>
<tr>
<td>APOP 1200</td>
<td>Human Flourishing: Strengths and Resilience</td>
<td></td>
</tr>
<tr>
<td>APOP 2000</td>
<td>Positive Psychology at Work</td>
<td></td>
</tr>
<tr>
<td>APOP 2200</td>
<td>Flourishing with Others: Building Thriving Relationships</td>
<td></td>
</tr>
<tr>
<td>APOP 2900</td>
<td>Understanding the Science of Positive Psychology</td>
<td></td>
</tr>
<tr>
<td>APOP 3400</td>
<td>Flourishing through Creativity and the Arts</td>
<td></td>
</tr>
</tbody>
</table>

Any course with Attribute = BCAP

Total Course Units: 4

Courses are subject to change.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Applied Positive Psychology is a discipline that examines the intersections of body, brain, culture, and science to develop tools and practices that enhance human flourishing and well-being. The Advanced Certificate in Applied Positive Psychology Communication is a 6-course, 6 course unit program of study taught by University of Pennsylvania faculty. In this course of study, you will be introduced to the field of positive psychology and will learn tools and practice strategies that support personal, organizational, and community well-being. The courses teach you the theoretical and empirical foundations of human flourishing, how well-being is measured, and what activities increase human flourishing in various contexts and settings.

Penn LPS Online courses in the Certificate in Applied Positive Psychology are offered on an accelerated (8-week) schedule. Courses in the certificate program are largely asynchronous with some optional synchronous sessions to be scheduled by the instructors. For more information about specific course dates, please visit the Course Schedule (https://lpsonline.sas.upenn.edu/academics/course-schedule/) page.

You have the option to enroll in individual courses without committing to the entire certificate, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests. Courses within the Certificate in Applied Positive Psychology may be applied to our Bachelor of Applied Arts and Sciences degree, but do not count toward Penn's Master of Applied Psychology degree.

For more information: https://lpsonline.sas.upenn.edu/academics/certificates/applied-positive-psychology

### Curriculum

Certificate students who complete any four of the online courses listed below earn a Certificate in Applied Positive Psychology. Those students are then eligible to pursue an Advanced Certificate in Applied Positive Psychology by taking two additional positive psychology courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOP 1000</td>
<td>Introduction to Positive Psychology</td>
<td>2</td>
</tr>
<tr>
<td>APOP 1200</td>
<td>Human Flourishing: Strengths and Resilience</td>
<td></td>
</tr>
<tr>
<td>APOP 2000</td>
<td>Positive Psychology at Work</td>
<td></td>
</tr>
<tr>
<td>APOP 2200</td>
<td>Flourishing with Others: Building Thriving Relationships</td>
<td></td>
</tr>
<tr>
<td>APOP 2900</td>
<td>Understanding the Science of Positive Psychology</td>
<td></td>
</tr>
<tr>
<td>APOP 3200</td>
<td>Morality and the Good Life</td>
<td></td>
</tr>
</tbody>
</table>

Any course with Attribute = BCAP

Total Course Units: 2

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Climate Change, Certificate

Climate change represents one of the most controversial and least understood threats to human, economic and environmental well-being on a global scale. The study of climate change offers an opportunity to develop the skills and effective policies to reduce risk and better adapt to a changing environment. In this 4-course, 4 course unit certificate you gain an understanding of the Earth's climate system and how and why it has changed over time. Within the disciplines of oceanic and
atmospheric science, you focus on the mechanisms that drive climate change, both natural and the result of human actions. You also develop the communication skills to more effectively share an understanding of climate change and its relevant policy implications with a broad audience.

Penn LPS Online courses in the Certificate in Climate Change are offered on an accelerated (8-week) schedule. Courses in the certificate program are largely asynchronous with some optional synchronous sessions to be scheduled by the instructors. For more information about specific course dates, please visit the Course Schedule (https://lpsonline.sas.upenn.edu/academics/course-schedule/) page.

You have the option to enroll in individual courses without committing to the entire certificate, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests.

For more information: https://lpsonline.sas.upenn.edu/academics/certificates/climate-change (https://lpsonline.sas.upenn.edu/academics/certificates/climate-change/)

The Certificate in Climate Change prepares you to:

- Reconstruct the history and scales of climate changes
- Learn basic atmospheric and ocean dynamics to understand fundamental climatic processes and future changes
- Examine the mechanisms that act to drive climate change
- Analyze long-term natural climate variability on a global and regional scale
- Understand the importance of natural environmental change as a benchmark against which to assess human impacts, recent climate change, and future environmental change
- Deepen insights into methods of scientific inquiry
- Refine communication skills to effectively share an understanding of climate change, with a focus on both science and policy implications

Curriculum

Students must complete CLCH 1600: Oceanography plus any three additional climate change courses from the list below to earn a Certificate in Climate Change. Although it is recommended that students take CLCH 1600: Oceanography first, students can start with any course and take them in any order.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLCH 1600</td>
<td>Oceanography</td>
<td>1</td>
</tr>
<tr>
<td>Select 3 CU from the following:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CLCH 2100</td>
<td>Introduction to Disaster Management</td>
<td></td>
</tr>
<tr>
<td>CLCH 2200</td>
<td>Atmospheric Science</td>
<td></td>
</tr>
<tr>
<td>CLCH 2300</td>
<td>Climate Change</td>
<td></td>
</tr>
<tr>
<td>CLCH 3000</td>
<td>Communicating Science</td>
<td></td>
</tr>
<tr>
<td>CLCH 3100</td>
<td>Global Environmental Issues</td>
<td></td>
</tr>
</tbody>
</table>

Any course with Attribute = BCCC

Total Course Units 4

Courses are subject to change.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Creative Writing, Certificate

The Certificate in Creative Writing offers an innovative, collaborative course of study for those who have always wanted to unlock their creativity. Each course is designed as a workshop in which you explore new ideas, tackle new writing tools, generate original insights and discover your own powers of expression. You create, collaboratively discuss and revise your original writing with feedback from your instructors and your peers. You also engage with a range of assigned readings and multimedia that inform and grow your innovative practice.

The Certificate in Creative Writing offers both basic and advanced workshops and appeals to students new to creative writing as well as students with writing experience who want to learn new skills. Through a series of courses in fiction, poetry, creative nonfiction, and screenwriting, the Certificate in Creative Writing focuses on creative writing as a form of critical thinking as a way to reimagine audience and as a space of innovation. Taught by professionals in the field, our courses cultivate both individual and group learning, providing an overview of the field as well as deep dives into literary genres. These courses are designed as hands-on, intensive study of the subtleties and power of language.

The Certificate in Creative Writing is a 4-course, 4 course unit program of study taught by University of Pennsylvania faculty. To earn a certificate, students complete any four courses offered, in any order. Students who complete the basic certificate may pursue an advanced certificate (6-course, 6 course unit) by adding two additional courses from the advanced course list.

Penn LPS Online courses in the Certificate in Creative Writing are offered on accelerated (8-week) and classic (11- or 12-week) schedules. Courses in the certificate program are largely asynchronous with some optional synchronous sessions to be scheduled by the instructors. For more information about specific course dates, please visit the Course Schedule (https://lpsonline.sas.upenn.edu/academics/course-schedule/) page.

You have the option to enroll in individual courses without committing to the entire certificate, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests.

For more information: https://lpsonline.sas.upenn.edu/academics/certificates/creative-writing (https://lpsonline.sas.upenn.edu/academics/certificates/creative-writing/)

The Certificate in Creative Writing prepares you to:

- Understand how text conveys meaning across a variety of literary genres and styles
- Explore how to use innovation, flexibility, and collaboration to cultivate a creative writing practice
- Create, revise and edit your original writing in multiple literary genres, including poetry, fiction, nonfiction, and screenwriting
Curriculum

Certificate students who complete four of the online courses listed below earn a Certificate in Creative Writing. Those students are then eligible to pursue an Advanced Certificate in Creative Writing by taking two additional courses.

The Advanced Certificate in Creative Writing is a 6-course, 6 course unit program of study taught by University of Pennsylvania faculty. To earn a certificate, students complete any four courses offered, in any order.

Penn LPS Online courses in the Certificate in Creative Writing are offered on accelerated (8-week) and classic (11- or 12-week) schedules. Courses in the certificate program are largely asynchronous with some optional synchronous sessions to be scheduled by the instructors. For more information about specific course dates, please visit the Course Schedule (https://lpsonline.sas.upenn.edu/academics/course-schedule/) page.

You have the option to enroll in individual courses without committing to the entire certificate, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests.

For more information: https://lpsonline.sas.upenn.edu/academics/certificates/creative-writing (https://lpsonline.sas.upenn.edu/academics/certificates/creative-writing/)

Curriculum

Certificate students who complete four of the online courses listed below earn a Certificate in Creative Writing. Those students are then eligible to pursue an Advanced Certificate in Creative Writing by taking two additional courses.

The Certificate in Creative Writing offers an innovative, collaborative course of study for those who have always wanted to unlock their creativity. Each course is designed as a workshop in which you explore new ideas, tackle new writing tools, generate original insights and discover your own powers of expression. You create, collaboratively discuss and revise your original writing with feedback from your instructors and your peers. You also engage with a range of assigned readings and multimedia that inform and grow your innovative practice.

The Certificate in Creative Writing offers both basic and advanced workshops and appeals to students new to creative writing as well as students with writing experience who want to learn new skills. Through a series of courses in fiction, poetry, creative nonfiction, and screenwriting, the Certificate in Creative Writing focuses on creative writing as a form of critical thinking as a way to reimagine audience and as a space of innovation. Taught by professionals in the field, our courses cultivate both individual and group learning, providing an overview of the field as well as deep dives into literary genres. These courses are designed as hands-on, intensive study of the subtleties and power of language.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

The Certificate in Data Analytics is a 4-course, 4 course unit sequence designed to provide a reasonable point of entry for individuals to gain expertise in data analytics. The certificate’s four courses are scheduled at times to accommodate working adults, so you can improve your data literacy while working on your career. Courses are taught by experts and experienced practitioners, including members of the Penn faculty from the Penn Program on Opinion Research and Election Studies. You don’t need an extensive background in math, statistics, or programming to succeed in the data analytics program. The only prerequisites are a familiarity with using a computer, basic math skills, and a willingness to learn.

Data Analytics, Certificate

We live in a data-centered world, and the ability to make data-driven decisions and craft strategy informed by an effective analysis of data are key elements of successful leadership in any work environment. The Certificate in Data Analytics is a 4-course, 4 course unit sequence designed to provide a reasonable point of entry for individuals to gain expertise in data analytics. The certificate's four courses are scheduled at times to accommodate working adults, so you can improve your data literacy while working on your career. Courses are taught by experts and experienced practitioners, including members of the Penn faculty from the Penn Program on Opinion Research and Election Studies. You don’t need an extensive background in math, statistics, or programming to succeed in the data analytics program. The only prerequisites are a familiarity with using a computer, basic math skills, and a willingness to learn.
Prior to the start of the term, students in DATA 1010 are required to complete a pre-course module that takes approximately 5-8 hours. Read more about this module on the DATA 1010 course page (https://lpsonline.sas.upenn.edu/academics/courses/data-1010-introduction-data-analytics/).

Penn LPS Online courses in the Certificate in Data Analytics are offered on an accelerated (8-week) schedule. Courses in this certificate program include a weekly synchronous session. For more information about specific course dates, please visit the Course Schedule (https://lpsonline.sas.upenn.edu/academics/course-schedule/) page.

Although the courses can be taken sequentially to build your expertise in data analytics, you have the option to enroll in individual courses without committing to the entire certificate, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests.

For more information: https://lpsonline.sas.upenn.edu/academics/certificates/data-analytics (https://lpsonline.sas.upenn.edu/academics/certificates/data-analytics/)

The Certificate in Data Analytics prepares you to:

- Implement and interpret basic regression models
- Understand advanced predictive modeling and machine learning
- Implement and analyze surveys
- Design experiments and A/B tests to test solutions and address problems
- Develop skills in statistical programming and data analysis in R
- Apply skills and knowledge to solve real-world problems
- Visualize and communicate data clearly and persuasively

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Curriculum

Certificate students who complete the basic courses listed below earn the Certificate in Data Analytics.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATA 1010</td>
<td>Introduction to Data Analytics</td>
<td>1</td>
</tr>
<tr>
<td>DATA 2100</td>
<td>Intermediate Data Analytics</td>
<td>1</td>
</tr>
<tr>
<td>DATA 3100</td>
<td>Introduction to Statistical Methods</td>
<td>1</td>
</tr>
<tr>
<td>DATA 4010</td>
<td>Advanced Data Analytics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Any course with Attribute = BCDA</td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units 4

Courses are subject to change.

Digital Strategies and Culture, Certificate

The Certificate in Digital Strategies and Culture will help you develop skills as a critical consumer, designer, and creator of information and multimedia content. Each online course in the certificate offers flexible approaches for using technology to reach your goals in this ever-changing world.

While technology has transformed the ways we live, work, and connect with one another, many of us are understandably ambivalent about its role in society. In some ways, technology can feel like a distraction that’s hard to contextualize within our personal and professional lives; but technological fluency can be critical for effective communication across diverse personal and professional spaces.

The Certificate in Digital Strategies and Culture is a 4-course, 4 course unit credit program of study taught by University of Pennsylvania faculty. To earn a certificate, students complete any four courses offered.

Penn LPS Online courses in the Certificate in Digital Strategies and Culture are offered on an accelerated (8-week) schedule. Courses in the online certificate program are largely asynchronous with some synchronous sessions to be scheduled by the instructors. For more information about specific course dates, please visit the Course Schedule (https://lpsonline.sas.upenn.edu/academics/course-schedule/) page.

You have the option to enroll in individual courses without committing to the entire online certificate, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests. Visit the Cost of Attendance (https://lpsonline.sas.upenn.edu/costs-scholarships-aid/cost-attendance/) page for course tuition and fee rates.


The Certificate in Digital Strategies and Culture prepares you to:

- Solve complex problems with innovative approaches
- Support interpersonal communication with digital platform fluency
- Develop strategies for critical participation across dynamic networks and virtual environments
- Gain skills for building and maintaining strategic partnerships with digital tools
- Design, deliver, and manage engaging content for diverse digital audiences
- Build basic visualizations of quantitative data
- Read and interpret the structure and logic of general purpose coding languages

Curriculum

Students who complete the four courses listed below earn a Certificate in Digital Strategies and Culture.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIGC 2000</td>
<td>Introduction to Working with Code</td>
<td>1</td>
</tr>
<tr>
<td>Select from one of the following</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Certificate in Digital Strategies and Culture prepares you to:

- Solve complex problems with innovative approaches
- Support interpersonal communication with digital platform fluency
- Develop strategies for critical participation across dynamic networks and virtual environments
- Gain skills for building and maintaining strategic partnerships with digital tools
- Design, deliver, and manage engaging content for diverse digital audiences
- Build basic visualizations of quantitative data
- Read and interpret the structure and logic of general purpose coding languages

Curriculum

Students who complete the four courses listed below earn a Certificate in Digital Strategies and Culture.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIGC 2000</td>
<td>Introduction to Working with Code</td>
<td>1</td>
</tr>
<tr>
<td>Select from one of the following</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Global and Regional Studies, Certificate

The Penn LPS Online Certificates in Global and Regional Studies require students to complete 24 CUs for a Basic Certificate and 36 CUs for an Advanced Certificate. There is no single required course, but rather several basic courses that are explicitly global in reach. With the basic courses, students are introduced to a wide variety of analytical approaches and develop conceptual frames that will help them as they take other Global Studies courses. These basic courses develop ability to consider ideas in different contexts, in different countries, in different historical moments. Supplementing the basic courses are regional studies courses that bring deeper and more sustained study of specific areas or cultures. This combination of global reach and local focus follows the development of global studies as a field of study, and adds value to more general studies. In addition, a course on Intercultural communication is part of the offerings of the certificate, helping students develop concrete skills that will support students in today’s globalized workspaces.

Curriculum

Certificate students who complete two global studies and two regional studies courses listed below earn a Certificate in Global and Regional Studies. Those students are then eligible to pursue an Advanced Certificate in Global and Regional Studies by taking two additional courses (one in global studies and one in regional studies).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLBS 1000</td>
<td>Introduction to Global Studies</td>
<td>2</td>
</tr>
<tr>
<td>GLBS 2800</td>
<td>Contemporary Issues in Global Health</td>
<td>2</td>
</tr>
<tr>
<td>GLBS 3800</td>
<td>Putin's Russia</td>
<td>2</td>
</tr>
<tr>
<td>GLBS 3900</td>
<td>Applied Economics in Global Contexts</td>
<td>2</td>
</tr>
<tr>
<td>CLCH 3100</td>
<td>Global Environmental Issues</td>
<td>2</td>
</tr>
<tr>
<td>MUSI 2000</td>
<td>Contemporary African Music</td>
<td>2</td>
</tr>
<tr>
<td>ICOM 1000</td>
<td>Intercultural Communication</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Course Units: 4

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Global and Regional Studies, Advanced Certificate

The Penn LPS Online Certificates in Global and Regional Studies require students to take 4 CU's for a Basic certificate and 6 CU's for an advanced certificate. There is no single required course, but rather several basic courses that are explicitly global in reach. With the basic courses, students are introduced to a wide variety of analytical approaches and develop conceptual frames that will help them as they take other Global Studies courses. These basic courses develop ability to consider ideas in different contexts, in different countries, in different historical moments. Supplementing the basic courses are regional studies courses that bring deeper and more sustained study of specific areas or cultures. This combination of global reach and local focus follows the development of global studies as a field of study, and adds value to more general studies. In addition, a course on Intercultural communication is part of the offerings of the certificate, helping students develop concrete skills that will support students in today's globalized workspaces.

Curriculum

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLBS 1000</td>
<td>Introduction to Global Studies</td>
<td>1</td>
</tr>
<tr>
<td>GLBS 2000</td>
<td>Globalization: Social, Economic, and Political Aspects</td>
<td></td>
</tr>
<tr>
<td>GLBS 2800</td>
<td>Contemporary Issues in Global Health</td>
<td></td>
</tr>
<tr>
<td>CLCH 3100</td>
<td>Global Environmental Issues</td>
<td></td>
</tr>
</tbody>
</table>

Regional Studies courses

For the Advanced Certificate, select 1 course outside of the 2 chosen for the Basic Certificate

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLBS 3800</td>
<td>Putin's Russia</td>
<td>1</td>
</tr>
<tr>
<td>MODM 2000</td>
<td>Women and Gender in the Middle East</td>
<td></td>
</tr>
<tr>
<td>MUSI 2000</td>
<td>Contemporary African Music</td>
<td></td>
</tr>
<tr>
<td>MODM 3000</td>
<td>Rigs Trade Mid East</td>
<td></td>
</tr>
<tr>
<td>MODM 3200</td>
<td>America and Iran: 1720 to Present</td>
<td></td>
</tr>
<tr>
<td>ICOM 1000</td>
<td>Intercultural Communication</td>
<td></td>
</tr>
<tr>
<td>Any course with Attribute = BCGR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units 2

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Leadership & Communication, Certificate

The Certificate in Leadership and Communication at Penn LPS Online is an exciting skills-building and career-enhancing program designed by distinguished, award-winning Ivy League academic experts and researchers in consultation with top executives and leaders from the real worlds of business, government, and the nonprofit sector. Drawing expertise on the social sciences, humanities, and data sciences, each of the five Leadership and Communication courses is scheduled especially for working adults and taught by dedicated and experienced Penn-affiliated scholars. It is designed, developed and delivered through a working partnership between the leaders and staff of Penn’s College of Liberal and Professional Studies (LPS), the Robert A. Fox Leadership Program, and those of Civic Enterprises, headquartered in Washington, DC.

The Certificate in Leadership and Communication is a 5-course, 5 course unit program of study taught by University of Pennsylvania faculty. Penn LPS Online courses in the Certificate in Leadership and Communication are offered on an accelerated (8-week) schedule. Courses in this certificate program include a weekly synchronous session. For more information about specific course dates, please visit the Course Schedule (https://lpsonline.sas.upenn.edu/academics/course-schedule/) page.

You have the option to enroll in individual courses without committing to the entire certificate, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests.

For more information: https://lpsonline.sas.upenn.edu/academics/certificates/leadership-and-communication/

To earn the Certificate in Leadership and Communication, students must successfully complete all five courses listed below and maintain a 3.0 overall grade point average (GPA).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD 1010</td>
<td>Leadership Theory, Practice and Purpose (the prerequisite for all other LEAD courses)</td>
<td>1</td>
</tr>
<tr>
<td>LEAD 2020</td>
<td>Leadership Lessons from Social Sciences</td>
<td>1</td>
</tr>
<tr>
<td>LEAD 2030</td>
<td>Leadership Lessons from Humanities</td>
<td>1</td>
</tr>
<tr>
<td>LEAD 3040</td>
<td>Professional Communication and Personal Development</td>
<td>1</td>
</tr>
<tr>
<td>Plus, one of the following courses:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>DATA 1010</td>
<td>Introduction to Data Analytics</td>
<td></td>
</tr>
<tr>
<td>MTHS 1000</td>
<td>Mathematical Foundations for Data Analytics</td>
<td></td>
</tr>
<tr>
<td>MTHS 2000</td>
<td>Mathematics All Around You</td>
<td></td>
</tr>
<tr>
<td>MTHS 2200</td>
<td>Introduction to Applied Statistics</td>
<td></td>
</tr>
<tr>
<td>Any course with Attribute = BCLC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units 5

Courses are subject to change.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Leadership & Communication, Advanced Certificate Curriculum
To earn the Advanced Certificate in Leadership and Communication, students must successfully complete seven courses listed below – including the 5 courses in the basic certificate and a choice of two additional courses – and maintain a 3.0 overall grade point average (GPA).

Students must take the 5 courses for the basic certificate (p. 211).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEAD 3100</td>
<td>Leadership and Public Administration</td>
<td>2</td>
</tr>
<tr>
<td>LEAD 3200</td>
<td>Leadership and Business Organization</td>
<td></td>
</tr>
<tr>
<td>LEAD 3300</td>
<td>Leadership and Nonprofit Management</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Neuroscience, Certificate
Understanding the intricate correlations between neural mechanisms and behavior is an important area of contemporary scientific research. The Certificate in Neuroscience is a 4-course, 4 course unit program of study that allows you to explore biological, psychological and clinical approaches to understand the nervous system as the biological basis of behavior. You apply studies in cognitive neuroscience, neurochemistry, and psychology as a basis for a better understanding of human behavior, focusing on areas including perception, memory, motivation, and emotion.

Penn LPS Online courses in the Certificate in Neuroscience are offered on an accelerated (8-week) schedule. Courses in the certificate program are largely asynchronous with some optional synchronous sessions to be scheduled by the instructors. For more information about specific course dates, please visit the Course Schedule (https://lpsonline.sas.upenn.edu/academics/course-schedule/) page.

You have the option to enroll in individual courses without committing to the entire certificate, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests.

The Certificate in Neuroscience prepares you to:
- Describe the structure and function of the vertebrate nervous system and its application to the neurobiology of behavior
- Understand the structures and functions of neurochemicals that are generated by and modulate the nervous system
- Examine the various roles played by the nervous and endocrine systems in controlling physiological processes and behavior, with a focus on sexual and parental behaviors, aggression, and ingestion
- Understand the form, function, and pathology of the adult nervous system in terms of antecedent development processes
- Critically evaluate research strategies and hypotheses in neuroanatomy, neurophysiology, neurochemistry, and neuropharmacology to understand psychiatric disorders from a biological perspective

For more information: https://lpsonline.sas.upenn.edu/academics/certificates/neuroscience (https://lpsonline.sas.upenn.edu/academics/certificates/neuroscience/)

Curriculum
Certificate students and individual course takers must first complete Introduction to Neuroscience. Certificate students must complete three additional courses from the list below to earn the Certificate in Neuroscience. Students who have earned a Basic Certificate can then earn an Advanced Certificate in Neuroscience by taking an additional two NEUR courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEUR 1000</td>
<td>Introduction to Neuroscience</td>
<td>1</td>
</tr>
<tr>
<td>NEUR 1600</td>
<td>The Neuroscience of Music</td>
<td></td>
</tr>
<tr>
<td>NEUR 2000</td>
<td>Behavioral Neuroscience</td>
<td></td>
</tr>
<tr>
<td>NEUR 2600</td>
<td>Hormones, Brain, Behavior</td>
<td></td>
</tr>
<tr>
<td>NEUR 2800</td>
<td>Autonomic Pharmacology</td>
<td></td>
</tr>
<tr>
<td>NEUR 4000</td>
<td>Psychopharmacology</td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units 4

* Students who complete the basic certificate may pursue an advanced certificate by adding two additional neuroscience courses.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Organizational Anthropology, Certificate
Today’s workplaces are characterized by high levels of diversity. Organizational leaders who can effectively manage interpersonal relationships within complex and varied team structures are in high demand across all professional environments. The Certificate in
Organizational Anthropology at Penn LPS Online, a 4-course, credit-bearing program of study, is designed to develop your understanding of how teams, corporations and other organizations develop and reinforce culture, and how to apply this research to create stronger functioning groups. Beginning with an anthropological approach to organizational culture, you explore different theories of how culture forms and evolves in organizations and why it matters for performance. You learn strategies for influencing change in an increasingly digital workplace and getting alignment at the conversational level based on research into best practices in communication.

Penn LPS Online courses in the Certificate in Organizational Anthropology are offered on an accelerated (8-week) schedule. Courses in the certificate program are largely asynchronous with some optional synchronous sessions to be scheduled by the instructors. For more information about specific course dates, please visit the Course Schedule (https://lpsonline.sas.upenn.edu/academics/course-schedule/) page.

You have the option to enroll in individual courses without committing to the entire certificate, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests.

For more information: https://lpsonline.sas.upenn.edu/academics/certificates/organizational-anthropology

The Certificate in Organizational Anthropology prepares you to:

- Understand current anthropological research on team, corporate, and organizational culture
- Explore the effects that modern corporations have on their surrounding environments, with attention to local, regional, national, and global effects
- Develop an understanding of theories of organizational culture, and how to apply those theories in specific professional and organizational contexts
- Examine underlying social and cultural influences on diverse teams, and learn how to apply theory to foster diversity and create inclusive cultures
- Identify the variables that underlie communication in virtual, internet-mediated spaces, and apply social science research to create strong collaborative professional relationships, even when working remotely

### Curriculum

Students must complete all four courses listed below to earn a Certificate in Organizational Anthropology.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORGC 1600</td>
<td>Introduction to Team Culture</td>
<td>1</td>
</tr>
<tr>
<td>ORGC 2010</td>
<td>Virtual Collaboration</td>
<td>1</td>
</tr>
<tr>
<td>ORGC 3010</td>
<td>Anthropology of Corporations</td>
<td>1</td>
</tr>
<tr>
<td>ORGC 3300</td>
<td>Building Influence Across Cultural Boundaries in Organizations</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Course Units 4

Courses are subject to change.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

### Professional Writing, Certificate

The Certificate in Professional Writing at Penn LPS Online gives you a scenario-based deep dive into the kinds of writing essential to business. Our courses offer a series of concepts and practical applications that provide an accelerated understanding of the subtle arts of communication, enhanced by tips to make anyone a power-writer—a master of grammar, concision, and clarity.

Whether you are in an entry-level position and want to ramp up your writing skills or are an accomplished writer ready to expand and refine your repertoire, our professional writing courses take you to the next level. We take you beyond the basics of structure and style. Our coursework emphasizes professional expertise and extensive feedback as we share and cutting-edge findings in the field of writing. Find out how to incorporate your personal or corporate brand's story into every piece of communication and discover the best ways to identify and appeal to target audiences.

The Certificate in Professional Writing is a 4-course, 4 course unit program of study taught by University of Pennsylvania faculty. To earn the certificate, it is recommended that students enroll first in the Fundamentals of Professional Writing course, followed by any additional three professional writing courses.

Penn LPS Online courses in the Certificate in Professional Writing are offered on an accelerated (8-week) schedule. Courses in the certificate program are largely asynchronous with some optional synchronous sessions to be scheduled by the instructors. For more information about specific course dates, please visit the Course Schedule (https://lpsonline.sas.upenn.edu/academics/course-schedule/) page.

You also have the option to enroll in individual courses without committing to the entire certificate, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests. Students who complete the basic certificate may pursue an advanced certificate (6-course, 6 course unit) by adding two additional courses from the advanced course list.

For more information: https://lpsonline.sas.upenn.edu/academics/certificates/professional-writing

The Certificate in Professional Writing prepares you to:

- Assess audience and purpose for communication targeted at achieving specific goals
- Analyze different audiences, scenarios, and contexts in order to shape your messaging most effectively whatever your audience
• Develop effective rhetorical strategies and skills to persuade specific audiences—personal, professional, and social—through visual, written, and multimedia communication
• Draft and revise written work for precision, clarity, and power
• Develop empathetic and analytic skills to integrate and build upon other viewpoints and perspectives
• Learn how readers, writers, and designers use complex multimedia texts incorporating language, image, sound, and gesture to produce a coherent, engaging message
• Explore how to engage the senses—visual, aural, and somatic—to convey information effectively through social media
• Understanding how to make complex information accessible to audiences through effective visualization

Curriculum

Certificate students who complete four of the online courses listed below earn a Certificate in Professional Writing. Those students are then eligible to pursue an Advanced Certificate in Professional Writing by taking two additional professional writing courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROW 1000</td>
<td>Fundamentals of Professional Writing</td>
<td>1</td>
</tr>
<tr>
<td>PROW 1020</td>
<td>The Elements of Style</td>
<td></td>
</tr>
<tr>
<td>PROW 1030</td>
<td>Introduction to Academic Reading, Writing, &amp; Research</td>
<td></td>
</tr>
<tr>
<td>PROW 2000</td>
<td>Writing with Data</td>
<td></td>
</tr>
<tr>
<td>PROW 2010</td>
<td>Designing Effective Presentations</td>
<td></td>
</tr>
<tr>
<td>PROW 3010</td>
<td>The Power of Storytelling</td>
<td></td>
</tr>
<tr>
<td>PROW 3030</td>
<td>Advanced Academic Reading and Writing</td>
<td></td>
</tr>
<tr>
<td>PROW 4000</td>
<td>Writing for Social Media</td>
<td></td>
</tr>
<tr>
<td>PROW 4010</td>
<td>Composing a Professional Identity</td>
<td></td>
</tr>
</tbody>
</table>

Any course with Attribute = BCPW

Total Course Units 4

Courses are subject to change.

Professional Writing Certificate

Advanced Courses

Select two of the following not used for the Basic Certificate

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROW 1000</td>
<td>Fundamentals of Professional Writing</td>
<td>2</td>
</tr>
<tr>
<td>PROW 1010</td>
<td>Fundamentals of Academic Reading and Writing</td>
<td></td>
</tr>
<tr>
<td>PROW 1020</td>
<td>The Elements of Style</td>
<td></td>
</tr>
<tr>
<td>PROW 1030</td>
<td>Introduction to Academic Reading, Writing, &amp; Research</td>
<td></td>
</tr>
<tr>
<td>PROW 2000</td>
<td>Writing with Data</td>
<td></td>
</tr>
<tr>
<td>PROW 2010</td>
<td>Designing Effective Presentations</td>
<td></td>
</tr>
<tr>
<td>PROW 3010</td>
<td>The Power of Storytelling</td>
<td></td>
</tr>
<tr>
<td>PROW 4000</td>
<td>Writing for Social Media</td>
<td></td>
</tr>
<tr>
<td>PROW 4010</td>
<td>Composing a Professional Identity</td>
<td></td>
</tr>
</tbody>
</table>

Any course with Attribute = BCPW

Total Course Units 2

Courses are subject to change.

Science Foundations, Certificate

The physical and life sciences enable us to better understand the workings of the universe and living things. The courses in this cluster, which are designed to enhance your understanding of science, will provide you with the foundations needed for further studies in this area. The Certificate in Science Foundations at Penn LPS Online, which is for credit, is a 4-course, (4 c.u.*) online program of study. The objective of this certificate is to enable you to increase your skills as both a consumer and communicator of scientific information while at the same time honing the foundational skills required for careers in the sciences.

The goals of the Certificate in Science Foundations are to:

• Examine the basic concepts of the physical and life sciences
• Evaluate scientific materials, especially those containing quantitative information or speculations, using the scientific method
• Gain an appreciation of the ways in which the physical and life sciences intersect and interact
• Learn how to communicate scientific concepts effectively, whether it is to one's peers or to members of other communities
• Critically analyze data quantitatively using the appropriate mathematical, statistical or graphical tools

Curriculum

Students who complete the four courses listed below earn a Certificate in Science Foundations.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTHS Requirement: Select one of the following</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTHS 1000</td>
<td>Mathematical Foundations for Data Analytics</td>
<td>1</td>
</tr>
<tr>
<td>MTHS 2000</td>
<td>Mathematics All Around You</td>
<td></td>
</tr>
<tr>
<td>PHYL 1200</td>
<td>Foundations of Life Sciences</td>
<td>1</td>
</tr>
<tr>
<td>PHYL 1600</td>
<td>Foundations of Physical &amp; Chemical Sciences</td>
<td>1</td>
</tr>
</tbody>
</table>

2023-24 Catalog | Generated 08/02/23
Social Difference, Diversity, Equity and Inclusion, Certificate

The events of 2020 have underscored the critical importance of addressing systemic racism, as well as sexism and other forms of prejudice, in every sector. Education clearly holds an important role in this endeavor. Students need to learn about the history that underpins these structural inequities, to develop the critical and analytical tools to evaluate these systems, and to gain an understanding of how to implement these tools and strategies in their own professional work and their communities. This certificate is designed to meet these urgent needs.

Students will learn how to do the following:

- contextualize and develop critical awareness of difference and bias in diverse professional environments
- grapple with difference and systemic biases that reify historical relationships to power, agency, and various forms of capital in society
- discuss race, class, sexuality, gender and the complex intersections of social difference using social justice frameworks that (1) encourage thoughtful engagement with diversity in specific organizations/communities and (2) explore paths for critical change in society at large
- engage with social difference using qualitative and quantitative analytical practices across, within, and beyond disciplines
- think critically about the ways technologies can—and often do—reinscribe historical inequities
- develop reflective practices that can inform individual and collective action

Curriculum

Certificate students who complete four of the online courses listed below earn a Certificate in Social Difference, Diversity, Equity, and Inclusion. Those students are then eligible to pursue an Advanced Certificate by taking two additional courses.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDEI 1100</td>
<td>Introduction to Social Difference in American Society</td>
<td>4</td>
</tr>
<tr>
<td>SDEI 2000</td>
<td>Organizational and Institutional Power</td>
<td>4</td>
</tr>
<tr>
<td>SDEI 2500</td>
<td>Race, Place, and Space</td>
<td>4</td>
</tr>
<tr>
<td>SDEI 2600</td>
<td>Addressing Inequity through Art and Design</td>
<td>4</td>
</tr>
<tr>
<td>DIGC 1200</td>
<td>Digital Literacy &amp; Cultural Change</td>
<td>4</td>
</tr>
<tr>
<td>DIGC 2600</td>
<td>Diverse Projects for Digital Publics</td>
<td>4</td>
</tr>
<tr>
<td>DIGC 3200</td>
<td>Designing Critical Futures</td>
<td>4</td>
</tr>
<tr>
<td>ICOM 1000</td>
<td>Intercultural Communication</td>
<td>4</td>
</tr>
<tr>
<td>Any course with Attribute = BCSD</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Social Difference, Diversity, Equity and Inclusion, Advanced Certificate

The events of 2020 have underscored the critical importance of addressing systemic racism, as well as sexism and other forms of prejudice, in every sector. Education clearly holds an important role in this endeavor. Students need to learn about the history that underpins these structural inequities, to develop the critical and analytical tools to evaluate these systems, and to gain an understanding of how to implement these tools and strategies in their own professional work and their communities. This certificate is designed to meet these urgent needs.

Students will learn how to do the following:

- contextualize and develop critical awareness of difference and bias in diverse professional environments
- grapple with difference and systemic biases that reify historical relationships to power, agency, and various forms of capital in society
- discuss race, class, sexuality, gender and the complex intersections of social difference using social justice frameworks that (1) encourage thoughtful engagement with diversity in specific organizations/communities and (2) explore paths for critical change in society at large
- engage with social difference using qualitative and quantitative analytical practices across, within, and beyond disciplines
- think critically about the ways technologies can—and often do—reinscribe historical inequities
- develop reflective practices that can inform individual and collective action

Curriculum

Students who have already completed the Certificate in Social Difference, Diversity, Equity, and Inclusion must complete any two of the below courses to receive an Advanced Certificate in Social Difference, Diversity, Equity, and Inclusion.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDEI 2500</td>
<td>Race, Place, and Space</td>
<td>4</td>
</tr>
<tr>
<td>SDEI 3500</td>
<td>Qualitative Methods</td>
<td>4</td>
</tr>
<tr>
<td>SDEI 3550</td>
<td>Quantitative Methods</td>
<td>4</td>
</tr>
<tr>
<td>SDEI 4000</td>
<td>Designing Critical Futures</td>
<td>4</td>
</tr>
<tr>
<td>SDEI 4400</td>
<td>Intersectional History of Sexuality</td>
<td>4</td>
</tr>
</tbody>
</table>
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**UpSkill, Certificate**

In 2018, only 15% of executives and 13% of hiring managers express satisfaction with recent graduates’ ability to apply the skills and knowledge they learned in college to complex problems in the workplace. Furthermore, only 34% of executives and significantly fewer hiring managers (25%) say that most recent graduates have the necessary skills and knowledge to advance or be promoted. (AACU, 2018)

This applied online program (fall, spring, summer) is designed to efficiently map ivy league coursework to in-demand skillsets: assisting students as they seek their next step. Up(skill)’s competitive advantage is its laser focus on career readiness, backed with the timelessness of the liberal arts in an online, work and family friendly format.

This program is designed for anyone looking to upskill, including:
- Graduates who are looking for ways to become more competitive in the job market
- Individuals who have been recently laid off due to workforce reductions
- Workers who are looking to revise or rebrand their skillset

Students will achieve the following learning objectives:
- Develop strategies and skills to persuade specific audiences through verbal, visual, and written communication
- Practice and apply critical thinking skills in the classroom and beyond
- Explore competing schools of thought about leadership ethics
- Learn how to use quantitative and quantitative data in decision-making and problem-solving
- Analyze different audiences, scenarios, and contexts in order to shape your messaging
- Develop effective rhetorical strategies and skills to persuade specific audiences—personal, professional, and social—through visual, written, and multimedia communication
- Develop empathic and analytic skills to integrate and build upon other viewpoints and perspectives
- Identify, develop and apply distinctive leadership traits and skills
- Learn how readers, writers, and designers use complex multimedia texts incorporating language, image, sound, and gesture to produce a coherent, engaging message
- Understanding how to make complex information accessible to audiences through effective visualization.

**Curriculum**

Certificate students who complete four of the online courses listed below earn an UpSkill Certificate.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDEI 4500</td>
<td>Advanced Topics in Social Difference, Diversity, Equity, and Inclusion</td>
<td>Any course with Attribute = BCSD</td>
</tr>
</tbody>
</table>

Students can elect to take any 4 of the courses listed below for the basic certificate:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APOP 3200</td>
<td>Morality and the Good Life</td>
</tr>
<tr>
<td>DATA 1010</td>
<td>Introduction to Data Analytics</td>
</tr>
<tr>
<td>DIGC 1200</td>
<td>Digital Literacy &amp; Cultural Change</td>
</tr>
<tr>
<td>GLBS 1000</td>
<td>Introduction to Global Studies</td>
</tr>
<tr>
<td>ICOM 1000</td>
<td>Intercultural Communication</td>
</tr>
<tr>
<td>LEAD 1010</td>
<td>Leadership Theory, Practice and Purpose</td>
</tr>
<tr>
<td>MTHS 2200</td>
<td>Introduction to Applied Statistics</td>
</tr>
<tr>
<td>ORGC 1600</td>
<td>Introduction to Team Culture</td>
</tr>
<tr>
<td>ORGC 2010</td>
<td>Virtual Collaboration</td>
</tr>
<tr>
<td>PROW 1000</td>
<td>Fundamentals of Professional Writing</td>
</tr>
<tr>
<td>PROW 4010</td>
<td>Composing a Professional Identity</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**UpSkill, Advanced Certificate**

In 2018, only 15% of executives and 13% of hiring managers express satisfaction with recent graduates’ ability to apply the skills and knowledge they learned in college to complex problems in the workplace. Furthermore, only 34% of executives and significantly fewer hiring managers (25%) say that most recent graduates have the necessary skills and knowledge to advance or be promoted. (AACU, 2018)

This applied online program (fall, spring, summer) is designed to efficiently map ivy league coursework to in-demand skillsets: assisting students as they seek their next step. Up(skill)’s competitive advantage is its laser focus on career readiness, backed with the timelessness of the liberal arts in an online, work and family friendly format.

This program is designed for anyone looking to upskill, including:
- Graduates who are looking for ways to become more competitive in the job market
- Individuals who have been recently laid off due to workforce reductions
- Workers who are looking to revise or rebrand their skillset

Students will achieve the following learning objectives:
- Develop strategies and skills to persuade specific audiences through verbal, visual, and written communication
- Practice and apply critical thinking skills in the classroom and beyond
- Explore competing schools of thought about leadership ethics
- Learn how to use quantitative and quantitative data in decision-making and problem-solving
- Analyze different audiences, scenarios, and contexts in order to shape your messaging
- Develop effective rhetorical strategies and skills to persuade specific audiences—personal, professional, and social—through visual, written, and multimedia communication
- Develop empathic and analytic skills to integrate and build upon other viewpoints and perspectives
- Identify, develop and apply distinctive leadership traits and skills
• Learn how readers, writers, and designers use complex multimedia texts incorporating language, image, sound, and gesture to produce a coherent, engaging message
• Understanding how to make complex information accessible to audiences through effective visualization.

Curriculum

Students can elect to take any 2 of the courses listed below for the advanced certificate, aside from the courses taken for the Basic Certificate:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 1</td>
<td>PROW 1000 Fundamentals of Professional Writing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>ORGC 1600 Introduction to Team Culture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GLBS 1000 Introduction to Global Studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DIGC 1200 Digital Literacy &amp; Cultural Change</td>
<td></td>
</tr>
<tr>
<td>Fall 2</td>
<td>PROW 1000 Fundamentals of Professional Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ORGC 2010 Virtual Collaboration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DATA 1010 Introduction to Data Analytics</td>
<td></td>
</tr>
<tr>
<td>Spring 1</td>
<td>PROW 1000 Fundamentals of Professional Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEAD 1010 Leadership Theory, Practice and Purpose</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ICOM 1000 Intercultural Communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PROW 4010 Composing a Professional Identity</td>
<td></td>
</tr>
<tr>
<td>Spring 2</td>
<td>PROW 1000 Fundamentals of Professional Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MTHS 2200 Introduction to Applied Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>APOP 3200 Morality and the Good Life</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Pre-Health Core Studies, Post-Baccalaureate Preparatory Program

Penn’s Pre-Health Post-Baccalaureate Programs are designed for driven students who want to distinguish themselves as competitive medical, dental, or veterinary school candidates. The Core Studies program is specifically for students with a limited science background. The minimum total course units for program completion is 12. Core Studies students typically take general chemistry, introductory biology, organic chemistry, physics, and biochemistry. The general chemistry, introductory biology, organic chemistry, and physics sequences consist of two semesters and includes corresponding lab courses, but an individual’s learning plan may vary based upon their past academic history. All Core Studies students may take additional courses beyond the minimum requirement with most students taking a total of 13 to 16 course units to achieve their goals. A breadth and depth of upper level science courses are available to all Core Studies students to deepen their knowledge and preparation for medical, dental, or veterinary training.

The basic science courses are time-intensive and students are strongly discouraged from maintaining employment in any capacity while enrolled in the Core Studies program. The core courses are also math-intensive and a minimum of a college level pre-calculus course is required for admission. Students may attend the Core Studies program on a full-time or part-time basis, but all program requirements are expected to be completed within two years of matriculation.

Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1101</td>
<td>Introduction to Biology A</td>
<td>1.5</td>
</tr>
<tr>
<td>BIOL 1102</td>
<td>Introduction to Biology B</td>
<td>1.5</td>
</tr>
<tr>
<td>BIOL 2801</td>
<td>Essentials of Biochemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1011</td>
<td>Introduction to General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2451</td>
<td>Experimental Organic Chemistry A</td>
<td>0.5</td>
</tr>
<tr>
<td>CHEM 2452</td>
<td>Experimental Organic Chemistry B</td>
<td>0.5</td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Introduction to General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2410</td>
<td>Principles of Organic Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 2420</td>
<td>Principles of Organic Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>General Chemistry Laboratory I</td>
<td>0.5</td>
</tr>
<tr>
<td>CHEM 1102</td>
<td>General Chemistry Laboratory II</td>
<td>0.5</td>
</tr>
<tr>
<td>PHYS 0101</td>
<td>General Physics: Mechanics, Heat and Sound</td>
<td>1.5</td>
</tr>
<tr>
<td>PHYS 0102</td>
<td>General Physics: Electromagnetism, Optics, and Modern Physics</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Total Course Units 13

Pre-vet and pre-dental students often require additional courses in cell biology, microbiology, physiology, and genetics as prerequisites. Pre-Health students may also apply up to 1 course unit of online Human Anatomy (ANAT) toward their program requirements.

Pre-Health Specialized Studies, Post-Baccalaureate Preparatory Program

Penn’s Pre-Health Post-Baccalaureate Programs are designed for driven students who want to distinguish themselves as competitive medical, dental, or veterinary school candidates. The Specialized Studies program is specifically for students who aim to strengthen their existing scientific foundations. The minimum total course units for program completion is 8. Specialized Studies students take advanced undergraduate course in the biological sciences such as, Advanced Cell Biology, Essentials of Molecular Biology and Genetics, Essentials
of Physiology, Pathophysiology, Histology, Immunobiology, Infectious Diseases, Neuroscience, and Human Anatomy.

Specialized Studies students may opt to complete their program on a full-time or part-time basis, but all program requirements are expected to be completed within two years of matriculation.

**Curriculum**

Specialized Studies students develop a study plan in consultation with their Academic Advisor that accounts for the student’s past academic history and addresses future academic goals. Students may elect 1 cu of online Human Anatomy to fulfill their program requirements. Students may also incorporate Core Studies courses into their plan where recommended and appropriate.

Pre-Health Specialized Studies Course options include:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 8 CU from the following:</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>BIOL 2001</td>
<td>Essentials of Cell Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 2201</td>
<td>Essentials of Molecular Biology and Genetics</td>
<td></td>
</tr>
<tr>
<td>BIOL 2301</td>
<td>Essentials of Vertebrate Physiology</td>
<td></td>
</tr>
<tr>
<td>BIOL 2701</td>
<td>Elements of Microbiology</td>
<td></td>
</tr>
<tr>
<td>BIOL 2801</td>
<td>Essentials of Biochemistry</td>
<td></td>
</tr>
<tr>
<td>BIOL 3004</td>
<td>Infectious Disease Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 3006</td>
<td>Histology</td>
<td></td>
</tr>
<tr>
<td>BIOL 3313</td>
<td>Essentials of Pathophysiology</td>
<td></td>
</tr>
<tr>
<td>BIOL 4004</td>
<td>Immunobiology</td>
<td></td>
</tr>
<tr>
<td>BIOL 4007</td>
<td>Cancer Cell Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 4010</td>
<td>Advanced Cell Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 4018</td>
<td>Cell Communication and Disease</td>
<td></td>
</tr>
<tr>
<td>BIOL 3054</td>
<td>Developmental Biology</td>
<td></td>
</tr>
<tr>
<td>NRSC 1110</td>
<td>Introduction to Brain and Behavior</td>
<td></td>
</tr>
<tr>
<td>NRSC 2269</td>
<td>Autonomic Physiology</td>
<td></td>
</tr>
<tr>
<td>NRSC 4430</td>
<td>The Cognitive Neuroscience of Autism</td>
<td></td>
</tr>
<tr>
<td>ANAT 5050</td>
<td>Structural Adaptations to Function</td>
<td></td>
</tr>
<tr>
<td>ANAT 5120</td>
<td>Human Anatomy: Cardiovascular, Respiratory, Digestive, and Musculoskeletal Systems</td>
<td></td>
</tr>
<tr>
<td>ANAT 5130</td>
<td>Human Anatomy: Cardiovascular and Respiratory Systems</td>
<td></td>
</tr>
<tr>
<td>ANAT 5140</td>
<td>Human Anatomy: Digestive System</td>
<td></td>
</tr>
<tr>
<td>ANAT 5150</td>
<td>Human Anatomy: Musculoskeletal System</td>
<td></td>
</tr>
<tr>
<td>ANAT 5160</td>
<td>Human Anatomy: Endocrine and Reproductive Systems</td>
<td></td>
</tr>
<tr>
<td>ANAT 5170</td>
<td>Anatomy of the Head and Neck: Cranial Nerves and Their Distribution</td>
<td></td>
</tr>
<tr>
<td>ANAT 5180</td>
<td>Brain and Spinal Cord: Longitudinal Neural Pathways</td>
<td></td>
</tr>
<tr>
<td>ANAT 5190</td>
<td>Brain and Spinal Cord: Motor and Sensory Functional Systems</td>
<td></td>
</tr>
<tr>
<td>NEUR 2600</td>
<td>Hormones, Brain, Behavior</td>
<td></td>
</tr>
<tr>
<td>NEUR 2800</td>
<td>Autonomic Pharmacology</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Pioneers in interdisciplinary education and research. Theory linked with real-world practice. The path for students who want to shape the future.

With the pace of innovation and technological advancement accelerating ever faster, engineers hold the keys to the next generation’s routine wonders.

As an Ivy League institution — and the first university in the nation — Penn delivers a transformative experience in the classroom and laboratory, while ensuring its engineering and applied science students receive a fully rounded liberal arts education.

Penn Engineering is a pioneer in interdisciplinary education, allowing students the flexibility to craft a program that suits their individual interests, career, or graduate education plans. Both Bachelor of Science in Engineering (BSE) and Bachelor of Applied Science (BAS) degrees are offered, along with specialized dual-degree programs, an array of majors and minors, special programs, and study-abroad opportunities.

Penn Engineering students get valuable and extensive hands-on experience, conducting research and pursuing creative designs and new products alongside faculty renowned in their fields. The working relationship with faculty pervades Penn Engineering, where full-time faculty teach all core undergraduate courses, and each student has a faculty advisor.

As the global marketplace for technology grows, graduates go on to leadership roles in business, medicine, law, and academia. They leave armed with the technical knowledge, imagination, communication skills, and understanding of the social and human context of their work, all engendered with a fervor for the future nurtured at Penn Engineering.

Our undergraduate programs emphasize both theory and practice while forming intellectual linkages across a breadth of disciplines. The opportunity for hands-on research, over the four years, allows undergraduates the chance to learn about the creation of knowledge, further explore their chosen field, and thereby become collaborators in the search for knowledge. The design experience over the four years, culminating in the senior design project, challenges students to utilize their academic training and problem-solving skills in practical ways, and provides them with direct experience with real-world problems that they will encounter as practicing engineers.

Technology is transforming our times and our lives, no longer on a scale of decades but of years and even months. A successful career through such changing times requires engineering graduates endowed with skills that are applicable to widely different technologies, skills that transcend the details of any one job. Such is the result of an education that pays much more attention to the fundamental than to the trendy, to the creative more than to the routine. Engineers must also be firmly educated as responsible citizens, concerned with the impact of their work on society.

Penn Engineering is an integral partner in Penn’s initiatives to prepare students for leadership in a high-tech world. Our goal is to prepare students for leadership roles in engineering and applied science as well as in other fields, such as medicine, business, and law, for which creativity, critical quantitative thinking, effective communication skills, and a strong commitment to humane values are essential.

Mission of the School
1. The creation and dissemination of scholarly research in both basic and applied arenas to be an international center of engineering excellence and the regional catalyst for technological innovation;
2. The design and delivery of engineering education known for its rigor, breadth and relevance to prepare its students to become global leaders in technology-based fields.

Mission Statements of Bachelor of Science in Engineering Programs (ABET-accredited)

- Bioengineering (http://www.be.seas.upenn.edu/about-academics/)
- Chemical and Biomolecular Engineering (http://www.cbe.seas.upenn.edu/about-ugrad/)
- Computer Science (http://www.cis.upenn.edu/ugrad/abet.shtml/)
- Computer Engineering (http://www.seas.upenn.edu/cmpe/accreditation.php)
- Electrical Engineering (http://www.ese.upenn.edu/about-ugrad/)
- Materials Science and Engineering (http://www.mse.seas.upenn.edu/about-ugrad/accreditation.php)
- Mechanical Engineering and Applied Mechanics (http://www.me.upenn.edu/about-ug/ed/accreditation.php)
- Systems Science and Engineering (http://www.ese.upenn.edu/about-ugrad/)

Our extraordinary faculty-to-student ratio provides great opportunities for undergraduate students to work in state-of-the-art research laboratories during the academic year and in the summer. Below are examples of student research, along with helpful information to guide undergraduates toward finding research positions at Penn Engineering.

For more information, visit: https://research.seas.upenn.edu/undergraduate-research/.

Finding a Research Mentor and Research Experiences
Students are encouraged to explore the Penn Engineering Faculty Expertise Directory (http://www.seas.upenn.edu/directory/departments.php), featuring the School’s standing faculty and which is searchable by department, research center affiliation, and research expertise keyword. Users can identify which faculty are conducting research in a specific area and contact faculty members whose research interests them.

Littlejohn Undergraduate Research Program
Thanks to a generous gift by Angus Littlejohn, the School of Engineering is able to offer Summer Research Opportunities to Penn Engineering Students. The program is open to rising sophomores, juniors and seniors.

The program intends to provide students the opportunity to get involved in hands-on engineering research under the supervision of a faculty
member. Topics of research include all areas covered by the departments in the School of Engineering and Applied Science.

**Rachleff Scholars Program**

This program offers Penn Engineering undergraduates the opportunity to gain valuable research experiences with standing faculty and to participate in a community of peers who share a common interest in research and scholarly inquiry.

The following BSE programs are accredited by the Engineering Accreditation Commission of ABET (http://www.abet.org/)

- Bioengineering
- Chemical and Biomolecular Engineering
- Computer Science
- Computer Engineering
- Electrical Engineering
- Materials Science and Engineering
- Mechanical Engineering and Applied Mechanics
- Systems Science and Engineering

The BSE program in Computer Science is accredited by the Computing Accreditation Commission of ABET (http://www.abet.org/).

For more information, visit: http://www.seas.upenn.edu/undergraduate/handbook/programs/abet-accreditation.php

Each student is assigned a faculty advisor with whom they are required to meet at least twice per year. No student is permitted to register for courses in any semester without first meeting with an advisor. The only exception is the fall semester of a student’s first year. Students who take the time to prepare for these meetings generally find them beneficial and informative. Faculty advisors are the best source of information about electives within the major, research opportunities, and options for graduate study.

For more information, visit: https://ugrad.seas.upenn.edu/student-handbook/advising/.

**Curriculum**

Each major (p. 220) within the School of Engineering and Applied Science has its own curriculum. Specific curricular requirements for each major are listed by program.

However, all Engineering students must complete requirements in four specific tracks:

- math
- natural science
- core engineering courses within the chosen major
- professional electives
- social science/humanities
- free electives

A course planning guide exists for each major to assist with planning and keeping track of the requirements toward graduation.

In addition, all Engineering students must complete the following requirements.

**Writing Requirement**

Beginning with the Class of 2001, Penn Engineering has implemented a Writing Requirement. The Writing Requirement will not necessitate the completion of additional course units. Students can easily satisfy the requirement without altering the existing constraints of BAS or the BSE degrees.

Students are strongly encouraged to fulfill the Writing Requirement during the first two years of study because it becomes increasingly difficult to schedule first-year courses as one moves through the curriculum.

For more information, visit: https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/writing-requirement/.

**Engineering Ethics Requirement**

Beginning with the Class of 2017, Penn Engineering students must fulfill the Engineering Ethics requirement. The Ethics Requirement will not necessitate the completion of any additional course units in the existing BAS or the BSE degrees, as the requirement may be double-counted from the student’s SSH course requirements.

The Engineering Ethics requirement can be satisfied by taking EAS 2030 Engineering Ethics. This course may be used (double-counted) for the Social Science requirement as well. Students are strongly encouraged to take the Ethics Requirement course during the sophomore year.

For more information, visit: https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/engineering-ethics-requirement/.

**Majors**

- Bioengineering, BSE (p. 220)
- Biomedical Science, BAS (p. 221)
- Chemical and Biomolecular Engineering, BSE (p. 222)
- Computer Engineering, BSE (p. 223)
- Computer Science, BAS (p. 225)
- Computer Science, BSE (p. 226)
- Digital Media Design, BSE (p. 227)
- Electrical Engineering, BSE (p. 228)
- Individualized Program, BAS (p. 229)
- Materials Science and Engineering, BSE (p. 230)
- Mechanical Engineering and Applied Mechanics, BSE (p. 231)
- Networked and Social Systems Engineering, BSE (p. 232)
- Systems Science and Engineering, BSE (p. 233)

**Bioengineering, BSE**

Bioengineering is a multidisciplinary area where the engineering sciences interface biology, biomedical sciences, and medicine, to advance human
health. Bioengineering brings together the creation of new knowledge and understanding of biological systems through engineering analysis and experimentation, with the application of engineering design and practice principles for the development of devices, processes, methods and biotechnologies to improve medical practice and health care delivery.

For more information: https://www.seas.upenn.edu/prospective-students/undergrad/majors/bioengineering/

Bioengineering (BE) Major Requirements

37 course units are required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE 1000</td>
<td>Introduction to Bioengineering</td>
<td>0.5</td>
</tr>
<tr>
<td>ENGR 1050</td>
<td>Introduction to Scientific Computing</td>
<td>1</td>
</tr>
<tr>
<td>BE 2000</td>
<td>Introduction to Biomechanics</td>
<td>1</td>
</tr>
<tr>
<td>BE 2200</td>
<td>Biomaterials</td>
<td>1</td>
</tr>
<tr>
<td>BE 2700</td>
<td>Bioengineering Laboratory Principles</td>
<td>1</td>
</tr>
<tr>
<td>BE 3010</td>
<td>Bioengineering Signals and Systems</td>
<td>1</td>
</tr>
<tr>
<td>BE 3060</td>
<td>Cellular Engineering</td>
<td>1</td>
</tr>
<tr>
<td>BE 3090</td>
<td>Bioengineering Modeling, Analysis and Design Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>BE 3100</td>
<td>Bioengineering Modeling, Analysis and Design Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>BE 3500</td>
<td>Introduction to Biotransport Processes</td>
<td>1</td>
</tr>
<tr>
<td>BE 4950</td>
<td>Senior Design Project</td>
<td>1</td>
</tr>
<tr>
<td>BE 4960</td>
<td>Senior Design Project</td>
<td>1</td>
</tr>
<tr>
<td>BE Elective (400 or 500 level)</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Engineering Elective</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>ENM 2400</td>
<td>Differential Equations and Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>ENM 3750</td>
<td>Biological Data Science I - Fundamentals of Biostatistics</td>
<td>1</td>
</tr>
<tr>
<td>or ENGR 3440</td>
<td>Answering Questions with Data, for Everyone</td>
<td></td>
</tr>
<tr>
<td>PHYS 0140</td>
<td>Principles of Physics I (without laboratory)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0141</td>
<td>Principles of Physics II (without laboratory)</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1011</td>
<td>Introduction to General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>General Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Introduction to General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1102</td>
<td>General Chemistry Laboratory II</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1121</td>
<td>Introduction to Biology - The Molecular Biology of Life</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1123</td>
<td>Introductory Molecular Biology Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 3310</td>
<td>Principles of Human Physiology</td>
<td>1</td>
</tr>
<tr>
<td>General Electives</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>EAS 2030</td>
<td>Engineering Ethics</td>
<td>1</td>
</tr>
<tr>
<td>or BIOE 4010</td>
<td>Introduction to Bioethics</td>
<td></td>
</tr>
<tr>
<td>or HSOC 1330</td>
<td>Bioethics</td>
<td></td>
</tr>
<tr>
<td>or HSOC 2457</td>
<td>History of Bioethics</td>
<td></td>
</tr>
<tr>
<td>or LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td></td>
</tr>
<tr>
<td>or LGST 2200</td>
<td>International Business Ethics</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>or NURS 3300</td>
<td>Theoretical Foundations of Health Care Ethics</td>
<td></td>
</tr>
<tr>
<td>or NURS 5250</td>
<td>Ethical Aspects of Health and Technology</td>
<td></td>
</tr>
<tr>
<td>or PHIL 4330</td>
<td>Metaethics</td>
<td></td>
</tr>
<tr>
<td>or PHIL 1342</td>
<td>Bioethics</td>
<td></td>
</tr>
</tbody>
</table>

Select 2 Social Science courses 2
Select 2 Humanities courses 2
Select 1 Social Science or Humanities course 1
Select 1 Social Science, Humanities or Technology in Business & Society course 2

Free Elective
Select 3 free elective courses 3

Total Course Units 37

1 Must include a Writing Seminar (a list of approved Writing Seminars can be found in the SEAS Undergraduate Handbook (https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/writing-courses/))

Concentrations

Students may select one of eight concentrations (http://www.be.seas.upenn.edu/current-students/undergraduates/concentrations.php):

- Biomedical Data Science and Computational Medicine
- Biomedical Devices
- Biomedical Imaging and Radiation Physics
- Cellular/Tissue Engineering and Biomaterials
- Multiscale Biomechanics
- Neuroengineering
- Systems and Synthetic Biology
- Therapeutics, Drug Delivery & Nanomedicine

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Biomedical Science, BAS

Interface the engineering sciences, biology, biomedical sciences, and medicine to advance human health and solve problems in medicine and the biological sciences. The Bachelor of Applied Science degree offers students breadth and flexibility and allows them to combine a technology-based degree with considerable course work in the liberal arts, communications, business or fine arts. It is designed primarily for students whose interests are not oriented toward a professional engineering career. It is a popular degree option for those preparing for careers in medicine, business, and law. Many students who are pursuing dual degree programs opt for this degree.

For more information: http://www.be.seas.upenn.edu/prospective-students/undergraduates/program-bse-bas.php
# Biomedical Science (ASBS) Major Requirements

37 course units are required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE 1000</td>
<td>Introduction to Bioengineering</td>
<td>0.5</td>
</tr>
<tr>
<td>ENGR 1050</td>
<td>Introduction to Scientific Computing</td>
<td>1</td>
</tr>
<tr>
<td>BE 2000</td>
<td>Introduction to Biomechanics</td>
<td>1</td>
</tr>
<tr>
<td>BE 2200</td>
<td>Biomaterials</td>
<td>1</td>
</tr>
<tr>
<td>BE 2700</td>
<td>Bioengineering Laboratory Principles</td>
<td>1</td>
</tr>
<tr>
<td>BE 3010</td>
<td>Bioengineering Signals and Systems</td>
<td>1</td>
</tr>
<tr>
<td>or BE 3060</td>
<td>Cellular Engineering</td>
<td></td>
</tr>
<tr>
<td>or BE 3500</td>
<td>Introduction to Biotransport Processes</td>
<td></td>
</tr>
<tr>
<td>BE 3090</td>
<td>Bioengineering Modeling, Analysis and Design Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>BE 4970</td>
<td>Senior Thesis in Biomedical Science</td>
<td>1</td>
</tr>
<tr>
<td>BE 4980</td>
<td>Senior Thesis in Biomedical Science</td>
<td>1</td>
</tr>
<tr>
<td>BE Elective (4000 or 5000 level)</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>BE Elective (4000 or 5000 level)</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Engineering Elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Engineering Elective</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

## Math and Natural Science

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>ENM 2400</td>
<td>Differential Equations and Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>ENM 3750</td>
<td>Biological Data Science I - Fundamentals of Biostatistics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0140</td>
<td>Principles of Physics I (without laboratory)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0141</td>
<td>Principles of Physics II (without laboratory)</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1011</td>
<td>Introduction to General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>General Chemistry Laboratory I</td>
<td>0.5</td>
</tr>
<tr>
<td>CHEM 1021</td>
<td>Introduction to General Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1102</td>
<td>General Chemistry Laboratory II</td>
<td>0.5</td>
</tr>
<tr>
<td>BIOL 1121</td>
<td>Introduction to Biology - The Molecular Biology of Life</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1124</td>
<td>Introductory Organismal Biology Lab</td>
<td>.5</td>
</tr>
<tr>
<td>BIOL 3310</td>
<td>Principles of Human Physiology</td>
<td>1</td>
</tr>
</tbody>
</table>

## Professional Electives

Select any Math, Science, Engineering, Business, or health-related course

## General Electives

1. Must include a Writing Seminar (a list of approved Writing Seminars can be found in the SEAS Undergraduate Handbook (https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/writing-courses/))

## Free Elective

Select 3 free electives

## Total Course Units

37

Concentrations

Students may select one of eight concentrations (http://www.be.seas.upenn.edu/current-students/undergraduates/concentrations.php):

- Biomedical Data Science and Computational Medicine
- Biomedical Devices
- Cellular/Tissue Engineering and Biomaterials
- Biomedical Imaging and Radiation Physics
- Systems and Synthetic Biology
- Neuroengineering
- Multiscale Biomechanics
- Therapeutics, Drug Delivery & Nanomedicine

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

## Chemical and Biomolecular Engineering, BSE

Chemical Engineers apply concepts from the physical sciences (chemistry and physics) and life sciences (biochemistry and microbiology) to the design and optimization of processes for the efficient production of products ranging from fuels and chemicals to pharmaceuticals to advanced materials. Penn’s chemical engineering department provides students with both a strong foundation in engineering fundamentals and exposure to modern chemical engineering technologies. The program’s versatility allows our students to excel in diverse careers in the chemical industries, research, medicine, law, government, and education.

For more information: https://www.seas.upenn.edu/prospective-students/undergrad/majors/chemical-and-bimolecular-engineering/
Chemical and Biomolecular Engineering (CBE) Major Requirements

37 course units are required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 1050</td>
<td>Introduction to Scientific Computing</td>
<td>1</td>
</tr>
<tr>
<td>CBE 1600</td>
<td>Introduction to Chemical Engineering</td>
<td>1</td>
</tr>
<tr>
<td>CBE 2300</td>
<td>Material and Energy Balances of Chemical Processes</td>
<td>1</td>
</tr>
<tr>
<td>CBE 2310</td>
<td>Thermodynamics of Fluids</td>
<td>1</td>
</tr>
<tr>
<td>CBE 3500</td>
<td>Fluid Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>CBE 3510</td>
<td>Heat and Mass Transport</td>
<td>1</td>
</tr>
<tr>
<td>CBE 3530</td>
<td>Molecular Thermodynamics and Chemical Kinetics</td>
<td>1</td>
</tr>
<tr>
<td>CBE 3600</td>
<td>Chemical Process Control</td>
<td>1</td>
</tr>
<tr>
<td>CBE 3710</td>
<td>Separation Processes</td>
<td>1</td>
</tr>
<tr>
<td>CBE 4000</td>
<td>Introduction to Product and Process Design</td>
<td>1</td>
</tr>
<tr>
<td>CBE 4100</td>
<td>Chemical Engineering Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CBE 4510</td>
<td>Chemical Reactor Design</td>
<td>1</td>
</tr>
<tr>
<td>CBE 4590</td>
<td>Product and Process Design Projects</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2410</td>
<td>Calculus, Part IV</td>
<td>1</td>
</tr>
<tr>
<td>or ENM 2510</td>
<td>Analytical Methods for Engineering</td>
<td></td>
</tr>
<tr>
<td>PHYS 0140</td>
<td>Principles of Physics I (without laboratory)</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 0150</td>
<td>Principles of Physics I: Mechanics and Wave Motion</td>
<td></td>
</tr>
<tr>
<td>or PHYS 0170</td>
<td>Honors Physics I: Mechanics and Wave Motion</td>
<td></td>
</tr>
<tr>
<td>or MEAM 1100</td>
<td>Introduction to Mechanics</td>
<td></td>
</tr>
<tr>
<td>PHYS 0141</td>
<td>Principles of Physics II (without laboratory)</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 0151</td>
<td>Principles of Physics II: Electromagnetism and Radiation</td>
<td></td>
</tr>
<tr>
<td>or PHYS 0171</td>
<td>Honors Physics II: Electromagnetism and Radiation</td>
<td></td>
</tr>
<tr>
<td>or ESE 1120</td>
<td>Engineering Electromagnetics</td>
<td></td>
</tr>
<tr>
<td>CHEM 1012</td>
<td>General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1101</td>
<td>General Chemistry Laboratory</td>
<td>0.5</td>
</tr>
<tr>
<td>CHEM 1022</td>
<td>General Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1102</td>
<td>General Chemistry Laboratory</td>
<td>0.5</td>
</tr>
<tr>
<td>CHEM 2210</td>
<td>Physical Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>or MSE 2210</td>
<td>Quantum Physics of Materials</td>
<td></td>
</tr>
<tr>
<td>CHEM 2410</td>
<td>Principles of Organic Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 2411</td>
<td>Principles of Organic Chemistry I with Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 2420</td>
<td>Principles of Organic Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 2421</td>
<td>Principles of Organic Chemistry II with Laboratory</td>
<td></td>
</tr>
<tr>
<td>or CHEM 2425</td>
<td>Organic Chemistry II: Principles of Organic Chemistry with applications in Chemical Biology</td>
<td></td>
</tr>
<tr>
<td>or CHEM 2510</td>
<td>Principles of Biological Chemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 2412</td>
<td>Principles of Organic Chemistry I with Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>&amp; CHEM 2422</td>
<td>Laboratory and Principles of Organic Chemistry II Laboratory</td>
<td></td>
</tr>
<tr>
<td>or CHEM 2230</td>
<td>Experimental Physical Chemistry I</td>
<td></td>
</tr>
<tr>
<td>or CBE 4800</td>
<td>Laboratory in Biotechnology and Biochemical Engineering</td>
<td></td>
</tr>
</tbody>
</table>

Select 2 Math, Natural Science or Engineering courses

General Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAS 2030</td>
<td>Engineering Ethics</td>
<td>1</td>
</tr>
<tr>
<td>Select 4 Social Science or Humanities courses</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Select 2 Social Science or Humanities or Technology in Business and Society courses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units: 37

2. CBE Majors taking the Organic Chemistry Lab sequence to satisfy the Lab Tech Elective requirement must take CHEM 2411, CHEM 2421 (Advanced Chemistry Elective) and CHEM 2412 and CHEM 2422, the two affiliated .5 CU lab sections.
3. Must include a Writing Seminar (a list of approved Writing Seminars can be found in the SEAS Undergraduate Handbook [https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/writing-courses/])

Concentrations

Students can select one of the following concentrations:

- Energy and the Environment
- Pharmaceutics and Biotechnology
- Polymers and Soft Matter Science and Engineering

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Computer Engineering, BSE

Computer Engineering is the discipline that designs and engineers computer systems from digital circuits, through compilers and runtime systems, to networking and world-wide distributed systems. As an engineering discipline, the computer engineer must appreciate the physical aspects of computations (energy, delay, area, reliability, costs) and be able to expertly navigate the multidimensional tradeoff space associated with implementing computations. Since today’s high performance programmable computing devices mean enormous computational tasks can be performed entirely in software, the computer engineer must manage computational capabilities and functionalities which migrate between hardware and software driven by advancing
technology and these engineering tradeoffs. Recent advances in manufacturing make it economical to construct systems containing billions of components and millions of lines of code, and these systems are increasingly invaluable in life-critical and real-time systems; computer engineering is the discipline that seeks to understand how to design and manage systems of this complexity while providing adequate guarantees of safety and trustworthiness for such systems.

For more information: https://www.seas.upenn.edu/prospective-students/undergrad/majors/computer-engineering/

Computer Engineering (CMPE) Major Requirements

37 course units are required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1200</td>
<td>Programming Languages and Techniques I</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1210</td>
<td>Programming Languages and Techniques II</td>
<td>1</td>
</tr>
<tr>
<td>ESE 1500</td>
<td>Digital Audio Basics</td>
<td>1</td>
</tr>
<tr>
<td>ESE 2150</td>
<td>Electrical Circuits and Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 2400</td>
<td>Introduction to Computer Systems</td>
<td>1</td>
</tr>
<tr>
<td>ESE 3500</td>
<td>Embedded Systems/Microcontroller</td>
<td>1.5</td>
</tr>
<tr>
<td>CIS 3500</td>
<td>Software Design/Engineering</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 4600</td>
<td>Interactive Computer Graphics</td>
<td></td>
</tr>
<tr>
<td>or CIS 5600</td>
<td>Interactive Computer Graphics</td>
<td></td>
</tr>
<tr>
<td>ESE 3700</td>
<td>Circuit-Level Modeling, Design, and Optimization for Digital Systems</td>
<td>1</td>
</tr>
<tr>
<td>CIS 3800</td>
<td>Computer Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>CIS 4410</td>
<td>Embedded Software for Life-Critical Applications</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 5410</td>
<td>Embedded Software for Life-Critical Applications</td>
<td></td>
</tr>
<tr>
<td>or CIS 5470</td>
<td>Software Analysis</td>
<td></td>
</tr>
<tr>
<td>CIS 4710</td>
<td>Computer Organization and Design</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 5710</td>
<td>Computer Organization and Design</td>
<td></td>
</tr>
<tr>
<td>Networking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESE 4070</td>
<td>Introduction to Networks and Protocols</td>
<td>1</td>
</tr>
<tr>
<td>or ESE 5070</td>
<td>Introduction to Networks and Protocols</td>
<td></td>
</tr>
<tr>
<td>or CIS 5530</td>
<td>Networked Systems</td>
<td></td>
</tr>
<tr>
<td>Concurrency Lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS 4550</td>
<td>Internet and Web Systems</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 5550</td>
<td>Internet and Web Systems</td>
<td></td>
</tr>
<tr>
<td>or CIS 5050</td>
<td>Software Systems</td>
<td></td>
</tr>
<tr>
<td>or ESE 5320</td>
<td>System-on-a-Chip Architecture</td>
<td></td>
</tr>
<tr>
<td>or CIS 5650</td>
<td>GPU Programming and Architecture</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS 4000</td>
<td>Senior Project</td>
<td>1</td>
</tr>
<tr>
<td>or ESE 4500</td>
<td>Senior Design Project I - EE and SSE</td>
<td></td>
</tr>
<tr>
<td>CIS 4010</td>
<td>Senior Project</td>
<td>1</td>
</tr>
<tr>
<td>or ESE 4510</td>
<td>Senior Design Project II - EE and SSE</td>
<td></td>
</tr>
<tr>
<td>Math and Natural Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>ESE 1120</td>
<td>Engineering Electromagnetics (students passing the ESE E&amp;M review module may substitute an ESE approved E&amp;M course)</td>
<td>1.5</td>
</tr>
<tr>
<td>CHEM 1012</td>
<td>General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>or EAS 0091</td>
<td>Chemistry Advanced Placement/International Baccalaureate Credit (Engineering Students Only)</td>
<td>1</td>
</tr>
<tr>
<td>or BIOL 1101</td>
<td>Introduction to Biology A</td>
<td>1</td>
</tr>
<tr>
<td>or BIOL 1121</td>
<td>Introduction to Biology - The Molecular Biology of Life</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 1240</td>
<td>Principles of Physics IV: Modern Physics (without laboratory)</td>
<td>1</td>
</tr>
<tr>
<td>Math or Natural Science Elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Natural Science Lab (if applicable)</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>Professional Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math, Natural Science, or Engineering Electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESE 4000</td>
<td>Engineering Economics</td>
<td>1</td>
</tr>
<tr>
<td>EAS 5450</td>
<td>Engineering Entrepreneurship I</td>
<td>1</td>
</tr>
<tr>
<td>EAS 5950</td>
<td>Foundations of Leadership</td>
<td>1</td>
</tr>
<tr>
<td>MGMT 2370</td>
<td>Management of Technology</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 2360</td>
<td>Scaling Operations in Technology Ventures: Linking Strategy and Execution</td>
<td>1</td>
</tr>
<tr>
<td>Math, Science, or Engineering Elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>General Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAS 2030</td>
<td>Engineering Ethics</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 4230</td>
<td>Ethical Algorithm Design</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 5230</td>
<td>Ethical Algorithm Design</td>
<td>1</td>
</tr>
<tr>
<td>or LAWM 5060</td>
<td>ML: Technology Law</td>
<td></td>
</tr>
<tr>
<td>Select 4 Social Science or Humanities courses</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Select 2 Social Science, Humanities, or Technology in Business &amp; Society courses</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

Total Course Units: 37

---

1. If not taken freshman year, must be replaced by another department approved engineering course.
2. If BIOL 1121, CHEM 1012, EAS 0091, MEAM 1100 or PHYS 0140 are taken, choose one natural science lab from the list: BIOL 1124, CHEM 1101, MEAM 1470, PHYS 0050 or another department approved Natural Science lab.
3. At most, two freshman-level Engineering courses may be used as a Professional Elective.
4. Must include a Writing Seminar (a list of approved Writing Seminars can be found in the SEAS Undergraduate Handbook (https://
Computer Science, BAS

Computer scientists and engineers have revolutionized society and created the computer and telecommunications industries that are so important to human life and the world's economy. As a result of this revolution, expertise in computer science is essential in many new areas, including computer and network service and consulting companies, financial institutions, health industries, natural science labs and medical research labs, and other contexts where intensive manipulation of information is important. As a result, opportunities for computer scientists and engineers have expanded greatly, both in specialized fields as well as in numerous dual-career opportunities in which computer expertise is combined with advanced degrees in business, communication, engineering, law, medicine, and science.

For more information: https://www.seas.upenn.edu/prospective-students/undergrad/majors/computer-science/

Computer Science (ASCS) Major Requirements

37 course units are required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1100</td>
<td>Introduction to Computer Programming</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1200</td>
<td>Programming Languages and Techniques I</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1210</td>
<td>Programming Languages and Techniques II</td>
<td>1</td>
</tr>
<tr>
<td>CIS 2400</td>
<td>Introduction to Computer Systems</td>
<td>1</td>
</tr>
<tr>
<td>CIS 2620</td>
<td>Automata, Computability, and Complexity</td>
<td>1</td>
</tr>
<tr>
<td>CIS 3200</td>
<td>Introduction to Algorithms</td>
<td>1</td>
</tr>
<tr>
<td>CIS Electives</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>CIS Project Electives</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Engineering Electives</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>CIS 4980</td>
<td>Senior Capstone Project</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410 or MATH 1610</td>
<td>Calculus, Part II or Honors Calculus</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1600</td>
<td>Mathematical Foundations of Computer Science</td>
<td>1</td>
</tr>
<tr>
<td>Select two of the following Natural Sciences:</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>PHYS 0140</td>
<td>Principles of Physics I (without laboratory)</td>
<td></td>
</tr>
<tr>
<td>PHYS 0141</td>
<td>Principles of Physics II (without laboratory)</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

1 A CIS Elective is a CIS or NETS engineering course numbered 1000 or above or ESE 3500 Embedded Systems/Microcontroller Laboratory. (Note that not all CIS/NETS courses are engineering courses, please see the SEAS Undergraduate Handbook (https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/engineering-courses/).) At most one CU of 1000-level courses may be used as a CIS Elective.
3 OPTION 1: Any approved minor, or sequence of approved courses. Remaining must be Math, Natural Science or Engineering. (MINORS ARE STRONGLY ENCOURAGED)
4 OPTION 2: Any 8 CU's from Math, Natural Science or Engineering
5 Must include a Writing Seminar (a list of approved Writing Seminars can be found in the SEAS Undergraduate Handbook (https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/writing-courses/))

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
# Computer Science, BSE

Computer scientists and engineers have revolutionized society and created the computer and telecommunications industries that are so important to human life and the world’s economy. As a result of this revolution, expertise in computer science is essential in many new areas, including computer and network service and consulting companies, financial institutions, health industries, natural science labs and medical research labs, and other contexts where intensive manipulation of information is important. As a result, opportunities for computer scientists and engineers have expanded greatly, both in specialized fields as well as in numerous dual-career opportunities in which computer expertise is combined with advanced degrees in business, communication, engineering, law, medicine, and science.

For more information: https://www.seas.upenn.edu/prospective-students/undergrad/majors/computer-science/

## Computer Science (CSCI) Major Requirements

37 course units are required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1100</td>
<td>Introduction to Computer Programming</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1200</td>
<td>Programming Languages and Techniques I</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1210</td>
<td>Programming Languages and Techniques II</td>
<td>1</td>
</tr>
<tr>
<td>CIS 2400</td>
<td>Introduction to Computer Systems</td>
<td>1</td>
</tr>
<tr>
<td>CIS 2620</td>
<td>Automata, Computability, and Complexity</td>
<td>1</td>
</tr>
<tr>
<td>CIS 3200</td>
<td>Introduction to Algorithms</td>
<td>1</td>
</tr>
<tr>
<td>CIS 3800</td>
<td>Computer Operating Systems</td>
<td>1</td>
</tr>
<tr>
<td>CIS 4710</td>
<td>Computer Organization and Design</td>
<td>1</td>
</tr>
<tr>
<td>CIS 5710</td>
<td>Computer Organization and Design</td>
<td></td>
</tr>
<tr>
<td>CIS Elective*</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>CIS 4000</td>
<td>Senior Project</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 4100</td>
<td>Senior Thesis</td>
<td></td>
</tr>
<tr>
<td>CIS 4010</td>
<td>Senior Project</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 4110</td>
<td>Senior Thesis</td>
<td></td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1610</td>
<td>Honors Calculus</td>
<td></td>
</tr>
<tr>
<td>CIS 1600</td>
<td>Mathematical Foundations of Computer Science</td>
<td>1</td>
</tr>
<tr>
<td>CIS 2610</td>
<td>Discrete Probability, Stochastic Processes, and Statistical Inference</td>
<td>1</td>
</tr>
<tr>
<td>or ESE 3010</td>
<td>Engineering Probability</td>
<td></td>
</tr>
<tr>
<td>or STAT 4300</td>
<td>Probability</td>
<td></td>
</tr>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 2600</td>
<td>Honors Calculus, Part II</td>
<td></td>
</tr>
<tr>
<td>or MATH 3120</td>
<td>Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>or MATH 3130</td>
<td>Computational Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>or MATH 3140</td>
<td>Advanced Linear Algebra</td>
<td></td>
</tr>
<tr>
<td>MEAM 1100</td>
<td>Introduction to Mechanics</td>
<td>1.5</td>
</tr>
<tr>
<td>&amp; MEAM 1470</td>
<td>and Introduction to Mechanics Lab</td>
<td></td>
</tr>
<tr>
<td>PHYS 0151</td>
<td>Principles of Physics II: Electromagnetism and Radiation</td>
<td>1.5</td>
</tr>
<tr>
<td>or PHYS 0171</td>
<td>Honors Physics II: Electromagnetism and Radiation</td>
<td></td>
</tr>
<tr>
<td>or ESE 1120</td>
<td>Engineering Electromagnetics</td>
<td></td>
</tr>
<tr>
<td>Math/Natural Science Elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Technical Electives*</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Department Approval Required 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Electives 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EAS 2030</td>
<td>Engineering Ethics</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 4230</td>
<td>Ethical Algorithm Design</td>
<td></td>
</tr>
<tr>
<td>or CIS 5230</td>
<td>Ethical Algorithm Design</td>
<td></td>
</tr>
<tr>
<td>or LAWM 5060</td>
<td>ML: Technology Law</td>
<td></td>
</tr>
<tr>
<td>Select 4 Social Science or Humanities courses</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Select 2 Social Science, Humanities or Technology in Business &amp; Society courses</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Free Elective</td>
<td>Select 1 course unit of free electives</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>37</td>
</tr>
</tbody>
</table>

* CIS and Technical Electives must include a course from each of the following lists:
  - Networking: NETS 1500, NETS 2120, CIS 3310, CIS 4550, CIS 5550, CIS 5505, CIS 5530
  - Databases: CIS 4500, CIS 4550, CIS 4555, CIS 5550, CIS 5450
  - Distributed Systems: NETS 2120, CIS 4410, CIS 5410, CIS 4500, CIS 5500, CIS 5505, CIS 5450
  - Machine Learning/Al: CIS 4190, CIS 5190, CIS 4210, CIS 5210, CIS 5200, CIS 5450, CIS 6200
  - Project: NETS 2120, CIS 3410, CIS 3500, CIS 4410, CIS 5410, CIS 4500, CIS 5500, CIS 5450, CIS 5505, CIS 4600, CIS 5600, CIS 5050, CIS 5530, ESE 3500

The same course can count towards multiple lists, e.g., NETS 2120 and CIS 5450 together satisfy all five lists.

A CIS Elective is a CIS or NETS engineering course at the 1000 level or above, or ESE 3500 Embedded Systems/Microcontroller Laboratory (NOTE: not all CIS/NETS courses are engineering courses; please see the SEAS Undergraduate Handbook (https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/engineering-courses/)). At most, one CU of 1000-level coursework may be used as a CIS Elective.

May contain at most one CU of 1000-level courses. You may use:
  1. courses from a declared concentration (https://www.cis.upenn.edu/undergraduate/program-options/ concentrations/) and/or
  2. courses approved by the department, see the list of approved courses (https://advising.cis.upenn.edu/tech-electives/).

3. Must include a Writing Seminar (a list of approved Writing Seminars can be found in the SEAS Undergraduate Handbook (https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/ writing-courses/))
Concentrations

Students may select one of seven concentrations:

- Artificial Intelligence (4 CU)
- Cognitive Science (5 CU)
- Computational Biology (6 CU)
- Computer Vision (4 CU)
- Data Science (4 CU)
- Software Foundations (4 CU)
- Systems (5 CU)

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Digital Media Design, BSE

The Digital Media Design (DMD) program is an interdisciplinary major in the School of Engineering and Applied Science at Penn. As a full-fledged Bachelor of Science in Engineering (BSE) degree, it combines major coursework in computer graphics within the Computer & Information Science Department, communication theory courses from the Annenberg School and Fine Arts courses from Penn's School of Design. The program was designed for students who have an interest in computer graphics, animation, games, and the design of virtual reality environments and interactive technologies.

For more information: [https://www.seas.upenn.edu/prospective-students/undergrad/majors/digital-media-design/](https://www.seas.upenn.edu/prospective-students/undergrad/majors/digital-media-design/)

Digital Media Design (DMD) Major Requirements

37 course units are required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1100</td>
<td>Introduction to Computer Programming</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1200</td>
<td>Programming Languages and Techniques I</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1210</td>
<td>Programming Languages and Techniques II</td>
<td>1</td>
</tr>
<tr>
<td>CIS 2400</td>
<td>Introduction to Computer Systems</td>
<td>1</td>
</tr>
<tr>
<td>CIS 2620</td>
<td>Automata, Computability, and Complexity</td>
<td>1</td>
</tr>
<tr>
<td>CIS 3200</td>
<td>Introduction to Algorithms</td>
<td>1</td>
</tr>
<tr>
<td>CIS 4600</td>
<td>Interactive Computer Graphics</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 5600</td>
<td>Interactive Computer Graphics</td>
<td>1</td>
</tr>
<tr>
<td>CIS 4610</td>
<td>Advanced Rendering</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 5610</td>
<td>Advanced Computer Graphics</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 4620</td>
<td>Computer Animation</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 5620</td>
<td>Computer Animation</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 4550</td>
<td>Internet and Web Systems</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 5550</td>
<td>Internet and Web Systems</td>
<td>1</td>
</tr>
<tr>
<td>CIS 4670</td>
<td>Scientific Computing</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 5670</td>
<td>Scientific Computing</td>
<td>1</td>
</tr>
<tr>
<td>CIS 4970</td>
<td>DMD Senior Project</td>
<td>1</td>
</tr>
<tr>
<td>CIS Electives</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Math &amp; Natural Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1610</td>
<td>Honors Calculus</td>
<td>1</td>
</tr>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 2600</td>
<td>Honors Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 3120</td>
<td>Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 3130</td>
<td>Computational Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 3140</td>
<td>Advanced Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>MEAM 1100</td>
<td>Introduction to Mechanics</td>
<td>1.5</td>
</tr>
<tr>
<td>or MEAM 1470</td>
<td>Introduction to Mechanics Lab</td>
<td>1.5</td>
</tr>
<tr>
<td>or PHYS 0150</td>
<td>Principles of Physics I: Mechanics and Wave Motion</td>
<td>1.5</td>
</tr>
<tr>
<td>or PHYS 0170</td>
<td>Honors Physics I: Mechanics and Wave Motion</td>
<td>1.5</td>
</tr>
<tr>
<td>Select from the following list:</td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td>BIOL 1101</td>
<td>Introduction to Biology A</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1121</td>
<td>Introduction to Biology - The Molecular</td>
<td>1</td>
</tr>
<tr>
<td>&amp; BIOL 1124</td>
<td>Biology of Life</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 1101</td>
<td>Introduction to General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>&amp; CHEM 1102</td>
<td>and General Chemistry Laboratory I</td>
<td>1</td>
</tr>
<tr>
<td>or ESE 1120</td>
<td>Engineering Electromagnetics</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 0151</td>
<td>Principles of Physics II: Electromagnetism</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 0171</td>
<td>and Radiation</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 0171</td>
<td>Honors Physics II: Electromagnetism and Radiation</td>
<td>1</td>
</tr>
<tr>
<td>Math or Natural Science Elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>DMD Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advisor Approval Required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNAR 0010</td>
<td>Drawing I</td>
<td>1</td>
</tr>
<tr>
<td>or FNAR 2200</td>
<td>Drawing Investigations</td>
<td>1</td>
</tr>
<tr>
<td>or FNAR 1080</td>
<td>Figure Drawing I</td>
<td>1</td>
</tr>
<tr>
<td>DSGN 1030</td>
<td>3-D Computer Modeling</td>
<td>1</td>
</tr>
<tr>
<td>or DSGN 2010</td>
<td>Digital Figure Modeling</td>
<td>1</td>
</tr>
<tr>
<td>Select 4 DMD Electives</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>General Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 5 Social Science or Humanities courses</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Select 2 Social Science or Humanities or Technology in Business &amp; Society courses</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Free Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select 1 free elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>37</td>
</tr>
</tbody>
</table>

1 A CIS Elective is a CIS or NETS engineering course at the 1000 level or above, or ESE 3500 Embedded Systems/Microcontroller
37 course units are required.

Electrical Engineering (EE) Major

37 course units are required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1100</td>
<td>Introduction to Computer Programming</td>
<td>1</td>
</tr>
<tr>
<td>ESE 1110</td>
<td>Atoms, Bits, Circuits and Systems</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1200 or ESE 2400</td>
<td>Programming Languages and Techniques I or Introduction to Computer Systems</td>
<td>1 or 1.5</td>
</tr>
<tr>
<td>ESE 2150</td>
<td>Electrical Circuits and Systems</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Electrical Circuits and Systems:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESE 2180</td>
<td>Electronic, Photon, and Electromechanical Devices</td>
<td>1.5</td>
</tr>
<tr>
<td>ESE 2240</td>
<td>Signal and Information Processing</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Intermediate or Advanced ESE Elective

Intermediate ESE courses are considered 2000 level and above

Advanced ESE courses

Choose four advanced electives from the following lists: 

Circuits and Computer Engineering:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESE 3190</td>
<td>Fundamentals of Solid-State Circuits</td>
<td>1</td>
</tr>
<tr>
<td>ESE 3400</td>
<td>Medical Devices Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ESE 3500</td>
<td>Embedded Systems/Microcontroller Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ESE 3600</td>
<td>TinyML: Tiny Machine Learning for Embedded Systems</td>
<td>1</td>
</tr>
<tr>
<td>ESE 3700</td>
<td>Circuit-Level Modeling, Design, and Optimization for Digital Systems</td>
<td>1</td>
</tr>
<tr>
<td>ESE 4190</td>
<td>Analog Integrated Circuits</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5150</td>
<td>Internet of Things Sensors and Systems</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5160</td>
<td>IoT Edge Computing</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5190</td>
<td>Smart Devices</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5320</td>
<td>System-on-a-Chip Architecture</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5390</td>
<td>Hardware/Software Co-Design for Machine Learning</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5780</td>
<td>RFIC (Radio Frequency Integrated Circuit) Design</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5800</td>
<td>Power Electronics</td>
<td>1</td>
</tr>
<tr>
<td>ESE 6650</td>
<td>Datacenter Architecture</td>
<td>1</td>
</tr>
<tr>
<td>ESE 6720</td>
<td>Integrated Communication Systems</td>
<td>1</td>
</tr>
</tbody>
</table>

Nanodevices and Nanosystems:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESE 3300</td>
<td>Principles of Optics and Photonics</td>
<td>1</td>
</tr>
<tr>
<td>ESE 3360</td>
<td>Nanofabrication of Electrical Devices</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5090</td>
<td>Quantum Circuits and Systems</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5100</td>
<td>Electromagnetic and Optics</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5210</td>
<td>The Physics of Solid State Energy Devices</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5230</td>
<td>Quantum Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ESE 6110</td>
<td>Nanophotonics: Light at the Nanoscale</td>
<td>1</td>
</tr>
<tr>
<td>ESE 6210</td>
<td>Nanoelectronics</td>
<td>1</td>
</tr>
<tr>
<td>ESE 6250</td>
<td>Nanorobotics</td>
<td>1</td>
</tr>
<tr>
<td>ESE 6730</td>
<td>Integrated Photonic Systems</td>
<td>1</td>
</tr>
</tbody>
</table>

Information and Decision Systems:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESE 3030</td>
<td>Stochastic Systems Analysis and Simulation</td>
<td>1</td>
</tr>
<tr>
<td>ESE 3050</td>
<td>Foundations of Data Science</td>
<td>1</td>
</tr>
<tr>
<td>ESE 3250</td>
<td>Fourier Analysis and Applications in Engineering, Mathematics, and the Sciences</td>
<td>1</td>
</tr>
<tr>
<td>ESE 4070</td>
<td>Introduction to Networks and Protocols</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5000</td>
<td>Linear Systems Theory</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5010</td>
<td>Networking - Theory and Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5050</td>
<td>Feedback Control Design and Analysis</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5060</td>
<td>Introduction to Optimization Theory</td>
<td>1</td>
</tr>
<tr>
<td>ESE 5120</td>
<td>Dynamical Systems for Engineering and Biological Applications</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

For more information: https://www.seas.upenn.edu/prospective-students/undergrad/majors/electrical-engineering/

Electrical Engineering, BSE

Electrical engineering connects the physical world with the information world. Electrical engineers apply physics and chemistry in modern nanotechnology devices, encode and manipulate information in circuits and networks, and mathematically understand and reason with large amounts of data in real time. This makes electrical engineering one of the broadest forms of engineering, resulting in a multitude of possible careers. The societal impact of electrical engineering can be found in numerous domains, from smartphones, 5G wireless, and medical imaging to electric/driverless cars and the Internet of Things. Electrical engineering includes the engineering of electrons, magnets, photons, electro-magnetic waves, quantum states, and electro-mechanical structures. Electrically engineering systems provide communication, sensing, actuation, display, storage, conversion, control, and computation. The electrical engineering discipline includes both the design and implementation of physical realizations (devices, circuits, antennas) and the mathematical tools for optimizing the exploitation of these systems (control theory, information theory, digital logic, signal processing).

For more information: https://www.seas.upenn.edu/prospective-students/undergrad/majors/electrical-engineering/
ESE 5140 Graph Neural Networks
ESE 5280 Estimation and Detection Theory
ESE 5310 Digital Signal Processing
ESE 5450 Data Mining: Learning from Massive Datasets
ESE 5460 Principles of Deep Learning
ESE 5480 Transportation Planning Methods
ESE 5500 Advanced Transportation Seminar
ESE 5670 Risk Analysis and Environmental Management
ESE 6050 Modern Convex Optimization
ESE 6060 Combinatorial Optimization
ESE 6150 F1/10 Autonomous Racing Cars
ESE 6180 Learning for Dynamics and Control
ESE 6190 Model Predictive Control
ESE 6500 Learning in Robotics
ESE 6740 Information Theory

One of the Advanced Electives may be an Advanced ESE elective, BE 5210 or CIS 4710 or CIS 5200

Design and Project Courses

ESE 2900 Introduction to Electrical and Systems Engineering Research Methodology and Introduction to Electrical and Systems Engineering Research and Design
& ESE 2910 Fundamentals of Solid-State Circuits
or ESE 3190 Nanofabrication of Electrical Devices
or ESE 3360 Embedded Systems/Microcontroller Laboratory
or ESE 4210 Control For Autonomous Robots
or BE 4700 Medical Devices

ESE 4500 Senior Design Project I - EE and SSE
ESE 4510 Senior Design Project II - EE and SSE

Math and Natural Science

MATH 1400 Calculus, Part I
MATH 1410 Calculus, Part II
MATH 2400 Calculus, Part III
ESE 3010 Engineering Probability
MEAM 1100 Introduction to Mechanics
or PHYS 0140 Principles of Physics I (without laboratory)
or PHYS 0150 Principles of Physics I: Mechanics and Wave Motion
or PHYS 0170 Honors Physics I: Mechanics and Wave Motion
ESE 1120 Engineering Electromagnetics (students passing the ESE E&M review module may substitute an ESE approved E&M course)

CHEM 1012 General Chemistry I
or EAS 0091 Chemistry Advanced Placement/International Baccalaureate Credit (Engineering Students Only)
or BIOL 1101 Introduction to Biology A
or BIOL 1121 Introduction to Biology - The Molecular Biology of Life

Math Elective
Math or Natural Science Elective
Natural Science Lab (if applicable)

Professional Electives
Math, Science, or Engineering Electives
Professional Elective - Select from the following:

Math, Science, or Engineering Elective
ESE 4000 Engineering Economics
EAS 5450 Engineering Entrepreneurship I
EAS 5950 Foundations of Leadership
MGMT 2370 Management of Technology
OIDD 2360 Scaling Operations in Technology Ventures: Linking Strategy and Execution

General Electives

EAS 2030 Engineering Ethics (or equivalent)
or LAW 5060 ML: Technology Law
Select 4 Social Science or Humanities courses
Select 2 Social Science or Humanities or Technology in Business & Society courses

Total Course Units 37

1 If not taken freshman year, must be replaced by another department approved engineering course.
2 If BE 4700 is taken, an additional .5 CU engineering credit is required
3 If BIOL 1121, CHEM 1012, EAS 0091, MEAM 1100 or PHYS 0140 are taken, choose one natural science lab from the list: BIOL 1124 Introductory Organismal Biology Lab, PHYS 0050 Physics Laboratory I, MEAM 1470 Introduction to Mechanics Lab, CHEM 1101 General Chemistry Laboratory I or another department approved Natural Science lab.
4 At most, two freshman-level engineering courses may be used as a Professional Elective
5 Must include a Writing Seminar (a list of approved Writing Seminars can be found in the SEAS Undergraduate Handbook (https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/writing-courses/))

Concentrations

Students may select one of six concentrations:

- Data Science
- Microsystems and Nanotechnology
- Mixed-Signal and RF Integrated Circuits
- Photonics and Quantum
- Robotics
- System-on-A-Chip Design

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Individualized Program, BAS

The individualized major offers an opportunity for exceptional, creative, self-motivated students to explore innovative and multi-disciplinary fields of knowledge. The individualized major is intended to foster a closer relationship between the student and the faculty advisors.
For more information: https://www.seas.upenn.edu/prospective-students/undergrad/majors/individualized/

**Individualized Program Major Requirements**

40 course units are required. Read more about the Undergraduate Student Handbook (http://www.seas.upenn.edu/undergraduate/handbook/).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engineering</strong></td>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CIS 1100 Introduction to Computer Programming</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CIS 1200 Programming Languages and Techniques I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Engineering courses</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>EAS 4990 Senior Capstone Project</td>
<td>1</td>
</tr>
<tr>
<td><strong>Math</strong></td>
<td>MATH 1400 Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MATH 1410 Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Mathematics courses</td>
<td>2</td>
</tr>
<tr>
<td><strong>Natural Science</strong></td>
<td>Select 2 of the following:</td>
<td>2.5-3</td>
</tr>
<tr>
<td></td>
<td>PHYS 0150 Principles of Physics I: Mechanics and Wave Motion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 1011/1101 Introduction to General Chemistry I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 1101 Introduction to Biology A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or BIOL 1121 Introduction to Biology - The Molecular Biology of Life</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Natural Science Electives</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>CHEM 1101 General Chemistry Laboratory I (if applicable)</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Concentration</strong></td>
<td>Select 9 course units</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Social Sciences and Humanities</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 2 Social Science courses</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Select 2 Humanities courses</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Select 1 Social Science or Humanities course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select 2 Social Science or Humanities or Technology in Business &amp; Society courses</td>
<td></td>
</tr>
<tr>
<td><strong>Free Elective</strong></td>
<td>Select 3 course units of free electives</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Course Units</strong></td>
<td></td>
<td>40</td>
</tr>
</tbody>
</table>

1 The Social Science & Humanities Depth, Writing & Ethics Requirement can be satisfied with the 7 total course units.

Materials Science and Engineering (MSE) Major Requirements

37 course units are required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engineering</strong></td>
<td>Engineering Elective (ENGR 1010 recommended)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MSE 2010 Materials Lab I</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>MSE 2020 Materials Lab II</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>MSE 2150 Introduction to Functional Materials: From Macro to Nanoscale</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MSE 2200 Introduction to Materials Science and Engineering</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MSE 2600 Energetics of Macro and Nano-scale Materials</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MSE 3010 Materials Lab III</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>MSE 3300 Self-Assembly of Soft Materials</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MSE 3600 Structure at the Nanoscale</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MSE 3930 Materials Selection</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MSE 4050 Mechanical Properties of Macro/Nanoscale Materials</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MSE 4400 Phase Transformations</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MSE 4600 Computational Materials Science</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MSE 4950 Senior Design</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MSE 4960 Senior Design</td>
<td>1</td>
</tr>
<tr>
<td><strong>Math and Natural Science</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MATH 1400 Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MATH 1410 Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MATH 2400 Calculus, Part III</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MATH 2410 Calculus, Part IV</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or ENM 2510 Analytical Methods for Engineering</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematics Elective</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PHYS 0140 Principles of Physics I (without laboratory)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or MEAM 1100 Introduction to Mechanics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PHYS 0141 Principles of Physics II (without laboratory)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CHEM 1012 General Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>CHEM 1101 General Chemistry Laboratory I</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>CHEM 1022 General Chemistry II</td>
<td>1</td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
MSE 2210  Quantum Physics of Materials  1

Technical Electives
ENGR 1050  Introduction to Scientific Computing  1
MSE Elective  2
Tech Elective  1

General Electives  2
EAS 2030  Engineering Ethics  1
Select 4 Social Science or Humanities courses  4
Select 2 Social Science or Humanities or Technology in Business & Society courses  2
Free Elective
Select 1 course unit of free electives  1

Total Course Units  37

1  Includes any Engineering, Math or Natural Science
2  Must include a Writing Seminar (a list of approved Writing Seminars can be found in the SEAS Undergraduate Handbook (https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/writing-courses/))

Concentrations
Students may select one of four concentrations:
• Biomaterials and Biomimetics
• Electronic & Optical Devices and Sensors
• Energy and Sustainability
• Nanotechnology

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Mechanical Engineering and Applied Mechanics, BSE
Mechanical Engineering & Applied Mechanics is the study of forces, deformation, and motions of solid bodies and fluids (liquids and air), heat & energy generation and transport. Mechanical engineers are equipped with knowledge to design and develop everything you think of as a device, mechanism, or machine, including wind turbines, rocket engines, robots, 3D printers, micro-engines, nanomotors, and more. We assure safety in systems people use day to day, from transportation to appliances to medical devices.

For more information: https://www.seas.upenn.edu/prospective-students/undergrad/majors/mechanical-engineering-and-applied-mechanics/

Mechanical Engineering and Applied Mechanics (MEAM) Major Requirements
37 course units are required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAM Core</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM 2020  Introduction to Thermal-Fluids Engineering  1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM 2030  Thermodynamics I  1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM 2100  Statics and Strength of Materials  1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM 2110  Engineering Mechanics: Dynamics  1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM 2470  Mechanical Engineering Laboratory I  0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM 2480  Mechanical Engineering Lab I  0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM 3470  Mechanical Engineering Design Laboratory  1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM 3480  Mechanical Engineering Design Laboratory  1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM 4450  Mechanical Engineering Design Projects  1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM 4460  Mechanical Engineering Design Projects  1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Concentration
Select only one track from the options below in the Concentration area. You must formally declare a concentration by submitting the MEAM Concentration form. Students who do not declare a concentration will default into the General Concentration.

Math and Natural Science
| MATH 1400  Calculus, Part I  1 |
| MATH 1410  Calculus, Part II  1 |
| MATH 2400  Calculus, Part III  1 |
| ENM 2510  Analytical Methods for Engineering  1 |
| or MATH 2410  Calculus, Part IV  1 |
| MEAM 1100  Introduction to Mechanics & MEAM 1470  and Introduction to Mechanics Lab  1.5 |
| or PHYS 0150  Principles of Physics I: Mechanics and Wave Motion  1.5 |
| PHYS 0151  Principles of Physics II: Electromagnetism and Radiation  1.5 |
| or ESE 1120  Engineering Electromagnetics  1 |
| CHEM 1011  Introduction to General Chemistry I  1 |
| or BIOL 1121  Introduction to Biology - The Molecular Biology of Life  1 |

Math Elective  1
Math or Natural Science Elective  1

Professional Electives  1
ENGR 1050  Introduction to Scientific Computing  1
or CIS 1100  Introduction to Computer Programming  1
or CIS 1200  Programming Languages and Techniques I  1

MEAM Upper Level  2
MEAM 2020  Introduction to Thermal-Fluids Engineering  1
MEAM 2030  Thermodynamics I  1
MEAM 2100  Statics and Strength of Materials  1
MEAM 2110  Engineering Mechanics: Dynamics  1
MEAM 2470  Mechanical Engineering Laboratory I  0.5
MEAM 2480  Mechanical Engineering Lab I  0.5
MEAM 3470  Mechanical Engineering Design Laboratory  1
MEAM 3480  Mechanical Engineering Design Laboratory  1
MEAM 4450  Mechanical Engineering Design Projects  1
MEAM 4460  Mechanical Engineering Design Projects  1

Total Course Units  37

1  Maximum of three 1000-level courses permitted.
2  MEAM Upper Level courses include all MEAM 5000-level courses except MEAM 5990
Technical Electives include courses from the Math, Science and Engineering categories. One Technical Elective may be satisfied with advanced dual degree requirements (with approval). If following the General Concentration, one of these Technical Electives should be at the 5000-level, resulting in a total of three MEAM Upper Level courses and three Technical Electives.

Must include a Writing Seminar (a list of approved Writing Seminars can be found in the SEAS Undergraduate Handbook (https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/writing-courses/)).

Concentrations

An approved list of MEAM Upper Level courses for each concentration can be found in the MEAM Undergraduate Handbook.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamics, Controls, and Robotics Concentration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM 3200</td>
<td>Intro to Mechanical and Mechatronic Systems</td>
<td></td>
</tr>
<tr>
<td>MEAM 3210</td>
<td>Dynamic Systems and Control</td>
<td></td>
</tr>
<tr>
<td>MEAM 3000-level breadth elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM Upper Level</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Energy, Fluids and Thermal Systems Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAM 3020</td>
<td>Fluid Mechanics</td>
<td></td>
</tr>
<tr>
<td>MEAM 3330</td>
<td>Heat and Mass Transfer</td>
<td></td>
</tr>
<tr>
<td>MEAM 3000-level breadth elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM Upper Level</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

General Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAM 3020</td>
<td>Fluid Mechanics</td>
<td></td>
</tr>
<tr>
<td>MEAM 3210</td>
<td>Dynamic Systems and Control</td>
<td></td>
</tr>
<tr>
<td>MEAM 3330</td>
<td>Heat and Mass Transfer</td>
<td></td>
</tr>
<tr>
<td>MEAM 3540</td>
<td>Mechanics of Solids</td>
<td></td>
</tr>
</tbody>
</table>

Mechanics of Materials, Structures and Design Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAM 3210</td>
<td>Dynamic Systems and Control</td>
<td></td>
</tr>
<tr>
<td>MEAM 3540</td>
<td>Mechanics of Solids</td>
<td></td>
</tr>
<tr>
<td>MEAM 3000-level breadth elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAM Upper Level</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Networked and Social Systems Engineering, BSE

The Rajendra and Neera Singh Program in Networked and Social Systems Engineering (NETS), is the world’s first course of study to fully integrate the disciplines needed to design and analyze the complex networks that are reshaping our society. This program prepares students to shape the technologies that underpin Internet-based search and electronic commerce, financial networks, social networks, and even such exchanges as the power grid. Graduates of this program will be prepared to engineer networks that work for both end-users and investors. Other graduates may become the policy makers who are urgently needed to regulate these networks for the protection of commercial property and societal good.

For more information: https://www.seas.upenn.edu/prospective-students/undergrad/majors/networked-social-systems-engineering/

Networked and Social Systems Engineering (NETS) Major Requirements

37 course units are required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIS 1100</td>
<td>Introduction to Computer Programming</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1200</td>
<td>Programming Languages and Techniques I</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1210</td>
<td>Programming Languages and Techniques II</td>
<td>1</td>
</tr>
<tr>
<td>CIS 3200</td>
<td>Introduction to Algorithms</td>
<td>1</td>
</tr>
<tr>
<td>ESE 2040</td>
<td>Decision Models</td>
<td>1</td>
</tr>
<tr>
<td>or ESE 6050</td>
<td>Modern Convex Optimization</td>
<td></td>
</tr>
<tr>
<td>ESE 3030</td>
<td>Stochastic Systems Analysis and Simulation</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 4190</td>
<td>Applied Machine Learning</td>
<td></td>
</tr>
<tr>
<td>or CIS 5190</td>
<td>Applied Machine Learning</td>
<td></td>
</tr>
<tr>
<td>or ESE 5450</td>
<td>Data Mining: Learning from Massive Datasets</td>
<td></td>
</tr>
<tr>
<td>or CIS 5200</td>
<td>Machine Learning</td>
<td></td>
</tr>
<tr>
<td>or CIS 5450</td>
<td>Big Data Analytics</td>
<td></td>
</tr>
<tr>
<td>ESE 3050</td>
<td>Foundations of Data Science</td>
<td>1</td>
</tr>
<tr>
<td>NETS 1120</td>
<td>Networked Life</td>
<td>1</td>
</tr>
<tr>
<td>NETS 1500</td>
<td>Market and Social Systems on the Internet</td>
<td>1</td>
</tr>
<tr>
<td>NETS 2120</td>
<td>Scalable and Cloud Computing</td>
<td>1</td>
</tr>
<tr>
<td>NETS 3120</td>
<td>Theory of Networks</td>
<td>1</td>
</tr>
<tr>
<td>NETS 4120</td>
<td>Algorithmic Game Theory</td>
<td>1</td>
</tr>
<tr>
<td>CIS 4000</td>
<td>Senior Project</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 4100</td>
<td>CIS Senior Thesis</td>
<td></td>
</tr>
<tr>
<td>or ESE 4500</td>
<td>Senior Design Project I - EE and SSE</td>
<td></td>
</tr>
<tr>
<td>CIS 4010</td>
<td>Senior Project</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 4110</td>
<td>CIS Senior Thesis</td>
<td></td>
</tr>
<tr>
<td>or ESE 4510</td>
<td>Senior Design Project II - EE and SSE</td>
<td></td>
</tr>
</tbody>
</table>

Math and Natural Science

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1610</td>
<td>Honors Calculus</td>
<td></td>
</tr>
<tr>
<td>MATH 2400</td>
<td>Calculus, Part III</td>
<td>1</td>
</tr>
</tbody>
</table>
or MATH 2600 Honors Calculus, Part II

CIS 1600 Mathematical Foundations of Computer Science 1

MATH 3120 Linear Algebra 1

or MATH 3130 Computational Linear Algebra
or MATH 3140 Advanced Linear Algebra

CIS 2610 Discrete Probability, Stochastic Processes, and Statistical Inference 1

or ESE 3010 Engineering Probability
or STAT 4300 Probability

MEAM 1100 Introduction to Mechanics and Introduction to Mechanics Lab 1.5

& MEAM 1470
or PHYS 0150 Principles of Physics I: Mechanics and Wave Motion
or PHYS 0170 Honors Physics I: Mechanics and Wave Motion

PHYS 0151 Principles of Physics II: Electromagnetism and Radiation 1.5

or PHYS 0171 Honors Physics II: Electromagnetism and Radiation
or ESE 1120 Engineering Electromagnetics

Technical Electives
Department Approval Required 1 6

General Electives 2

ECON 2100 Intermediate Microeconomics 1

ECON 4100 Game Theory 1

or ECON 4101 Game Theory Honors
or ECON 6110 Game Theory and Applications

EAS 2030 Engineering Ethics 1

or CIS 4230 Ethical Algorithm Design
or CIS 5230 Ethical Algorithm Design
or LAWM 5060 ML: Technology Law

Select 2 Social Science or Humanities courses 2

Select 2 Social Science or Humanities or Technology in Business & Society courses 2

Free Elective
Select 1 course unit of free electives 1

Total Course Units 37

1 At least four courses from an approved depth area required. For the remaining courses you may use (1) courses from any approved depth area, and/or (2) courses approved by the department. In general, approved courses must be advanced courses that are rigorous/quantitative and have at least one nontrivial prerequisite. See the list of depth areas and approved courses (https://www.nets.upenn.edu/long-nets-curriculum/).

2 Must include a Writing Seminar (a list of approved Writing Seminars can be found in the SEAS Undergraduate Handbook (https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/writing-courses/)).

Concentrations

Students may select one of five concentrations:

• Data Science
• Economics and Networked Markets
• Networked and Cloud Services
• Technology and Society
• Theory of Networks and Dynamics

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Systems Science and Engineering, BSE

Systems Engineers provide technical management for societalscale problems that often encompass the connections between the physical and the information world. Examples of the many cutting-edge applications include autonomous robotics, smart buildings, national power grid management, global networks, service optimization, and biological systems. Systems engineering is the set of reusable mathematics, intellectual tools, and methodologies for attacking largescale engineering problems. These common tools are adaptable for problems in different engineering domains (e.g., electrical, mechanical, biological, chemical, and computing) and help us understand, design, and manage systems that contain elements from multiple domains. Systems engineering deals with how we extract useful, abstract models from lower level systems, use these models to analyze and predict behavior, and use the analysis to control behavior and optimize/synthesize solutions. System engineering helps us understand what happens when we compose many elements, each with their own behavior, and how to design and constrain the individual elements to engineer desired behavior for the composed system.

For more information: https://www.seas.upenn.edu/prospective-students/undergrad/majors/systems-science-and-engineering/

Systems Science and Engineering (SSE) Major Requirements

37 course units are required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1100</td>
<td>Introduction to Computer Programming (or equivalent)</td>
<td>1</td>
</tr>
<tr>
<td>or ENGR 1050</td>
<td>Introduction to Scientific Computing</td>
<td>1</td>
</tr>
<tr>
<td>ESE 1110</td>
<td>Atoms, Bits, Circuits and Systems 1</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1200</td>
<td>Programming Languages and Techniques I</td>
<td>1</td>
</tr>
<tr>
<td>ESE 2040</td>
<td>Decision Models</td>
<td>1</td>
</tr>
<tr>
<td>ESE 2100</td>
<td>Introduction to Dynamic Systems</td>
<td>1</td>
</tr>
<tr>
<td>ESE 2240</td>
<td>Signal and Information Processing</td>
<td>1.5</td>
</tr>
<tr>
<td>ESE 3030</td>
<td>Stochastic Systems Analysis and Simulation</td>
<td>1</td>
</tr>
</tbody>
</table>

Information Systems Electives

Select 3 from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 2400</td>
<td>Introduction to Computer Systems</td>
<td>3</td>
</tr>
</tbody>
</table>
ESE 2000 Artificial Intelligence Lab: Data, Systems, and Decisions
ESE 3050 Fourier Analysis and Applications in Engineering, Mathematics, and the Sciences
ESE 4070 Introduction to Networks and Protocols
ESE 5000 Linear Systems Theory
ESE 5050 Feedback Control Design and Analysis
ESE 5060 Introduction to Optimization Theory
ESE 5120 Dynamical Systems for Engineering and Biological Applications
ESE 5140 Graph Neural Networks
ESE 5280 Estimation and Detection Theory
ESE 5310 Digital Signal Processing
ESE 5450 Data Mining: Learning from Massive Datasets
ESE 5460 Principles of Deep Learning
ESE 6050 Modern Convex Optimization
ESE 6060 Combinatorial Optimization
ESE 6150 F1/10 Autonomous Racing Cars
ESE 6180 Learning for Dynamics and Control
ESE 6190 Model Predictive Control
ESE 6500 Learning in Robotics
ESE 6740 Information Theory
NETS 2120 Scalable and Cloud Computing
NETS 3120 Theory of Networks
NETS 4120 Algorithmic Game Theory

Select one of the following:

ESE 2900/2910 Introduction to Electrical and Systems Engineering Research Methodology
ESE 3060 Deep Learning: A Hands-on Introduction
ESE 3500 Embedded Systems/Microcontroller Laboratory
ESE 3600 TinyML: Tiny Machine Learning for Embedded Systems
ESE 4210 Control For Autonomous Robots
ESE 5050 Feedback Control Design and Analysis
BE 5700 Biomechatronics
BE 4700 Medical Devices
ESE 4500 Senior Design Project I - EE and SSE
ESE 4510 Senior Design Project II - EE and SSE

Engineering Elective

Math and Natural Science

MATH 1400 Calculus, Part I
MATH 1410 Calculus, Part II
MATH 2400 Calculus, Part III
ESE 3010 Engineering Probability
ESE 4020 Statistics for Data Science
or ESE 5420 Statistics for Data Science

PHYS 0140 Principles of Physics I (without laboratory)
or PHYS 0150 Principles of Physics I: Mechanics and Wave Motion
or PHYS 0170 Honors Physics I: Mechanics and Wave Motion
or MEAM 1100 Introduction to Mechanics

ESE 1120 Engineering Electromagnetics
or PHYS 0141 Principles of Physics II (without laboratory)
or PHYS 0151 Principles of Physics II: Electromagnetism and Radiation
or PHYS 0171 Honors Physics II: Electromagnetism and Radiation

CHEM 1012 General Chemistry I
or EAS 0091 Chemistry Advanced Placement/International Baccalaureate Credit (Engineering Students Only)
or BIOL 1101 Introduction to Biology A
or BIOL 1121 Introduction to Biology - The Molecular Biology of Life

MATH 3120 Linear Algebra
or MATH 3130 Computational Linear Algebra
or MATH 3140 Advanced Linear Algebra
or MATH 3700 Algebra

Professional Electives

Select 3 Societal Problem Electives

General Electives

EAS 2030 Engineering Ethics (or equivalent)
or LAW 5060 ML: Technology Law
Select 4 Social Science or Humanities courses
Select 2 Social Science or Humanities or Technology in Business & Society courses

Total Course Units: 37

1 If not taken by the end of freshman year, must be replaced by another department approved Engineering course.
2 If ESE 5050 or BE 5700 or ESE 3600 is taken, an additional .5 CU engineering credit is required.
3 This category requires 10 CU, including two .5 CU Natural Science Labs. Several of the courses above are 1.5 CU and include .5 CU Natural Science Lab. If the courses selected do not total 10 CUs, you will be required to complete the additional CUs required with up to two .5 CU Natural Science Labs from the following list: BIOL 1124 Introductory Organismal Biology Lab, CHEM 1101 General Chemistry Laboratory I, MEAM 1470 Introduction to Mechanics Lab, PHYS 0050 Physics Laboratory I, PHYS 0051 Physics Laboratory II, or another department approved Natural Science Lab.
4 A complete list of approved SPA electives can be found on the ESE undergraduate programs webpage (https://www.ese.upenn.edu/undergraduate/systems-science-and-engineering-major/sse-degree-requirements/)
5 Must include a Writing Seminar (a list of approved Writing Seminars can be found in the SEAS Undergraduate Handbook (https://
Concentrations

Students may select one of three concentrations:

- Data Science and Artificial Intelligence
- Decision Science
- Robotics

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Minors

- Chemical & Biomolecular Engineering, Minor (p. 235)
- Computer Science, Minor (p. 236)
- Data Science, Minor (p. 236)
- Digital Media Design, Minor (p. 236)
- Electrical Engineering, Minor (p. 237)
- Energy & Sustainability, Minor (p. 237)
- Engineering Entrepreneurship, Minor (p. 238)
- Materials Science and Engineering, Minor (p. 239)
- Mechanical Engineering and Applied Mechanics, Minor (p. 240)
- Systems Science and Engineering, Minor (p. 240)

Chemical & Biomolecular Engineering, Minor

Chemical Engineers apply concepts from the physical sciences (chemistry and physics) and life sciences (biochemistry and microbiology) to the design and optimization of processes for the efficient production of products ranging from fuels and chemicals to pharmaceuticals to advanced materials. Penn’s chemical engineering department provides students with both a strong foundation in engineering fundamentals and exposure to modern chemical engineering technologies. The program’s versatility allows our students to excel in diverse careers in the chemical industries, research, medicine, law, government, and education.

Chemical and Biomolecular Minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>Select 6 CBE Courses</td>
<td>6</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

Computer Science Minor (CSCI)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1100</td>
<td>Introduction to Computer Programming</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1200</td>
<td>Programming Languages and Techniques I</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1210</td>
<td>Programming Languages and Techniques II</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1600</td>
<td>Mathematical Foundations of Computer Science</td>
<td>1</td>
</tr>
<tr>
<td>Any CIS Elective</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Any CIS Elective 2000 level and above</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>

1 CIS 1100 Introduction to Computer Programming may be included only if taken before CIS 1200 Programming Languages and Techniques I.

2 A CIS Elective is a CIS or NETS engineering course at the 1000 level or above (except CIS 1810 The Quantum and the Computer), or ESE 3500 Embedded Systems/Microcontroller Laboratory. Note: not all CIS/NETS courses are engineering courses; please see the SEAS Undergraduate Handbook (https://ugrad.seas.upenn.edu/student-handbook/courses-requirements/engineering-courses/).
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Data Science, Minor

Data Science applies core concepts in computer science, statistics and mathematics to problems in a wide variety of fields, from physical, social, biomedical, and behavioral sciences to arts and humanities. The minor targets students with strong analytical abilities and some existing programming experience, and requires courses in statistics, data-centric programming, data management, and data analysis. It also points to courses across the University that deal with data in areas of importance to Data Science.

SEAS Second Major or Minor Option

Students interested in a second major (College students only) or minor with SEAS are required to meet with the Undergraduate Curriculum Chair from the major/minor department you wish to declare to discuss requirements and obtain approval on the Second Major or Minor form. The approved form must be returned to the SEAS Research and Academic Services Office, 109 Towne Building.

For more information: http://www.seas.upenn.edu/undergraduate/degrees/minors.php

Data Science Minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Requirements</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>CIS 1200</td>
<td>Programming Languages and Techniques I</td>
<td></td>
</tr>
<tr>
<td>CIS 4190/5190</td>
<td>Applied Machine Learning 1</td>
<td></td>
</tr>
<tr>
<td>or STAT 4710</td>
<td>Modern Data Mining</td>
<td></td>
</tr>
<tr>
<td>or CIS 5200</td>
<td>Machine Learning</td>
<td></td>
</tr>
<tr>
<td>NETS 2120</td>
<td>Scalable and Cloud Computing</td>
<td></td>
</tr>
<tr>
<td>or CIS 5450</td>
<td>Big Data Analytics</td>
<td></td>
</tr>
<tr>
<td>ESE 3010</td>
<td>Engineering Probability</td>
<td></td>
</tr>
<tr>
<td>or ESE 4020</td>
<td>Statistics for Data Science</td>
<td></td>
</tr>
<tr>
<td>or STAT 430</td>
<td>Probability</td>
<td></td>
</tr>
<tr>
<td>or STAT 431</td>
<td>Statistical Inference</td>
<td></td>
</tr>
</tbody>
</table>

Data Science Electives 2

Two electives required from two of the categories below. Approval required.

Data-Centric Programming

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1050</td>
<td>Computational Data Exploration</td>
</tr>
<tr>
<td>ENGR 1050</td>
<td>Introduction to Scientific Computing</td>
</tr>
<tr>
<td>ESE 3050</td>
<td>Foundations of Data Science</td>
</tr>
<tr>
<td>OIDD 3110</td>
<td>Business Computer Languages</td>
</tr>
<tr>
<td>STAT 4050</td>
<td>Statistical Computing with R 2</td>
</tr>
<tr>
<td>STAT 4700</td>
<td>Data Analytics and Statistical Computing</td>
</tr>
</tbody>
</table>

Statistics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2510</td>
<td>Statistics for Biologists</td>
</tr>
<tr>
<td>CIS 2610</td>
<td>Discrete Probability, Stochastic Processes, and Statistical Inference</td>
</tr>
</tbody>
</table>

Total Course Units 6

1 Both CIS 4190/5190 and CIS 5200 cannot be taken for credit toward the minor.
2 STAT 4050 & STAT 4220 are 0.5 CU courses

Digital Media Design, Minor

The DMD minor is a programming-intensive exploration into interactive computer graphics. The interested student is encouraged but not required to take Design courses (in the SEAS SSH category, for example) to gain the artistic knowledge and skills that would augment the DMD technology emphasis. Suggested relevant Design courses include DSGN 1020 Art of the web: Interactive Concepts for Art & Design and DSGN 1030 3-D Computer Modeling. The DMD minor also encourages exploration of the connections of computer graphics programming with...
human cognition and interactive experiences. Students undertake a capstone project to integrate their DMD minor with their major.

For more information: http://cg.cis.upenn.edu/dmd-minor.html

SEAS Second Major or Minor Option

Students interested in a second major (College students only) or minor with SEAS are required to meet with the Undergraduate Curriculum Chair from the major/minor department you wish to declare to discuss requirements and obtain approval on the Second Major or Minor form. The approved form must be returned to the SEAS Research and Academic Services Office, 109 Towne Building.

For more information: http://www.seas.upenn.edu/undergraduate/degrees/minors.php

Digital Media Design Minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 1400</td>
<td>Introduction to Cognitive Science</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1100</td>
<td>Introduction to Computer Programming</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1200</td>
<td>Programming Languages and Techniques I</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1210</td>
<td>Programming Languages and Techniques II</td>
<td>1</td>
</tr>
<tr>
<td>CIS 1600</td>
<td>Mathematical Foundations of Computer Science</td>
<td>1</td>
</tr>
<tr>
<td>CIS 4600</td>
<td>Interactive Computer Graphics</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 5600</td>
<td>Interactive Computer Graphics</td>
<td></td>
</tr>
<tr>
<td>CIS 3500</td>
<td>Software Design/Engineering</td>
<td>1</td>
</tr>
<tr>
<td>or CIS 4610</td>
<td>Advanced Rendering</td>
<td></td>
</tr>
<tr>
<td>or CIS 5610</td>
<td>Advanced Computer Graphics</td>
<td></td>
</tr>
<tr>
<td>or CIS 4620</td>
<td>Computer Animation</td>
<td></td>
</tr>
<tr>
<td>or CIS 5620</td>
<td>Computer Animation</td>
<td></td>
</tr>
<tr>
<td>EAS 4990</td>
<td>Senior Capstone Project</td>
<td>1</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

The DMD minor is not open to students pursuing a CSCI, CMPE, DMD, NETS or ASCS major. A student may not minor in both DMD and CSCI.  

1 CIS 1100 Introduction to Computer Programming can only be taken prior to CIS 1200 Programming Languages and Techniques I. If a student takes CIS 1200 Programming Languages and Techniques I without taking CIS 1100 Introduction to Computer Programming, no extra course needs to be substituted - the DMD minor requires only 7 CUs in this case.

2 Program approval is required for exceptions.

Electrical Engineering Minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESE 2150</td>
<td>Electrical Circuits and Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>ESE 2180</td>
<td>Electronic, Photonic, and Electromechanical Devices</td>
<td>1.5</td>
</tr>
<tr>
<td>ESE 2240</td>
<td>Signal and Information Processing</td>
<td>1.5</td>
</tr>
<tr>
<td>ESE 1500</td>
<td>Digital Audio Basics</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>Select 2 ESE Electives</td>
<td>2</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>7.5</td>
</tr>
</tbody>
</table>

1 An intermediate or Advanced ESE elective can be taken with department approval.

2 Advance ESE course required. An approved list can be found on the most recent EE worksheet.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Electrical Engineering, Minor

Electrical engineering (EE) connects the physical world with the information world. Electrical engineers can apply physics and chemistry in modern nanotechnology devices, can encode and manipulate information in circuits and networks, and can mathematically understand and reason with large amounts of data in real time. Students can pursue an EE minor by completing a six courses that includes the conception, design, analysis, and implementation of devices, circuits, and signal processing.

For more information: http://www.ese.upenn.edu/current-students/undergraduates/minors.php

SEAS Second Major or Minor Option

Students interested in a second major (College students only) or minor with SEAS are required to meet with the Undergraduate Curriculum Chair from the major/minor department you wish to declare to discuss requirements and obtain approval on the Second Major or Minor form. The approved form must be returned to the SEAS Research and Academic Services Office, 109 Towne Building.

For more information: http://www.seas.upenn.edu/undergraduate/degrees/minors.php

Electrical Engineering Minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESE 2150</td>
<td>Electrical Circuits and Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>ESE 2180</td>
<td>Electronic, Photonic, and Electromechanical Devices</td>
<td>1.5</td>
</tr>
<tr>
<td>ESE 2240</td>
<td>Signal and Information Processing</td>
<td>1.5</td>
</tr>
<tr>
<td>ESE 1500</td>
<td>Digital Audio Basics</td>
<td>1</td>
</tr>
<tr>
<td>Electives</td>
<td>Select 2 ESE Electives</td>
<td>2</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>7.5</td>
</tr>
</tbody>
</table>

1 An intermediate or Advanced ESE elective can be taken with department approval.

2 Advance ESE course required. An approved list can be found on the most recent EE worksheet.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Energy & Sustainability, Minor

The minor in Energy and Sustainability provides students with broad coverage of technical and societal issues in energy and sustainability. It is designed to help students become leaders in developing technologies for a more sustainable energy future.

For more information: http://www.seas.upenn.edu/undergraduate/degrees/energy.php
SEAS Second Major or Minor Option

Students interested in a second major (College students only) or minor with SEAS are required to meet with the Undergraduate Curriculum Chair from the major/minor department you wish to declare to discuss requirements and obtain approval on the Second Major or Minor form. The approved form must be returned to the SEAS Research and Academic Services Office, 109 Towne Building.

For more information: http://www.seas.upenn.edu/undergraduate/degrees/minors.php

Energy and Sustainability Minor (ENSU)

Students participating in the minor are expected to have taken at least one semester of intro chemistry, mathematics and physics.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Fundamental Engineering Science</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Engineering Thermodynamics</strong></td>
<td></td>
</tr>
<tr>
<td>CBE 2300</td>
<td>Material and Energy Balances of Chemical Processes</td>
<td>1</td>
</tr>
<tr>
<td>CBE 2310</td>
<td>Thermodynamics of Fluids</td>
<td></td>
</tr>
<tr>
<td>MEAM 2030</td>
<td>Thermodynamics I</td>
<td></td>
</tr>
<tr>
<td>MSE 2600</td>
<td>Energetics of Macro and Nano-scale Materials</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Basic Principles in Solid State Physics</strong></td>
<td></td>
</tr>
<tr>
<td>MSE 2210</td>
<td>Quantum Physics of Materials</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Energy and Sustainability Renewable Energy</strong></td>
<td></td>
</tr>
<tr>
<td>CBE 3250</td>
<td>Renewable Energy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Energy and Sustainability Policy, Regulation and Societal Impact</strong></td>
<td>1</td>
</tr>
<tr>
<td>EAS 3010</td>
<td>Climate Policy and Technology</td>
<td></td>
</tr>
<tr>
<td>EAS 3060</td>
<td>Electricity and Systems Markets</td>
<td></td>
</tr>
<tr>
<td>EAS 4010</td>
<td>Energy and Its Impacts: Technology, Environment, Economics, Sustainability</td>
<td></td>
</tr>
<tr>
<td>EAS 4020</td>
<td>Renewable Energy and Its Impacts: Technology, Environment, Economics, Sustainability</td>
<td></td>
</tr>
<tr>
<td>EAS 4030</td>
<td>Energy Systems and Policy</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Energy and Sustainability Electives</strong></td>
<td></td>
</tr>
<tr>
<td>Select 2-3 course units of the following:</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>CBE 3750</td>
<td>Engineering and the Environment</td>
<td></td>
</tr>
<tr>
<td>CBE 5450</td>
<td>Electrochemical Energy Conversion and Storage</td>
<td></td>
</tr>
<tr>
<td>CBE 5460</td>
<td>Fundamentals of Industrial Catalytic Processes</td>
<td></td>
</tr>
<tr>
<td>ENGR 2500</td>
<td>Energy Systems, Resources and Technology</td>
<td></td>
</tr>
<tr>
<td>ENGR 5030</td>
<td>Engineering in Oil, Gas and Coal, from Production to End Use</td>
<td></td>
</tr>
<tr>
<td>ESE 5210</td>
<td>The Physics of Solid State Energy Devices</td>
<td></td>
</tr>
<tr>
<td>MEAM 5030</td>
<td>Direct Energy Conversion: from Macro to Nano</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Engineering Entrepreneurship, Minor

Penn Engineering offers a Minor in Engineering Entrepreneurship (EENT), complementing the core engineering disciplines. This Minor is designed for students majoring in engineering and applied science. However, it is open to all University undergraduates subject to available class space. Non-engineering students should check with their home schools to determine their eligibility to take the EENT Minor. All courses for the EENT Minor must be taken for a grade (no Pass/Fail).

For more information: https://www.seas.upenn.edu/entrepreneurship/

SEAS Second Major or Minor Option

Students interested in a second major (College students only) or minor with SEAS are required to meet with the Undergraduate Curriculum Chair from the major/minor department you wish to declare to discuss requirements and obtain approval on the Second Major or Minor form. The approved form must be returned to the SEAS Research and Academic Services Office, 109 Towne Building.

For more information: http://www.seas.upenn.edu/undergraduate/degrees/minors.php

Engineering Entrepreneurship Minor (EENT)

This minor is designed for students majoring in engineering and applied science. However, it is open to all University undergraduates subject to class availability. Non-engineering students should check with their home school to determine their eligibility to take the EENT minor. All courses must be taken for a grade (no Pass/Fail).

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>EAS 5450</td>
<td>Engineering Entrepreneurship I</td>
<td>1</td>
</tr>
<tr>
<td>EAS 5460</td>
<td>Engineering Entrepreneurship II</td>
<td>1</td>
</tr>
<tr>
<td>or EAS 5490</td>
<td>Engineering Entrepreneurship Lab</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Electives</strong></td>
<td></td>
</tr>
<tr>
<td>Select four of the following:</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BE 4700</td>
<td>Medical Devices</td>
<td></td>
</tr>
<tr>
<td>BE 4720</td>
<td>Medical Device Development</td>
<td></td>
</tr>
</tbody>
</table>

1 Of the two CBE courses, CBE 2310 Thermodynamics of Fluids is preffered.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BE 5020</td>
<td>From Biomedical Science to the Marketplace</td>
</tr>
<tr>
<td>BE 5140/IPD 5040</td>
<td>Rehab Engineering and Design</td>
</tr>
<tr>
<td>BE/CBE 5620</td>
<td>Drug Discovery and Development</td>
</tr>
<tr>
<td>BE 6080</td>
<td>Medical Entrepreneurship: Commercializing Translational Science</td>
</tr>
<tr>
<td>CBE 4000</td>
<td>Introduction to Product and Process Design</td>
</tr>
<tr>
<td>CBE 4590</td>
<td>Product and Process Design Projects</td>
</tr>
<tr>
<td>EAS 2030</td>
<td>Engineering Ethics or LGST 100 Ethics and Social Responsibility or HSOC 133 Bioethics or PHIL 1342 Bioethics</td>
</tr>
<tr>
<td>EAS 5070</td>
<td>Intellectual Property and Business Law for Engineers</td>
</tr>
<tr>
<td>EAS 5120</td>
<td>Engineering Negotiation</td>
</tr>
<tr>
<td>EAS 5490</td>
<td>Engineering Entrepreneurship Lab</td>
</tr>
<tr>
<td>EAS 5950</td>
<td>Foundations of Leadership</td>
</tr>
<tr>
<td>ENGR 1400</td>
<td>Penn Global Seminar: Robotics and Rehabilitation</td>
</tr>
<tr>
<td>ESE 4000/5400</td>
<td>Engineering Economics</td>
</tr>
<tr>
<td>ESE 4440/5440</td>
<td>Project Management</td>
</tr>
<tr>
<td>ESE 5430</td>
<td>Human Systems Engineering</td>
</tr>
<tr>
<td>FNCE 2500</td>
<td>Venture Capital and the Finance of Innovation</td>
</tr>
<tr>
<td>HCMG 2150/8630</td>
<td>Management and Economics of Pharmaceutical and Biotech Industries</td>
</tr>
<tr>
<td>HCMG 8670/3910</td>
<td>Health Care Entrepreneurship</td>
</tr>
<tr>
<td>IPD 5090</td>
<td>Needfinding</td>
</tr>
<tr>
<td>IPD 5520</td>
<td>Problem Framing</td>
</tr>
<tr>
<td>IPD 5720</td>
<td>Design Thinking</td>
</tr>
<tr>
<td>LAW 5070</td>
<td>Introduction to Intellectual Property or LAW 6770 Patent Law</td>
</tr>
<tr>
<td>LAWM 5280</td>
<td>ML: General Business Law</td>
</tr>
<tr>
<td>LGST/OIDD 2220</td>
<td>Internet Law, Privacy, and Cybersecurity</td>
</tr>
<tr>
<td>MEAM/IPD 5140</td>
<td>Design for Manufacturability</td>
</tr>
<tr>
<td>MEAM/OIDD 4150/IPD 5150</td>
<td>Product Design</td>
</tr>
<tr>
<td>MGMT 2380</td>
<td>Organizational Behavior</td>
</tr>
<tr>
<td>MGMT 2640</td>
<td>Venture Capital and Entrepreneurial Management</td>
</tr>
<tr>
<td>MGMT 2670</td>
<td>Entrepreneurship and Technological Innovation</td>
</tr>
<tr>
<td>MKTG 2270</td>
<td>Digital Marketing and Electronic Commerce</td>
</tr>
<tr>
<td>MKTG 2410/7410</td>
<td>Entrepreneurial Marketing</td>
</tr>
<tr>
<td>NETS 1120</td>
<td>Networked Life</td>
</tr>
<tr>
<td>NURS 5530</td>
<td>Innovation &amp; Applied Technology in Health Care</td>
</tr>
<tr>
<td>OIDD 2360</td>
<td>Scaling Operations in Technology Ventures: Linking Strategy and Execution</td>
</tr>
<tr>
<td>OIDD 3140</td>
<td>Enabling Technologies</td>
</tr>
<tr>
<td>OIDD 6590</td>
<td>Advanced Topics</td>
</tr>
<tr>
<td>NURS 3570/5730</td>
<td>Case Study: Innovation in Health: Foundations of Design Thinking &amp; Equity-centered Design</td>
</tr>
<tr>
<td>REG 6120</td>
<td>Introduction to Drug Development</td>
</tr>
<tr>
<td>VIPR 1200 &amp; VIPR 1210</td>
<td>Vagelos Integrated Program in Energy Research (VIPER) Seminar, Part I and Vagelos Integrated Program in Energy Research (VIPER) Seminar, Part II (Must take both courses for one (1) CU)</td>
</tr>
</tbody>
</table>

**Total Course Units**: 6

*The below courses are .5 CU's. Students must take two (2) of the below to get 1 CU towards the minor.*

- MGMT 2670 Entrepreneurship and Technological Innovation
- MKTG 2270 Digital Marketing and Electronic Commerce
- MKTG 2410 or MKTG 7410 Entrepreneurial Marketing
- NURS 5530 Innovation & Applied Technology in Health Care
- HCMG 8670 Health Care Entrepreneurship

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Materials Science and Engineering, Minor**

The Materials Science and Engineering (MSE) program reflects the explosive growth of interest in the nano and bio sectors of engineering science and technology. MSE prepares students to use fundamental scientific principles to synthesize, manipulate, design and characterize the structural and functional properties of advanced engineering materials. The program offers students advantages seldom found in other MSE programs: the opportunity to tailor the curriculum to their own interests, guaranteed research experience and an excellent student-faculty ratio.

**SEAS Second Major or Minor Option**

Students interested in a second major (College students only) or minor with SEAS are required to meet with the Undergraduate Curriculum Chair from the major/minor department you wish to declare to discuss requirements and obtain approval on the Second Major or Minor form. The approved form must be returned to the SEAS Research and Academic Services Office, 109 Towne Building.

For more information: [http://www.seas.upenn.edu/undergraduate/degrees/minors.php](http://www.seas.upenn.edu/undergraduate/degrees/minors.php)
Materials Science and Engineering Minor (CSCI)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 2200</td>
<td>Introduction to Materials Science and Engineering</td>
<td>1</td>
</tr>
<tr>
<td>MSE 2210</td>
<td>Quantum Physics of Materials</td>
<td>1</td>
</tr>
<tr>
<td>MSE 2150</td>
<td>Introduction to Functional Materials: From Macro to Nanoscale</td>
<td>1</td>
</tr>
<tr>
<td>MSE 2600</td>
<td>Energetics of Macro and Nano-scale Materials</td>
<td>1</td>
</tr>
<tr>
<td>MSE 3300</td>
<td>Self-Assembly of Soft Materials</td>
<td>1</td>
</tr>
<tr>
<td>MSE 4400</td>
<td>Phase Transformations</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Course Units 6

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Mechanical Engineering and Applied Mechanics, Minor

Mechanical Engineering & Applied Mechanics (MEAM) is the study of forces, deformations and motions of solid bodies and fluids, heat generation and transport, and applications to analysis, design, and manufacture of components, machines, and systems. Students in mechanical engineering follow a program which contains basic groundwork in all aspects of mechanical engineering, but flexibility in the curriculum allows students to pursue elective programs in fields such as aeronautics, robotics, computers, electronics, automatic controls, and materials.

For more information: http://www.me.upenn.edu/prospective-students/undergraduates/majors-minors.php

SEAS Second Major or Minor Option

Students interested in a second major (College students only) or minor with SEAS are required to meet with the Undergraduate Curriculum Chair from the major/minor department you wish to declare to discuss requirements and obtain approval on the Second Major or Minor form. The approved form must be returned to the SEAS Research and Academic Services Office, 109 Towne Building.

For more information: http://www.seas.upenn.edu/undergraduate/degrees/minors.php

A minor in Mechanical Engineering and Applied Mechanics (MEAM) requires the completion of six (6) course units with a grade of "C" or better. Courses taken on a Pass/Fail basis do not count toward the MEAM minor. Only two (2) 1000 level courses are permitted.

MEAM, Minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSE 2200</td>
<td>Introduction to Materials Science and Engineering</td>
<td>1</td>
</tr>
<tr>
<td>MSE 2210</td>
<td>Quantum Physics of Materials</td>
<td>1</td>
</tr>
<tr>
<td>MSE 2150</td>
<td>Introduction to Functional Materials: From Macro to Nanoscale</td>
<td>1</td>
</tr>
<tr>
<td>MSE 2600</td>
<td>Energetics of Macro and Nano-scale Materials</td>
<td>1</td>
</tr>
<tr>
<td>MSE 3300</td>
<td>Self-Assembly of Soft Materials</td>
<td>1</td>
</tr>
<tr>
<td>MSE 4400</td>
<td>Phase Transformations</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Course Units 6

1 All MEAM courses (except MEAM 4450 (https://catalog.upenn.edu/search/?P=MEAM%204450) Mechanical Engineering Design Projects and MEAM 4460 (https://catalog.upenn.edu/search/?P=MEAM%204460) Mechanical Engineering Design Projects) can be used.

Up to (2) approved Cognate courses can be substituted with department approval from the following list: BE 2000 Introduction to Biomechanics, BE 3300 Self-Assembly of Soft Materials, BE 5100 Biomechanics and Biotransport, CBE 4300 Introduction to Polymers, CBE 5350 Interfacial Phenomena, MSE 3300 Self-Assembly of Soft Materials, MSE 3930 Materials Selection, MSE 4050 Mechanical Properties of Macro/Nanoscale Materials, MSE 5300 Thermodynamics and Phase Equilibria.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Systems Science and Engineering, Minor

System engineering (SSE) helps us to understand what happens when we compose many elements, each with their own behavior, and helps us understand how to design and constrain the individual elements to engineer desired behavior for the composed system. Students can pursue a SSE minor by completing six courses that includes decision making, data processing and modeling, simulation, and design of systems.

For more information: http://www.ese.upenn.edu/current-students/undergraduates/minors.php
SEAS Second Major or Minor Option

Students interested in a second major (College students only) or minor with SEAS are required to meet with the Undergraduate Curriculum Chair from the major/minor department you wish to declare to discuss requirements and obtain approval on the Second Major or Minor form. The approved form must be returned to the SEAS Research and Academic Services Office, 109 Towne Building.

For more information: http://www.seas.upenn.edu/undergraduate/degrees/minors.php

Systems Science and Engineering, Minor

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESE 2040</td>
<td>Decision Models</td>
<td>1</td>
</tr>
<tr>
<td>ESE 2100</td>
<td>Introduction to Dynamic Systems</td>
<td>1</td>
</tr>
<tr>
<td>ESE 2240</td>
<td>Signal and Information Processing</td>
<td>1.5</td>
</tr>
<tr>
<td>ESE 3030</td>
<td>Stochastic Systems Analysis and Simulation</td>
<td>1</td>
</tr>
</tbody>
</table>

Electives

Select 1 Information Systems Elective 1
Select 1 Information Systems or Systems Design Elective 1

Total Course Units 6.5

1 Approved elective lists can be found on the most recent SSE worksheet.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Academic Opportunities

Penn Engineering offers a number of academic opportunities for undergraduate students.

Global Opportunities

Experience in an international setting is an opportunity that Penn Engineering strongly encourages students to obtain. Spending time in another country allows students to develop their intercultural abilities, and increase their independence and confidence as they immerse themselves in a new environment – all while fulfilling their major requirements. We encourage students to explore options specific to Engineering students through the Penn Abroad Office.

Research Opportunities

Our extraordinary faculty-to-student ratio provides great opportunities for undergraduate students to work in state-of-the-art research laboratories during the academic year and in the summer. Below you can see examples of outstanding student research, along with helpful information to guide undergraduates toward finding research positions at Penn Engineering.

For more information, including summer and additional research programs available, visit the Penn Engineering Research section (p. 219).

Dual Degrees

You may combine your BAS or BSE degree with a second degree in one of Penn’s other undergraduate schools. A Dual Degree is not to be confused with a Dual Major (http://www.seas.upenn.edu/undergraduate/handbook/programs/dual-majors.php), where a student earns two majors within Penn Engineering, or with a Second Major (http://www.seas.upenn.edu/undergraduate/degrees/two-majors.php) where an engineering student also earns a major within the College.

For more information, visit: https://ugrad.seas.upenn.edu/student-handbook/programs-options/dual-degrees-and-special-programs/.

2023-24 Catalog | Generated 08/02/23
SCHOOL OF NURSING

Penn Nursing offers a number of resources and experiences not found at most other schools, including a state-of-the-art simulation lab with mannequins that respond as patients would, classrooms with the latest hospital-based electronic medical records (EMR) technology, and clinical experiences in The Children’s Hospital of Philadelphia and the Hospital of the University of Pennsylvania, two of the nation’s best hospitals. Penn Nursing is a premier academic and research institution renowned for advancing the frontiers of nursing science and patient care. Our students learn from the thought leaders in nursing research, education, and practice who ensure Penn Nursing remain one of the top schools of nursing in the world. At Penn Nursing, students become part of the next generation of healthcare leaders, prepared to care for patients, to conduct landmark research, and to make new strides in healthcare management and health policy.

Learn more about our history: http://www.nursing.upenn.edu/about/history/

Learn more about our school leadership: http://www.nursing.upenn.edu/about/our-leadership/

Mission
Our mission is to make a significant impact on health by advancing science, promoting equity, demonstrating practice excellence, and preparing leaders in the discipline of nursing.

Vision
To be the preeminent intellectual and transformative force in improving health through nursing.

Philosophy
We want to meet the health needs of society in a global and multicultural world. To this end, we integrate scholarship, research, education, and practice to build a culture of inquiry that values intellectual curiosity and collaboration.

Scholarship and Research
We believe that the arts and sciences are the basis for nursing knowledge and scholarship. The former—nursing knowledge—defines empirical, philosophical, historical, ethical, and personal ways of knowing; the latter—scholarship—encompasses research and the integration of research into practice and health policy formation.

Penn Nursing is responsive to today’s health care influences, like evolving models of care, consumer advocacy, demographic changes, and advances in science and technology, and our faculty (https://www.nursing.upenn.edu/about/our-faculty/) are committed to pushing the boundaries of nursing science.

Education
A Penn Nursing education leads our students toward meeting their academic and professional goals. Our educational environment fosters independence, ethical behavior, critical thinking, and sensitive interactions concerning cultures and viewpoints.

All of our programs—from baccalaureate to post-doctoral—are enriched by the varied perspectives of a culturally diverse population.

The baccalaureate program (https://www.nursing.upenn.edu/academics/bachelor-of-science-in-nursing-bsn/), including traditional and second degree students, focuses on professional nursing practice across the continuum of healthcare, specifically within vulnerable populations. The curriculum reflects changes in science and technology, and emphasizes evidence-based practice and interdisciplinary collaboration.

The Master’s programs (https://www.nursing.upenn.edu/academics/master-of-science-in-nursing-msn/) focus on advanced practice nursing and administration, with an emphasis on specialty and subspecialty practice to meet our changing societal needs. Graduate nurses are prepared to creatively combine knowledge and skills, with special attention given to clinical decision-making and management.

The Doctor of Nursing Practice Degree (https://www.nursing.upenn.edu/academics/doctor-of-nursing-practice-dnp/) is dedicated to advancing the discipline of nursing through the translation and dissemination of research. Graduates build on their education and experience to become innovative health care leaders at the top of their fields, improving health around the world through policy, practice, and research.

Pre- and post-doctoral education (https://www.nursing.upenn.edu/academics/doctor-of-philosophy-in-nursing-phd/) is set up to advance nursing through research. The goal is to equip students with a foundation that allows them to make substantive contributions to nursing scholarship. Strong faculty mentorship (https://www.nursing.upenn.edu/academics/a-penn-nursing-education/mentorship/) is integral to these programs.

Practice
Nursing is an evidence-based, caring profession that improves the health and quality of life for individuals, families, and communities throughout the world; nursing practice (https://www.nursing.upenn.edu/practice/), then, is defined as the construction, application, and evaluation of knowledge and action within our field.

Nursing care must function in both autonomous and collaborative health care settings, and Penn Nursing serves as the model for caring in a global and multicultural context; here, we seek to promote health in every part of the world (https://www.nursing.upenn.edu/global-health/) by preparing nurses to be responsive to the needs of all societies. Our goals are to improve and maintain optimal health, prevent disease, enhance the quality of recovery from illness, and support patients and families as they cope with health problems.

We are proud to see our work improving patient care across the world.

Revised Mission and Philosophy approved by the School of Nursing Faculty Senate 2/3/03.

Revised Mission and Philosophy approved by the School of Nursing Faculty Senate 5/7/12.

Revised Practice statement approved by the School of Nursing Faculty Senate 4/8/13.

Revised Mission approved by the School of Nursing Faculty Senate 10/5/15.

Revisions approved by the School of Nursing Dean’s Advisory Group 7/23/2020.

The Office of Nursing Research (http://nursing.livewhale.net/research/onor/), along with our four research centers (http://nursing.livewhale.net/research/research-centers/) and partnerships across Penn, provide
students with resources and support that are virtually unparalleled in our field. Students, from undergraduates to doctoral students, have numerous opportunities to engage in research and work alongside some of the most recognized researchers in their fields.

For more information, visit: https://www.nursing.upenn.edu/research/.

Accreditation is a hallmark of educational quality, and we are proud to share our credentials on our website: http://www.nursing.upenn.edu/about/accreditation/.

Penn Nursing students benefit from a dual advising structure. All students are assigned a faculty advisor and have access to the professional staff advisors in the Office of Academic Affairs.

For more information, visit: http://www.nursing.upenn.edu/student-services/advising/accelerated/.

**Curriculum**

**Baccalaureate Program Objectives Leveled by Year**

The faculty has defined behaviors that each student must achieve before progressing to the next level. The objectives are leveled by year: level 1 references freshman year; level 2 references sophomore year, and so on. Students are encouraged to refer to these objectives at the mid-point of the semester and again at the end of the semester to actively participate in the learning and self-evaluation processes.

**End of Program. Synthesize knowledge from the humanities and the natural and social sciences as the basis for continuing personal, intellectual, social, and professional development.**

**Level 3.** Apply knowledge from the humanities and the natural and social sciences in the development of the role of nurse in patient care situations in acute care settings.

**Level 2.** Articulate the relevance of knowledge from the humanities and the natural and social sciences to the evolving role of the nurse.

**Level 1.** Demonstrate knowledge of the interrelationship of the humanities and the natural and social sciences as a basis for the development of nursing practice and as a source of personal development.

**End of Program. As a generalist, use theoretical and scientific bases for nursing to deliver nursing care to clients as individuals, families, communities, and organizations in a variety of settings at any level of wellness, illness, and risk.**

**Level 3.** Apply theoretical and scientific bases for nursing practice related to individuals and families with potential or actual health-related problems in acute care settings.

**Level 2.** Demonstrate the use of theoretical and scientific bases for nursing practice related to risk assessment and health promotion activities to individuals within selected communities and healthcare agencies.

**Level 1.** Identify theoretical and scientific bases for nursing practice.

**End of Program. Apply research findings to evaluate and improve nursing care and the healthcare system.**

**Level 3.** Appraise the relevance, quality, and applicability of research in decision making related to patient care.

**Level 2.** Discuss the research implications for various nursing practice environments.

**Level 1.** Recognize the relationship between research and nursing practice.

**End of Program. Assume responsibility for providing nursing care in a collaborative relationship with individuals and groups in a variety of settings.**

**Level 3.** Participate in providing nursing care in a collaborative relationship with individuals and families in complex healthcare settings.

**Level 2.** Participate in providing nursing care in a collaborative relationship with individuals, selected communities, and healthcare agencies.

**Level 1.** Observe the process of how nurses collaborate with individuals.

**End of Program. Participate in collaborative relationships with colleagues through referral, consultation, planning, and evaluation.**

**Level 3.** Initiate a collaborative relationship with colleagues to facilitate consultation, referrals, planning, and evaluation in a complex healthcare setting.

**Level 2.** Participate in a collaborative relationship with colleagues by consultation, planning, and evaluating selected communities and healthcare agencies.

**Level 1.** Identify various interdisciplinary roles in healthcare.

**End of Program. Demonstrate leadership and management skills through direction and support of clients and colleagues as individuals, families, communities, and organizations.**

**Level 3.** Integrate an understanding of leadership and management skills through the direction and support of colleagues, individuals, and families in acute care settings.

**Level 2.** Provide peer support and management of individual clients in selected communities and healthcare agencies.

**Level 1.** Define leadership and management skills using professional organizations as a model.

**End of Program. Participate as an agent of change in scientific, social, and political action for the advancement of research, healthcare, and policy at any level from local to international.**
Level 3. Initiate change for the advancement of research and healthcare in an acute care setting.

Level 2. Participate as an agent of change to effect modification in health promotion behavior and level of wellness in selected local communities and healthcare agencies.

Level 1. Recognize the need for change related to healthcare reform and policymaking at the national level.

End of Program. Communicate coherently, comprehensively, and systematically in written and oral forms as they pertain to nursing care, collaboration, research, and policy.

Level 3. Analyze written and oral communication patterns and recommend modification if necessary as they pertain to nursing care, collaboration, and research.

Level 2. Demonstrate therapeutic and professional oral communication with individuals, groups, and peers in selected local communities and healthcare agencies.

Level 1. Demonstrate effective written communication skills.

End of Program. Perform clinical skills appropriate to generalist nursing practice, with competence and judgment within specific settings.

Level 3. Demonstrate advanced nursing skills with competence and judgment in acute care settings.

Level 2. Demonstrate and expected level of judgment in basic nursing skills in selected communities and healthcare agencies.

Level 1. Identify components of professional nursing practice.

BSN Undergraduate Curriculum Organizing Framework and Vision

Class of 2015 and Beyond (Accelerated BSN Class of December 2014 and Beyond)

Learn more about Penn Nursing’s mission, vision, and values at https://www.nursing.upenn.edu/about/mission-and-values/.

Penn’s baccalaureate curriculum brings structure to the School’s mission, vision, and values by centering on the primacy of nursing practice situated in caring relationships that facilitate health and healing. The baccalaureate curriculum builds on this conceptualization of nursing as it moves students toward increasingly contextualized understandings of individuals, families, communities, and populations living with health and illness. It also moves students into increasingly complex situations and care environments as they experience the dynamic nature of nursing’s embeddedness in health care systems, social structures, and society.

The baccalaureate curriculum concentrates on four intersecting core themes that characterize the complex and contextual nature of nursing practice: engagement, inquiry, judgment, and voice. The competencies derived from this framework are not intended to be achieved in a sequential manner. Rather, this framework explicates competencies that are fluid, adapt to various learning experiences when presented in the curriculum, and essential to the formation of a graduate nurse’s professional identity. The application of these themes is demonstrated in the following examples:

Engagement: The student understands the relationships among:

• Caring relationships with individuals, families, and patient populations
• Collegial intra-disciplinary, interdiscipliary, and multidisciplinary collaborative relationships
• Observer and participant in policies and politics
• Situational advocacy and civic commitment to social and political change

Inquiry: The student understands the relationships among:

• Knowledge use, acquisition, and development
• Scientific ways of knowing patients and families and multidimensional and contextual ways of knowing
• Knowledge and implementation of humanistic understandings in practice and research
• Evidence-based practices and the social and political processes of practice with less clear scientific rationales
• Knowledge of how to use and manipulate technological information systems to acquire meaningful data
• Knowledge use and ongoing clinical knowledge development
• Measures of quality in clinical care environments

Judgment: The student understands the relationships among:

• Acquisition of knowledge and skill and the integration of both within relational practices with individuals, families, communities, populations, and healthcare systems
• Knowledge of individuals and families and collective knowledge about communities, populations, and systems
• Core nursing knowledge and integrated knowledge
• Situated judgment and clinical know-how

Voice: The student understands the relationships among:

• Observer, advocate, and moral agent
• Facilitation of patient and family learning and advocacy affecting social and political practices
• Informal methods of dialogue, discourse, and debate and those necessary for formal writing and publication and for joining a community of scholars
• Vision for self and the profession

Requirements for the Bachelor of Science in Nursing Degree

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non-Nursing Major Requirements</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Critical Writing Seminar Requirement</td>
<td>Language Requirement</td>
</tr>
<tr>
<td></td>
<td>Distribution Requirements by Sector</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Arts and Letters</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Society and Social Structures</td>
<td>Histories and Traditions</td>
</tr>
</tbody>
</table>
Global and Cultural Studies
Reasoning, Systems, and Relationships
Free Elective

Nursing Major 29.5
Total Course Units 40.5

More information including individual course requirements can be found in the BSN Handbook (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/degree-requirements/). Students who are receiving their second bachelor's degree in nursing (known as "second degree students" or "MSN/BSN students") are not required to complete the liberal arts component while at Penn. All plans of study include an 11 course unit waiver for liberal arts requirements because students who have already completed one undergraduate degree are exempt from all sector requirements, the language requirement, the writing requirement, and free electives. If you have questions regarding your plan of study or the requirements specific to your program, please reach out to the Office of Academic Affairs: http://www.nursing.upenn.edu/student-services/advising/.

**Majors**
- Nursing, BSN (p. 245)
- Nutrition Science, BSN (p. 248)

**Nursing, BSN**

Penn Nursing combines the resources and opportunities of a large university with the intimacy and personal attention of a small college. Our traditional four-year BSN is a direct-entry program for graduating high school seniors.

At Penn Nursing, you will learn from a passionate faculty (http://www.nursing.upenn.edu/about/our-faculty/) whose accomplishments are recognized worldwide. You will benefit from the academic opportunities (http://www.nursing.upenn.edu/academics/bachelor-of-science-in-nursing-bsn/) of an Ivy League university while enjoying a fun and fulfilling campus life (http://www.nursing.upenn.edu/about/our-students/student-life/). You will gain clinical experience (http://www.nursing.upenn.edu/practice/practice-partners/) in some of the nation's top hospitals, located just steps from your classrooms. And you will have the chance to participate in faculty-driven research (http://www.nursing.upenn.edu/research/), supported by state-of-the-art technology (http://www.nursing.upenn.edu/academics/a-penn-nursing-education/learning-through-simulation/). Penn Nursing graduates are the leaders shaping the future of health care practice, policy, research, and education.

The nursing program integrates science, nursing, and liberal arts education to prepare future nurses with skills necessary for caring for diverse, complex patients, families and communities. Students are encouraged to take advantage of the many educational opportunities at Penn that intersect with the four undergraduate schools. For traditional students, clinicals begin in the spring of your sophomore year, and students have experiences in primary care, acute care, women's health, and mental health settings working with patients from newborns to older adults.

For more information: http://www.nursing.upenn.edu/admissions/undergraduate/Pages/default.aspx

**Nursing, BSN Requirements**

**Non-Nursing Major Requirements**

**Writing Requirement**
Select a Writing Intensive Course

**Language Requirement**
Satisfy by exemption or if language proficiency completed in fewer than 2 semesters, use remaining course units as free electives

**Distribution by Sectors**
The Planet & Our Climate
Societies, Histories, and Traditions
Global Arts, Letters, & Cultures
Diversity, Universality, Justice, & Equity
Exploration Course Requirement (1cu) - a course in any School within the University other than the School of Nursing, at any level for which the student is eligible and in any discipline

**Nursing Major Courses**

**Nursing Foundational Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 1010</td>
<td>The Nature of Nursing Practice</td>
<td>0.5</td>
</tr>
<tr>
<td>NURS 1020</td>
<td>Situating the Practice of Nursing</td>
<td>0.5</td>
</tr>
<tr>
<td>NURS 1030</td>
<td>Psychological and Social Diversity in Health and Wellness</td>
<td>1</td>
</tr>
</tbody>
</table>

**Nursing Clinical Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 2150</td>
<td>Nursing of Women and Infants</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 2250</td>
<td>Pediatric Nursing</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 2350</td>
<td>Psychiatric, Behavioral, and Mental Health Nursing</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 2450</td>
<td>Nursing of Young and Middle Aged Adults</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 2550</td>
<td>Nursing of Older Adults</td>
<td>1.5</td>
</tr>
<tr>
<td>Select a Nursing Case Study from among NURS 3540-NURS 369</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3820</td>
<td>Public Health Nursing Care in Communities</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 3900</td>
<td>Leadership in the Complex Healthcare System</td>
<td>3</td>
</tr>
</tbody>
</table>

**Science Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 0061</td>
<td>Biologically-Based Chemistry</td>
<td>0.5</td>
</tr>
<tr>
<td>NURS 0065</td>
<td>Fundamentals of Nutrition</td>
<td>1.0</td>
</tr>
<tr>
<td>NURS 0068</td>
<td>Integrated Cell Biology and Microbiology with Recitation</td>
<td>1.0</td>
</tr>
<tr>
<td>NURS 1630</td>
<td>Integrated Anatomy, Physiology, and Physical Assessment I</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 1640</td>
<td>Integrated Human Anatomy, Physiology &amp; Physical Assessment II</td>
<td>2.0</td>
</tr>
<tr>
<td>NURS 1650</td>
<td>Integrated Pathophysiology, Pharmacology, and Therapeutics</td>
<td>2.0</td>
</tr>
</tbody>
</table>

**Non-Clinical Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
</table>
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

The following sample Plan of Study is just one possibility for undergraduate study. This plan may not be compatible with several academic options you might choose (e.g., study abroad, submatriculation, dual degree, etc.). If you are interested in pursuing any of the special academic options available to you during the course of your undergraduate experience and want to know how this will alter your plan of study, please contact your faculty advisor and/or the Office of Student Services at 215-898-6687 or advisor@nursing.upenn.edu. Please note that all plans of study are subject to curricular change.
### NURS 3300
Theoretical Foundations of Health Care Ethics (or approved Health Care Ethics course) 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 2300</td>
<td>Statistics for Research and Measurement</td>
<td>1</td>
</tr>
</tbody>
</table>

### Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 2350 &amp; NURS 2250</td>
<td>Psychiatric, Behavioral, and Mental Health Nursing and Pediatric Nursing</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3340</td>
<td>Public Policy and the Nation's Health (or approved Health Policy course)</td>
<td>1</td>
</tr>
</tbody>
</table>

### NURS 3300
Theoretical Foundations of Health Care Ethics (or approved Health Care Ethics course)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 5470</td>
<td>Scientific Inquiry for Evidence-based Practice</td>
<td>1</td>
</tr>
</tbody>
</table>

### Course Units
5.00

### Fourth Year

#### Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3820</td>
<td>Public Health Nursing Care in Communities</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Select 1 course from NURS 3550-NURS 3680

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector Requirement (e.g. Diversity, Universality, Justice, &amp; Equity)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sector Requirement (e.g. Exploration Course)</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

### Course Units
4.50

#### Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3900</td>
<td>Leadership in the Complex Healthcare System</td>
<td>3</td>
</tr>
</tbody>
</table>

### NURS 3890
Research/ Inquiry-Based Service Residency

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Course Units</td>
<td></td>
<td>36.00</td>
</tr>
</tbody>
</table>

1 Sector requirements can be taken in any order. For more information on sector requirements, refer to the BSN Handbook (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/).

2 Free electives and language requirement courses may be taken pass/fail. For more detailed information on pass/fail policies, refer to the Pass/Fail section in the BSN handbook (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/courses-exam-related-policies/#pass/fail).

The Nursing Case Study can be taken during the junior or senior year (following completion of NURS 1640 Integrated Human Anatomy, Physiology & Physical Assessment II). Only one course is required from the case study group.

Students must consult with an academic advisor prior to making revisions to the plan of study to ensure that the necessary curricular requirements are being met and to prevent delays in academic progression.

The following sample Plan of Study is just one possibility for second-degree students, and individual plans depend on what prerequisites students have fulfilled prior to matriculating at Penn. This plan may not be compatible with several academic options you might choose (e.g., submatriculation, study abroad, minors, etc.). If you are interested in pursuing any of the special academic options available to you during the course of your undergraduate experience and want to know how this will alter your plan of study, please contact your faculty advisor and/or the Office of Student Services at 215-898-6687 or advisor@nursing.upenn.edu. Please note that all plans of study are subject to curricular change.

### BSN Plan of Study: Accelerated Fall Start

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 0061</td>
<td>Biologically-Based Chemistry</td>
<td>.5</td>
</tr>
<tr>
<td>NURS 0065</td>
<td>Fundamentals of Nutrition</td>
<td>1</td>
</tr>
<tr>
<td>NURS 0068</td>
<td>Integrated Cell Biology and Microbiology with Recitation</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Transfer Credit

Please note: This is an estimation of potential transfer credit and does not constitute final approval until all final transcripts are submitted, course completion and grades are verified, etc.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 1310</td>
<td>Human Anatomy and Physiology - Part A</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 1320</td>
<td>Human Anatomy and Physiology - Part B</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 2300</td>
<td>Statistics for Research and Measurement</td>
<td>1</td>
</tr>
<tr>
<td>Liberal Arts Waiver</td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

#### First Year - Fall
Nutrition Science, BSN

Our Bachelor of Science in Nutrition Science major is an interdisciplinary collaboration with Penn’s School of Arts & Sciences. You will study concepts like dietary behaviors and metabolism, as well as scientific approaches to the physiological roles of nutrients in the diet, from the cellular to human level. You will explore the role of nutrition in cancer, cardiovascular diseases, diabetes, and obesity, which together account for nearly seventy percent of global mortality. We believe that the next generation of nurse researchers and clinicians need a well-rounded background in nutrition science, social sciences, and public health, and we built this innovative program with these goals in mind.

The major consists of 14 course units: six basic science courses (such as cellular biology, anatomy and physiology, and chemistry), four fundamental nutrition science courses, and four electives. Penn Nursing BSN undergrads can add this as a second major.

For more information: https://www.nursing.upenn.edu/nutrition-major/

# Nutrition Science, BSN Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 1590</td>
<td>Pathways to Practice</td>
<td>1</td>
</tr>
<tr>
<td>NURS 1600</td>
<td>Physical Assessment</td>
<td>1</td>
</tr>
<tr>
<td>NURS 1650</td>
<td>Integrated Pathophysiology, Pharmacology, and Therapeutics</td>
<td>2</td>
</tr>
<tr>
<td>NURS 5470</td>
<td>Scientific Inquiry for Evidence-based Practice</td>
<td>1</td>
</tr>
<tr>
<td>NURS 5400</td>
<td>Current Issues In Health and Social Policy</td>
<td>1</td>
</tr>
<tr>
<td>NURS 1030</td>
<td>Psychological and Social Diversity in Health and Wellness</td>
<td>1</td>
</tr>
<tr>
<td>NURS 2450</td>
<td>Nursing of Young and Middle Aged Adults</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 2550</td>
<td>Nursing of Older Adults</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 3300</td>
<td>Theoretical Foundations of Health Care Ethics</td>
<td>1</td>
</tr>
<tr>
<td>NURS 2150</td>
<td>Nursing of Women and Infants</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 2250</td>
<td>Pediatric Nursing</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 2350</td>
<td>Psychiatric, Behavioral, and Mental Health Nursing</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 3820</td>
<td>Public Health Nursing Care in Communities</td>
<td>1.5</td>
</tr>
<tr>
<td>NURS 3890</td>
<td>Research/Inquiry-Based Service Residency</td>
<td>.5</td>
</tr>
<tr>
<td>NURS 3900</td>
<td>Leadership in the Complex Healthcare System</td>
<td>3</td>
</tr>
<tr>
<td>NURS 0065</td>
<td>Fundamentals of Nutrition</td>
<td>1</td>
</tr>
<tr>
<td>NURS 0061</td>
<td>Biologically-Based Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>NURS 0068</td>
<td>Integrated Cell Biology and Microbiology with Recitation</td>
<td>1</td>
</tr>
</tbody>
</table>

1. There is some flexibility as to when these courses can be taken (fall vs. spring). Please consult with an advisor about your options and course offerings.
2. See the BSN Handbook (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/) for an approved list of courses.

## Notes

1. All plans of study are subject to curricular change. Students must consult with an academic advisor prior to making revisions to the plan of study to ensure that the necessary curricular requirements are being met and to prevent delays in academic progression.
2. Clinical experiences may include evenings, weekends, and 12-hour shifts. Most clinical rotations are accessible by public transportation; however, a car may be necessary for transportation to some clinical sites.
3. Course work outside the School of Nursing is not permitted, with the exception of approved non-nursing courses for the Health Care Ethics and Health Policy requirements.
NURS 1630  Integrated Anatomy, Physiology, and Physical Assessment I  2
NURS 1640  Integrated Human Anatomy, Physiology & Physical Assessment II  2
NURS 1650  Integrated Pathophysiology, Pharmacology, and Therapeutics  2

Non-Clinical Courses
Health Policy Requirement 1  1
NURS 2300  Statistics for Research and Measurement  1
NURS 5470  Scientific Inquiry for Evidence-based Practice  1
Select one of the following:  1
NURS 3300  Theoretical Foundations of Health Care Ethics
PHIL 1342  Bioethics
NURS 3890  Research/Inquiry-Based Service Residency  0.5

Nursing Elective
Select a Nursing Elective  1

Nutrition Major Requirements
Required Basic Science Courses
NURS 0061  Biologically-Based Chemistry
NURS 0068  Integrated Cell Biology and Microbiology with Recitation
NURS 1630  Integrated Anatomy, Physiology, and Physical Assessment I
NURS 1650  Integrated Pathophysiology, Pharmacology, and Therapeutics

Required Nutrition Science Courses
NURS 0065  Fundamentals of Nutrition
NURS 3120  Nutritional Aspects of Disease
NURS 5230  Advanced Nutrition: Molecular Basis of Nutrition
NURS 5240  Advanced Human Nutrition and Micronutrient Metabolism

Elective Courses
Select four course units of electives 2

Total Course Units  40.5

1 See the BSN Handbook (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/degree-requirements/) for a list of approved Health Policy courses.
2 See website (https://www.nursing.upenn.edu/nutrition/nutrition-major/plan-of-study/) for list of approved elective courses.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Minors
- Global Health, Minor (p. 249)
- Health Communications, Minor (p. 249)
- History, Health and the Humanities, Minor (p. 250)
- Nursing and Health Services Management, Minor (p. 250)
- Nutrition, Minor (p. 251)

BSN students are also eligible to complete no more than half of an MSN minor while enrolled as an undergraduate student. For more information, visit: https://www.nursing.upenn.edu/academics/master-of-science-in-nursing-msn/minors/.

Global Health, Minor
The ever-growing threat of pandemics, terrorism, natural disasters, and climate-related challenges has sharpened the need for skilled nurses who understand the global interconnectedness of health. We need nurses who are experienced both clinically and culturally, who are ready to meet the rapidly-changing needs of patients, no matter where they live.

Available exclusively to Penn Nursing students at both the undergraduate and graduate level, our Global Health minor is an opportunity to increase your knowledge of the world and the factors that contribute to the health of populations. We take a cross-disciplinary approach to help you integrate your knowledge of nursing, culture, and diversity to more effectively engage with patients locally, nationally, and around the world.

For more information: https://www.nursing.upenn.edu/global-health-minor/

The Global Health Minor requires a total of 6 course units.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3150/5150</td>
<td>Sociocultural Influences on Health</td>
<td>1</td>
</tr>
<tr>
<td>NURS 3270</td>
<td>Foundations of Global Health</td>
<td>1</td>
</tr>
<tr>
<td>or PUBH 5190</td>
<td>Foundations of Global Health</td>
<td></td>
</tr>
<tr>
<td>Select 1 Global Health Experiential course</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Elective Courses</td>
<td>Select 3 course units 1</td>
<td>3</td>
</tr>
</tbody>
</table>

1 See the website (https://www.nursing.upenn.edu/global-health-minor/plan-of-study-undergrad/) for a list of approved elective courses.

Minors

Health Communications, Minor
The Health Communication minor is a collaboration between the School of Nursing and the Annenberg School for Communication. This program
expands students’ knowledge of the communication process, theory, and behavior, and it prepares them for roles as professionals who develop cutting edge models for health behavior intervention or implement patient education and health communications programs locally, nationally, and globally.

For more information: http://www.nursing.upenn.edu/health-communications-minor/

Health Communications Minor requires a total of 6.5 course units. You must select 3 courses from Nursing and 3 courses from Communication.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 1030</td>
<td>Psychological and Social Diversity in Health and Wellness</td>
<td>1</td>
</tr>
<tr>
<td>NURS 2350</td>
<td>Psychiatric, Behavioral, and Mental Health Nursing</td>
<td>1</td>
</tr>
</tbody>
</table>

Choose one of the courses below:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS 3530</td>
<td>Health Communication in the Digital Age</td>
<td>1</td>
</tr>
<tr>
<td>NURS 3200</td>
<td>Designing to Care: Improving Health and Wellness (SNF Padeia Program Course)</td>
<td>1</td>
</tr>
<tr>
<td>NURS/COMM/PSYC 2760</td>
<td>How We Change: Social-Psychological and Communication Dynamics (SNF Paideia Program Course)</td>
<td>1</td>
</tr>
</tbody>
</table>

Communications Courses

Choose 3CU from the courses below:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMM 2100</td>
<td>Quantitative Research Methods in Communication</td>
<td>1</td>
</tr>
<tr>
<td>COMM 2250</td>
<td>Children and Media</td>
<td>1</td>
</tr>
<tr>
<td>COMM 2750</td>
<td>Communication and Persuasion</td>
<td>1</td>
</tr>
<tr>
<td>COMM 3100</td>
<td>The Communication Research Experience</td>
<td>1</td>
</tr>
<tr>
<td>COMM 3450</td>
<td>Adolescence and Media</td>
<td>1</td>
</tr>
<tr>
<td>COMM 4070</td>
<td>Understanding Social Networks</td>
<td>1</td>
</tr>
<tr>
<td>COMM 4320</td>
<td>Digital Inequalities</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1250</td>
<td>Introduction to Communication Behavior</td>
<td>1</td>
</tr>
<tr>
<td>COMM 1300</td>
<td>Media Industries and Society</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Course Units 6.5

1 At least 1 elective course must be in the School of Nursing.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

History, Health and the Humanities, Minor

A number of universities have forged bridges between the humanities and sciences to nourish students intellectually, build self-awareness, consider social justice-related phenomena through a new lens, and help them develop empathy. The School of Nursing has launched a new minor in History, Health and the Humanities for undergraduate students. This innovative initiative provides students with the tools and perspectives to study clinical issues in ways different than the lens provided by natural or social sciences. It amplifies the humanities component of the Judgement, Inquiry, Voice, and Engagement pillars that define the "Penn Advantage." It offers formalized opportunities for writing, both reflective and analytical, beyond that available in the required nursing curriculum.

Student enrolled in this minor will be considered Bates’ Center associates and will be invited to lunches, dinners, and other events with visiting scholars and faculty.

For more information: https://www.nursing.upenn.edu/academics/bachelor-of-science-in-nursing-bsn/minors/

The History, Health and the Humanities Minor requires a total of 6 course units.

For more information contact the director of the History, Health and the Humanities minor, Cynthia Connolly PhD RN FAAN at cac1@nursing.upenn.edu.

Nursing and Health Services Management, Minor

The delivery of health care increasingly involves decisions that entail considerations beyond clinical or medical issues. With the rise of managed care in the United States, it is critical for health professionals to understand not only the clinical factors that affect patients but also the business environment in which healthcare institutions function. This program, a partnership between the School of Nursing and The Wharton School, helps students understand both the nature of the economic and managerial constraints that healthcare organizations face, and how to effectively manage these constraints to provide the best possible health care for patients.

For more information: http://www.nursing.upenn.edu/nursing-and-health-services-management-minor/

The Nursing and Health Services Management Minor requires a total of 8 course units.
**Nutrition, Minor**

Jointly sponsored by the Schools of Nursing and Arts and Sciences, the Nutrition Minor presents a broad view of the field and illustrates the pervasiveness of nutrition-related issues in such diverse fields as anthropology, economics, folklore, history, physiology, psychology, health care, and public policy.

For more information: [http://www.nursing.upenn.edu/nutrition-minor/](http://www.nursing.upenn.edu/nutrition-minor/)

The Nutrition Minor requires a total of 6 course units.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Minor Requirements</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Core Courses</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select 1 course unit from each Core A, B and C</td>
<td></td>
</tr>
<tr>
<td>Core A - Basic Nutrition:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NURS 0065</td>
<td>Fundamentals of Nutrition</td>
<td>1</td>
</tr>
<tr>
<td>or NURS 1120</td>
<td>Nutrition: Science &amp; Applications</td>
<td></td>
</tr>
<tr>
<td>Core B - Scientific Basis of Nutrition:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select one of the following Options:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 1:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NURS 0068</td>
<td>Integrated Cell Biology and Microbiology with Recitation</td>
<td>1</td>
</tr>
<tr>
<td>Option 2:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIOL 1017</td>
<td>The Biology of Food</td>
<td></td>
</tr>
<tr>
<td>BIOL 1101</td>
<td>Introduction to Biology A</td>
<td></td>
</tr>
<tr>
<td>BIOL 1121</td>
<td>Introduction to Biology - The Molecular Biology of Life</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Academic Opportunities**

Penn Nursing offers a wide variety of supplemental academic opportunities designed to enhance your academic experience and professional development.

For more information, visit: [http://www.nursing.upenn.edu/student-services/advising/opportunities/](http://www.nursing.upenn.edu/student-services/advising/opportunities/)

**Benjamin Franklin Scholars Program - Nursing** ([http://www.nursing.upenn.edu/academics/a-penn-nursing-education/undergraduate-honors-program/](http://www.nursing.upenn.edu/academics/a-penn-nursing-education/undergraduate-honors-program/))

The Benjamin Franklin Scholars (BFS) Program for Nursing ([http://www.nursing.upenn.edu/academics/a-penn-nursing-education/undergraduate-honors-program/](http://www.nursing.upenn.edu/academics/a-penn-nursing-education/undergraduate-honors-program/)) seeks to foster the development of the next generation of nurse achievers - scholars, leaders, and researchers - through intellectual rigor, academic excellence, and outstanding achievements. Scholars are required to complete four Benjamin Franklin Seminars - small, intensive classes in a wide range of disciplines across the liberal arts and sciences - and a Capstone Honors course in the Nursing school.

**Dual Degrees** ([http://www.nursing.upenn.edu/academics/dual-degrees/](http://www.nursing.upenn.edu/academics/dual-degrees/))

We recognize the value of interdisciplinary learning, which is why student at all levels - undergraduate, masters, and doctoral - can pursue a dual degree with other schools across campus. Our Dual Degree ([http://www.nursing.upenn.edu/academics/dual-degrees/](http://www.nursing.upenn.edu/academics/dual-degrees/)) page provides a complete listing of our approved programs.
Global Opportunities (http://www.nursing.upenn.edu/global-health/student-opportunities/)

Penn Nursing offers a variety of international experiences for students in the BSN and MSN programs, which range from short-term opportunities that focus on comparative healthcare in international contexts, to full-semester clinical experiences.

Hillman Scholars Program in Nursing Innovation (http://www.nursing.upenn.edu/accelerated-options/bsn-phd-hillman-scholars/)

The Hillman Scholars Program in Nursing Innovation (http://www.nursing.upenn.edu/accelerated-options/bsn-phd-hillman-scholars/) is an integrated BSN-to-PhD program designed to educate a new cadre of nurse scientists and leaders to develop innovative solutions in healthcare. The program is available for current Penn Nursing undergraduate students, as well as students applying to the Accelerated Second Degree BSN program.

Minors (p. 249)

Penn Nursing offers a variety of minors in such in-demand areas as global health, palliative care, health services management, and oncology. Adding a minor allows students to complement their major by diving more deeply into a specific area of inquiry.

Nutrition Major (p. 248)

Our Nutrition major (http://www.nursing.upenn.edu/nutrition-major/) is an interdisciplinary collaboration with Penn's School of Arts & Sciences. You will study concepts like dietary behaviors and metabolism, as well as scientific approaches to the physiological roles of nutrients in the diet, from the cellular to human level.

Research Opportunities (http://www.nursing.upenn.edu/research/student-research/)

Students have numerous opportunities to engage with research at Penn Nursing, whether that means participating in one of the school-supported research centers, applying for a prestigious fellowship through the Center for Undergraduate Research and Fellowships (http://www.upenn.edu/curf/) (CURF), or working one-on-one with a faculty mentor on a student-driven research project.

Submatriculation (http://www.nursing.upenn.edu/academics/a-penn-nursing-education/submatriculation/)

One of the most popular options at Penn Nursing, submatriculation allows undergraduate students the opportunity to apply to a graduate program and begin coursework while completing the BSN degree. Students can apply to any of the MSN majors (http://www.nursing.upenn.edu/academics/) here at Penn Nursing, or to Penn Law.

School Policies

The majority of Penn Nursing policies can be found in the Policies and Procedures (p. 314) section of the Catalog.

The following additional policies apply specifically to School of Nursing students:

- Statement of Personal Attributes and Capabilities (https://www.nursing.upenn.edu/live/files/218-statement-personal-attributes-and-capabilities/)

  The curricula leading to degrees in nursing require students to engage in diverse and complex experiences directed to the practice, refinement and full acquisition of essential nursing competencies and functions. Unique combinations of cognitive, behavioral, sensory, communication, psychomotor, and communication abilities are required to perform these functions in a satisfactory manner and to consistently demonstrate these competencies. In addition to being essential to the successful completion of the requirements for the respective nursing degree, these competencies and functions are necessary to ensure the health and safety of patients, fellow students, faculty and other health care providers. This statement describes the minimum competencies and functions necessary for entrance to, continuation in, and graduation from the nursing degree programs of the School of Nursing at the University of Pennsylvania. Candidates for nursing degrees must be able to meet these minimum standards with or without reasonable accommodation.

- Student Social Media Policy (https://www.nursing.upenn.edu/live/files/217-student-social-media-policy/)

  This document serves as the official policy for student use of social media at the SON. These guidelines apply to all students creating or contributing to any kind of social media affiliated with the SON. Please check back periodically to make sure you're up to date. We trust that you will adhere to these policies. If, for any reason an incident occurs that violates the policy, we expect you to bring it to our attention immediately so we can work together toward a resolution.

- Student Substance Abuse Policy (https://www.nursing.upenn.edu/live/files/219-student-substance-abuse-policy/)

  The School of Nursing recognizes the importance of educating its students about the problems of substance abuse because this significant health risk, and in many cases, criminal matter, is unfortunately prevalent among healthcare providers. Aside from impacting upon the personal and psychological integrity of the abusers, substance abuse may significantly impact the ability of healthcare providers to administer safe, competent patient care. Recognizing that substance abuse is both a disease and a professional hazard, the School of Nursing has incorporated substance abuse topical content areas into its curriculum. The School of Nursing has likewise established this substance abuse policy. This policy impacts upon and augments the student’s ability to maintain personal and professional integrity, and facilitates the student’s success both clinically and didactically. It promotes a
healthy learning environment for the student. In the clinical setting, this policy enhances patient safety. It also fosters the development of professional nurses who are well educated about the prevalence and adverse outcomes of substance abuse.
THE WHARTON SCHOOL

Founded in 1881 as the world’s first collegiate business school, the Wharton School (https://www.wharton.upenn.edu/) of the University of Pennsylvania is shaping the future of business by incubating ideas, driving insights, and creating leaders who change the world. With a faculty of more than 235 renowned professors, Wharton has 5,000 undergraduate (https://undergrad.wharton.upenn.edu/), MBA (https://mba.wharton.upenn.edu/), executive MBA (https://executivemba.wharton.upenn.edu/), and doctoral (https://doctoral.wharton.upenn.edu/) students. Each year 13,000 professionals from around the world advance their careers through Wharton Executive Education’s (https://executiveeducation.wharton.upenn.edu/) individual, company-customized, and online programs. More than 99,000 Wharton alumni form a powerful global network of leaders who transform business every day.

For more information, visit www.wharton.upenn.edu (https://www.wharton.upenn.edu/).

The Wharton School of the University of Pennsylvania was a remarkable innovation when Joseph Wharton, a self-educated 19th-century industrialist, first proposed its establishment more than 135 years ago. Wharton believed the role of business was to advance society as a whole, creating new wealth and economic opportunity for all people. He approached the Trustees of the University of Pennsylvania in 1880 to establish a new kind of institution specifically designed to prepare leaders for business and public service. His suggestion was a radical one, but also remarkably prescient. With the admission in 1881 of the first class of students — just 13 undergraduates — Joseph Wharton and the University of Pennsylvania created a successful formula that forever changed the landscape of business and education. Now, more than 1 million students graduate each year from more than 13,000 graduate and undergraduate business programs around the world.

The Wharton School remains a leader in business education through a steadfast commitment to our founder’s vision of applying unparalleled intellectual resources to prepare young men and women for leadership in the global society. With programs on every continent, Wharton continues to educate and empower the best minds in business.

Research provides an individualized method of learning and an in-depth treatment of a topic of personal interest with input from a faculty expert. Research experience is helpful if applying for distinguished faculty member. Research assistantships (https://undergrad-inside.wharton.upenn.edu/research/assistantships/) — Learn by executing research-related tasks while working on a project for a faculty member.

• Summer programs (https://undergrad-inside.wharton.upenn.edu/research/summer-opportunities/) — Gain hands-on experience from proposal to presentation through a project commensurate with program duration.

For more information, visit: https://undergrad-inside.wharton.upenn.edu/research/.

The University of Pennsylvania Wharton School is accredited by AACSB – the International Association for Management Education.

1916: AACSB founded initially as the Association of Collegiate Schools of Business (ACSB); constitution is adopted June 17, 1916. Founding members include the following: Columbia University • Cornell University • Dartmouth College • Harvard University • New York University • Northwestern University • Ohio State University • Tulane University • University of California, Berkeley • University of Chicago • University of Illinois • University of Nebraska • University of Pennsylvania • University of Pittsburgh • University of Texas • University of Wisconsin–Madison • Yale University

For more information, visit: http://www.aacsb.edu/.

The goal of the Wharton Undergraduate Division academic advising team is to help students make informed decisions about their educational plans and professional/life goals that are consistent with their interests, abilities, and values.

Advising by appointment, walk-in advising, and specialized advising (https://undergrad-inside.wharton.upenn.edu/advising-services/#specialized_advising) are services available in 1400 Steinberg-Hall Dietrich Hall to current Wharton undergraduate students. Professional advisors (https://undergrad-inside.wharton.upenn.edu/advising-services/), concentration advisors (https://undergrad-inside.wharton.upenn.edu/concentration-advisors/), and peer advisors (https://undergrad-inside.wharton.upenn.edu/peer-advising/) are available to assist students.

For more information, visit: https://undergrad-inside.wharton.upenn.edu/advising-services/.

Curriculum

All Wharton single-degree undergraduate students must complete a minimum of 37 course units and meet the curricular requirements described below. Students enrolled in a coordinated dual-degree (https://undergrad-inside.wharton.upenn.edu/coordinated-dual-degree/) program should check with their program advisor to learn about their unique requirements. For a Wharton single-degree undergraduate student, the standard course load is 4 to 5 CUs per semester (see a sample course sequence (https://undergrad-inside.wharton.upenn.edu/sample-curriculum/)).

The requirements of the Wharton single-degree curriculum are delineated on the academic planning worksheet (https://undergrad-inside.wharton.upenn.edu/download/academic-planning-worksheet-2017/?wpdmdl=3785). Details about these requirements are available via the links below. Students are encouraged to see an academic advisor (https://undergrad-inside.wharton.upenn.edu/advising-services/) for any questions about the requirements of their academic program.
First-Year Foundations
Economics (https://undergrad-inside.wharton.upenn.edu/econ/)
1 required course unit: BEPP 1000

Math (https://undergrad-inside.wharton.upenn.edu/requirements/math/)
Select 1 of the following: MATH 1070 or MATH 1400

Writing (https://undergrad-inside.wharton.upenn.edu/requirements/writing/)
1 required course unit: Critical Writing Seminar

Business
Leadership Journey (https://undergrad-inside.wharton.upenn.edu/leadership-journey/)
3 required courses: WH 1010, WH 2010, MGMT 3010
1 senior capstone (https://undergrad-inside.wharton.upenn.edu/senior-capstone/) course or project

Business Fundamentals (https://undergrad-inside.wharton.upenn.edu/business-fundamentals/)
11 required courses: ACCT 1010, ACCT 1020, BEPP 2500, STAT 1010, STAT 1020, FNCE 1000, FNCE 1010, LGST 1000 or LGST 1010, MGMT 1010, MKTG 1010, OIDD 1010

1 required course unit

Technology, Innovation, and Analytics (https://undergrad-inside.wharton.upenn.edu/technology-innovation-analytics/)
1 required course unit

Business Breadth (https://undergrad-inside.wharton.upenn.edu/business-breadth/)
3 required course units

Concentration (Business Depth) (https://undergrad-inside.wharton.upenn.edu/concentrations/)
4 required course units

Liberal Arts & Sciences
Foreign Language Requirement (https://undergrad-inside.wharton.upenn.edu/foreign-language-requirement/)
7 required course units

- Humanities
  - At least 1 course unit
- Natural Science, Math, and Engineering

Unrestricted
Electives (https://undergrad-inside.wharton.upenn.edu/unrestricted-electives/)
5 required course units

Concentrations
All students graduate from Wharton with a Bachelor of Science in Economics; however, each student is required to choose a concentration, which consists of four upper-level courses that explore a particular area of business in depth.

- Accounting, BS (p. 256)
- Behavioral Economics, BS (p. 256)
- Business Analytics, BS (p. 257)
- Business Economics and Public Policy, BS (p. 259)
- Business, Energy, Environment, and Sustainability, BS (p. 261)
- Diversity, Equity and Inclusion, BS (p. 262)
- Entrepreneurship and Innovation, BS (p. 267)
- Environmental, Social, and Governance Factors for Business
  - Business, Energy, Environment and Sustainability, BS (p. 263)
  - General, BS (p. 264)
  - Social and Governance Factors, BS (p. 266)
- Finance, BS (p. 269)
- Health Care Management and Policy, BS (p. 270)
- Individualized, BS (p. 271)
- Legal Studies & Business Ethics, BS (p. 272)
- Management
  - General Track, BS (p. 274)
  - Multinational Management Track, BS (p. 275)
  - Organizational Effectiveness Track, BS (p. 276)
  - Strategic Management Track, BS (p. 277)
- Marketing & Communication, BS (p. 278)
- Marketing & Operations Management, BS (p. 279)
- Marketing, BS (p. 280)
- Operations, Information & Decisions
  - Decision Processes Track, BS (p. 281)
  - General Track, BS (p. 282)
  - Information Systems Track, BS (p. 283)
  - Operations Management/Management Science Track, BS (p. 284)
- Real Estate, BS (p. 285)
- Retailing, BS (p. 286)
- Social Impact & Responsibility, BS (p. 288)
- Statistics and Data Science, BS (p. 288)
Accounting, BS

Although strong quantitative skills and attention to detail are important qualities for an accounting concentration, students need to acquire other skills as well. Many students find the accounting concentration to be useful preparation for careers in consulting, investment banking, general management, public accounting, and securities analysis.

For more information: https://accounting.wharton.upenn.edu/

Accounting Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2120</td>
<td>Financial Measurement and Disclosure</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select three of the following:</td>
<td>3</td>
</tr>
<tr>
<td>ACCT 2420</td>
<td>Accounting and Business Analysis</td>
<td></td>
</tr>
<tr>
<td>ACCT 2430</td>
<td>Accounting for Mergers, Acquisitions, and Complex Financial Structures</td>
<td></td>
</tr>
<tr>
<td>ACCT 2970</td>
<td>Taxes and Business Strategy</td>
<td></td>
</tr>
<tr>
<td>ACCT 3990</td>
<td>Independent Study</td>
<td></td>
</tr>
<tr>
<td>FNCE 2070</td>
<td>Valuation</td>
<td></td>
</tr>
</tbody>
</table>

Other Wharton Requirements

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students 1</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td>WRITING</td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
<tr>
<td>BUSINESS</td>
<td>Business Breadth (non-concentration courses)</td>
<td>3</td>
</tr>
<tr>
<td>LEADERSHIP JOURNEY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td>0.5</td>
<td></td>
</tr>
</tbody>
</table>

Fundamentals

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
</tbody>
</table>

For more information: https://bepp.wharton.upenn.edu/programs/undergraduate/program-information1/behavioral-economics/

Behavioral Economics, BS

This new collaborative field, behavioral economics, has provided an understanding of how people's decisions deviate from "optimal" choices and the consequences of such deviations for consumers, managers, firms, and policy. This joint concentration between the Operations, Information, and Decisions Department and the Business Economics and Public Policy Department explores the behavioral aspects of economics and decision making.

This concentration provides students with the opportunity to develop an understanding of (a) the rational actor model, (b) modifications to that model that reflect the psychology of human behavior, and (c) implications of those modifications for decision-makers, markets, and public policy.

For more information: https://bepp.wharton.upenn.edu/programs/undergraduate/program-information1/behavioral-economics/
**Behavioral Economics Concentration**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 2200</td>
<td>Behavioral Economics, Markets, and Public Policy</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 2900</td>
<td>Decision Processes</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Complete two course units of BHEC electives</td>
<td>2</td>
</tr>
<tr>
<td>BEPP 2010</td>
<td>Public Finance and Policy</td>
<td></td>
</tr>
<tr>
<td>BEPP 3050</td>
<td>Risk Management</td>
<td></td>
</tr>
<tr>
<td>ECON 4140</td>
<td>Decision Making Under Uncertainty</td>
<td></td>
</tr>
<tr>
<td>FNCE 2390</td>
<td>Behavioral Finance</td>
<td></td>
</tr>
<tr>
<td>MKTG 2110</td>
<td>Consumer Behavior</td>
<td></td>
</tr>
<tr>
<td>MKTG 2660</td>
<td>Marketing for Social Impact</td>
<td></td>
</tr>
<tr>
<td>BEPP 2610</td>
<td>Risk Analysis and Environmental Management</td>
<td></td>
</tr>
<tr>
<td>OIDD 2910</td>
<td>Negotiations</td>
<td></td>
</tr>
<tr>
<td>OIDD 2920</td>
<td>Advanced Negotiation</td>
<td></td>
</tr>
<tr>
<td>OIDD 3190</td>
<td>Advanced Decision Systems: Evolutionary Computation</td>
<td></td>
</tr>
<tr>
<td>OIDD 4900</td>
<td>The Science of Behavior Change</td>
<td></td>
</tr>
<tr>
<td>PSYC 2737</td>
<td>Judgment and Decisions</td>
<td></td>
</tr>
<tr>
<td>Other Wharton Requirements</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>37</td>
</tr>
</tbody>
</table>

**Other Wharton Requirements**

**First-Year Foundations**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students¹</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Business</td>
<td>Business Breadth (non-concentration courses)</td>
<td>3</td>
</tr>
<tr>
<td>Leadership Journey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>Fundamentals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td>Other Wharton Requirements</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>37</td>
</tr>
</tbody>
</table>

¹ For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

² Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

**Business Analytics, BS**

The Business Analytics joint concentration between the OID and STAT departments is designed to build deep competency in the skills needed to implement and oversee data-driven business decisions, including (i) collecting, managing, and describing datasets, (ii) forming inferences and predictions from data, and (iii) making optimal and robust decisions. Business analytics makes extensive use of statistical analysis, and the applications of business analytics span all functional areas.

Students choosing the Business Analytics concentration are ideally suited for the growing set of careers broadly defined under the header of “data science” with responsibilities for managing and analyzing data. In addition, the concentration provides an excellent complement to students who choose to focus on one of the functional areas of business (e.g., accounting, finance, marketing, operations).

For more information: [https://oid.wharton.upenn.edu/programs/undergraduate/business-analytics-joint-concentration/](https://oid.wharton.upenn.edu/programs/undergraduate/business-analytics-joint-concentration/)

---

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
# Business Analytics Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2700</td>
<td>Forensic Analytics</td>
<td></td>
</tr>
<tr>
<td>BEPP 2800</td>
<td>Applied Data Analysis</td>
<td></td>
</tr>
<tr>
<td>CIS 4190/5190</td>
<td>Applied Machine Learning *1</td>
<td></td>
</tr>
<tr>
<td>CIS 5200</td>
<td>Machine Learning *1</td>
<td></td>
</tr>
<tr>
<td>CIS 5450</td>
<td>Big Data Analytics</td>
<td></td>
</tr>
<tr>
<td>COMM 3130</td>
<td>Computational Text Analysis for Communication Research</td>
<td></td>
</tr>
<tr>
<td>ESE 3050</td>
<td>Foundations of Data Science</td>
<td></td>
</tr>
<tr>
<td>FNCE 2170</td>
<td>Financial Derivatives</td>
<td></td>
</tr>
<tr>
<td>FNCE 2370</td>
<td>Data Science for Finance</td>
<td></td>
</tr>
<tr>
<td>FNCE 2800</td>
<td>FinTech</td>
<td></td>
</tr>
<tr>
<td>HCMG 3570</td>
<td>Healthcare Data and Analytics</td>
<td></td>
</tr>
<tr>
<td>MGMT 2930</td>
<td>People Analytics</td>
<td></td>
</tr>
<tr>
<td>MKTG 2120</td>
<td>Data and Analysis for Marketing Decisions</td>
<td></td>
</tr>
<tr>
<td>MKTG 2710</td>
<td>Models for Marketing Strategy</td>
<td></td>
</tr>
<tr>
<td>MKTG 3090</td>
<td>Special Topics: Experiments for Business Decision Making</td>
<td></td>
</tr>
<tr>
<td>MKTG 3520</td>
<td>Special Topics - Marketing Analytics</td>
<td></td>
</tr>
<tr>
<td>MKTG 4760</td>
<td>Applied Probability Models in Marketing</td>
<td></td>
</tr>
<tr>
<td>OIDD 2150</td>
<td>Intro to Analytics and the Digital Economy</td>
<td></td>
</tr>
<tr>
<td>OIDD 2200</td>
<td>Introduction to Operations Management</td>
<td></td>
</tr>
<tr>
<td>OIDD 2450</td>
<td>Analytics and the Digital Economy</td>
<td></td>
</tr>
<tr>
<td>OIDD 2550</td>
<td>Artificial Intelligence, Business, and Society</td>
<td></td>
</tr>
<tr>
<td>OIDD 3140</td>
<td>Enabling Technologies</td>
<td></td>
</tr>
<tr>
<td>OIDD 3150</td>
<td>Databases for Analytics</td>
<td></td>
</tr>
<tr>
<td>OIDD 3190</td>
<td>Advanced Decision Systems: Evolutionary Computation</td>
<td></td>
</tr>
<tr>
<td>OIDD 3250</td>
<td>Computer Simulation Models</td>
<td></td>
</tr>
<tr>
<td>OIDD 4100</td>
<td>Decision Support Systems</td>
<td></td>
</tr>
<tr>
<td>OIDD 4690</td>
<td>Information Strategy and Economics</td>
<td></td>
</tr>
<tr>
<td>OIDD 4770</td>
<td>Introduction to Python for Data Science</td>
<td></td>
</tr>
<tr>
<td>OIDD 5250</td>
<td>Thinking with Models: Business Analytics for Energy and Sustainability</td>
<td></td>
</tr>
<tr>
<td>STAT 4050</td>
<td>Statistical Computing with R</td>
<td></td>
</tr>
<tr>
<td>STAT 4220</td>
<td>Predictive Analytics for Business</td>
<td></td>
</tr>
<tr>
<td>STAT 4230</td>
<td>Applied Machine Learning in Business</td>
<td></td>
</tr>
<tr>
<td>STAT 4350</td>
<td>Forecasting Methods for Management</td>
<td></td>
</tr>
<tr>
<td>STAT 4420</td>
<td>Introduction to Bayesian Data Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 4700</td>
<td>Data Analytics and Statistical Computing</td>
<td></td>
</tr>
<tr>
<td>STAT 4710</td>
<td>Modern Data Mining</td>
<td></td>
</tr>
<tr>
<td>STAT 4740</td>
<td>Modern Regression for the Social, Behavioral and Biological Sciences</td>
<td></td>
</tr>
<tr>
<td>STAT 4750</td>
<td>Sample Survey Design</td>
<td></td>
</tr>
<tr>
<td>STAT 4770</td>
<td>Introduction to Python for Data Science</td>
<td></td>
</tr>
<tr>
<td>STAT 5200</td>
<td>Applied Econometrics I</td>
<td></td>
</tr>
<tr>
<td>ESE 5060</td>
<td>Introduction to Optimization Theory</td>
<td></td>
</tr>
<tr>
<td>FNCE 2050</td>
<td>Investment Management</td>
<td></td>
</tr>
<tr>
<td>FNCE 2170</td>
<td>Financial Derivatives</td>
<td></td>
</tr>
<tr>
<td>OIDD 2010</td>
<td>Technology Management, Information and the Digital Economy</td>
<td></td>
</tr>
<tr>
<td>OIDD 2200</td>
<td>Introduction to Operations Management</td>
<td></td>
</tr>
<tr>
<td>OIDD 2240</td>
<td>Analytics for Service Operations</td>
<td></td>
</tr>
<tr>
<td>OIDD 2360</td>
<td>Scaling Operations in Technology Ventures: Linking Strategy and Execution</td>
<td></td>
</tr>
<tr>
<td>OIDD 2450</td>
<td>Analytics and the Digital Economy</td>
<td></td>
</tr>
<tr>
<td>OIDD 3210</td>
<td>Introduction to Management Science</td>
<td></td>
</tr>
<tr>
<td>OIDD 3250</td>
<td>Computer Simulation Models</td>
<td></td>
</tr>
<tr>
<td>OIDD 3530</td>
<td>Mathematical Modeling and its Application in Finance</td>
<td></td>
</tr>
<tr>
<td>OIDD 5250</td>
<td>Thinking with Models: Business Analytics for Energy and Sustainability</td>
<td></td>
</tr>
<tr>
<td>STAT 4350</td>
<td>Forecasting Methods for Management</td>
<td></td>
</tr>
</tbody>
</table>

---

**Complete one additional course unit from above BUAN electives or the equivalent from the following:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2700</td>
<td>Forensic Analytics</td>
</tr>
<tr>
<td>CIS 4500</td>
<td>Database and Information Systems</td>
</tr>
</tbody>
</table>
LGST 2420  Big Data, Big Responsibilities: The Law and Ethics of Business Analytics
OIDD 3190  Advanced Decision Systems: Evolutionary Computation
OIDD 3800  Operations Strategy Practicum
STAT 4300  Probability
STAT 4330  Stochastic Processes
Other Wharton Requirements 33
Total Course Units 37

1 Students can count only one of the two courses (CIS 4190/5190 or CIS 5200) towards the Business Analytics concentration.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td>1</td>
</tr>
<tr>
<td>Writing</td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Business</td>
<td>Business Breadth (non-concentration courses)</td>
<td>3</td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Fundamentals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td>1</td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>Global Economy, Business &amp; Society</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One course unit required</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Technology, Innovation &amp; Analytics</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Liberal Arts &amp; Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Second semester-level course or equivalent required</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
</tbody>
</table>

Natural Science, Math & Engineering
At least one course unit required 1
Social Science
At least one course unit required 1
Cross-Cultural Perspectives
Three course units required 2 3
Unrestricted Electives
Five course units required 5
Total Course Units 33

1 For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.
2 Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Business Economics and Public Policy, BS
The Business Economics and Public Policy concentration offers a wide range of courses for students interested in the role of economics in business, competition and public policy. Our courses specialize in market structure and competition, insurance and risk management, behavioral economics, energy, public finance, business & international politics, and business and development. A concentration in Business Economics and Public Policy is vital for students planning a career in consulting, the public sector, industries with a high social impact factor, and anyone with a general interest in how economics interacts with law, policy, and politics.

For more information: https://bepp.wharton.upenn.edu/programs/undergraduate/program-information1/bepp-program/

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP Concentration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Economics and Public Policy Fundamentals</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2010</td>
<td>Public Finance and Policy</td>
<td></td>
</tr>
<tr>
<td>BEPP 2840</td>
<td>Game Theory for Business and Life</td>
<td></td>
</tr>
<tr>
<td>BEPP 3050</td>
<td>Risk Management</td>
<td></td>
</tr>
<tr>
<td>Business Economics and Public Policy Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Select three of the following:</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2020</td>
<td>Consumer Financial Decision Making</td>
<td></td>
</tr>
</tbody>
</table>
Other Wharton Requirements

**First-Year Foundations**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students ¹</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td>1</td>
</tr>
</tbody>
</table>

**Writing**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Writing Seminar</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**Business**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Breadth (non-concentration courses)</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

1 At least two of the electives need to be BEPP courses and could include the remaining two BEPP Fundamentals. Additional course substitutions require the approval of the BEPP department’s undergraduate advisor.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

¹ For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Division or Unrestricted Elective requirement.

² Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.
Business, Energy, Environment, and Sustainability, BS

The Undergraduate Concentration in Business, Energy, Environment, & Sustainability is designed to provide in-depth foundations for those interested in the complex relationships between business and the natural environment, management of environmental risks, and the business and economics of energy. As global energy markets grow and change rapidly and environmental challenges rise, there is a strong need for a new generation of expert business leaders who understand the rapidly evolving trends in business models, technology, regulation, and financing. Students choosing this concentration are therefore ideally suited for the ever-expanding set of careers in energy companies, clean-tech investing, energy banking, consulting, the non-profit world, and the government. Students will gain insight into these challenges through an inter-disciplinary approach. This concentration, which is housed in the Legal Studies and Business Ethics Department, includes relevant course offerings by departments including Business Economics and Public Policy, Finance, Legal Studies and Business Ethics, Management, Marketing, and Operations Information and Decisions. Up to one credit unit of coursework on business, energy, and the environment can be credited toward this concentration from the School of Arts and Sciences, the School of Engineering and Applied Science, the School of Design, among other programs, as specified below. Because this concentration is housed in the Legal Studies and Business Ethics Department, courses offered by Legal Studies and Business Ethics cannot be used toward the Business Breadth requirement.

For more information: https://riskcenter.wharton.upenn.edu/undergrad-enviro-concentration/

Business, Energy, Environment, and Sustainability Concentration

Select four of the following courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP/OIDD</td>
<td>Environmental &amp; Energy Economics and Policy</td>
<td>4</td>
</tr>
<tr>
<td>2630</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FNCE 2540</td>
<td>ESG and Impact Investing</td>
<td></td>
</tr>
<tr>
<td>LGST 2150</td>
<td>Environmental Management: Law &amp; Policy</td>
<td></td>
</tr>
<tr>
<td>MGMT 2090</td>
<td>The Political Environment of the Multinational Firm</td>
<td></td>
</tr>
<tr>
<td>MKTG 2660</td>
<td>Marketing for Social Impact</td>
<td></td>
</tr>
<tr>
<td>OIDD/BEPP</td>
<td>Risk Analysis and Environmental Management</td>
<td></td>
</tr>
<tr>
<td>2610</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OIDD 5250</td>
<td>Thinking with Models: Business Analytics for Energy and Sustainability</td>
<td></td>
</tr>
</tbody>
</table>

The Undergraduate Concentration in Business, Energy, Environment, & Business requires four course units. At least three course units must be from the list of Wharton courses above. Up to one course unit may be from the following list of pre-approved non-Wharton courses (with prior approval of the Director of the Concentration)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBE 5050</td>
<td>Carbon Capture</td>
<td></td>
</tr>
<tr>
<td>EAS 3010/5050</td>
<td>Climate Policy and Technology</td>
<td></td>
</tr>
</tbody>
</table>

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAS 3060/5060</td>
<td>Electricity and Systems Markets</td>
<td></td>
</tr>
<tr>
<td>ENVS 6300</td>
<td>The Future of Water</td>
<td></td>
</tr>
<tr>
<td>ENVS 6550</td>
<td>Life Cycle Assessment</td>
<td></td>
</tr>
<tr>
<td>MEAM 5020</td>
<td>Energy Engineering in Power Plants and Transportation Systems</td>
<td></td>
</tr>
<tr>
<td>LAW 9190</td>
<td>Energy Law &amp; Climate Change</td>
<td></td>
</tr>
</tbody>
</table>

If a student believes that a course is missing from this list, they may petition the Director of the Concentration to add the course to the list prior to the start of the semester in which the course will be taken, or at the latest, within the first two weeks of the semester. Requests after a course has been completed will not be granted. The request should include a copy of the syllabus for the course and a brief statement as to why the course should be added. Courses that are likely to be approved are non-Wharton courses in which the primary focus is on topics relating to energy, environment, and sustainability, such as those listed here: https://kleinmanenergy.upenn.edu/energy-courses (https://kleinmanenergy.upenn.edu/energy-courses/).

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students 1</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
</tbody>
</table>

2023-24 Catalog | Generated 08/02/23
Diversity, Equity and Inclusion, BS

4.0 credit units are required beyond the Wharton core for the DEI concentration.

Students must take at least 1.5 credit units from the following foundational courses. The semester or quarter in which each class will tentatively be offered during the 2022-2023 academic year is shown in parentheses for planning purposes. Please consult the undergraduate course schedule (https://mgmt.wharton.upenn.edu/programs/undergraduate/course-schedule/) to confirm:

For more information: https://mgmt.wharton.upenn.edu/programs/undergraduate/dei-concentration/
Environmental, Social, and Governance Factors for Business: Business, Energy, Environment and Sustainability, BS

The Concentration/Major in Environmental, Social, and Governance Factors for Business (ESGB) is designed to provide in-depth foundations for those interested in the complex relationships between business and the natural environment and business and society more broadly, including management of environmental, social, and governance risks and opportunities, the business and economics of energy, and the ways in which firms incorporate ESG factors into their governance. There is a strong need for a new generation of expert business leaders who understand the rapidly evolving trends in business models, technology, regulation, and financing with implications for the environment and society as a whole. Students choosing the ESGB Concentration/Major are therefore ideally suited for the ever-expanding set of careers in many fields. Relevant courses are offered by departments including Accounting, Business Economics and Public Policy, Finance, Legal Studies and Business Ethics, Management, Marketing, and Operations Information and Decisions. This Concentration/Major is jointly administered by the Business, Economics and Public Policy Department, the Legal Studies and Business Ethics Department, and the Management Department. The Faculty Advisors to this Concentration/Major are Professors Arthur van Benthem (BEPP), Vit Henisz (MGMT) and Sarah Light (LGST). Questions regarding this Concentration/Major should be directed in the first instance to Sarah Jane McAffrey.

For more information: https://esg.wharton.upenn.edu/students/esg-concentration/

Environmental, Social, and Governance Factors for Business - Business, Energy, Environment and Sustainability Track

Undergraduate Students must take four credit units from the following list of courses:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT/BEPP 2640</td>
<td>Climate and Financial Markets</td>
<td>4</td>
</tr>
<tr>
<td>BEPP/OIDD 2610</td>
<td>Risk Analysis and Environmental Management</td>
<td></td>
</tr>
<tr>
<td>BEPP/OIDD 2630</td>
<td>Environmental &amp; Energy Economics and Policy</td>
<td></td>
</tr>
<tr>
<td>FNCE 2560</td>
<td>Energy Finance</td>
<td></td>
</tr>
<tr>
<td>LGST 2150</td>
<td>Environmental Management: Law &amp; Policy</td>
<td></td>
</tr>
<tr>
<td>LGST 2600</td>
<td>Climate &amp; Environmental Leadership in Action: Building a Sustainable Future (by application)</td>
<td></td>
</tr>
<tr>
<td>MGMT 8970</td>
<td>Global Modular Course A (on Sustainability; in Germany, by application)</td>
<td></td>
</tr>
<tr>
<td>OID 5250</td>
<td>Thinking with Models: Business Analytics for Energy and Sustainability</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Note: For both undergraduates and MBA students especially interested in ESG analytics, we note that while the STAT Department does not have courses on this list that count toward the 4 required credit units for the concentration/major, the following courses may be of special interest:

- STAT 4100 Data Collection and Acquisition: Strategies and Platforms
- STAT 4220 Predictive Analytics for Business
- STAT 4230 Applied Machine Learning in Business
- STAT 4240 Text Analytics
- STAT 4350 Forecasting Methods for Management
- STAT 4420 Introduction to Bayesian Data Analysis
- STAT 4700 Data Analytics and Statistical Computing
- STAT 4750 Sample Survey Design
- STAT 4770 Introduction to Python for Data Science

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Course Units</td>
<td>37</td>
</tr>
</tbody>
</table>

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First-Year Foundations</td>
<td></td>
</tr>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students 1</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Business Breadth (non-concentration courses)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Leadership Journey</td>
<td></td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundamentals</td>
<td></td>
</tr>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Environmental, Social, and Governance Factors for Business: General, BS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technology, Innovation &amp; Analytics</td>
<td>One course unit required</td>
</tr>
<tr>
<td></td>
<td>Liberal Arts &amp; Sciences</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Foreign Language</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Second semester-level course or equivalent required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Natural Science, Math &amp; Engineering</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Social Science</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Cross-Cultural Perspectives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three course units required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unrestricted Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Five course units required</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>33</td>
</tr>
</tbody>
</table>

1 For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

2 Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Environmental, Social, and Governance Factors for Business: General, BS

The Concentration/Major in Environmental, Social, and Governance Factors for Business (ESGB) is designed to provide in-depth foundations for those interested in the complex relationships between business and the natural environment and business and society more broadly, including management of environmental, social, and governance risks and opportunities, the business and economics of energy, and the ways in which firms incorporate ESG factors into their governance. There is a strong need for a new generation of expert business leaders who understand the rapidly evolving trends in business models, technology, regulation, and financing with implications for the environment and society as a whole. Students choosing the ESGB Concentration/Major are therefore ideally suited for the ever-expanding set of careers in many fields. Relevant courses are offered by departments including Accounting, Business Economics and Public Policy, Finance, Legal Studies and Business Ethics, Management, Marketing, and Operations Information and Decisions. This Concentration/Major is jointly administered by the Business, Economics and Public Policy Department, the Legal Studies and Business Ethics Department, and the Management Department.
The Faculty Advisors to this Concentration/Major are Professors Arthur van Benthem (BEPP), Vit Henisz (MGMT) and Sarah Light (LGST). Questions regarding this Concentration/Major should be directed in the first instance to Sarah Jane McAffrey.

For more information: https://esg.wharton.upenn.edu/students/esg-concentration/

**Curriculum**

The Concentration/Major in Environmental, Social, and Governance Factors for Business (ESGB) is designed to provide in-depth foundations for those interested in the complex relationships between business and the natural environment and business and society more broadly, including management of environmental, social, and governance risks and opportunities, the business and economics of energy, and the ways in which firms incorporate ESG factors into their governance. There is a strong need for a new generation of expert business leaders who understand the rapidly evolving trends in business models, technology, regulation, and financing with implications for the environment and society as a whole. Students choosing the ESGB Concentration/Major are therefore ideally suited for the ever-expanding set of careers in many fields. Relevant courses are offered by departments including Accounting, Business Economics and Public Policy, Finance, Legal Studies and Business Ethics, Management, Marketing, and Operations Information and Decisions. This Concentration/Major is jointly administered by the Business, Economics and Public Policy Department, the Legal Studies and Business Ethics Department, and the Management Department. The Faculty Advisors to this Concentration/Major are Professors Arthur van Benthem (BEPP), Vit Henisz (MGMT) and Sarah Light (LGST). Questions regarding this Concentration/Major should be directed in the first instance to Sarah Jane McAffrey.

For more information: https://esg.wharton.upenn.edu/students/esg-concentration/

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT/BEPP 2640</td>
<td>Climate and Financial Markets</td>
<td>4</td>
</tr>
<tr>
<td>BEPP/OIDD 2610</td>
<td>Risk Analysis and Environmental Management</td>
<td></td>
</tr>
<tr>
<td>BEPP/OIDD 2630</td>
<td>Environmental &amp; Energy Economics and Policy</td>
<td></td>
</tr>
<tr>
<td>FNCE 2560</td>
<td>Energy Finance</td>
<td></td>
</tr>
<tr>
<td>LGST 2150</td>
<td>Environmental Management: Law &amp; Policy</td>
<td></td>
</tr>
<tr>
<td>LGST 2600</td>
<td>Climate &amp; Environmental Leadership in Action: Building a Sustainable Future (by application)</td>
<td></td>
</tr>
<tr>
<td>MGMT 8970</td>
<td>Global Modular Course A (on Sustainability; in Germany, by application)</td>
<td></td>
</tr>
<tr>
<td>OIDD 5250</td>
<td>Thinking with Models: Business Analytics for Energy and Sustainability (Social and Governance)</td>
<td></td>
</tr>
</tbody>
</table>

**Other Wharton Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students 1</td>
<td></td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td></td>
<td>0.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
</tbody>
</table>
Environmental, Social, and Governance Factors for Business: Social and Governance Factors, BS

The Concentration/Major in Environmental, Social, and Governance Factors for Business (ESGB) is designed to provide in-depth foundations for those interested in the complex relationships between business and the natural environment and business and society more broadly, including management of environmental, social, and governance risks and opportunities, the business and economics of energy, and the ways in which firms incorporate ESG factors into their governance. There is a strong need for a new generation of expert business leaders who understand the rapidly evolving trends in business models, technology, regulation, and financing with implications for the environment and society as a whole. Students choosing the ESGB Concentration/Major are therefore ideally suited for the ever-expanding set of careers in many fields. Relevant courses are offered by departments including Accounting, Business Economics and Public Policy, Finance, Legal Studies and Business Ethics, Management, Marketing, and Operations Information and Decisions. This Concentration/Major is jointly administered by the Business, Economics and Public Policy Department, the Legal Studies and Business Ethics Department, and the Management Department. The Faculty Advisors to this Concentration/Major are Professors Arthur van Benthem (BEPP), Vit Henisz (MGMT) and Sarah Light (LGST). Questions regarding this Concentration/Major should be directed in the first instance to Sarah Jane McAffrey.

For more information: https://esg.wharton.upenn.edu/students/esg-concentration/

Environmental, Social, and Governance Factors for Business - Social and Governance Factors Track

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2700</td>
<td>Forensic Analytics</td>
<td>4</td>
</tr>
<tr>
<td>BEPP 2010</td>
<td>Public Finance and Policy</td>
<td></td>
</tr>
<tr>
<td>BEPP 2560</td>
<td>Economics of Diversity and Discrimination</td>
<td></td>
</tr>
<tr>
<td>FNCE 2540</td>
<td>ESG and Impact Investing</td>
<td></td>
</tr>
<tr>
<td>FNCE 4020</td>
<td>Shareholder Activism</td>
<td></td>
</tr>
<tr>
<td>LGST 2080</td>
<td>Law of Corporate Management and Finance</td>
<td></td>
</tr>
<tr>
<td>LGST 2160</td>
<td>Emerging Economies</td>
<td></td>
</tr>
<tr>
<td>LGST 2180</td>
<td>Diversity and the Law</td>
<td></td>
</tr>
<tr>
<td>LGST 2190</td>
<td>Law and Policy in International Business</td>
<td></td>
</tr>
<tr>
<td>LGST 2200</td>
<td>International Business Ethics</td>
<td></td>
</tr>
<tr>
<td>LGST 2210</td>
<td>Constitutional Law and Free Enterprise</td>
<td></td>
</tr>
<tr>
<td>LGST 2240</td>
<td>Human Rights and Globalization</td>
<td></td>
</tr>
<tr>
<td>LGST 2260</td>
<td>Markets, Morality &amp; the Future of Capitalism</td>
<td></td>
</tr>
<tr>
<td>LGST 2300</td>
<td>Social Impact and Responsibility: Foundations</td>
<td></td>
</tr>
<tr>
<td>LGST 2410</td>
<td>Theories of Business Enterprise</td>
<td></td>
</tr>
<tr>
<td>LGST 2420</td>
<td>Big Data, Big Responsibilities: The Law and Ethics of Business Analytics</td>
<td></td>
</tr>
<tr>
<td>LGST 2430</td>
<td>Other People’s Money: The Law, Politics, and History of Financial Institutions</td>
<td></td>
</tr>
<tr>
<td>MGMT 2090</td>
<td>The Political Environment of the Multinational Firm</td>
<td></td>
</tr>
</tbody>
</table>

Undergraduate Students must take four credit units from the following list of courses:

<table>
<thead>
<tr>
<th>Social and Governance:</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 2700 Forensic Analytics</td>
<td>4</td>
</tr>
<tr>
<td>BEPP 2010 Public Finance and Policy</td>
<td></td>
</tr>
<tr>
<td>BEPP 2560 Economics of Diversity and Discrimination</td>
<td></td>
</tr>
<tr>
<td>FNCE 2540 ESG and Impact Investing</td>
<td></td>
</tr>
<tr>
<td>FNCE 4020 Shareholder Activism</td>
<td></td>
</tr>
<tr>
<td>LGST 2080 Law of Corporate Management and Finance</td>
<td></td>
</tr>
<tr>
<td>LGST 2160 Emerging Economies</td>
<td></td>
</tr>
<tr>
<td>LGST 2180 Diversity and the Law</td>
<td></td>
</tr>
<tr>
<td>LGST 2190 Law and Policy in International Business</td>
<td></td>
</tr>
<tr>
<td>LGST 2200 International Business Ethics</td>
<td></td>
</tr>
<tr>
<td>LGST 2210 Constitutional Law and Free Enterprise</td>
<td></td>
</tr>
<tr>
<td>LGST 2240 Human Rights and Globalization</td>
<td></td>
</tr>
<tr>
<td>LGST 2260 Markets, Morality &amp; the Future of Capitalism</td>
<td></td>
</tr>
<tr>
<td>LGST 2300 Social Impact and Responsibility: Foundations</td>
<td></td>
</tr>
<tr>
<td>LGST 2410 Theories of Business Enterprise</td>
<td></td>
</tr>
<tr>
<td>LGST 2420 Big Data, Big Responsibilities: The Law and Ethics of Business Analytics</td>
<td></td>
</tr>
<tr>
<td>LGST 2430 Other People’s Money: The Law, Politics, and History of Financial Institutions</td>
<td></td>
</tr>
<tr>
<td>MGMT 2090 The Political Environment of the Multinational Firm</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 2120</td>
<td>Social Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>MGMT 2140</td>
<td>Market Dynamics and Technical Change</td>
<td></td>
</tr>
<tr>
<td>MGMT 2420</td>
<td>Corporate Governance, Executive Compensation and the Board</td>
<td></td>
</tr>
<tr>
<td>MKTG 2660</td>
<td>Marketing for Social Impact</td>
<td></td>
</tr>
<tr>
<td>MKTG 3530</td>
<td>Special Topics: The Business of Wellness: Marketing and Consumption</td>
<td></td>
</tr>
</tbody>
</table>

Note: For both undergraduates and MBA students especially interested in ESG analytics, we note that while the STAT Department does not have courses on this list that count toward the 4 required credit units for the concentration/major, the following courses may be of special interest:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 4100</td>
<td>Data Collection and Acquisition: Strategies and Platforms</td>
<td></td>
</tr>
<tr>
<td>STAT 4220</td>
<td>Predictive Analytics for Business</td>
<td></td>
</tr>
<tr>
<td>STAT 4230</td>
<td>Applied Machine Learning in Business</td>
<td></td>
</tr>
<tr>
<td>STAT 4240</td>
<td>Text Analytics</td>
<td></td>
</tr>
<tr>
<td>STAT 4350</td>
<td>Forecasting Methods for Management</td>
<td></td>
</tr>
<tr>
<td>STAT 4420</td>
<td>Introduction to Bayesian Data Analysis</td>
<td></td>
</tr>
<tr>
<td>STAT 4700</td>
<td>Data Analytics and Statistical Computing</td>
<td></td>
</tr>
<tr>
<td>STAT 4710</td>
<td>Modern Data Mining</td>
<td></td>
</tr>
<tr>
<td>STAT 4750</td>
<td>Sample Survey Design</td>
<td></td>
</tr>
<tr>
<td>STAT 4770</td>
<td>Introduction to Python for Data Science</td>
<td></td>
</tr>
</tbody>
</table>

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Other Wharton Requirements</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students 1</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Writing</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Business</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business Breadth (non-concentration courses)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Leadership Journey</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WH 1010 Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>WH 2010 Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>MGMT 3010 Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td><strong>Fundamentals</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ACCT 1010 Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ACCT 1020 Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>BEPP 2500 Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>FNCE 1000 Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>FNCE 1010 Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>LGST 1000 Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or LGST 1010 Law and Social Values</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MKTG 1010 Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>OIDD 1010</strong> An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>STAT 1010</strong> Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>STAT 1020</strong> Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Global Economy, Business &amp; Society</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>One course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Technology, Innovation &amp; Analytics</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>One course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Liberal Arts &amp; Sciences</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Natural Science, Math &amp; Engineering</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Social Science</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Cross-Cultural Perspectives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three course units required 2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Unrestricted Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Five course units required</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>33</td>
</tr>
</tbody>
</table>

1 For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

2 Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Entrepreneurship and Innovation, BS

The Entrepreneurship and Innovation concentration provides a cross-departmental set of skills, analytical tools, perspectives, and experiences to prepare students for careers as autonomous entrepreneurs, family-business entrepreneurs, or entrepreneurs in corporate settings. Whether a student wants to start a business while in school, join an emerging business, or set the groundwork to launch a new firm later in a career, the concentration prepares students for all of these exciting options by examining both entrepreneurial innovation and its surrounding ecosystem. Entrepreneurial skills and thinking are actively sought by more competitive and profitable growing businesses. The special strength of this program is that it combines theory with practice, providing students the opportunity to test the theories, models, and strategies learned in the classroom by creating real business plans,
working on other field projects, and gaining access and insight from leaders in the entrepreneurial business community.

The Entrepreneurship and Innovation concentration and related co-curricular activities are supported in part by the Goergen Entrepreneurial Management Program at the Wharton School's Venture Lab.

For more information: https://mgmt.wharton.upenn.edu/programs/undergraduate/management-specializations/entrepreneurship-and-innovation/

### Entrepreneurship & Innovation Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>**Entrepreneurship &amp; Innovation Foundation Courses:**¹</td>
<td>1</td>
</tr>
<tr>
<td>MGMT 2300</td>
<td>Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>MGMT 2120</td>
<td>Social Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>or MGMT 2670</td>
<td>Entrepreneurship and Technological Innovation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select three course units from the set of approved courses listed below:²</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Select a minimum of one course unit from Entrepreneurial Activity Within Organizations: ³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select a minimum of one course unit from Ecosystem Surrounding the Organization: ³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Only one of MGMT 2140 and MGMT 2370 may be included in the major. Management and Technology students cannot take MGMT 2140.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Only one of MKTG 2210 and MKTG 2620 may be included in the major.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Only one of MKTG 2270 and MKTG 2700 may be included in the major.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Permission from the undergraduate advisor Allison Elias (<a href="mailto:eliasal@wharton.upenn.edu">eliasal@wharton.upenn.edu</a>) is required to substitute a related course. Only 1.0 CU out of the four total CU may be allotted to the aggregate of Global Modular Courses, Global Virtual Courses, Advanced Study Projects, Independent Study Projects, and/or Research Theses.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 2370</td>
<td>Entrepreneurship and Technological Innovation</td>
<td></td>
</tr>
<tr>
<td>MGMT 2910</td>
<td>Negotiations</td>
<td></td>
</tr>
<tr>
<td>MKTG 2210</td>
<td>New Product Management</td>
<td>4</td>
</tr>
<tr>
<td>MKTG 2270</td>
<td>Digital Marketing and Electronic Commerce</td>
<td>5</td>
</tr>
<tr>
<td>MKTG 2340</td>
<td>Idea Generation &amp; the Systematic Approach for Creativity</td>
<td></td>
</tr>
<tr>
<td>MKTG 2410</td>
<td>Entrepreneurial Marketing</td>
<td></td>
</tr>
<tr>
<td>MKTG 2470</td>
<td>Marketing Strategy for Technology Platforms</td>
<td></td>
</tr>
<tr>
<td>MKTG 2620</td>
<td>New Product Development</td>
<td>4</td>
</tr>
<tr>
<td>MKTG 2700</td>
<td>Digital Marketing, Social Media and E-Commerce</td>
<td>5</td>
</tr>
<tr>
<td>OIDD 2360</td>
<td>Scaling Operations in Technology Ventures: Linking Strategy and Execution</td>
<td></td>
</tr>
<tr>
<td>OIDD 3140</td>
<td>Enabling Technologies</td>
<td></td>
</tr>
<tr>
<td>OIDD 4150</td>
<td>Product Design</td>
<td></td>
</tr>
<tr>
<td>REAL 3750</td>
<td>Real Estate Disruptions</td>
<td></td>
</tr>
<tr>
<td>REAL 3960</td>
<td>Real Estate Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>FNCE 2500</td>
<td>Venture Capital and the Finance of Innovation</td>
<td></td>
</tr>
<tr>
<td>FNCE 2510</td>
<td>The Finance of Buyouts and Acquisitions</td>
<td></td>
</tr>
<tr>
<td>HCMG 3910</td>
<td>Health Care Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>LGST 2050/</td>
<td>Innovation, Marketing Strategy, and Antitrust</td>
<td></td>
</tr>
<tr>
<td>MKTG 2600</td>
<td>Antitrust</td>
<td></td>
</tr>
<tr>
<td>LGST 2130</td>
<td>Legal Aspect of Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>LGST 2220</td>
<td>Internet Law, Privacy, and Cybersecurity</td>
<td></td>
</tr>
<tr>
<td>MGMT 1170</td>
<td>Global Growth of Emerging Firms</td>
<td></td>
</tr>
<tr>
<td>MGMT 2130</td>
<td>Entrepreneurship through Acquisition</td>
<td></td>
</tr>
<tr>
<td>MGMT 2140</td>
<td>Market Dynamics and Technical Change</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2290</td>
<td>Intellectual Property Strategy for the Innovation-Driven Enterprise</td>
<td></td>
</tr>
<tr>
<td>MGMT 2330</td>
<td>Strategies and Practices of Family-Controlled Companies</td>
<td></td>
</tr>
<tr>
<td>MGMT 2670</td>
<td>Entrepreneurship and Technological Innovation</td>
<td></td>
</tr>
<tr>
<td>MGMT 2910</td>
<td>Negotiations</td>
<td></td>
</tr>
<tr>
<td>MKTG 2210</td>
<td>New Product Management</td>
<td>4</td>
</tr>
<tr>
<td>MKTG 2620</td>
<td>New Product Development</td>
<td>4</td>
</tr>
<tr>
<td>OIDD 3140</td>
<td>Enabling Technologies</td>
<td></td>
</tr>
<tr>
<td>OIDD 4150</td>
<td>Product Design</td>
<td></td>
</tr>
<tr>
<td>REAL 3750</td>
<td>Real Estate Disruptions</td>
<td></td>
</tr>
<tr>
<td>REAL 3960</td>
<td>Real Estate Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>FNCE 2500</td>
<td>Venture Capital and the Finance of Innovation</td>
<td></td>
</tr>
<tr>
<td>FNCE 2510</td>
<td>The Finance of Buyouts and Acquisitions</td>
<td></td>
</tr>
<tr>
<td>HCMG 3910</td>
<td>Health Care Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>LGST 2050/</td>
<td>Innovation, Marketing Strategy, and Antitrust</td>
<td></td>
</tr>
<tr>
<td>MKTG 2600</td>
<td>Antitrust</td>
<td></td>
</tr>
<tr>
<td>LGST 2130</td>
<td>Legal Aspect of Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>LGST 2220</td>
<td>Internet Law, Privacy, and Cybersecurity</td>
<td></td>
</tr>
<tr>
<td>MGMT 1170</td>
<td>Global Growth of Emerging Firms</td>
<td></td>
</tr>
<tr>
<td>MGMT 2130</td>
<td>Entrepreneurship through Acquisition</td>
<td></td>
</tr>
<tr>
<td>MGMT 2140</td>
<td>Market Dynamics and Technical Change</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 2290</td>
<td>Intellectual Property Strategy for the Innovation-Driven Enterprise</td>
<td></td>
</tr>
<tr>
<td>MGMT 2330</td>
<td>Strategies and Practices of Family-Controlled Companies</td>
<td></td>
</tr>
<tr>
<td>MGMT 2670</td>
<td>Entrepreneurship and Technological Innovation</td>
<td></td>
</tr>
<tr>
<td>MGMT 2910</td>
<td>Negotiations</td>
<td></td>
</tr>
<tr>
<td>MKTG 2210</td>
<td>New Product Management</td>
<td>4</td>
</tr>
<tr>
<td>MKTG 2620</td>
<td>New Product Development</td>
<td>4</td>
</tr>
<tr>
<td>OIDD 3140</td>
<td>Enabling Technologies</td>
<td></td>
</tr>
<tr>
<td>OIDD 4150</td>
<td>Product Design</td>
<td></td>
</tr>
<tr>
<td>REAL 3750</td>
<td>Real Estate Disruptions</td>
<td></td>
</tr>
<tr>
<td>REAL 3960</td>
<td>Real Estate Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>Other Wharton Requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>

1. Students in the M&T Program must substitute MGMT 2370 in place of MGMT 2300 and MGMT 2670.
2. A minimum of one course unit must address 'Entrepreneurial Activity Within Organizations' and a minimum of one course unit must address 'Ecosystem Surrounding the Organization.' Courses that address both perspectives may be applied to either category, but not both.
3. Only one of MGMT 21400 and MGMT 2370 may be included in the major. Management and Technology students cannot take MGMT 2140.
4. Only one of MKTG 2210 and MKTG 2620 may be included in the major. Only one of MKTG 2270 and MKTG 2700 may be included in the major. Permission from the undergraduate advisor Allison Elias (eliasal@wharton.upenn.edu) is required to substitute a related course. Only 1.0 CU out of the four total CU may be allotted to the aggregate of Global Modular Courses, Global Virtual Courses, Advanced Study Projects, Independent Study Projects, and/or Research Theses.
Other Wharton Requirements

### First-Year Foundations
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
</tbody>
</table>

### Writing
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

### Business

#### Business Breadth (non-concentration courses)
- 3 units

#### Leadership Journey
- WH 1010 Business and You | 0.5 |
- WH 2010 Business Communication for Impact | 0.5 |
- MGMT 3010 Teamwork and Interpersonal Influence | 0.5 |

#### Capstone Course/Project
- 0.5 units

### Fundamentals

#### ACCT 1010 Accounting and Financial Reporting | 1 |
#### ACCT 1020 Strategic Cost Analysis | 1 |
#### BEPP 2500 Managerial Economics | 1 |
#### FNCE 1000 Corporate Finance | 1 |
#### FNCE 1010 Monetary Economics and the Global Economy | 1 |
#### LGST 1000 Ethics and Social Responsibility | 1 |
#### or LGST 1010 Law and Social Values | 1 |
#### MKTG 1010 Introduction to Marketing | 1 |
#### OIDD 1010 An Introduction to Operations, Information and Decisions | 1 |

#### STAT 1010 Introductory Business Statistics | 1 |
#### STAT 1020 Introductory Business Statistics | 1 |

### Global Economy, Business & Society

One course unit required

### Technology, Innovation & Analytics

One course unit required

### Liberal Arts & Sciences

#### Foreign Language | 1 |

Second semester-level course or equivalent required

### Humanities

At least one course unit required

### Natural Science, Math & Engineering

At least one course unit required

### Social Science

At least one course unit required

#### Cross-Cultural Perspectives
Three course units required

### Unrestricted Electives

Five course units required

### Total Course Units
- 33 units

---

1. For students who take ECON 0100 Introduction to Microeconomics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

2. Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Finance, BS

The finance concentration develops the skills necessary to work at a high level of expertise in all areas of finance, including:

- Asset management and Financial markets
- Investment banking in a global context
- The financial management of commercial and industrial enterprises as well as financial institutions;
- The financial aspects of venture capital, mergers and acquisitions; and global management consulting.

Concentrating in finance also equips students for careers in law and the public sector.

For more information: [https://fnce.wharton.upenn.edu/programs/undergraduate/](https://fnce.wharton.upenn.edu/programs/undergraduate/)

### Finance Concentration

Select four of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNCE 2020</td>
<td>Consumer Financial Decision Making</td>
<td></td>
</tr>
<tr>
<td>FNCE 2030</td>
<td>Advanced Corporate Finance</td>
<td></td>
</tr>
<tr>
<td>FNCE 2050</td>
<td>Investment Management</td>
<td></td>
</tr>
<tr>
<td>FNCE 2070</td>
<td>Valuation</td>
<td></td>
</tr>
<tr>
<td>FNCE 2090</td>
<td>Real Estate Investment: Analysis and Financing</td>
<td></td>
</tr>
<tr>
<td>FNCE 2170</td>
<td>Financial Derivatives</td>
<td></td>
</tr>
<tr>
<td>FNCE 2190</td>
<td>International Financial Markets and Cryptocurrencies</td>
<td></td>
</tr>
<tr>
<td>FNCE 2250</td>
<td>Fixed Income Securities</td>
<td></td>
</tr>
<tr>
<td>FNCE 2300</td>
<td>Urban Fiscal Policy</td>
<td></td>
</tr>
<tr>
<td>FNCE 2310</td>
<td>Global Valuation and Risk Analysis</td>
<td></td>
</tr>
<tr>
<td>FNCE 2320</td>
<td>International Banking</td>
<td></td>
</tr>
<tr>
<td>FNCE 2370</td>
<td>Data Science for Finance</td>
<td></td>
</tr>
<tr>
<td>FNCE 2380</td>
<td>Capital Markets</td>
<td></td>
</tr>
<tr>
<td>FNCE 2390</td>
<td>Behavioral Finance</td>
<td></td>
</tr>
<tr>
<td>FNCE 2400</td>
<td>Central Banks, Macroeconomic Policy and Financial Markets</td>
<td></td>
</tr>
<tr>
<td>FNCE 2500</td>
<td>Venture Capital and the Finance of Innovation</td>
<td></td>
</tr>
<tr>
<td>FNCE 2510</td>
<td>The Finance of Buyouts and Acquisitions</td>
<td></td>
</tr>
</tbody>
</table>
Health Care Management and Policy, BS

FNCE 2530 Distressed Investing and Value Creation
FNCE 2540 ESG and Impact Investing
FNCE 2560 Energy Finance
FNCE 2570 Foundations of Asset Pricing
FNCE 2800 FinTech
FNCE 2830 Strategic Equity Finance
FNCE 2910 Corporate Restructuring
FNCE 2970 Taxes and Business Strategy
FNCE 3110 Infrastructure Investing
FNCE 3510 ASP: Finance and Society
FNCE 3860 ASP: Hedge Funds
FNCE 3920 Financial Engineering
FNCE 3990 Foundations of Asset Pricing
FNCE 4010 Shareholder Activism
FNCE 4020 Advanced Topics in PE

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td>1</td>
</tr>
<tr>
<td>Critical Writing Seminar</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Business

Business Breadth (non-concentration courses) 3

Leadership Journey

WH 1010 Business and You 0.5
WH 2010 Business Communication for Impact 0.5
MGMT 3010 Teamwork and Interpersonal Influence 0.5
Capstone Course/Project 0.5

Fundamentals

ACCT 1010 Accounting and Financial Reporting 1
ACCT 1020 Strategic Cost Analysis 1
BEPP 2500 Managerial Economics 1
FNCE 1000 Corporate Finance 1
FNCE 1010 Monetary Economics and the Global Economy 1
LGST 1000 Ethics and Social Responsibility 1
LGST 1010 Law and Social Values 1
MKTG 1010 Introduction to Marketing 1
OIDD 1010 An Introduction to Operations, Information and Decisions 1
STAT 1010 Introductory Business Statistics 1
STAT 1020 Introductory Business Statistics 1

Global Economy, Business & Society

One course unit required

Technology, Innovation & Analytics

One course unit required

Liberal Arts & Sciences

Foreign Language 1
Second semester-level course or equivalent required 1
Humanities
At least one course unit required
Natural Science, Math & Engineering
At least one course unit required
Social Science
At least one course unit required
Cross-Cultural Perspectives
Three course units required 3

Unrestricted Electives

Five course units required 5

Total Course Units 33

1 For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

2 Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Health Care Management and Policy, BS

The concentration in health care management and policy focuses on the management, financing, and economics of the health care sector. Students learn about health care markets and factors that significantly influence decision making both at the policy level and at the level of the firm or organization. The health care sector includes government agencies, non-profit institutions, major private corporations, medical practices and partnerships, and many small and early-stage health care service and product firms.

This concentration prepares students for careers as managers in health care companies or health care service firms such as consulting, banking or health care IT companies, or government agencies. Students planning careers in the health professions such as medicine, nursing, or dentistry have found the concentration very useful in understanding the context in which they will be working.

For more information: hcmg.wharton.upenn.edu (http://hcmg.wharton.upenn.edu)
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCMG 1010</td>
<td>Health Care Systems</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select three of the following:</td>
<td>3</td>
</tr>
<tr>
<td>HCMG 2020</td>
<td>The Economics and Financing of Health Care Delivery</td>
<td></td>
</tr>
<tr>
<td>HCMG 2040</td>
<td>Comparative Health Care Systems</td>
<td></td>
</tr>
<tr>
<td>HCMG 2130</td>
<td>Health Care Strategy and Management: the Business of Health Care</td>
<td></td>
</tr>
<tr>
<td>HCMG 2150</td>
<td>Management and Economics of Pharmaceutical and Biotech Industries</td>
<td></td>
</tr>
<tr>
<td>HCMG 2500</td>
<td>Health Care Reform and the Future of the American Health Care System</td>
<td></td>
</tr>
<tr>
<td>HCMG 3220</td>
<td>The Health Care Ecosystem: Evolution, Structure and Current Issues</td>
<td></td>
</tr>
<tr>
<td>HCMG 3330</td>
<td>Leading the Health Care Workforce</td>
<td></td>
</tr>
<tr>
<td>HCMG 3520</td>
<td>Health Services Delivery: A Managerial Economic Approach</td>
<td></td>
</tr>
<tr>
<td>HCMG 3570</td>
<td>Healthcare Data and Analytics</td>
<td></td>
</tr>
<tr>
<td>HCMG 3910</td>
<td>Health Care Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Wharton Requirements</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>37</td>
</tr>
</tbody>
</table>

### Other Wharton Requirements

#### First-Year Foundations

BEPP 1000 | Introductory Economics for Business Students 1 | 1            |
MATH 1400 | Calculus, Part I | 1            |
or MATH 1100 | Calculus for Wharton Students         |              |

#### Writing

Critical Writing Seminar | 1            |

#### Business

Business Breadth (non-concentration courses) | 3            |

#### Leadership Journey

WH 1010 | Business and You | 0.5          |
WH 2010 | Business Communication for Impact | 0.5          |
MGMT 3010 | Teamwork and Interpersonal Influence | 0.5          |

#### Capstone Course/Project

Capstone Course/Project | 0.5          |

#### Fundamentals

ACCT 1010 | Accounting and Financial Reporting | 1            |
ACCT 1020 | Strategic Cost Analysis           | 1            |
BEPP 2500 | Managerial Economics              | 1            |
FNCE 1000 | Corporate Finance                 | 1            |
FNCE 1010 | Monetary Economics and the Global Economy | 1          |
LGST 1000 | Ethics and Social Responsibility | 1            |
or LGST 1010 | Law and Social Values          |              |

#### MKTG 1010 | Introduction to Marketing | 1            |
OIDD 1010 | An Introduction to Operations, Information and Decisions | 1            |
STAT 1010 | Introductory Business Statistics | 1            |
STAT 1020 | Introductory Business Statistics | 1            |

---

1. For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

2. Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

---

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

---

**Individualized, BS**

Students have the option to design an individualized concentration if they cannot find a standard concentration that aligns with their interests. An individualized concentration consists of four CUs that are united by a common theme. An established concentration may also be tailored, with approval from the concentration advisor, to specific student interests by replacing a required course with one not on the list of courses that traditionally defines the concentration.

Students should note that (1) at least three of the courses must be business courses, and (2) a faculty member from the Wharton academic department most closely associated with the individualized concentration must sign off on the proposal.

Individualized concentration proposals are considered by the Undergraduate Division Petitions Committee. Students who wish to pursue an individualized concentration should complete the following steps on this website (https://undergrad-inside.wharton.upenn.edu/concentrations/individualized/).
For more information: https://undergrad-inside.wharton.upenn.edu/concentrations/individualized/

**Individualized Concentration (WIDV)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select four WIDV courses</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Other Wharton Requirements</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>37</td>
</tr>
</tbody>
</table>

1 WIDV must be approved by faculty member and Wharton Undergraduate Division.

**Other Wharton Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First-Year Foundations</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Formal Writing Seminar</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Business Breadth (non-concentration courses)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Leadership Journey</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td>0.5</td>
<td></td>
</tr>
</tbody>
</table>

**Fundamentals**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td>1</td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Global Economy, Business &amp; Society</td>
<td>1</td>
</tr>
<tr>
<td>One course unit required</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**Technology, Innovation & Analytics**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course unit required</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**Liberal Arts & Sciences**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foreign Language</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Second semester-level course or equivalent required</td>
<td>1</td>
</tr>
<tr>
<td>Humanities</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>At least one course unit required</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

1 For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

2 Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Legal Studies & Business Ethics, BS**

The Legal Studies and Business Ethics Concentration focuses on the social values, moral concerns, and legal considerations that are essential aspects of business decision making in our global market system. The courses students take in this program help them explore how responsible business leaders can engage ethically and effectively with diverse cultures, corporate stakeholders, government regulators, and legal systems. Of special value to students seeking to broaden their business education, this concentration will help them acquire essential, non-quantitative reasoning skills that are required when leaders face difficult choices under conditions of empirical uncertainty and/or moral ambiguity – a frequent occurrence in fast-moving market economies.

Students pursuing this concentration will gain a number of analytic skills, including:

- Identifying moral and legal issues hidden within complex, culturally rich fact patterns
- Reasoning from moral principles to specific ethical and legal conclusions
- Reasoning by analogy between like cases and situations
- Arguing from authoritative rules and precedents to specific, logically consistent recommendations for action

For more information: https://lgst.wharton.upenn.edu/programs/undergraduate/
## Legal Studies & Business Ethics Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGST 2020</td>
<td>Law of Corporate Management and Finance</td>
<td>4</td>
</tr>
<tr>
<td>LGST 2040</td>
<td>Real Estate Law</td>
<td></td>
</tr>
<tr>
<td>LGST 2050</td>
<td>Innovation, Marketing Strategy, and Antitrust</td>
<td></td>
</tr>
<tr>
<td>LGST 2070</td>
<td>The Sports Industry: Business and Legal Aspects</td>
<td></td>
</tr>
<tr>
<td>LGST 2080</td>
<td>The Law at Work: Employment Law for Managers</td>
<td></td>
</tr>
<tr>
<td>LGST 2120</td>
<td>Economic Analysis of Law</td>
<td></td>
</tr>
<tr>
<td>LGST 2130</td>
<td>Legal Aspect of Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>LGST 2140</td>
<td>International Business Transactions</td>
<td></td>
</tr>
<tr>
<td>LGST 2150</td>
<td>Environmental Management: Law &amp; Policy</td>
<td></td>
</tr>
<tr>
<td>LGST 2160</td>
<td>Emerging Economies</td>
<td></td>
</tr>
<tr>
<td>LGST 2180</td>
<td>Diversity and the Law</td>
<td></td>
</tr>
<tr>
<td>LGST 2190</td>
<td>Law and Policy in International Business</td>
<td></td>
</tr>
<tr>
<td>LGST 2200</td>
<td>International Business Ethics</td>
<td></td>
</tr>
<tr>
<td>LGST 2210</td>
<td>Constitutional Law and Free Enterprise</td>
<td></td>
</tr>
<tr>
<td>LGST 2220</td>
<td>Internet Law, Privacy, and Cybersecurity</td>
<td></td>
</tr>
<tr>
<td>LGST 2230</td>
<td>Securities Regulation</td>
<td></td>
</tr>
<tr>
<td>LGST 2240</td>
<td>Human Rights and Globalization</td>
<td></td>
</tr>
<tr>
<td>LGST 2260</td>
<td>Markets, Morality &amp; the Future of Capitalism</td>
<td></td>
</tr>
<tr>
<td>LGST 2270</td>
<td>Literature of Success</td>
<td></td>
</tr>
<tr>
<td>LGST 2280</td>
<td>Sports Law</td>
<td></td>
</tr>
<tr>
<td>LGST 2300</td>
<td>Social Impact and Responsibility: Foundations</td>
<td></td>
</tr>
<tr>
<td>LGST 2410</td>
<td>Theories of Business Enterprise</td>
<td></td>
</tr>
<tr>
<td>LGST 2420</td>
<td>Big Data, Big Responsibilities: The Law and Ethics of Business Analytics</td>
<td></td>
</tr>
<tr>
<td>LGST 2430</td>
<td>Other People's Money: The Law, Politics, and History of Financial Institutions</td>
<td></td>
</tr>
<tr>
<td>LGST 2460</td>
<td>Corporate Distress and Reorganization Law</td>
<td></td>
</tr>
<tr>
<td>LGST 2910</td>
<td>Negotiations</td>
<td></td>
</tr>
<tr>
<td>LGST 2920</td>
<td>Advanced Negotiation</td>
<td></td>
</tr>
<tr>
<td>LGST 2990</td>
<td>Seminar in Law and Society</td>
<td></td>
</tr>
</tbody>
</table>

### Critical Writing Seminar
- LGST 2910 Critical Writing Seminar: 1 course unit required

### Business
- LGST 1000 Business Breadth (non-concentration courses): 3 course units required

### Leadership Journey
- WH 1010 Business and You: 0.5 course unit required
- WH 2010 Business Communication for Impact: 0.5 course unit required
- MGMT 3010 Teamwork and Interpersonal Influence: 0.5 course unit required
- Capstone Course/Project: 0.5 course unit required

### Fundamentals
- ACCT 1010 Accounting and Financial Reporting: 1 course unit required
- ACCT 1020 Strategic Cost Analysis: 1 course unit required
- BEPP 2500 Managerial Economics: 1 course unit required
- FNCE 1000 Corporate Finance: 1 course unit required
- FNCE 1010 Monetary Economics and the Global Economy: 1 course unit required

### LGST 1000 Ethics and Social Responsibility: 1 course unit required

### MKTG 1010 Introduction to Marketing: 1 course unit required

### OIDD 1010 An Introduction to Operations, Information and Decisions: 1 course unit required

### STAT 1010 Introductory Business Statistics: 1 course unit required

### STAT 1020 Introductory Business Statistics: 1 course unit required

### Global Economy, Business & Society
- One course unit required

### Technology, Innovation & Analytics
- One course unit required

### Liberal Arts & Sciences
- Foreign Language: 1 course unit required

### Humanities
- At least one course unit required

### Natural Science, Math & Engineering
- At least one course unit required

### Social Science
- At least one course unit required

### Cross-Cultural Perspectives
- Three course units required

### Unrestricted Electives
- Five course units required

### Total Course Units
- 33 course units total

---

For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

---

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should...
consult with their academic program regarding final certifications and requirements for graduation.

Management: General Track, BS

The Management Department offers courses and experience to students who want careers in management or to take on major challenges and responsibilities in private, public, and not-for-profit organizations.

For more information: https://mgmt.wharton.upenn.edu/programs/undergraduate/management-concentration/

Management Concentration - General Track

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select 2 Management Core courses from the following:</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MGMT 1110</td>
<td>Multinational Management</td>
<td></td>
</tr>
<tr>
<td>MGMT 2230</td>
<td>Business Strategy</td>
<td></td>
</tr>
<tr>
<td>MGMT 2300</td>
<td>Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>MGMT 2380</td>
<td>Organizational Behavior or MGMT 2720 Power and Politics in Organizations</td>
<td></td>
</tr>
<tr>
<td>Select two electives: 1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MGMT 2050</td>
<td>Multinational Corporate Strategies</td>
<td></td>
</tr>
<tr>
<td>MGMT 2080</td>
<td>Globalization and International Political Economy</td>
<td></td>
</tr>
<tr>
<td>MGMT 2090</td>
<td>The Political Environment of the Multinational Firm</td>
<td></td>
</tr>
<tr>
<td>MGMT 2110</td>
<td>Competitive Strategy</td>
<td></td>
</tr>
<tr>
<td>MGMT 2120</td>
<td>Social Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>MGMT 2230</td>
<td>Business Strategy</td>
<td></td>
</tr>
<tr>
<td>MGMT 2250</td>
<td>Value Creation and Value Capture in American Business History</td>
<td></td>
</tr>
<tr>
<td>MGMT 2310</td>
<td>Entrepreneurship Launchpad</td>
<td></td>
</tr>
<tr>
<td>MGMT 2330</td>
<td>Strategies and Practices of Family-Controlled Companies</td>
<td></td>
</tr>
<tr>
<td>MGMT 2370</td>
<td>Management of Technology</td>
<td></td>
</tr>
<tr>
<td>MGMT 2410</td>
<td>Knowledge for Social Impact: Analyzing Current Issues &amp; Approaches</td>
<td></td>
</tr>
<tr>
<td>MGMT 2420</td>
<td>Corporate Governance, Executive Compensation and the Board</td>
<td></td>
</tr>
<tr>
<td>MGMT 2490</td>
<td>Mergers and Acquisitions</td>
<td></td>
</tr>
<tr>
<td>MGMT 2510</td>
<td>Consulting to Growth Companies</td>
<td></td>
</tr>
<tr>
<td>MGMT 2640</td>
<td>Venture Capital and Entrepreneurial Management</td>
<td></td>
</tr>
<tr>
<td>MGMT 2650</td>
<td>Culture of Technology: Culture &amp; Institutions of the Tech Sector-Bridging Research and Practice</td>
<td></td>
</tr>
<tr>
<td>MGMT 2720</td>
<td>Power and Politics in Organizations</td>
<td></td>
</tr>
<tr>
<td>MGMT 2760</td>
<td>Cultivating Judgment Skills: Forecasting in Business Politics</td>
<td></td>
</tr>
<tr>
<td>MGMT 2880</td>
<td>Managing and Competing in China</td>
<td></td>
</tr>
<tr>
<td>MGMT 2910</td>
<td>Negotiations</td>
<td></td>
</tr>
<tr>
<td>MGMT 2920</td>
<td>Advanced Negotiation</td>
<td></td>
</tr>
</tbody>
</table>

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First-Year Foundations</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students 1</td>
<td></td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Critical Writing Seminar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Business Breadth (non-concentration courses)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leadership Journey</td>
<td>1</td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Capstone Course/Project</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Fundamentals</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td></td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td></td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td></td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td></td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td></td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td></td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Global Economy, Business &amp; Society</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>One course unit required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technology, Innovation &amp; Analytics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>One course unit required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liberal Arts &amp; Sciences</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Foreign Language</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Second semester-level course or equivalent required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Natural Science, Math &amp; Engineering</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Science</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cross-Cultural Perspectives</td>
<td></td>
</tr>
</tbody>
</table>

Note: Only 1.0 cu out of the four total cu may be allotted to the aggregate of Global Modular Courses, Global Virtual Courses, Advanced Study Projects, Independent Study Projects, Financial Literacy Community Project, and/or Research Theses.
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Management: Multinational Management Track, BS

The specialization in Multinational Management provides students with the toolkit to understand how global economic, political, and social forces influence the competitive environment of the firm. Topics include international trade, foreign investment and acquisitions, stakeholder engagement, political risk, foreign market entry, global teams, and global strategy. Students will learn how to evaluate the international environment and to operate in an increasingly complex global business landscape that shapes a variety of industries (e.g., consulting, financial services, real estate, social enterprise) and functions (e.g., strategic, technological, general or project management, business development, communications or marketing) at companies both large and small.

For more information: https://mgmt.wharton.upenn.edu/programs/undergraduate/management-specializations/multinational-management/

Management - Multinational Management Track

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 1110</td>
<td>Multinational Management</td>
<td>1</td>
</tr>
<tr>
<td>Select one MGMT Core course from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGMT 1110</td>
<td>Multinational Management</td>
<td>1</td>
</tr>
<tr>
<td>MGMT 2230</td>
<td>Business Strategy</td>
<td>1</td>
</tr>
<tr>
<td>MGMT 2300</td>
<td>Entrepreneurship</td>
<td>1</td>
</tr>
<tr>
<td>MGMT 2380</td>
<td>Organizational Behavior</td>
<td>1</td>
</tr>
<tr>
<td>or MGMT 27: Power and Politics in Organizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select two of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGMT 2050</td>
<td>Multinational Corporate Strategies</td>
<td>1</td>
</tr>
<tr>
<td>MGMT 2080</td>
<td>Globalization and International Political Economy</td>
<td>1</td>
</tr>
</tbody>
</table>

1 For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

2 Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

MGMT 2090 The Political Environment of the Multinational Firm

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td>1</td>
</tr>
</tbody>
</table>

Writing

Critical Writing Seminar

Business

Business Breadth (non-concentration courses) 3

Leadership Journey

WH 1010 Business and You 0.5
WH 2010 Business Communication for Impact 0.5
MGMT 3010 Teamwork and Interpersonal Influence 0.5
Capstone Course/Project 0.5

Fundamentals

ACCT 1010 Accounting and Financial Reporting 1
ACCT 1020 Strategic Cost Analysis 1
BEPP 2500 Managerial Economics 1
FNCE 1000 Corporate Finance 1
FNCE 1010 Monetary Economics and the Global Economy 1
LGST 1000 Ethics and Social Responsibility 1
or LGST 1010 Law and Social Values 1
MKTG 1010 Introduction to Marketing 1
OIDD 1010 An Introduction to Operations, Information and Decisions 1

Global Economy, Business & Society

One course unit required

Technology, Innovation & Analytics

One course unit required

Liberal Arts & Sciences

Foreign Language 1
Second semester-level course or equivalent required 1

Humanities

At least one course unit required

Natural Science, Math & Engineering

At least one course unit required

Social Science

At least one course unit required

Cross-Cultural Perspectives

Three course units required 2

Unrestricted Electives

2023-24 Catalog | Generated 08/02/23
Five course units required

Total Course Units: 5

Other Wharton Requirements

Total Course Units: 33

Management: Organizational Effectiveness Track, BS

A concentration in management prepares students to take on major managerial challenges and responsibilities in private, public, and nonprofit organizations. Students can pursue a general management concentration or choose from specialized tracks in strategic management, multinational management, organizational effectiveness, and entrepreneurship and innovation.

For more information: https://mgmt.wharton.upenn.edu/programs/undergraduate/management-specializations/organizational-effectiveness/

Management Concentration - Organizational Effectiveness Track

Select 1 CU of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 2380</td>
<td>Organizational Behavior</td>
<td>1</td>
</tr>
<tr>
<td>or MGMT 22: Leading Diversity in Organizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or MGMT 27: Power and Politics in Organizations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGMT 2430</td>
<td>Work and Technology: Choices and Outcomes</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 2480</td>
<td>How to be the Boss</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Select two of the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 2240</td>
<td>Leading Diversity in Organizations</td>
<td></td>
</tr>
<tr>
<td>MGMT 2410</td>
<td>Knowledge for Social Impact: Analyzing Current Issues &amp; Approaches</td>
<td></td>
</tr>
<tr>
<td>MGMT 2420</td>
<td>Corporate Governance, Executive Compensation and the Board</td>
<td></td>
</tr>
<tr>
<td>MGMT 2720</td>
<td>Power and Politics in Organizations</td>
<td></td>
</tr>
<tr>
<td>MGMT 2910</td>
<td>Negotiations</td>
<td></td>
</tr>
<tr>
<td>MGMT 2930</td>
<td>People Analytics</td>
<td></td>
</tr>
</tbody>
</table>

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

1 For students who take ECON 0100 Introduction to Microeconomics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

2 Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.
For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

Management: Strategic Management Track, BS

The specialization in Strategic Management prepares students who are interested in competitive and corporate strategy. A deeper understanding of strategy is useful for those who want to help companies with their strategies (e.g., through consulting), need to understand the strategies of companies (e.g., to make decisions of whether to invest in certain companies), and want to create new organizations and need to develop a strategy that would provide them with a competitive advantage in the market place.

For more information: https://mgmt.wharton.upenn.edu/programs/undergraduate/management-specializations/strategic-management/

Management Concentration - Strategic Management Track

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGMT 2230</td>
<td>Business Strategy</td>
<td>1</td>
</tr>
<tr>
<td>Select one MGMT Core course from the following:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MGMT 1110</td>
<td>Multinational Management</td>
<td></td>
</tr>
<tr>
<td>MGMT 2300</td>
<td>Entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>MGMT 2380</td>
<td>Organizational Behavior</td>
<td></td>
</tr>
<tr>
<td>or MGMT 2720</td>
<td>Power and Politics in Organizations</td>
<td></td>
</tr>
<tr>
<td>Select two of the following:</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MGMT 2110</td>
<td>Competitive Strategy</td>
<td></td>
</tr>
<tr>
<td>MGMT 2250</td>
<td>Value Creation and Value Capture in American Business History</td>
<td></td>
</tr>
<tr>
<td>MGMT 2370</td>
<td>Management of Technology</td>
<td></td>
</tr>
<tr>
<td>MGMT 2420</td>
<td>Corporate Governance, Executive Compensation and the Board</td>
<td></td>
</tr>
<tr>
<td>MGMT 2490</td>
<td>Mergers and Acquisitions</td>
<td></td>
</tr>
<tr>
<td>MGMT 2510</td>
<td>Consulting to Growth Companies</td>
<td></td>
</tr>
<tr>
<td>Other Wharton Requirements</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>37</td>
<td></td>
</tr>
</tbody>
</table>

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Business</td>
<td>Business Breadth (non-concentration courses)</td>
<td>3</td>
</tr>
<tr>
<td>Leadership Journey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>Fundamentals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td></td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>Global Economy, Business &amp; Society</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One course unit required</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Technology, Innovation &amp; Analytics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One course unit required</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Liberal Arts &amp; Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Second semester-level course or equivalent required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td>At least one course unit required</td>
<td></td>
</tr>
<tr>
<td>Natural Science, Math &amp; Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At least one course unit required</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Science</td>
<td>At least one course unit required</td>
<td></td>
</tr>
<tr>
<td>Cross-Cultural Perspectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Three course units required 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrestricted Electives</td>
<td>Five course units required</td>
<td></td>
</tr>
<tr>
<td>Total Course Units</td>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>

1 For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these
Marketing & Communication, BS

Marketing professionals must understand the communication process and the most effective methods of conveying information, regardless of whether they intend to focus on advertising, the development of web-based initiatives, or the conduct of market research. Students in this dual concentration will augment their understanding of the core concepts taught in their marketing courses and be better prepared for employment or graduate study. The dual concentration in marketing and communication allows Wharton students concentrating in marketing to take four courses in the Annenberg School of Communication and have this cluster of courses recognized on their transcript as a second concentration.

Students who wish to pursue a second concentration in communication must first declare a primary concentration in marketing. The concentration in communication may not be used as a primary or sole concentration.

For more information: https://undergrad-inside.wharton.upenn.edu/concentrations/mkcm/

Marketing & Communication - Dual Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marketing &amp; Communication - Dual Concentration Requirements ¹</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Complete a total of four Communication courses as follows:</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select two from the following:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMM 1230 Critical Approaches to Popular Culture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMM 1250 Introduction to Communication Behavior</td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMM 1300 Media Industries and Society</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select two additional Communication courses ²</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Primary Marketing Concentration ³</strong></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Other Wharton Requirements</strong></td>
<td>33</td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>37</td>
</tr>
</tbody>
</table>

¹ One course unit from the Dual Concentration will double count as a General Education Requirement.
² Three course units from the Dual Concentration will double count as Unrestricted Electives.
³ The Primary Marketing Concentration Requirements (p. 280) can be found here.

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>First-Year Foundations</strong></td>
<td></td>
</tr>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students ¹</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Writing</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Business</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business Breadth (non-concentration courses)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Leadership Journey</strong></td>
<td></td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Capstone Course/Project</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td><strong>Fundamentals</strong></td>
<td></td>
</tr>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Global Economy, Business &amp; Society</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>One course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Technology, Innovation &amp; Analytics</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>One course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Liberal Arts &amp; Sciences</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foreign Language</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Second semester-level course or equivalent required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Humanities</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Natural Science, Math &amp; Engineering</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Social Science</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Cross-Cultural Perspectives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three course units required</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Unrestricted Electives</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Five course units required</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td>33</td>
</tr>
</tbody>
</table>
For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Marketing & Operations Management, BS

The Marketing and Operations Management joint concentration emphasizes the importance of partnership between marketing and operations for new product development (NPD) in light of the fact that NPD is a critical company effort highly dependent on internal innovation processes. Given the complexity of these processes, the insights provided by cross-disciplinary collaboration can be particularly beneficial in many efforts, including:

- Creativity-based new product development
- Innovation in service manufacturing and new service development
- Customer response to next-generation products
- The use of conjoint analysis in engineering designs
- Platform-owner market entry
- Design-intensive innovation

For more information: https://marketing.wharton.upenn.edu/programs/undergraduate/marketing-and-operations-management-joint-concentration/

Marketing & Operations Management Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIDD</td>
<td>Required OIDD Courses</td>
<td>2</td>
</tr>
<tr>
<td>OIDD 2200</td>
<td>Introduction to Operations Management</td>
<td></td>
</tr>
<tr>
<td>OIDD 2240</td>
<td>Analytics for Service Operations</td>
<td></td>
</tr>
<tr>
<td>OIDD 2360</td>
<td>Scaling Operations in Technology Ventures: Linking Strategy and Execution</td>
<td></td>
</tr>
<tr>
<td>OIDD 2450</td>
<td>Analytics and the Digital Economy</td>
<td></td>
</tr>
<tr>
<td>OIDD 3140</td>
<td>Enabling Technologies</td>
<td></td>
</tr>
<tr>
<td>OIDD 4150</td>
<td>Product Design</td>
<td></td>
</tr>
<tr>
<td>OIDD 6590</td>
<td>Advanced Topics</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG</td>
<td>Required MKTG Courses</td>
<td>2</td>
</tr>
<tr>
<td>MKTG 2210</td>
<td>New Product Management</td>
<td></td>
</tr>
<tr>
<td>MKTG 2250</td>
<td>Principles of Retailing</td>
<td></td>
</tr>
<tr>
<td>MKTG 2270</td>
<td>Digital Marketing and Electronic Commerce</td>
<td></td>
</tr>
<tr>
<td>MKTG 2340</td>
<td>Idea Generation &amp; the Systematic Approach for Creativity</td>
<td></td>
</tr>
<tr>
<td>MKTG 2540</td>
<td>Pricing Policy</td>
<td></td>
</tr>
<tr>
<td>MKTG 2620</td>
<td>New Product Development</td>
<td></td>
</tr>
<tr>
<td>MKTG 2700</td>
<td>Digital Marketing, Social Media and E-Commerce</td>
<td></td>
</tr>
<tr>
<td>MKTG 2710</td>
<td>Models for Marketing Strategy</td>
<td></td>
</tr>
<tr>
<td>MKTG 2770</td>
<td>Marketing Strategy</td>
<td></td>
</tr>
<tr>
<td>MKTG 2880</td>
<td>Pricing Strategies</td>
<td></td>
</tr>
<tr>
<td>MKTG 4760</td>
<td>Applied Probability Models in Marketing</td>
<td></td>
</tr>
</tbody>
</table>

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP</td>
<td>First-Year Foundations</td>
<td>1</td>
</tr>
<tr>
<td>MATH</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td>WH</td>
<td>Business Breadth (non-concentration courses)</td>
<td>3</td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>LGST</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>or LGST 1010 Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td></td>
</tr>
<tr>
<td>STAT</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1010</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Marketing, BS

Students pursuing a concentration in marketing acquire a solid grounding in applying the basic disciplines (e.g., psychology, economics, statistics) essential for understanding consumer and organizational buying patterns and developing successful marketing strategies. They also gain practical experience applying these concepts and methods via half-semester mini-courses (e.g., new product development, advertising, retailing). Many students with a marketing concentration have gone on to work in brand management, advertising, sales, marketing research, consulting, and entrepreneurial ventures.

For more information: marketing.wharton.upenn.edu (http://marketing.wharton.upenn.edu)
MKTG 4760  
Applied Probability Models in Marketing

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Total Course Units</strong></td>
<td><strong>37</strong></td>
</tr>
</tbody>
</table>

1. This is a PhD course. Students need instructor permission and a permit from the department to enroll.
2. MKTG 2540 and MKTG 2880 cannot both be taken for credit.
3. MKTG 2270 and MKTG 2700 cannot both be taken for credit.
4. Special Topics and Experimental courses: Subject to approval of department concentration advisor.
5. MKTG 2240 and MKTG 2650 cannot both be taken for credit.
6. MKTG 2370 replaced Special Topics course MKTG 3510. MKTG 2370 and MKTG 3510 cannot both be taken for credit.

### Operations, Information & Decisions: Decision Processes Track, BS

The Decision Processes (DP) track establishes rigorous scientific foundations for describing, predicting, and improving the processes through which individuals and groups collect data and information, form judgments, and make decisions. This program examines descriptive theories and empirical research on human behavior that identify systematic biases in judgment and heuristics, or rules of thumb, that individuals and groups use to cope with complex decision-making and negotiations environments. It also examines the ways in which individuals and groups can make better decisions given their biases and information-processing limitations.

For more information: https://oid.wharton.upenn.edu/programs/undergraduate/decision-processes-track/

### Operations, Information & Decisions - Decision Processes Track

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIDD 2900</td>
<td>Decision Processes</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 2910</td>
<td>Negotiations</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Complete two course units of Decision Processes electives</td>
<td>2</td>
</tr>
</tbody>
</table>

- MKTG 2110  
  Consumer Behavior

- OIDD 2200  
  Introduction to Operations Management

- OIDD 2610  
  Risk Analysis and Environmental Management

- OIDD 2920  
  Advanced Negotiation
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIDD 2990</td>
<td>Judgment &amp; Decision Making Research Immersion</td>
<td></td>
</tr>
<tr>
<td>OIDD 3190</td>
<td>Advanced Decision Systems: Evolutionary Computation</td>
<td></td>
</tr>
<tr>
<td>OIDD 3210</td>
<td>Introduction to Management Science</td>
<td></td>
</tr>
<tr>
<td>OIDD/PSYC 4900</td>
<td>The Science of Behavior Change</td>
<td></td>
</tr>
<tr>
<td>PSYC 2737</td>
<td>Judgment and Decisions</td>
<td></td>
</tr>
<tr>
<td>PSYC 2750</td>
<td>Behavioral Economics and Psychology</td>
<td></td>
</tr>
</tbody>
</table>

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Year Foundations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
</tbody>
</table>

First-Year Foundations

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
</tbody>
</table>

Writing

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WH 1010</td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

Leadership Journey

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Capstone Course/Project

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
</tbody>
</table>

Global Economy, Business & Society

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course unit required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Technology, Innovation & Analytics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course unit required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Liberal Arts & Sciences

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Language</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Second semester-level course or equivalent required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Humanities

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one course unit required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units 33

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Science, Math &amp; Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At least one course unit required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Social Science

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least one course unit required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cross-Cultural Perspectives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three course units required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Unrestricted Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five course units required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Course Units 33

1 For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

2 Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Operations, Information & Decisions: General Track, BS

Computer-based management systems and analytic approaches to decision making are increasingly vital to effective management in a range of industries across public and private sectors. As organizations develop and implement sophisticated decision-support systems, they increase the demand for managers who have the expertise to understand, create, and profitably exploit rapidly developing management technology. There is also a growing demand for skilled professionals who can effectively manage the operations encompassing the manufacturing and distribution of products and services.

The Operations, Information and Decisions curriculum prepares students to meet these challenges by providing a rigorous foundation of coursework across different but complementary disciplines, including decision processes, information systems, and operations management/management science.

For more information: oid.wharton.upenn.edu (http://oid.wharton.upenn.edu)

Operations, Information & Decisions - General Track

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIDD 2100</td>
<td>Online Business Models and the Information-Based Firm</td>
<td>4</td>
</tr>
<tr>
<td>OIDD 2200</td>
<td>Introduction to Operations Management</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Course Units</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>OIDD 2220</td>
<td>Internet Law, Privacy, and Cybersecurity</td>
<td></td>
</tr>
<tr>
<td>OIDD 2240</td>
<td>Analytics for Service Operations</td>
<td></td>
</tr>
<tr>
<td>OIDD 2360</td>
<td>Scaling Operations in Technology Ventures: Linking Strategy and Execution</td>
<td></td>
</tr>
<tr>
<td>OIDD 2610</td>
<td>Risk Analysis and Environmental Management</td>
<td></td>
</tr>
<tr>
<td>OIDD 2630</td>
<td>Environmental &amp; Energy Economics and Policy</td>
<td></td>
</tr>
<tr>
<td>OIDD 2900</td>
<td>Decision Processes</td>
<td></td>
</tr>
<tr>
<td>OIDD 2910</td>
<td>Negotiations</td>
<td></td>
</tr>
<tr>
<td>OIDD 2920</td>
<td>Advanced Negotiation</td>
<td></td>
</tr>
<tr>
<td>OIDD 2990</td>
<td>Judgment &amp; Decision Making Research Immersion</td>
<td></td>
</tr>
</tbody>
</table>

Other Wharton Requirements

**First-Year Foundations**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students ¹</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or MATH 1100 Calculus for Wharton Students</td>
<td></td>
</tr>
</tbody>
</table>

**Writing**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

**Business**

**Business Breadth (non-concentration courses)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Capstone Course/Project 0.5

**Fundamentals**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or LGST 1010 Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
</tbody>
</table>

**Global Economy, Business & Society**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One course unit required</td>
<td>1</td>
</tr>
</tbody>
</table>

**Technology, Innovation & Analytics**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One course unit required</td>
<td>1</td>
</tr>
</tbody>
</table>

**Liberal Arts & Sciences**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foreign Language</td>
<td>1</td>
</tr>
</tbody>
</table>

Other Wharton Requirements

**Second semester-level course or equivalent required**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Humanities</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Natural Science, Math &amp; Engineering</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Science</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cross-Cultural Perspectives</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Three course units required ²</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Unrestricted Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Five course units required</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Course Units 33

1 For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

2 Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

**Operations, Information & Decisions: Information Systems Track, BS**

The Information Systems track is designed to provide the necessary understanding of both technical and business issues relating to information systems. The program is ideal for students interested in managing information technology, either as a technologist, a general manager, or a consultant in technology-intensive industries. The program also provides a good supplement to engineering or other technologically-sophisticated students who wish to obtain greater exposure to managerial issues or students in finance or management who wish to better understand the role of technology in their core disciplines.

For more information: [https://oid.wharton.upenn.edu/programs/undergraduate/information-systems-track/](https://oid.wharton.upenn.edu/programs/undergraduate/information-systems-track/)

**Operations, Information & Decisions - Information Systems Track**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OIDD 2100 Online Business Models and the Information-Based Firm</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Complete three course units of Information Systems electives</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>OIDD 1050 Analytics in Excel VBA</td>
<td></td>
</tr>
</tbody>
</table>
### Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First-Year Foundations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students¹</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td><strong>Writing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Writing Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Business</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Breadth (non-concentration courses)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Leadership Journey</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td><strong>Fundamentals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td><strong>Global Economy, Business &amp; Society</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One course unit required</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Technology, Innovation &amp; Analytics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One course unit required</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Liberal Arts &amp; Sciences</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Second semester-level course or equivalent required</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

¹ For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

² Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.
### Operations, Information & Decisions - Operations Management/Management Science Track

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIDD 2200</td>
<td>Introduction to Operations Management</td>
<td>1</td>
</tr>
<tr>
<td>or OIDD 3210</td>
<td>Introduction to Management Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete three course units of Operations Management/Management Science electives</td>
<td>3</td>
</tr>
<tr>
<td>OIDD 2200</td>
<td>Introduction to Operations Management</td>
<td></td>
</tr>
<tr>
<td>OIDD 2240</td>
<td>Analytics for Service Operations</td>
<td></td>
</tr>
<tr>
<td>OIDD 3210</td>
<td>Introduction to Management Science</td>
<td></td>
</tr>
<tr>
<td>OIDD 3530</td>
<td>Mathematical Modeling and its Application in Finance</td>
<td></td>
</tr>
<tr>
<td>OIDD 3800</td>
<td>Operations Strategy Practicum</td>
<td></td>
</tr>
<tr>
<td>OIDD 3970</td>
<td>Retail Supply Chain Management</td>
<td></td>
</tr>
<tr>
<td>OIDD 4150</td>
<td>Product Design</td>
<td></td>
</tr>
</tbody>
</table>

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First-Year Foundations</td>
<td></td>
</tr>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Business</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business Breadth (non-concentration courses)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Leadership Journey</td>
<td></td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Capstone Course/Project</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Fundamentals</td>
<td></td>
</tr>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
</tbody>
</table>

### Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One course unit required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technology, Innovation &amp; Analytics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liberal Arts &amp; Sciences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foreign Language</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Second semester-level course or equivalent required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Natural Science, Math &amp; Engineering</td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Social Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>At least one course unit required</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Cross-Cultural Perspectives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three course units required</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Unrestricted Electives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Five course units required</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Course Units 37

1. For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

2. Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

### Real Estate, BS

The real estate concentration consists of one required course (REAL 2090: Real Estate Investment: Analysis and Financing) and three electives. While the required course focuses on real estate finance, the electives allow students to explore a variety of issues related to real estate. These include real estate development, the legal aspects of real estate investment and financing, and the relationship between government policy and real estate development.

For more information: [https://real-estate.wharton.upenn.edu/programs/undergraduate/undergraduate-concentration/](https://real-estate.wharton.upenn.edu/programs/undergraduate/undergraduate-concentration/)

### Real Estate Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>REAL/FNCE 2090</td>
<td>Real Estate Investment: Analysis and Financing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select three course units from the following:</td>
<td></td>
</tr>
<tr>
<td>REAL/LGST 2040</td>
<td>Real Estate Law</td>
<td>3</td>
</tr>
</tbody>
</table>
REAL 2050  Global Real Estate: Risk, Politics and Culture
REAL/BEPP 2080  Housing Markets
REAL 2150  Urban Real Estate Economics
REAL/FNCE/BEPP 2300  Urban Fiscal Policy
REAL/BEPP 2360  International Housing Comparisons
REAL 2400  Advanced Real Estate Investment and Analysis
REAL 3990  Independent Study
REAL 3210  Real Estate Development ²
REAL 3750  Real Estate Disruptions
REAL 3900  International Real Estate Comparisons
REAL 3960  Real Estate Entrepreneurship

Other Wharton Requirements 33

Total Course Units 37

1 If the student pursues concentrations in both Finance and Real Estate and elects to use REAL 2090/FNCE 2090 towards their Finance concentration, the student must then complete an additional REAL elective (in place of REAL 2090) from the approved concentration courses to complete the Real Estate concentration requirements.
2 Faculty permission required.

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Year Foundations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students ¹</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Writing Seminar</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Breadth (non-concentration courses)</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Leadership Journey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>Fundamentals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1010</td>
<td>Law and Social Values</td>
<td>1</td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>Global Economy, Business &amp; Society</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technology, Innovation &amp; Analytics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liberal Arts &amp; Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Language</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Science, Math &amp; Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-Cultural Perspectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrestricted Electives</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>33</td>
</tr>
</tbody>
</table>

1 For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.
2 Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Retailing, BS

The secondary concentration in retailing provides an interdisciplinary overview of the retailing industry, combining courses in core retailing skills with industry-relevant electives from Wharton and the College of Arts & Sciences.

For more information: https://marketing.wharton.upenn.edu/programs/undergraduate/retailing-secondary-concentration/

Retailing Concentration

Secondary concentration only.
Secondary Concentration Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 2250</td>
<td>Principles of Retailing</td>
<td>0.5</td>
</tr>
<tr>
<td>OIDD 3970</td>
<td>Retail Supply Chain Management</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Marketing Component

Select one course unit from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKTG 2110</td>
<td>Consumer Behavior</td>
<td></td>
</tr>
<tr>
<td>MKTG 2120</td>
<td>Data and Analysis for Marketing Decisions</td>
<td></td>
</tr>
<tr>
<td>MKTG 2240</td>
<td>Advertising Management</td>
<td></td>
</tr>
<tr>
<td>MKTG 2270</td>
<td>Digital Marketing and Electronic Commerce</td>
<td></td>
</tr>
<tr>
<td>MKTG 2340</td>
<td>Idea Generation &amp; the Systematic Approach for Creativity</td>
<td></td>
</tr>
<tr>
<td>MKTG 2410</td>
<td>Entrepreneurial Marketing</td>
<td></td>
</tr>
<tr>
<td>MKTG 2620</td>
<td>New Product Development</td>
<td></td>
</tr>
<tr>
<td>MKTG 2650</td>
<td>Principles of Advertising</td>
<td></td>
</tr>
<tr>
<td>MKTG 2700</td>
<td>Digital Marketing, Social Media and E-Commerce</td>
<td></td>
</tr>
<tr>
<td>MKTG 2780</td>
<td>Strategic Brand Management</td>
<td></td>
</tr>
<tr>
<td>MKTG 2880</td>
<td>Pricing Strategies</td>
<td></td>
</tr>
</tbody>
</table>

Operations Component

Select one from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIDD 2200</td>
<td>Introduction to Operations Management</td>
<td></td>
</tr>
<tr>
<td>OIDD 2910</td>
<td>Negotiations</td>
<td></td>
</tr>
<tr>
<td>OIDD 3140</td>
<td>Enabling Technologies</td>
<td></td>
</tr>
<tr>
<td>REAL 2090</td>
<td>Real Estate Investment: Analysis and Finishing</td>
<td></td>
</tr>
<tr>
<td>REAL 3210</td>
<td>Real Estate Development</td>
<td></td>
</tr>
</tbody>
</table>

Design Component

Select one from the following:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>OIDD 4150</td>
<td>Product Design</td>
<td></td>
</tr>
<tr>
<td>URBS 2050</td>
<td>People and Design</td>
<td></td>
</tr>
<tr>
<td>VLST 1010</td>
<td>Eye, Mind, and Image</td>
<td></td>
</tr>
</tbody>
</table>

Primary Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
</table>

| Other Wharton Requirements

First-Year Foundations

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
</tbody>
</table>

Writing

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

Business

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
</table>

Business Breadth (non-concentration courses)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td></td>
<td>0.5</td>
</tr>
</tbody>
</table>

Fundamentals

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td>or LGST 1010</td>
<td>Law and Social Values</td>
<td></td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td></td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
</tbody>
</table>

Global Economy, Business & Society

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One course unit required</td>
<td></td>
</tr>
</tbody>
</table>

Technology, Innovation & Analytics

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>One course unit required</td>
<td></td>
</tr>
</tbody>
</table>

Liberal Arts & Sciences

Foreign Language

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Second semester-level course or equivalent required</td>
<td></td>
</tr>
</tbody>
</table>

Humanities

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At least one course unit required</td>
<td></td>
</tr>
</tbody>
</table>

Natural Science, Math & Engineering

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At least one course unit required</td>
<td></td>
</tr>
</tbody>
</table>

Social Science

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At least one course unit required</td>
<td></td>
</tr>
</tbody>
</table>

Cross-Cultural Perspectives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Three course units required</td>
<td>3</td>
</tr>
</tbody>
</table>

Unrestricted Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Five course units required</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Course Units

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>33</td>
<td></td>
</tr>
</tbody>
</table>

For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
Social Impact & Responsibility, BS

The social impact & responsibility (SIR) concentration seeks to examine the question: “How should business enterprises and business thinking be engaged to improve society in areas not always associated with business?” SIR is an interdisciplinary field that encourages students to approach their core courses and primary concentration courses from a socially oriented perspective.

For more information: lgst.wharton.upenn.edu

Social Impact & Responsibility Concentration

Secondary concentration only.

A 2.5 minimum concentration GPA is required.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGST 2300</td>
<td>Social Impact and Responsibility: Foundations</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select one Focus Course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select one Application Course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select one Elective Course</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Experiential Component</td>
<td>1</td>
</tr>
<tr>
<td>Primary Concentration</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Other Wharton Requirements</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Total Course Units</td>
<td></td>
<td>37</td>
</tr>
</tbody>
</table>

1 One course unit from the secondary concentration will double count as a Business Breadth Requirement.

Three course units from the secondary concentration will double count as Unrestricted Electives.

2 Approved by concentration advisor.

Other Wharton Requirements

**First-Year Foundations**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1100</td>
<td>Calculus for Wharton Students</td>
<td></td>
</tr>
</tbody>
</table>

Writing

Critical Writing Seminar

1

Business

Business Breadth (non-concentration courses)

Leadership Journey

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td></td>
<td>0.5</td>
</tr>
</tbody>
</table>

2 Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Statistics and Data Science, BS

A key challenge facing managers is the interpretation of the vast amount of data generated by computing systems. As these data do not directly answer important business questions, managers must use data...
analysis and statistics to interpret them. Statistics and Data Science courses develop the skills and insights required to make effective use of quantitative methods, select and apply techniques, and communicate statistical results. All courses provide skills that augment substantive managerial abilities, along with exposure to computer software that implements key techniques.

For more information: statistics.wharton.upenn.edu (http://statistics.wharton.upenn.edu)

Statistics and Data Science Concentration

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 4300</td>
<td>Probability</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Select three STAT Electives ^1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Other Wharton Requirements</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>Total Course Units</td>
<td>37</td>
</tr>
</tbody>
</table>

^1 Only one math course permitted in concentration.

Other Wharton Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Course Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Year Foundations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEPP 1000</td>
<td>Introductory Economics for Business Students</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1400</td>
<td>Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or MATH 1100 Calculus for Wharton Students</td>
<td>1</td>
</tr>
<tr>
<td>Writing</td>
<td>Critical Writing Seminar</td>
<td>1</td>
</tr>
<tr>
<td>Business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Breadth (non-concentration courses)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Leadership Journey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WH 1010</td>
<td>Business and You</td>
<td>0.5</td>
</tr>
<tr>
<td>WH 2010</td>
<td>Business Communication for Impact</td>
<td>0.5</td>
</tr>
<tr>
<td>MGMT 3010</td>
<td>Teamwork and Interpersonal Influence</td>
<td>0.5</td>
</tr>
<tr>
<td>Capstone Course/Project</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>Fundamentals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCT 1010</td>
<td>Accounting and Financial Reporting</td>
<td>1</td>
</tr>
<tr>
<td>ACCT 1020</td>
<td>Strategic Cost Analysis</td>
<td>1</td>
</tr>
<tr>
<td>BEPP 2500</td>
<td>Managerial Economics</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1000</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>FNCE 1010</td>
<td>Monetary Economics and the Global Economy</td>
<td>1</td>
</tr>
<tr>
<td>LGST 1000</td>
<td>Ethics and Social Responsibility</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>or LGST 1010 Law and Social Values</td>
<td>1</td>
</tr>
<tr>
<td>MKTG 1010</td>
<td>Introduction to Marketing</td>
<td>1</td>
</tr>
<tr>
<td>OIDD 1010</td>
<td>An Introduction to Operations, Information and Decisions</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1010</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>STAT 1020</td>
<td>Introductory Business Statistics</td>
<td>1</td>
</tr>
<tr>
<td>Global Economy, Business &amp; Society</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One course unit required</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Technology, Innovation &amp; Analytics</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For students who take ECON 0100 Introduction to Micro Economics and ECON 0200 Introductory Economics: Macro in place of BEPP 1000 Introductory Economics for Business Students of these courses can be slotted for BEPP 1000 on the worksheet. The second course may be used to fulfill a General Education Distribution or Unrestricted Elective requirement.

Two can double-count as Humanities; Natural Science, Math & Engineering; Social Science; or Flex Gen Ed.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2023 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.

Minors

For Wharton Students

Students who wish to study a subject of interest in greater depth may choose to pursue a minor. Minors generally require six to eight courses in a particular field of study. A carefully planned program of study allows a Wharton student to complete a minor within the Wharton curriculum, capitalizing on potential overlap with General Education and Unrestricted Elective requirements. Students are encouraged to begin planning as early as possible to ensure the minor can be completed in a timely manner and without taking extra courses.

Wharton students have the option of pursuing either a departmental minor or a University Minor (https://undergrad-inside.wharton.upenn.edu/university-minors/).

For Non-Wharton Students

• Statistics and Data Science, Minor (p. 191)

Academic Opportunities

In addition to a variety of global opportunities (https://undergrad-inside.wharton.upenn.edu/global-opportunities/), Wharton students can pursue interdisciplinary studies through coordinated dual-

2023-24 Catalog | Generated 08/02/23
Academic Opportunities

degree programs (https://undergrad-inside.wharton.upenn.edu/coordinated-dual-degree/), dual degrees (https://undergrad-inside.wharton.upenn.edu/dual-degree/), and minors (https://undergrad-inside.wharton.upenn.edu/minors/). Students also can accelerate their graduate pursuits while satisfying their undergraduate degree requirements through submatriculation (https://undergrad-inside.wharton.upenn.edu/submatriculation/).

Students at Wharton can enrich their academic experience through independent study (https://undergrad-inside.wharton.upenn.edu/independent-study/) or the Wharton Industry Exploration Program (https://undergrad-inside.wharton.upenn.edu/wiep/), which provides the opportunity to study different business sectors in Los Angeles and New York. Opportunities like the Wharton Research Scholars (https://undergrad-inside.wharton.upenn.edu/wrs/) only further enhance the academic experience at Wharton.

For more information, visit: undergrad-inside.wharton.upenn.edu/academic-opportunities (https://undergrad-inside.wharton.upenn.edu/academic-opportunities/).
INTERDISCIPLINARY STUDIES

Interdisciplinary opportunities at Penn allow students to explore their academic interests and discover new ways of integrating knowledge.

Dual Degree

Undergraduates can receive two Bachelor's Degrees by completing the requirements for any two of the four undergraduate schools at the same time. A dual degree program has no prescribed course of study, and the student does not have to choose to participate prior to matriculation.

The application process for a dual degree varies among the undergraduate schools. Contact the advising office (p. 300) for the school to which you are applying for details on how to submit an application.

Coordinated Dual Degree Programs (p. 292)

Penn's specialized dual degree programs offer students the opportunity to pursue an integrated curriculum jointly offered by two schools within the University. Program participants graduate from Penn with two degrees.

University Minors (p. 294)

In addition to minors completed within one school, several interdisciplinary minors combine coursework from the four undergraduate schools.

Coordinated Submatriculation Programs (p. 293)

Penn offers students many opportunities to begin a graduate program while completing an undergraduate degree. Students may apply for admission as submatriculants to a variety of the University's graduate and professional areas of study. Submatriculation programs exist in the four undergraduate schools and in several of Penn's graduate schools.

Featured Interdisciplinary Programs

Penn offers a number of opportunities for students to pursue an integrated curriculum jointly offered by two or more schools within the University, and graduate with a single degree. Examples of such programs include:

Digital Media Design

The Digital Media Design (DMD) program is an interdisciplinary major in the School of Engineering and Applied Science at Penn. As a full-fledged Bachelors in Engineering and Science (BSE) degree, it combines major coursework in computer graphics within the Computer & Information Science Department with Fine Arts courses from Penn's School of Design. The program is designed for students who have an interest in the computer programming, mathematics, and design behind computer graphics, animation, games, virtual reality environments, and interactive technologies.

View Program Requirements (p. 227)

For more information, visit: http://cg.cis.upenn.edu/dmd_program.html.

Integrated Studies Program

The Integrated Studies Program (ISP) (https://isp.sas.upenn.edu/) is the first-year curriculum for Benjamin Franklin Scholars pursuing degrees in the College of Arts and Sciences.

Deeply rooted in the liberal arts tradition of acquiring and applying expansive knowledge, this residential academic program invites highly-motivated students to examine complex themes through the integration of multiple academic disciplines and methodologies.

Students are guided through the semester by some of Penn's leading faculty. By investigating the same ideas under three distinct lenses, drawing simultaneously from the humanities, social sciences and sciences, students sharpen their focus on the similarities—and differences—between the disciplines' habits of mind.

Moelis Advance Access Program

The Moelis Advance Access Program is a deferred admission program that gives Penn undergraduates a guaranteed pathway to the Wharton MBA while they pursue work experience. Moelis Fellows access Wharton resources and network during their deferment period and can be considered for a $10,000 fellowship per year during the 2-year full-time MBA program. Beginning in 2018, the program will accept a highly selective cohort of Penn seniors whose academic and career interests expand traditional notions of business education. The program was established with a $10 million gift from Ken Moelis, W'80, WG'81, and Julie Taffet Moelis, W'81. The program is open to all Penn undergraduates, beginning with the Class of 2018, who aspire to set the stage early for their advanced education and highly successful careers. Seniors in the College of Arts and Sciences, School of Engineering and Applied Science, School of Nursing, the Wharton School, and all coordinated dual degrees may apply.

For more information, visit: https://mba.wharton.upenn.edu/moelis-advance-access-program/.

Networked & Social Systems Engineering

The Rajendra and Neera Singh Program in Networked and Social Systems Engineering (NETS), formerly called Market and Social Systems Engineering (MKSE), is the world's first course of study to fully integrate the disciplines needed to design and analyze the complex networks reshaping our society. This program prepares students to shape the technologies that underpin Internet-based search and electronic commerce, financial networks, social networks, and even such exchanges as the power grid. Graduates of this program will be prepared to engineer networks that work for both end-users and investors. Other graduates may become the policy-makers urgently needed to regulate these networks for the protection of commercial property and societal good.

View Program Requirements (p. 232)

For more information, visit: http://www.nets.upenn.edu/.

Nutrition

The Nutrition Science major is an interdisciplinary collaboration between the School of Nursing and the School of Arts & Sciences, and it builds on a student’s basic science skills with a deep dive into the science of nutrition. Linkages of nutritional compounds and dietary approaches with health and disease, novel approaches to the study of nutritional impact on health, and future avenues of exploration in the field are examined. Elective courses in anthropology, biology, economics, physiology,
psychology, health care, and public policy provide a rounded context for the study of nutrition science.

View Program Requirements (p. 248)

For more information, visit: https://www.nursing.upenn.edu/nutrition-major/

Penn offers many opportunities for interdisciplinary study in global contexts. Here are some of the opportunities available to undergraduates.

Penn offers the opportunity to study more than 40 languages at the Penn Language Center. (p. 303) For more information, visit Foreign Language Study Opportunities (p. 303).

School-based Global Opportunities

• College of Arts and Sciences (http://www.college.upenn.edu/study-abroad/)
• School of Engineering and Applied Science (http://www.seas.upenn.edu/community/international-opps.php)
• School of Nursing (http://www.nursing.upenn.edu/global-health/)
• The Wharton School (https://global.wharton.upenn.edu/global-education/undergrad/)

Global Health Opportunities

• Penn Nursing Global Health (https://www.nursing.upenn.edu/global-health/)
• Center for Global Health (http://www.med.upenn.edu/globalhealth/)
• Global Health Minor (p. 249) (School of Nursing only)

School of Arts and Sciences Departments

• Africana Studies (https://africana.sas.upenn.edu/department/)
• East Asian Languages & Civilizations (http://www.asas.upenn.edu/ealc/)
• Germanic Languages and Literatures (http://ccat.sas.upenn.edu/german/)
• Near Eastern Languages & Civilizations (http://www.sas.upenn.edu/nelc/)
• Romance Languages (http://ccat.sas.upenn.edu/roml/)
• Russian and East European Studies (https://rees.sas.upenn.edu/)
• South Asia Studies (http://www.southasia.upenn.edu/)

Regional Interdisciplinary Centers and Programs

• Center for Africana Studies (http://www.sas.upenn.edu/africana/)
• Center for East Asian Studies (http://ccat.sas.upenn.edu/ceas/)
• Center for the Advanced Study of India (http://www.sas.upenn.edu/casi/)
• Center for Italian Studies (http://ccat.sas.upenn.edu/~italians/)
• Herbert D. Katz Center for Advanced Judaic Studies (https://katz.sas.upenn.edu/)
• James Joo-Jin Kim Program in Korean Studies (http://www.sas.upenn.edu/koreanstudies/)
• Middle East Center (https://mec.sas.upenn.edu/)
• South Asia Center (http://www.southasiacenter.upenn.edu/)
• Other SAS Centers (https://www.sas.upenn.edu/departments/)

Coordinated Dual Degree Programs

Penn's specialized dual degree programs offer students the opportunity to pursue an integrated curriculum jointly offered by two schools within the University. Program participants graduate from Penn with two degrees.

Computer and Cognitive Science

School of Arts & Sciences/School of Engineering & Applied Science

Bachelor of Science in Engineering (BSE)/BAS and Bachelor of Arts (BA)

This program combines studies in computer science and engineering with linguistics, mathematics, philosophy, or psychology, and students receive a BSE or BAS degree from Penn Engineering and Bachelor of Arts from the College of Arts and Sciences. Requirements for the program are guided by the degree sought (BAS or BSE) and include 12-16 course units in Linguistics, Mathematics, Philosophy, or Psychology and 4 course units in a Foreign Language.

For more information, visit: http://www.cis.upenn.edu/current-students/undergraduate/dual.php.

Huntsman Program in International Studies and Business

School of Arts & Sciences/The Wharton School

BA in International Studies/BS in Economics

This innovative four-year joint degree program between the School of Arts and Sciences and the Wharton School combines a business education, liberal arts, and advanced language training in one of eleven languages of focus. It prepares students for global leadership in career paths around the world in diverse areas such as consulting, finance, medicine, politics, diplomacy, the non-profit sector, and entrepreneurship. Students must apply to the program when they apply to Penn; they cannot transfer into the program. Admission is highly competitive.

For more information, visit: http://huntsman.upenn.edu/.

Jerome Fisher Program in Management & Technology

School of Engineering & Applied Science/The Wharton School

BAS/BSE and BS in Economics

The Jerome Fisher Program in Management & Technology (M&T) is sponsored jointly by the School of Engineering and the Wharton School. The impetus for this joint-degree program came from the Board of Overseers of the School of Engineering and Applied Science. The Board of Overseers, a distinguished group of corporate executives and academicians, emphasized that an understanding of the engineering and technology fundamentals is as essential to the background of future leaders in business and industry as a sound knowledge of management principles. They pointed to the growing need for people who can bridge the management and technical disciplines.

Undergraduate students enrolled in the M&T Program pursue degrees from both schools concurrently, creating a truly interdisciplinary learning experience. This combination enables students not only to understand
engineering and business concepts but also the integration of the two and how this intersection distinctively shapes our world. M&T students pursue a Bachelor of Science in Economics from the Wharton School and either a Bachelor of Science in Engineering (BSE) or a Bachelor of Applied Science in Engineering (BAS) from Penn Engineering. The curriculum includes two special M&T linking courses that allow for added interdisciplinary learning opportunities. The common goal for all M&T students is the mastery of the technical and managerial skills necessary to define and solve problems in today’s complex technological society. The structure of the joint-degree program gives each student considerable flexibility in meeting this goal. Particular attention is directed to the importance and processes of innovation in our technology-based industries.

For more information, visit: http://www.upenn.edu/fisher/.

**Nursing and Health Care Management Program (NHCM)**
**School of Nursing/The Wharton School**
Bachelor of Science in Economics/Bachelor of Science in Nursing (BSN)

Nurses with excellent clinical and administrative skills are in higher demand than ever. Our Nursing and Health Care Management Program (NHCM) gives you the chance to combine two of Penn’s greatest assets: Penn Nursing and The Wharton School. In the NHCM program, you’ll study simultaneously in both schools and graduate with a Bachelor of Science in Nursing and a Bachelor of Science in Economics. Your work will include science and clinical courses along with general education courses in the Arts and Sciences. We designed the curriculum to boost expertise in patient care and deepen your knowledge of how to manage the way that care is delivered. We also use a multidisciplinary approach that integrates nursing, business, and liberal arts. Students enrolled in the program have advisors at both Nursing and Wharton and complete this integrated academic and clinical program in five years.

For more information, visit: http://www.nursing.upenn.edu/nhcm/.

**Roy and Diana Vagelos Program in Life Sciences and Management (LSM)**
**School of Arts & Sciences/The Wharton School**
Bachelor of Arts (BA)/Bachelor of Science in Economics

On the surface, bioscience and business may seem like unrelated fields. But if the full benefits of science are to be realized, discoveries made at the laboratory bench must be taken to market and made accessible to society at large—a process that demands great skill both scientifically and managerially. Given the pace of recent advances in bioscience and biotechnology, never before has the need been so great for decision makers who can understand and advance scientific innovations as well as manage and promote them. It is with this in mind that the University of Pennsylvania launched the Vagelos Life Sciences & Management (LSM) program.

LSM is an undergraduate dual-degree program administered jointly between Penn’s College of Arts & Sciences and the Wharton School. Each year, the program enrolls approximately 25 exceptional students and offers them the opportunity to pursue an interdisciplinary curriculum combining bioscience and business, leading to the completion of two degrees: a Bachelor of Arts in a life science major and a Bachelor of Science in Economics. To ensure that every student learns how to apply their knowledge, the program provides the means for them to find two required, paid internships, one centered in scientific research and the other in business or public policy. Completion of the LSM program is an ideal starting point for students intent on careers in the life sciences sector by preparing them for advanced training, and we anticipate they will then go on to pursue through MD, PhD, MBA, JD, and/or other graduate programs. LSM is suited to students with interests in health care; biomedical, agricultural, and environmental research and development; public policy; and the financial and strategic management of life science organizations.

For more information, visit: https://lsm.upenn.edu/.

**Vagelos Integrated Program in Energy Research (VIPER)**
**School of Arts & Sciences/School of Engineering & Applied Science**

**BA/BSE**

The Vagelos Integrated Program in Energy Research (VIPER) enrolls talented, prepared, and motivated students interested in energy science and engineering. VIPER students receive instruction and state-of-the-art research experiences, enabling them to pursue advanced degrees in these fields and establish high-caliber research careers as innovators in the discovery and development of sustainable ways to harness, convert, and use energy. Candidates for the program apply as they seek admission to the University. A joint program of Penn’s School of Arts and Sciences (SAS) and the School of Engineering and Applied Science (SEAS), VIPER leads to dual Bachelor of Arts (BA) and Bachelor of Science in Engineering (BSE) degrees by combining majors from each school. Possible combinations include: Physics and Astronomy, Chemistry, Biology, or Mathematics from SAS and Chemical and Biomolecular Engineering, Electrical Engineering, Materials Science and Engineering, or Mechanical Engineering and Applied Mechanics from SEAS. Some students may also apply for a master’s degree through a fifth year of study.

For more information, visit: https://www.viper.upenn.edu.

**Coordinated Submatriculation Programs**

The University offers a number of coordinated, interdisciplinary submatriculation programs to undergraduate students.

For more information about submatriculation, click here (p. 310).

**BA/JD Program in Arts & Sciences and Law**

This rigorous program offers an opportunity for highly qualified and motivated students to apply to Penn Law School during what is generally the first semester of a student’s junior year (between 16 and 23.99 course units). If accepted, the student will submatriculate into the J.D. program in their senior year. Applicants must be committed to the study of law in its theoretical and practical aspects.

For more information, visit: https://www.college.upenn.edu/submatriculation (https://www.college.upenn.edu/submatriculation/).
Bio-Dental Program

Bio-Dental submatriculation is a seven-year joint program of the College and Penn’s School of Dental Medicine for students who will major in Biology and wish to enroll in the Dental School during their senior year in the College. Students must apply to the program when they apply to Penn, and applicants will be notified of their conditional acceptance into the program when they are notified of their admission to Penn. Full acceptance into the program is made after the student’s junior year and is based on academic performance during those three years and meeting the admissions standards of the Dental School.

For more information, visit: https://www.bio.upenn.edu/undergraduate/submatriculation/bio-dental-program (https://www.bio.upenn.edu/undergraduate/submatriculation/bio-dental-program/).

BSN/JD Program

Submatriculation allows students in traditional and accelerated BSN programs to formally enroll in the JD program (https://www.law.upenn.edu/academics/degrees.php) at Penn Law School while still undergraduates. The current climate of healthcare litigation and malpractice suits is well suited for professionals who combine nursing education and experience with legal expertise. A background in both nursing and law gives students a powerful and marketable skillset and prepares them to make an impact on the medical and legal professions. To submatriculate into Penn Law, students should take the LSAT and apply (https://www.law.upenn.edu/admissions/jd/) during their junior year. If a student is admitted, they will begin taking courses at the law school during their fourth year, completing both the BSN and JD degrees in six years instead of the usual seven.

For more information, visit: https://www.nursing.upenn.edu/live/files/56-submatriculation-law (https://www.nursing.upenn.edu/live/files/56-submatriculation-law/).

Penn Engineering/Penn Law Program

Penn’s Law School offers an opportunity for qualified juniors in Penn Engineering to apply early to the Law School and submatriculate into the JD program beginning their fourth year. The program is designed as a 3-year + 3-year accelerated program for highly qualified undergraduates either in the Bachelor of Applied Science (BAS) or Bachelor of Science in Engineering (BSE) degree programs.

For more information, visit: http://www.seas.upenn.edu/undergraduate/degrees/submatriculation-law.php.

Roy and Diana Vagelos Program in Molecular Life Sciences

Ambitious and highly motivated students interested in the molecular view of life should consider the Vagelos Scholars Program in Molecular Life Sciences. Students begin as first-year students and major in two sciences or submatriculate for a Master of Science degree in the standard four years. Students in this program plan to pursue scientific research careers. Scholars are invited from the admitted pool of high school seniors at the beginning of April at the discretion of the faculty director and the admissions committee.

For more information, visit: http://www.sas.upenn.edu/biochem/vspmls.html.

Wharton Law School Submatriculation Program

During the junior year, qualified Wharton undergraduate students may apply for admission to the Penn Law School and submatriculate into the Juris Doctor (JD) program. In this 3-year + 3-year accelerated program, the student’s fourth year of study is spent entirely at the Law School completing the first-year law curriculum. The remaining undergraduate and/or graduate degree requirements are then completed in the student’s fifth and sixth years of study.

For more information, visit: https://undergrad-inside.wharton.upenn.edu/submatriculation/.

University Minors

In addition to minors completed within one school, several interdisciplinary minors combine coursework from the four undergraduate schools.

Actuarial Mathematics

School of Arts & Sciences/The Wharton School

Actuarial Science stands at the intersection of risk and money. Actuaries use their knowledge of mathematics and probability theory to define, analyze, and solve complex business, financial, and social problems. Actuaries evaluate individual and corporate risks and design financially sound insurance and pension plans. Graduates from the University of Pennsylvania with an Actuarial Mathematics Minor are expected to be in great demand by the insurance and banking industry.

View Program Requirements (p. 152)


American Public Policy

School of Arts & Sciences/The Wharton School

This program enables undergraduates interested in American public policy to construct an integrated program between the School of Arts and Sciences and the Wharton School.

View Program Requirements (p. 153)

For more information, visit: https://bepp.wharton.upenn.edu/programs/undergraduate/program-information1/american-public-policy-minor/ (https://bepp.wharton.upenn.edu/programs/undergraduate/program-information1/american-public-policy-minor/).

Neuroscience and Health Services Management

School of Arts & Sciences/The Wharton School

The Neuroscience Program and the Health Care Management Department of the Wharton School have jointly sponsored this effort. The objective is to provide students with exposure to two related areas: study in neuroscience and behavioral biology as a leading example of the bioscience enterprise, and health services management as the environment in which science innovation must be developed and managed. The minor consists of eight courses, four from the Neuroscience Program and four from Wharton. Students must earn a minimum grade of C- in courses taken to fulfill the minor requirements.
Students must have a minimum of 3 courses that they count towards the minor and not towards any other major of minor.

View Program Requirements (http://catalog.upenn.edu/undergraduate/programs/health-care-management-minor/)

For more information, visit: https://neuroscience.sas.upenn.edu/studying-neuroscience/requirements/bbb-and-health-services-management-minor (https://neuroscience.sas.upenn.edu/studying-neuroscience/requirements/bbb-and-health-services-management-minor/)

**Consumer Psychology**

**School of Arts & Sciences/The Wharton School**

The goal of the interschool Consumer Psychology Minor is to create a program that fosters the natural link between Psychology in the College and Marketing in Wharton. To fulfill the minor, students must complete four courses from the Psychology Department in the College, four courses from the Marketing Department in Wharton, and the stats requirement. Both College and Wharton requirements will consist of core courses along with a set of elective courses. College students who wish to minor in Consumer Psychology must count two of the four required psychology (PSYC) courses towards only the Consumer Psychology minor (and towards no other major or minor).

View Program Requirements (p. 159)

For more information, visit: https://psychology.sas.upenn.edu/more-information-minors (https://psychology.sas.upenn.edu/more-information-minors/).

**Legal Studies & History**

**School of Arts & Sciences/The Wharton School**

The University of Pennsylvania's Wharton School and the College of Arts and Sciences are pleased to offer a unique program of study for undergraduate students that enables them to explore multiple perspectives on law as an inter-school supplement to their major field of study.

View Program Requirements (p. 178)

For more information, visit: https://lgst.wharton.upenn.edu/minor-in-legal-studies-and-history/.

**Nutrition**

**School of Arts & Sciences/School of Nursing**

Jointly sponsored by the Schools of Nursing and Arts and Sciences, the Nutrition Minor presents a broad view of the field, and illustrates the pervasiveness of nutrition-related issues in such diverse fields as anthropology, economics, folklore, history, physiology, psychology, health care, and public policy.

View Program Requirements (p. 251)

For more information, visit: http://www.nursing.upenn.edu/nutrition-minor/.

**Sustainability and Environmental Management**

**School of Arts & Sciences/School of Engineering & Applied Science/The Wharton School**

The Sustainability and Environmental Management Minor is focused on sustainability and designed to help students understand the nature of environmental constraints that face organizations and individuals in the modern world, and to understand how these constraints can be effectively considered as part of the decision-making process in for-profit and non-profit organizations.

View Program Requirements (p. 192)


**Urban Education**

**School of Arts & Sciences/Graduate School of Education**

The crisis in American education continues to confound major sectors of American life. National attention has engaged various constituencies - non-profit business organizations; local, state and federal governments; teachers' unions; and universities - in trying to understand and improve public education. At Penn, students and faculty have become deeply involved in local schools through community service, research, teaching, and coursework. In response to student interest in community and education issues, the College of Arts and Sciences and the Graduate School of Education sponsor an interdisciplinary minor in Urban Education. This seven-course undergraduate minor offers students a unique opportunity to bridge learning between the classroom and community, and it features:

- Academically-based community service in local schools
- Deeper understanding of the complex factors affecting urban education
- Field-based research in an area of interest
- Hands-on opportunity to investigate a career in education
- Credit toward Pennsylvania teacher certification requirements

This minor is open to undergraduates in all disciplines. Students choose from among three concentrations depending on interest in pursuing teaching certification or deepening one's background in urban education policy. Elementary Education; Secondary Education; Urban Education Policy, Research, and Practice.
View Program Requirements (p. 192)

For more information, visit: http://www.sas.upenn.edu/urban/students/urban-education-minor.

**Urban Real Estate and Development**  
**School of Arts & Sciences/The Wharton School**

This minor, co-sponsored by Real Estate (Wharton) and Urban Studies (Arts and Sciences), is designed to enable students to combine an interest in Urban Studies and Real Estate Development. Students take a total of seven Urban Studies and Real Estate courses, in consultation with the minor advisor.

View Program Requirements (p. 193)

For more information, visit: http://www.sas.upenn.edu/urban/students/real-estate-development-minor.
ACADEMIC RESOURCES

Penn offers a wide variety of resources, offices, and programs for undergraduate students to support them in all aspects of their Penn experience. The following list highlights some of the most commonly used resources and areas of interest relating to academics and educational opportunities. For more information about campus resources available to students, visit the Division of the Vice Provost for University Life (http://www.vpul.upenn.edu/).

- Academic Calendar (p. 297)
- Advising (p. 300)
- Career Services (p. 301)
- Community Engagement (p. 301)
- Enrollment & Degree Verification (p. 301)
- Fellowships and Prizes (p. 301)
- Financial Aid (p. 303)
- Foreign Language Study Opportunities (p. 303)
- Global Programs (p. 304)
- Information for Athletes (p. 304)
- Information for First-Generation, Lower Income Students (p. 304)
- Information for International Students (p. 304)
- Learning Resources (p. 305)
- Libraries (p. 305)
- Penn Summer (p. 311)
- Quaker Consortium (p. 306)
- Registrar’s Office (p. 306)
- Research (p. 307)
- Scholars Programs (p. 308)
- Submatriculation (p. 310)
- Transcripts (p. 312)
- Wellness (p. 312)

Academic Calendar

Notes:

Graduate and professional programs may follow their own calendars; check the website for each School or program.

Rosh Hashanah, Yom Kippur, the first two days of Passover and Good Friday are religious holidays that affect large numbers of University community members and that fall during the academic year. View the University’s policy regarding these and other holidays (http://catalog.upenn.edu/pennbook/secular-religious-holidays/).

The University’s Three-Year Academic Calendar is subject to change. In the event that changes are made, the latest, most up-to-date version will be posted to the Almanac’s website (https://almanac.upenn.edu/penn-academic-calendar/).

2023 Summer Term

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-week Session classes begin</td>
<td>May 22</td>
</tr>
<tr>
<td>Session I classes begin</td>
<td>May 22</td>
</tr>
<tr>
<td>Memorial Day observed (no classes)</td>
<td>May 29</td>
</tr>
</tbody>
</table>

2023 Fall Term

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juneteenth (no classes)</td>
<td>Monday June 19</td>
</tr>
<tr>
<td>Session I Classes end</td>
<td>Wednesday June 28</td>
</tr>
<tr>
<td>Session II Classes begin</td>
<td>Thursday June 29</td>
</tr>
<tr>
<td>Independence Day Observed (no classes)</td>
<td>Tuesday July 4</td>
</tr>
<tr>
<td>Session II &amp; 11-Week</td>
<td>Friday August 4</td>
</tr>
<tr>
<td>Session classes end</td>
<td></td>
</tr>
</tbody>
</table>

2023-24 Catalog | Generated 08/02/23
<table>
<thead>
<tr>
<th>Event</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Final examinations</strong></td>
<td>December 14-21</td>
<td></td>
</tr>
<tr>
<td><strong>Fall term ends</strong></td>
<td>December 21</td>
<td></td>
</tr>
<tr>
<td><strong>2024 Spring Term</strong></td>
<td>January 15</td>
<td></td>
</tr>
<tr>
<td>Martin Luther King, Jr. Day Observed (no classes)</td>
<td>February 27</td>
<td></td>
</tr>
<tr>
<td>First day of classes</td>
<td>January 18</td>
<td></td>
</tr>
<tr>
<td>Course Selection Period ends</td>
<td>January 31</td>
<td></td>
</tr>
<tr>
<td>Drop Period ends</td>
<td>February 27</td>
<td></td>
</tr>
<tr>
<td>Spring term ends</td>
<td>March 2-10</td>
<td></td>
</tr>
<tr>
<td>Classes resume</td>
<td>March 11</td>
<td></td>
</tr>
<tr>
<td>Grade Type Change Deadline</td>
<td>March 22</td>
<td></td>
</tr>
<tr>
<td>Advance Registration for Fall Term and Summer Sessions</td>
<td>March 25-April 8</td>
<td></td>
</tr>
<tr>
<td>Last Day to withdraw from a course</td>
<td>April 2</td>
<td></td>
</tr>
<tr>
<td>Last day of classes</td>
<td>May 1</td>
<td></td>
</tr>
<tr>
<td>Reading days</td>
<td>May 2-5</td>
<td></td>
</tr>
<tr>
<td>Final examinations</td>
<td>May 6-14</td>
<td></td>
</tr>
<tr>
<td>Spring term ends</td>
<td>May 14</td>
<td></td>
</tr>
<tr>
<td>Alumni Day</td>
<td>May 18</td>
<td></td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>May 19</td>
<td></td>
</tr>
<tr>
<td>Commencement</td>
<td>May 20</td>
<td></td>
</tr>
<tr>
<td><strong>2024 Summer Term</strong></td>
<td>May 27</td>
<td></td>
</tr>
<tr>
<td>Memorial Day observed (no classes)</td>
<td>May 28</td>
<td></td>
</tr>
<tr>
<td>11-Week Session classes begin</td>
<td>May 28</td>
<td></td>
</tr>
<tr>
<td>Session I classes begin</td>
<td>May 28</td>
<td></td>
</tr>
<tr>
<td>Juneteenth (no classes)</td>
<td>June 19</td>
<td></td>
</tr>
<tr>
<td>Session I Classes end</td>
<td>July 3</td>
<td></td>
</tr>
<tr>
<td>Independence Day (no classes)</td>
<td>July 4</td>
<td></td>
</tr>
<tr>
<td>Session II Classes begin</td>
<td>July 5</td>
<td></td>
</tr>
<tr>
<td>Session II &amp; 11-Week Session classes end</td>
<td>August 9</td>
<td></td>
</tr>
<tr>
<td><strong>2024 Fall Term</strong></td>
<td>September 2</td>
<td></td>
</tr>
<tr>
<td>Move-in Information</td>
<td>August 21-26</td>
<td></td>
</tr>
<tr>
<td>New Student Orientation</td>
<td>August 26</td>
<td></td>
</tr>
<tr>
<td>Opening Exercises and Freshman Convocation</td>
<td>October 3-6</td>
<td></td>
</tr>
<tr>
<td>First day of classes</td>
<td>October 7</td>
<td></td>
</tr>
<tr>
<td>Labor Day (no classes)</td>
<td>October 14</td>
<td></td>
</tr>
<tr>
<td>Course Selection Period ends</td>
<td>to be decided</td>
<td></td>
</tr>
<tr>
<td>Fall term break</td>
<td>October 14</td>
<td></td>
</tr>
<tr>
<td>Classes resume</td>
<td>October 7</td>
<td></td>
</tr>
<tr>
<td>Drop Period ends</td>
<td>to be decided</td>
<td></td>
</tr>
<tr>
<td>Indigenous People's Day (University open; Classes in session)</td>
<td>October 14</td>
<td></td>
</tr>
<tr>
<td>Grade Type Change Deadline</td>
<td>to be decided</td>
<td></td>
</tr>
<tr>
<td>Family Weekend</td>
<td>October 25-27</td>
<td></td>
</tr>
<tr>
<td>Homecoming</td>
<td>November 16</td>
<td></td>
</tr>
<tr>
<td>Advance Registration for Spring Term</td>
<td>to be decided</td>
<td></td>
</tr>
<tr>
<td>Last Day to withdraw from a course</td>
<td>to be decided</td>
<td></td>
</tr>
<tr>
<td>Thanksgiving Break</td>
<td>November 26-27</td>
<td></td>
</tr>
<tr>
<td>Classes resume</td>
<td>December 2</td>
<td></td>
</tr>
<tr>
<td>Last day of classes</td>
<td>December 9</td>
<td></td>
</tr>
<tr>
<td>Reading days</td>
<td>December 10-11</td>
<td></td>
</tr>
<tr>
<td>Final examinations</td>
<td>December 12-19</td>
<td></td>
</tr>
<tr>
<td>Fall term ends</td>
<td>December 19</td>
<td></td>
</tr>
</tbody>
</table>
### 2025 Spring Term

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>First day of classes (Monday class schedule on Wednesday)</td>
<td>Wednesday January 15 (Monday classes)</td>
</tr>
<tr>
<td>Martin Luther King, Jr. Day Observed (no classes)</td>
<td>Monday January 15 (Monday classes)</td>
</tr>
<tr>
<td>Course Selection Period ends</td>
<td>to be decided</td>
</tr>
<tr>
<td>Drop Period ends</td>
<td>to be decided</td>
</tr>
<tr>
<td>Spring term break</td>
<td>Saturday-Sunday March 8-16</td>
</tr>
<tr>
<td>Classes resume</td>
<td>Monday March 17 to be decided</td>
</tr>
<tr>
<td>Grade Type Change Deadline</td>
<td>to be decided</td>
</tr>
<tr>
<td>Advance Registration for Fall Term and Summer Sessions</td>
<td>to be decided</td>
</tr>
<tr>
<td>Last Day to withdraw from a course</td>
<td>to be decided</td>
</tr>
<tr>
<td>Last day of classes</td>
<td>Wednesday April 30</td>
</tr>
<tr>
<td>Reading days</td>
<td>Thursday-Sunday May 1-4</td>
</tr>
<tr>
<td>Final examinations</td>
<td>Monday-Tuesday May 5-13</td>
</tr>
<tr>
<td>Spring term ends</td>
<td>Tuesday May 13</td>
</tr>
<tr>
<td>Alumni Day (<a href="http://www.alumni.upenn.edu/">http://www.alumni.upenn.edu/</a>)</td>
<td>Saturday May 17</td>
</tr>
<tr>
<td>Baccalaureate (<a href="http://www.upenn.edu/commencement/">http://www.upenn.edu/commencement/</a>)</td>
<td>Sunday May 18</td>
</tr>
<tr>
<td>Commencement (<a href="http://www.upenn.edu/commencement/">http://www.upenn.edu/commencement/</a>)</td>
<td>Monday May 19</td>
</tr>
</tbody>
</table>

### 2025 Summer Term

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memorial Day observed (no classes)</td>
<td>Monday May 26</td>
</tr>
<tr>
<td>11-Week Session classes begin</td>
<td>Tuesday May 27</td>
</tr>
<tr>
<td>Session I classes begin</td>
<td>Tuesday May 27</td>
</tr>
<tr>
<td>Juneteenth (no classes)</td>
<td>Thursday June 19</td>
</tr>
<tr>
<td>Session I Classes end</td>
<td>Wednesday July 2</td>
</tr>
<tr>
<td>Session II Classes begin</td>
<td>Thursday July 3</td>
</tr>
<tr>
<td>Independence Day (no classes)</td>
<td>Friday July 4</td>
</tr>
</tbody>
</table>

### 2025 Fall Term

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session II &amp; 11-Week Session classes end</td>
<td>Friday August 8</td>
</tr>
<tr>
<td>Move-in Information</td>
<td>More Information (<a href="https://residential-services.business-services.upenn.edu/moving-info/">https://residential-services.business-services.upenn.edu/moving-info/</a>)</td>
</tr>
<tr>
<td>New Student Orientation (<a href="https://www.nso.upenn.edu/">https://www.nso.upenn.edu/</a>)</td>
<td>Wednesday-Monday August 20-25</td>
</tr>
<tr>
<td>Second Year Orientation</td>
<td>Sunday-Friday August 24-29</td>
</tr>
<tr>
<td>Opening Exercises and Freshman Convocation</td>
<td>Monday August 25</td>
</tr>
<tr>
<td>First day of classes</td>
<td>Tuesday August 26</td>
</tr>
<tr>
<td>Labor Day (no classes)</td>
<td>Monday September 1</td>
</tr>
<tr>
<td>Course Selection Period ends</td>
<td>to be decided</td>
</tr>
<tr>
<td>Fall term break</td>
<td>Thursday-Sunday October 9-12</td>
</tr>
<tr>
<td>Classes resume</td>
<td>Monday October 13</td>
</tr>
<tr>
<td>Drop Period ends</td>
<td>to be decided</td>
</tr>
<tr>
<td>Indigenous People's Day (University open; Classes in session)</td>
<td>Monday October 13</td>
</tr>
<tr>
<td>Grade Type Change Deadline</td>
<td>to be decided</td>
</tr>
<tr>
<td>Family Weekend (<a href="http://www">http://www</a> vpul.upenn.edu/osafw/)</td>
<td>Friday-Sunday October 24-26</td>
</tr>
<tr>
<td>Homecoming</td>
<td>Saturday November 8</td>
</tr>
<tr>
<td>Advance Registration for Spring Term (<a href="http://www.upenn.edu/registr/">http://www.upenn.edu/registr/</a>)</td>
<td>to be decided</td>
</tr>
<tr>
<td>Last Day to withdraw from a course</td>
<td>to be decided</td>
</tr>
<tr>
<td>Thursday/Friday class schedule on Tuesday/ Wednesday (<a href="http://provost.upenn.edu/education/calendar/">http://provost.upenn.edu/education/calendar/</a>)</td>
<td>Tuesday/Wednesday November 25-26</td>
</tr>
<tr>
<td>Thanksgiving Break</td>
<td>Thursday-Sunday November 27-30</td>
</tr>
<tr>
<td>Classes resume</td>
<td>Monday December 1</td>
</tr>
<tr>
<td>Last day of classes</td>
<td>Monday December 8</td>
</tr>
<tr>
<td>Reading days</td>
<td>Tuesday-Wednesday December 9-10</td>
</tr>
<tr>
<td>Final examinations</td>
<td>Thursday-Thursday December 11-18</td>
</tr>
<tr>
<td>Fall term ends</td>
<td>Thursday December 18</td>
</tr>
</tbody>
</table>
Advising

Each school has their own advising office with a network of academic advisors available to assist students. The structure of the advising varies by school; you can find the links to your school's advising office below.

### School of Arts and Sciences

College students need to choose courses, declare a major and define career goals. They will need to examine their performance in different courses, identify their skills and those they wish to develop, and decide what really matters to them. Much of this assessment they will do themselves, but faculty members, academic advisors, career counselors and peers can help.

Students in the College have a strong network of academic advisors available to assist them throughout their undergraduate careers.

- Pre-major advisors help first- and second-year students navigate their entrance into academic and intellectual life in the College beginning with the issues of incoming freshmen and continuing through the student's exploration of a potential major.
- Peer advisors work with the pre-major advisor and are one of the first points of contact for incoming College students. They provide the perspective of an upperclass student in the College and assist first-year students in making the transition from high school to Penn by sharing their strategies for academic success and knowledge of campus resources.
- After declaring a major, students are assigned an academic advisor affiliated with the major department or program.
- All students are welcome and encouraged to speak with assistant deans for advising in the College Office. These advisors can help students explore the many options and opportunities available to College students, and are available by appointment or on a walk-in basis throughout the year.

For more information, visit the College website (https://www.college.upenn.edu/advising/).

### School of Engineering and Applied Science

Each student is assigned a faculty advisor with whom they are required to meet at least twice per year. No student is permitted to register for classes in any semester without first meeting with an advisor. The only exception is the fall semester of a student's first year. Students who take the time to prepare for these meetings generally find them beneficial and informative. Faculty advisors are the best source of information about electives within the major, research opportunities, and options for graduate study.

For more information, visit: https://ugrad.seas.upenn.edu/student-handbook/advising/.

### School of Nursing

Penn Nursing students benefit from a dual advising structure. All students are assigned a faculty advisor and have access to the professional staff advisors in the Office of Academic Affairs.

For more information, visit: http://www.nursing.upenn.edu/student-services/advising/accelerated/.

### The Wharton School

The goal of the Wharton Undergraduate Division academic advising team is to help students make informed decisions about their educational plans and professional/life goals that are consistent with their interests, abilities, and values.

Advising by appointment, walk-in advising, and specialized advising (https://undergrad-inside.wharton.upenn.edu/advising-services/#specialized_advising) are services available in 1400 Steinberg-Hall Dietrich Hall to current Wharton undergraduate students.

Professional advisors (https://undergrad-inside.wharton.upenn.edu/advising-services/), concentration advisors (https://undergrad-inside.wharton.upenn.edu/concentration-advisors/), and peer advisors
Fellowships provide funding for a wide range of activities: evaluate applications and select applicants to endorse. CURF also supports and manages selection committees consisting of leading Penn faculty that fellowship recipients, and individual advising. CURF's Fellowships Team educates Penn students and alumni about possible application through information sessions, conversations with fellowships and assists potential applicants in creating their strongest application. CURF aims to demystify these opportunities to help students determine the most appropriate awards for which to apply.

Career Services

Career Services helps students define their career goals and learn how to achieve them. The office helps students and alumni obtain postgraduate and internship positions as well as graduate and professional school admission through advising sessions, workshops, alumni networks, and a variety of online resources. Career Services also establishes and promotes contact between Penn students and employers and graduate/professional schools through career fairs, information sessions, interviewing schedules, and our robust Handshake platform where thousands of job and internship positions are posted each year.

For more information, visit https://careerservices.upenn.edu.

Community Engagement

The Barbara and Edward Netter Center for Community Partnerships (https://www.nettercenter.upenn.edu) is Penn's central administrative office for community partnership programs, including academically based community service, direct traditional service, and community development.

Penn's hub for civic engagement, Civic House (https://civichouse.upenn.edu) supports student service and advocacy groups while providing resources, information, and meeting space for service-oriented efforts throughout campus and beyond.

The Robert A. Fox Leadership Program (https://foxleadership.upenn.edu) prepares students for present and future leadership through hands-on experience, service, course work, and mentorship from successful leaders.

Enrollment & Degree Verification

The University Registrar's office provides verification of dates a student attended Penn and degrees awarded by the Schools of the University. Details concerning Academic Certification may be found on the University Registrar web page (https://srfs.upenn.edu/student-records/enrollment-degree-verification/).

Fellowships and Prizes

The Center for Undergraduate Research and Fellowships (CURF) (https://www.curf.upenn.edu) serves as the University of Pennsylvania’s information clearinghouse and primary support office for Penn students and alumni considering applying for major grants and fellowships.

CURF’s Fellowships Team educates Penn students and alumni about fellowships and assists potential applicants in creating their strongest possible application through information sessions, conversations with fellowship recipients, and individual advising. CURF also supports and manages selection committees consisting of leading Penn faculty that evaluate applications and select applicants to endorse.

Fellowships provide funding for a wide range of activities:
- full tuition, fees, and a living stipend to earn a graduate degree abroad
- undergraduate or graduate study in the US
- teaching English abroad
- internships abroad
- social engagement projects in the US or abroad

For more information, visit https://undergrad-inside.wharton.upenn.edu/peer-advising/.

For more information, visit: https://undergrad-inside.wharton.upenn.edu/advising-services/.

Helpful links:
- Fellowships Advising (https://www.curf.upenn.edu/fellowships-advising/)
- Information Sessions and Workshops (https://www.curf.upenn.edu/information-sessions-and-workshops/)
- Finding a Fellowship (https://www.curf.upenn.edu/find-fellowships/)
- Major Fellowships (https://www.curf.upenn.edu/major-fellowships/)
- Developing Your Candidacy (https://www.curf.upenn.edu/developing-your-candidacy/)
- Fellowship Recommendation Letters (https://www.curf.upenn.edu/fellowships(next-steps/letters-of-recommendation/)
- Recent Penn Recipients (https://www.curf.upenn.edu/recent-penn-recipients/)
- Applicant Responsibilities and Penn Policies (https://www.curf.upenn.edu/applicant-responsibilities-and-penn-policies/)

School-based Awards

In addition to departmental awards, there are a variety of awards available to undergraduate students within a particular school.

College of Arts and Sciences
- Abraham D. Cohn Prize
- Charles W. Burr Book Prize
- College Alumni Society 250th Commemoration Award
- Phi Beta Kappa Awards (https://www.college.upenn.edu/pbk/)
- Vagelos Challenge Award (https://www.college.upenn.edu/honors/)

For more information, visit: https://www.college.upenn.edu/honors (https://www.college.upenn.edu/honors/).

School of Engineering and Applied Science

Departmental Awards
- Bioengineering
- Chemical and Biomolecular Engineering
- Computer and Information Science
- Electrical and Systems Engineering
- Materials Science and Engineering
- Mechanical Engineering and Applied Mechanics

Awards From Additional Sources
- From the Moore School
  - John Grist Brainerd Award
  - Stuart Eichert, Jr. Memorial Prize
  - Atwater Kent Prize in Electrical Engineering
The University of Pennsylvania grants numerous undergraduate awards to outstanding graduating seniors, in addition to some sophomores and juniors. Eligibility and criteria vary by award.

President's Engagement Prizes (https://www.curf.upenn.edu/presidents-engagement-prizes/)
Competitively awarded on an annual basis, the President's Engagement Prizes empower Penn seniors to design and undertake local, national or global engagement projects during the first year after they graduate.

President's Innovation Prize (https://www.curf.upenn.edu/presidents-innovation-prize/)
Unique at both Penn and across higher education, the President’s Innovation Prize underscores the University’s considerable commitment to encouraging students to put their knowledge to work for the betterment of humankind.

Senior Awards
The University of Pennsylvania grants numerous undergraduate awards to outstanding graduating seniors, in addition to some sophomores and juniors. Eligibility and criteria vary by award.

The Senior Honor Awards (Spoon, Bowl, Cane and Spade for those who identify as men; Hotell, Harnwell, Goddard and Brownlee Awards for those who identify as women) (http://www.vpul.upenn.edu/osa/seniors.php)
Nominees must be members in good academic standing who have actively contributed to campus life through activities and leadership. All nominees are placed on a ballot (one for men, one for women) which is distributed to a committee of staff members and the Senior Class Board. This committee votes and narrows the candidate pool to 15 men and 15 women, who are then voted upon by the entire Senior Class. The top 4 men and 4 women receive the awards on Ivy Day.

Granted to graduating students of color who demonstrate leadership, advance diversity at Penn through student activities or community service, and exemplify excellence.

The James Howard Weiss Memorial Award and The Penn Student Agencies Award (http://www.vpul.upenn.edu/osa/seniors.php)
Both awards recognize distinguished academic achievement (minimum G.P.A. of 3.7) and significant leadership in undergraduate activities by members of the senior class. A committee of students, faculty and staff makes the final selection from the list of candidates. Ideally, nominees should be the most outstanding members of group (1) above.

The Sol Feinstone Undergraduate Awards (http://www.dolphin.upenn.edu/osla/feinstone.html)
These awards may be presented to a sophomore, junior or senior who has contributed to "orderly and constructive social and educational change within or outside the University community." Past recipients have included the undergraduate who established the first mental health student group in the nation; the creators of a Saturday African-centered enrichment program for local children; the organizers of a pre-orientation leadership program for first-year students; and the founder of the first and the only youth-led LGBT statewide organization in the nation. Finalists are chosen by the same committee as in (2) above. (Keep in mind the fact that there must be a specific contribution, not just a list of activities.)
Some schools have foreign language requirements. Information about language methodology in accordance with the National Standards of language education and pedagogy training language instructors to both undergraduate and graduate students and is a leader in the field. The Penn Language Center offers over 40 world languages per semester.

For more information, visit: http://www.vpul.upenn.edu/osa/seniors.php.

Financial Aid

The Office of Student Registration and Financial Services (SRFS) provides solutions to students' concerns and encompasses the offices of the University Registrar and Student Financial Services.

- Information about Paying for a Penn Education (http://www.srfs.upenn.edu/paying/)
- Information about Applying for Financial Aid (http://www.srfs.upenn.edu/finaid/)
- Information about Loans (http://www.srfs.upenn.edu/loans/)
- Information about Billing and Payment (http://www.srfs.upenn.edu/billing/)

Undergraduate Cost of Attendance

The cost of attendance represents the cost of attending Penn for an academic year, and includes both direct costs that appear on a student's bill such as tuition, fees, housing, and dining, and indirect costs that are not billed by Penn, such as books and supplies, transportation, and an allowance for personal expenses. Students should consider their cost of attendance as their budget for each academic year. Penn also uses the cost of attendance to help determine a student's eligibility for financial aid.

View the 2023-2024 Cost of Attendance: http://www.srfs.upenn.edu/paying/cost-of-attendance.htm

Foreign Language Study Opportunities

The Penn Language Center offers over 40 world languages per semester to both undergraduate and graduate students and is a leader in the field of language education and pedagogy training language instructors in language methodology in accordance with the National Standards.

Penn Language Center: plc.sas.upenn.edu (http://plc.sas.upenn.edu/)

Some schools have foreign language requirements. Information about requirements and options for foreign language study varies by school:

- College of Arts and Sciences (https://www.college.upenn.edu/language-writing-speaking/)
- School of Engineering and Applied Science does not have a language requirement.
- School of Nursing (https://www.nursing.upenn.edu/live/files/247-language-requirementpdf/)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/requirements-2017/foreign-language-requirement/)

The Penn Language Center maintains a list of languages (http://plc.sas.upenn.edu/languages/) offered at Penn:

- Afrikaans (http://plc.sas.upenn.edu/node/2538/)
- American Sign Language (http://plc.sas.upenn.edu/asl/)
- Amharic (http://plc.sas.upenn.edu/amharic/)
- Bengali (http://plc.sas.upenn.edu/bengali/)
- Cantonese (http://plc.sas.upenn.edu/cantonese/)
- Chichewa (http://plc.sas.upenn.edu/chichewa/)
- Chinese (http://plc.sas.upenn.edu/chinese/)
- Czech (http://plc.sas.upenn.edu/czech/)
- Filipino (http://plc.sas.upenn.edu/filipino/)
- Hausa (http://plc.sas.upenn.edu/hausa/)
- Hungarian (http://plc.sas.upenn.edu/hungarian/)
- Igbo (http://plc.sas.upenn.edu/igbo/)
- Indonesian (http://plc.sas.upenn.edu/indonesian/)
- Irish Gaelic (http://plc.sas.upenn.edu/irishgaelic/)
- Japanese (http://plc.sas.upenn.edu/japanese/)
- Judeo-Spanish (http://plc.sas.upenn.edu/judespanish/)
- Kannada (http://plc.sas.upenn.edu/kannada/)
- Korean (http://plc.sas.upenn.edu/korean/)
- Malagasy (http://plc.sas.upenn.edu/malagasy/)
- Malayalam (http://plc.sas.upenn.edu/malayalam/)
- Marathi (http://plc.sas.upenn.edu/marathi/)
- Modern Greek (http://plc.sas.upenn.edu/moderngreek/)
- Panjabi (http://plc.sas.upenn.edu/panjabi/)
- Pashtu (http://plc.sas.upenn.edu/pashtu/)
- Persian (http://plc.sas.upenn.edu/persian/)
- Polish (http://plc.sas.upenn.edu/polish/)
- Quechua (http://plc.sas.upenn.edu/quechua/)
- Setswana (http://plc.sas.upenn.edu/setswana/)
- Shanghainese (http://plc.sas.upenn.edu/shanghainese/)
- Shona (http://plc.sas.upenn.edu/shona/)
- Spanish (http://plc.sas.upenn.edu/spanish/)
- Sudanese Arabic (http://plc.sas.upenn.edu/sudanesearabic/)
- Swahili (http://plc.sas.upenn.edu/swahili/)
- Taiwanese (http://plc.sas.upenn.edu/taiwanese/)
- Tamil (http://plc.sas.upenn.edu/tamil/)
- Telugu (http://plc.sas.upenn.edu/telugu/)
- Thai (http://plc.sas.upenn.edu/thai/)
- Tibetan (http://plc.sas.upenn.edu/tibetan/)
- Tigrinya (http://plc.sas.upenn.edu/tigrinya/)
- Turkish (http://plc.sas.upenn.edu/turkish/)
- Twi (http://plc.sas.upenn.edu/twi/)
- Ukrainian (http://plc.sas.upenn.edu/ukrainian/)
- Vietnamese (http://plc.sas.upenn.edu/vietnamese/)
- Wolof (http://plc.sas.upenn.edu/wolof/)
Global Programs

Each year approximately 3,000 Penn students participate in a global experience as part of their academic career at Penn. Of these students, about 1,000 engage in a global opportunity through the office of Penn Abroad.

Penn Abroad (https://global.upenn.edu/pennabroad/), a division of Penn Global (https://global.upenn.edu/), manages a variety of global programs including:

- Semester Abroad (https://global.upenn.edu/pennabroad/semester/) allows undergraduate students to spend a semester or academic year abroad and earn Penn credit.
- Penn Global Seminars (https://global.upenn.edu/pennabroad/pgs/) are intensive semester-long seminars with short-term international travel components.
- Global Research & Internship Program (https://global.upenn.edu/pennabroad/grip/) placements allow students to go abroad for 8 to 12 weeks over the summer to pursue research or an internship, with funding awarded to all accepted students.
- Virtual Internships Abroad (https://global.upenn.edu/pennabroad/ via/) offers students professional work experience with global employers in a highly flexible and customizable virtual format.

In addition to the opportunities made available by Penn Abroad, other global opportunities for Penn undergraduate students exist across campus. These include:

- Penn Summer Abroad (http://www.sas.upenn.edu/summer/programs/abroad/) – offers faculty-led undergraduate courses offered in the summer through the School of Arts and Sciences to a range of international destinations each year.
- Wharton International Program (https://undergrad-inside.wharton.upenn.edu/wip/) – provides short term international business courses at three global locations each year.
- Penn Nursing Short Term & Independent Programs (https://www.nursing.upenn.edu/global-health/student-opportunities/short-term/) – provides students with a number of elective courses that can be taken abroad, including some clinical elective opportunities.
- Penn Engineering (https://global.upenn.edu/pennabroad/pennengineering/) – provides a range of programs for undergraduate Engineering students Study Abroad, International Summer Research, and Service Learning Opportunities in partnership with Penn Abroad.

Students are encouraged to speak to their department and home school about additional study abroad opportunities that may exist.

Information for Athletes

Penn Athletics (http://www.pennathletics.com) offers a number of programs to support student-athletes academically:

Student Athlete Development Center (http://www.pennathletics.com/page/student-athlete-development-center/)

Academic Resources (http://www.pennathletics.com/page/academic-resources/)

Student-Athlete Academic Achievement Program

The Student-Athlete Academic Achievement Program is designed to provide student-athletes with supplemental study and tutoring opportunities, as well as to foster academic interaction with fellow student-athletes. During the academic year, students have access to reserved rooms for scheduled study time, and individualized and group tutoring sessions. In addition, workshops are conducted to offer strategies for succeeding at Penn.

For more information, visit http://www.pennathletics.com/page/student-athlete-academic-achievement-program (http://www.pennathletics.com/page/student-athlete-academic-achievement-program/).

Information for First-Generation, Lower Income Students

Penn offers a generous program of need-based financial aid (https://srfs.upenn.edu/financial-aid/) and a strong commitment to ensuring access to a Penn education for qualified students from all social and economic backgrounds.

Penn First Plus (P1P) provides a hub of resources, programs, and support for undergraduate students who are the first in their families to attend college and/or have lower-to-modest financial means. P1P collaborates with academic programs, individual faculty members, and student services and centers across the University to make more accessible and inclusive the many opportunities provided by a Penn education. These efforts include supplemental funding support for emergencies and opportunities; individualized advising and advocacy for students; scholarly and professional development programs; inclusivity workshops and resources for faculty and staff; and initiatives to make more transparent the resources available to support academic and personal success at Penn (however a student might want to define success for themselves). We work closely with the leaders of our eleven student organizations to cultivate community.

The Shleifer Family Penn First Plus Center is located on the garden level of College Hall, and can be accessed behind the statue of Dr. Pepper on Penn Commons/Perelman Quadrangle. Our staff are available during regular university operating hours to assist with questions of navigating the Penn experience. We also have study rooms, lounge space, meeting areas, free printing, and more. Our academic counseling team members in the College Achievement Program can be found in suite 240 of Hamilton Village (220 South 40th St.). For more information, please visit the P1P website (https://pennfirstplus.upenn.edu/).

Information for International Students

Penn's International Student and Scholar Services (ISSS) (https://global.upenn.edu/issss/) provides immigration benefits assistance and integration initiatives for the international community at Penn. ISSS works with international students through all stages of their journey at Penn, providing guidance every step of the way.

ISSS provides support to students in many different areas. Some examples include:

- Preparing students for arrival to the U.S.
- Helping get adjusted to life in Philadelphia
• Advising on maintaining status, travel, and immigration guidelines
• Providing integration opportunities such as social events, cultural trips and leadership roles
• Assisting with employment authorization before internships or jobs
• Assigned advisors and central online portal for requests and forms via the iPenn system (https://www.ipenn.oip.upenn.edu/)

Find out more information for:
• New Students (https://global.upenn.edu/isss/new/)
• Current Students (https://global.upenn.edu/isss/students/)
• Beyond Immigration (https://global.upenn.edu/isss/beyond-immigration/)

Click the iPenn logo to see your assigned advisor and make requests with eforms.

Learning Resources

Center for Programs in Contemporary Writing (http://www.writing.upenn.edu/)
The Center for Programs in Contemporary Writing (http://www.writing.upenn.edu/) (CPCW) brings together all of Penn’s writing programs, entities, and projects to form a collaborative whole. The Center presents writing courses, workshops and a reading circle. In addition, it offers students an opportunity to perform their writing or to become involved as a tutor, mentor or editorial apprentice.

College Houses and Academic Services (http://www.collegehouses.upenn.edu/)
The eleven College Houses bring together undergraduates, faculty, staff, and graduate students to form vibrant residential communities within the larger context of our renowned urban campus, right in the heart of historic Philadelphia.

Each House has a Faculty Director, one or more Fellows, a House Dean, a House Coordinator, a plentiful staff of student Residential Advisors (RAs) and Graduate Associates (GAs), student Information Technology Advisors (ITAs), and many student managers in key positions.

Open to all Penn students, House tutoring sessions in math, chemistry, and economics are free and require no advance sign-up. For more information on tutoring within the Houses, visit: http://www.collegehouses.upenn.edu/life/tutoring (http://www.collegehouses.upenn.edu/life/tutoring/).

Communication within the Curriculum (https://cwic.sas.upenn.edu/)
Communication Within the Curriculum (CWIC)'s undergraduate speaking advisors help students develop their public speaking skills through workshops and one-on-one advising sessions during walk-in hours. CWIC also offers two critical speaking seminars and a number of affiliate courses.

Penn College Achievement Program (PENNCAP) (https://penncap.vpse.upenn.edu/)
The Penn College Achievement Program (https://penncap.vpse.upenn.edu/) works closely with a diverse group of students, many from lower-income and/or first-generation (http://www.vpul.upenn.edu/Low-IncomeFirst-GenerationStudents/) backgrounds, to support their success at Penn. Among the many services offered are laptop and textbook loans, summer tuition grants, tutoring and advising.

Tutoring Center (http://www.vpul.upenn.edu/tutoring/)
The Tutoring Center (http://www.vpul.upenn.edu/tutoring/) offers Penn undergraduates a wide variety of free, accessible, and convenient options to supplement their academic experience.

Weingarten Learning Resources Center (http://www.vpul.upenn.edu/lrc/)
The Weingarten Center provides academic support services and programs for undergraduate, graduate, and professional students at the University of Pennsylvania through its two offices. The services and programs of both offices are free and confidential.

Office of Learning Resources (http://www.vpul.upenn.edu/lrc/)
The Office of Learning Resources (http://www.vpul.upenn.edu/lrc/) staff provide a wide range of programming and professional consultation services in university-relevant skills such as reading, writing, study strategies, and time management.

Student Disabilities Services (https://wlrc.vpul.upenn.edu/sds/)
Student Disabilities Services (https://wlrc.vpul.upenn.edu/sds/) staff work closely with students who self-identify with disabilities in order to ensure equal access to all University programs, activities and services.

Libraries

The Penn Libraries provides support and resources for teaching, research, and learning through 14 individual libraries, vast physical and digital collections, personal consultations, workshops, and other services.

The Libraries’ print and digital collections include more than 7 million books and other items, including journals, databases, streaming video, musical scores, and more, with materials in more than 400 languages.

Our website (https://www.library.upenn.edu/) is the gateway to these collections and to other library resources and services available to Penn students. Learn the basics in our Quick Start Guide (https://www.library.upenn.edu/help-with/quick-start-guide/), search Franklin (https://franklin.library.upenn.edu/), our online catalog, and learn more about all that the Libraries has to offer.

Visit and Study

Each of the Penn Libraries locations has unique resources available to students, whether they are studying dentistry, design, or anything in
between. See all locations and hours (https://www.library.upenn.edu/about/locations/).

The Libraries offers spaces for students to work, study, create, and collaborate, featuring:

- Designated areas for quiet study
- Reservable rooms and booths for group study
- Computers, monitors, and other technology
- Different kinds of seating, lighting, and software to suit individual needs

Research

To get help with research, students can submit questions online or make an appointment for in-person assistance.

Librarians are available on live chat (https://www.library.upenn.edu/chat/) from Monday to Friday from 9am to 5pm and for video consultations (https://libcal.library.upenn.edu/appointments/) by appointment. You can also send us a question (https://faq.library.upenn.edu/ask/) any time and we'll respond in 24 hours or less.

Need guidance related to a particular subject? From Accounting to Philosophy to Veterinary Sciences, one of our subject specialists (https://www.library.upenn.edu/people/subject-specialists/) can provide customized assistance, or browse online Research Guides (https://guides.library.upenn.edu/hometabs/) by subject.

Workshops

Penn Libraries workshops (https://guides.library.upenn.edu/workshops/) are hosted throughout the academic year. Workshops are designed to offer a deeper dive into resources and services and equip students with the skills they need to make the most of their academic experience.

Canvas

Canvas is the learning management system used by most schools and courses at the University of Pennsylvania. A valid PennKey is required to log in to the system.

- Log in to Canvas (https://canvas.upenn.edu/)
- Find more information and get assistance (https://infocanvas.upenn.edu/guides/canvas-for-students/)

Quaker Consortium

University of Pennsylvania students have a unique opportunity to study at Bryn Mawr, Haverford, or Swarthmore Colleges during the fall and spring terms of the academic year.

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/quaker-consortium/)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/quaker-consortium/)

Registrar's Office

The Office of the University Registrar (https://srfs.upenn.edu/registrar/) supports teaching and learning at the University of Pennsylvania by maintaining the integrity of academic policies and the student information system. We are the stewards of Penn's student records from application to degree conferral in perpetuity.

We provide the following services to Students, Faculty, Alumni, Parents, Staff and many other constituents across our campus:

- Support Students and Departments during Registration
- Reserve Classrooms for Courses and Academic Events
- Schedule Final Exams
- Record and Report Enrollment and Final Grades
- Certify Attendance
- Manage Veterans Affairs Educational Benefits
- Issue Transcripts (https://srfs.upenn.edu/student-records/transcripts/)
- Verify Graduation and Degrees (https://srfs.upenn.edu/student-records/enrollment-degree-verification/)

A transcript is a representation of a student’s academic record while at the University of Pennsylvania.

Official transcripts are ordered through the Office of the University Registrar website (https://srfs.upenn.edu/student-records/transcripts/). Unofficial transcripts are available at anytime, online for students and alumni class of 1988 or later via the Penn In Touch portal (https://pennintouch.apps.upenn.edu/pennInTouch/jsp/fast2.do?1=2&access=student&bhcp=1).

The University Registrar’s office provides verification of dates a student attended Penn and degrees awarded by the Schools of the University. Details concerning Academic Certification may be found on the University Registrar web page (https://srfs.upenn.edu/student-records/enrollment-degree-verification/).

In accordance with Title 38 US Code 3679 subsection (e), the University of Pennsylvania adopts the following additional provisions for any students using U.S. Department of Veteran Affairs (VA) Post 9/11 G.I. Bill® (Ch. 33) or Vocational Rehabilitation and Employment (Ch. 31) benefits, while payment to the institution is pending from the VA. The University will not:

- Prevent the student’s enrollment;
- Assess a late penalty fee to the student;
- Require student secure alternative or additional funding;
- Deny their access to any resources (access to classes, libraries, or other institutional facilities) available to other students who have satisfied their tuition and fee bills to the institution.

However, to qualify for this provision, such students may be required to:

- Provide Chapter 33 Certificate of Eligibility (or its equivalent) or for Chapter 31, VA VR&E’s contract with the school on VA Form 28-1905 by the first day of class.
- Chapter 33 students can register at the VA Regional Office to use E-Benefits to get the equivalent of a Chapter 33 Certificate of Eligibility. Chapter 31 student cannot get a completed VA Form
Research
As one of the world’s leading research universities, Penn has a broad array of faculty conducting cutting-edge research in all disciplines. Undergraduates may get involved in research via a number of routes, including research-intensive courses, a variety of summer programs, and independent projects with a faculty mentor.

The Center for Undergraduate Research and Fellowships (https://www.curf.upenn.edu/research/) is a resource for all undergraduates interested in getting involved in research opportunities both on campus and around the world. CURF helps Penn undergraduates become involved in research by helping them identify resources, narrow their search, and shape their initial inquiries so they can find appropriate faculty mentors and research funding.

- Penn Undergraduate Research Mentoring Program (PURM) (https://www.curf.upenn.edu/content/penn-undergraduate-research-mentoring-program/)
- Research Opportunity Directory (https://www.curf.upenn.edu/research-opportunity-directory/)
- Research Grants (https://www.curf.upenn.edu/research/funding-opportunities/)
- Summer Humanities Internship Program (SHIP) (https://www.curf.upenn.edu/summer-humanities-internships/)

College of Arts and Sciences
Research reinforces and instills mastery of academic skills: how to formulate a question or hypothesis, how to gather evidence, and how to answer that question or test that hypothesis.

One of the major advantages of being an undergraduate at a research university is the wide variety of opportunities available for scholarship. Research in the College encompasses a range of activities. In some disciplines, such as English, philosophy and history, students read original works, or the primary literature, and look for new connections and interpretations of these writings. In areas such as anthropology or history of art, students study artifacts, works of art or ancient languages, gaining insights on earlier civilizations and the lives of those who contributed to them. Some students do research in biology, chemistry or psychology, seeking insights on genetic coding, molecular structure or animal behaviors.

Sometimes, students may receive College credit for research activities and scholarship, or receive work-study funds or stipends from faculty grants.

For more information, visit: https://www.college.upenn.edu/research/.

School of Engineering and Applied Science
Our extraordinary faculty-to-student ratio provides great opportunities for undergraduate students to work in state-of-the-art research laboratories during the academic year and in the summer. Below are examples of student research, along with helpful information to guide undergraduates toward finding research positions at Penn Engineering.

For more information, visit: https://research.seas.upenn.edu/undergraduate-research/.

Finding a Research Mentor and Research Experiences
Students are encouraged to explore the Penn Engineering Faculty Expertise Directory (http://www.seas.upenn.edu/directory/departments.php), featuring the School’s standing faculty and which is searchable by department, research center affiliation, and research expertise keyword. Users can identify which faculty are conducting research in a specific area and contact faculty members whose research interests them.

Littlejohn Undergraduate Research Program
Thanks to a generous gift by Angus Littlejohn, the School of Engineering is able to offer Summer Research Opportunities to Penn Engineering Students. The program is open to rising sophomores, juniors and seniors.

The program intends to provide students the opportunity to get involved in hands-on engineering research under the supervision of a faculty member. Topics of research include all areas covered by the departments in the School of Engineering and Applied Science.

Rachleff Scholars Program
This program offers Penn Engineering undergraduates the opportunity to gain valuable research experiences with standing faculty and to participate in a community of peers who share a common interest in research and scholarly inquiry.

School of Nursing
The Office of Nursing Research (http://nursing.livewhale.net/research/onn/), along with our four research centers (http://nursing.livewhale.net/research/research-centers/) and partnerships across Penn, provide students with resources and support that are virtually unparalleled in our field. Students, from undergraduates to doctoral students, have numerous opportunities to engage in research and work alongside some of the most recognized researchers in their fields.

For more information, visit: https://www.nursing.upenn.edu/research/.

The Wharton School
Research provides an individualized method of learning and an in-depth treatment of a topic of personal interest with input from a faculty expert. Research experience is helpful if applying for distinguished international fellowships and is important if going on to graduate studies in an analytical discipline. Research skills are useful for decision-making in the private and public sectors and are required in academic positions.
Below you can find a variety of research opportunities and scholarship programs.

- Courses (https://undergrad-inside.wharton.upenn.edu/research/courses/)—Create "tools" in a research-methods course.
- Research assistantships (https://undergrad-inside.wharton.upenn.edu/research/assistantships/)—Learn by executing research-related tasks while working on a project for a faculty member.
- Summer programs (https://undergrad-inside.wharton.upenn.edu/research/summer-opportunities/)—Gain hands-on experience from proposal to presentation through a project commensurate with program duration.
- Scholars programs (https://undergrad-inside.wharton.upenn.edu/scholars-programs/)—Gain hands-on, in-depth experience from proposal to presentation via a senior thesis and other activities.

For more information, visit: https://undergrad-inside.wharton.upenn.edu/research/.

University Policies

- Guidelines for Research in the Community (http://catalog.upenn.edu/pennbook/guidelines-research-community/)
- Guidelines for Student Protection in Sponsored Research Projects (http://catalog.upenn.edu/pennbook/protection-sponsored-research/)
- Policy on Undergraduate Students, High School Students and Non-affiliates Participating in Research in Penn Research Facilities (http://catalog.upenn.edu/pennbook/undergraduates-in-research/)
- Procedures Regarding Misconduct in Research for Nonfaculty members of the Research Community (http://catalog.upenn.edu/pennbook/misconduct-non-faculty/)

Scholars Programs

The following programs are available to all undergraduate students.

Benjamin Franklin Scholars

The Benjamin Franklin Scholars (https://www.curf.upenn.edu/bfs/) (BFS) program is one of Penn’s most distinctive undergraduate communities. Each year we welcome a group of extraordinary incoming students, who are committed to the transformative power of ideas.

Benjamin Franklin Scholars are selected based on their interest in, and demonstrated capacity for, a deep engagement in the liberal arts and sciences, both as ends in themselves and as engines of change in the world. By offering unique courses, and the guidance of extraordinary faculty and advisors, we encourage our students to pursue, in the spirit of Franklin himself, our guiding principles of breadth, curiosity, and a tinkering habit of mind.

BFS is a home for students who seek the advantages of wide-ranging knowledge, whatever particular educational path they choose. We look for spirited, independent people who find their own passions and are predisposed to explore their own ideas, wherever they might lead. We welcome restless minds who are not content just to appreciate great ideas as abstractions up on a shelf, but who see them as transformative: changing minds and so changing the world. We are a community of students and faculty who find value in the saying of the great classical writer Plutarch, whom Franklin himself claims to have “read abundantly,” that a truly great education is a kind of playing with fire.

BFS welcomes students in all the undergraduate schools: the College, Engineering, Wharton, and Nursing. Parts of the program, including admissions, work a bit differently in the different schools. For all our scholars, though, the BFS experience includes support for unpaid or underpaid internships, a presentation of research to the BFS community, and our Seminars, which engage a breadth of intellectually challenging topics, without requiring extensive prerequisites, both inside and outside of students’ major fields of study.

University Scholars

The University Scholars program (https://www.curf.upenn.edu/university-scholars/) provides undergraduates with mentored opportunities for innovation, conversation, and collaboration within and across the disciplinary boundaries of their curiosity-based inquiries.

Through these opportunities, students develop the ability to conduct consequential independent research projects; to communicate their work’s premises, approaches, outcomes, and implications to both expert and non-expert audiences; and to participate in and contribute to professional settings within and beyond their specific fields of interest.

UScholars is premised on a definition of “research” in its broadest sense, which enables students to explore meaningful intellectual questions in all areas of study at Penn; to satisfy their curiosity through rigorous, evidence-based investigative methodologies; and to think critically about how their work is contextualized within broader scholarship as well as within the wider world.

UScholars

- supports long-term, in-depth, original, independent, passion-driven undergraduate research;
- cultivates diversity, including across subject areas, methodologies, and faculty and student participants; and
- advances cross-disciplinarity, including the ability of students working within their own respective areas of burgeoning expertise to communicate and collaborate with others within and beyond their own disciplines.

Civic Scholars

Penn Civic Scholars (http://www.vpul.upenn.edu/civichouse/civicscholars/) is a unique program providing undergraduates with a sustained four-year experience in civic engagement and scholarship. The program culminates in certification upon graduation and designation as a Civic Scholar on the student’s transcript.

The Civic Scholars program is based on a few basic principles:

- Civic engagement and academic work are mutually reinforcing.
- Meaningful and sustained involvement in community affairs while at Penn is the base for life-long civic commitments and contributions.
- Undergraduates can conduct significant applied social and public policy research through a multi-year preparatory process.
- Forming a community of dedicated students and faculty will encourage distinctive civic service and scholarship.
SNF Paideia Fellows Program

The SNF Paideia Fellows Program (http://snfpaideia.upenn.edu/) provides a select group of Penn undergraduates the opportunity to integrate wellness, service, citizenship, and dialogue through a structured combination of academic courses, co-curricular events, and hands-on leadership experiences. Students from any of the four undergraduate schools can apply to the SNF Paideia Fellows program in the spring of their first year. SNF Paideia Fellows participate in the program for three years, sophomore through senior year.

The SNF Paideia Fellowship supports students’ ability to integrate their public roles as community members into their academic, personal, and professional lives in healthy, sustainable, and fulfilling ways. The program organizes and highlights curricular and co-curricular experiences where students can acquire the tools necessary for effectively contributing to the local, national, and global communities of which they are a part. It also provides opportunities for students to practice robust and respectful civil dialogue with others across a wide range of political, social, and cultural differences.

SNF Paideia Fellows:

• enroll in a sophomore year and junior year seminar designed to build skills and community among the Fellows;
• take (3) Paideia designated courses focusing on relevant aspects of dialogue across differences, public service, and personal and social wellness; and
• complete a Senior Capstone project that integrates a Fellow’s major with civic dialogue, service, and/or wellness.

The following programs are available to students in a particular school.

College of Arts and Sciences

Integrated Studies Program

The Integrated Studies Program (ISP) (https://isp.sas.upenn.edu/) is the first-year curriculum for Benjamin Franklin Scholars pursuing degrees in the College of Arts and Sciences.

Deeply rooted in the liberal arts tradition of acquiring and applying expansive knowledge, this residential academic program invites highly-motivated students to examine complex themes through the integration of multiple academic disciplines and methodologies.

Students are guided through the semester by some of Penn’s leading faculty. By investigating the same ideas under three distinct lenses, drawing simultaneously from the humanities, social sciences and sciences, students sharpen their focus on the similarities—and differences—between the disciplines’ habits of mind.

School of Engineering and Applied Science

Rachleff Scholars

The School Of Engineering and Applied Science is pleased to announce the Rachleff Scholars Program (https://www.seas.upenn.edu/undergraduate/research/rachleff-scholars.php). The Program offers Penn Engineering undergraduates the opportunity to gain valuable research experiences with standing faculty and to participate in a community of peers who share a common interest in research and scholarly inquiry.

SNF Paideia Fellows Program

The SNF Paideia Fellows Program (http://snfpaideia.upenn.edu/) provides a select group of Penn undergraduates the opportunity to integrate wellness, service, citizenship, and dialogue through a structured combination of academic courses, co-curricular events, and hands-on leadership experiences. Students from any of the four undergraduate schools can apply to the SNF Paideia Fellows program in the spring of their first year. SNF Paideia Fellows participate in the program for three years, sophomore through senior year.

The SNF Paideia Fellowship supports students’ ability to integrate their public roles as community members into their academic, personal, and professional lives in healthy, sustainable, and fulfilling ways. The program organizes and highlights curricular and co-curricular experiences where students can acquire the tools necessary for effectively contributing to the local, national, and global communities of which they are a part. It also provides opportunities for students to practice robust and respectful civil dialogue with others across a wide range of political, social, and cultural differences.

SNF Paideia Fellows:

• enroll in a sophomore year and junior year seminar designed to build skills and community among the Fellows;
• take (3) Paideia designated courses focusing on relevant aspects of dialogue across differences, public service, and personal and social wellness; and
• complete a Senior Capstone project that integrates a Fellow’s major with civic dialogue, service, and/or wellness.

The following programs are available to students in a particular school.

College of Arts and Sciences

Integrated Studies Program

The Integrated Studies Program (ISP) (https://isp.sas.upenn.edu/) is the first-year curriculum for Benjamin Franklin Scholars pursuing degrees in the College of Arts and Sciences.

Deeply rooted in the liberal arts tradition of acquiring and applying expansive knowledge, this residential academic program invites highly-motivated students to examine complex themes through the integration of multiple academic disciplines and methodologies.

Students are guided through the semester by some of Penn’s leading faculty. By investigating the same ideas under three distinct lenses, drawing simultaneously from the humanities, social sciences and sciences, students sharpen their focus on the similarities—and differences—between the disciplines’ habits of mind.

School of Engineering and Applied Science

Rachleff Scholars

The School Of Engineering and Applied Science is pleased to announce the Rachleff Scholars Program (https://www.seas.upenn.edu/undergraduate/research/rachleff-scholars.php). The Program offers Penn Engineering undergraduates the opportunity to gain valuable research experiences with standing faculty and to participate in a community of peers who share a common interest in research and scholarly inquiry.

The Rachleff Scholars Program is open to rising sophomores with at least a 3.4 Cumulative GPA and strong interests in engineering research. Each student accepted into the Rachleff Program is required to complete work in three separate areas: summer research experience, honors coursework, and scholarly community activities.

School of Nursing

Benjamin Franklin Scholar - Nursing

As a Benjamin Franklin Scholar - Nursing (https://www.nursing.upenn.edu/academics/a-penn-nursing-education/undergraduate-honors-program/), you will engage in an intensive academic experience, along with peers in the College of Arts and Sciences, the Wharton School and in the School of Engineering and Applied Science, to complete the undergraduate Nursing major with an intensive liberal arts component. In addition to a variety of campus-wide programs as part of BFS, you will be able to enroll in BFS Seminars – courses taught by expert faculty from across campus in a variety of topics.

The Wharton School

Joseph Wharton Scholars

Founded in 1988, the Joseph Wharton Scholars (https://undergrad-inside.wharton.upenn.edu/jws/) program is designed to emphasize the importance of scholarly research and the liberal arts and sciences within the framework of a business education. Students in the program are required to take scholars courses both in Wharton and outside of Wharton (in the College of Arts & Sciences, Nursing, and/or Engineering), engage in a significant research project, and participate in a variety of academic, career-oriented, and social activities.

The JWS program is the Wharton component of the Penn-wide Benjamin Franklin Scholars (https://undergrad-inside.wharton.upenn.edu/bfs/) program, through which students gain access to BFS Seminars. In addition to the course requirements (https://undergrad-inside.wharton.upenn.edu/jws/), students must maintain a minimum 3.4 GPA.

Public Policy Research Scholars

The Public Policy Research Scholars (PPRS) (https://undergrad-inside.wharton.upenn.edu/pprs/) offers a unique opportunity for students to study and explore public policy.

PPRS is an interdisciplinary certificate program intended for undergraduates with a background in economics, who want to explore the impact of U.S. public policy on the domestic economy.

The PPRS program is not a major. Instead, it offers a supplemental course of study, focusing on the quantitative analysis of public policy at the federal level, that can be pursued alongside any major, in any of Penn's undergraduate schools. Beyond the curriculum, students also are required to do at least one public policy summer internship, for which they will receive funding from the Penn Wharton Public Policy Initiative. They also will have opportunities to assist with faculty-led policy research on campus. Through PPRS, we aim to create a tight-knit cohort of undergraduates from across the University who are committed to gaining the skills and experience necessary to critically assess U.S. public policy, as well as to prepare for graduate study and career opportunities in the field.

The core skills at the heart of PPRS include:
- Economic and political analysis of public policy, for assessing why, how, and with what degree of success the government designs and implements policy.
- Statistical thinking and quantitative analysis of economic data.
- Knowledge of the policymaking process.
- The application of theoretical and quantitative tools to practical, real-life policy questions.

Students that complete the program will have the designation "Public Policy Research Scholar" noted as an honor on their transcripts and will receive a certificate upon graduation.

**Wharton Research Scholars**

Wharton Research Scholars ([https://undergrad-inside.wharton.upenn.edu/wrs/](https://undergrad-inside.wharton.upenn.edu/wrs/)) is an intensive one-year research program for a select group of students who are interested in conducting research under the supervision of some of Wharton's preeminent faculty members. As part of the program, participants complete an honors thesis.

Students apply to work on a specific project they propose in consultation with a Wharton faculty member who agrees to act as their faculty mentor. Students are allowed to have more than one faculty mentor provided at least one is a member of the Wharton faculty.

Throughout the year, students convene to discuss progress, strategies, and challenges within their projects. This interaction fosters a strong scholarly community where students can learn from each other's experience. The research scholars also meet regularly with their faculty mentors who advise the students throughout the year. The program culminates with final presentations and publication of research papers on the University of Pennsylvania Libraries' ScholarlyCommons ([http://repository.upenn.edu/wharton_research_scholars/](http://repository.upenn.edu/wharton_research_scholars/)).

**Submatriculation**

Penn offers students many opportunities to begin a graduate program while completing an undergraduate degree. Students may apply for admission as submatriculants to a variety of the University's graduate and professional areas of study. Submatriculation programs exist in the four undergraduate schools and in several of Penn's graduate schools.

Application for admission as a submatriculant is made within the regular deadlines and processes for application to the graduate program of interest, usually during the student's junior year. Prior to applying for admission as a submatriculant, a student should meet with an academic advisor in both the undergraduate school and in the intended graduate program.

Policies, options, and procedures for submatriculation vary depending on a student's undergraduate school:

- College of Arts and Sciences ([https://www.college.upenn.edu/submatriculation/](https://www.college.upenn.edu/submatriculation/))
- School of Engineering and Applied Science ([http://www.seas.upenn.edu/undergraduate/degrees/submatriculation.php](http://www.seas.upenn.edu/undergraduate/degrees/submatriculation.php))
- School of Nursing ([https://www.nursing.upenn.edu/academics/a-penn-nursing-education/submatriculation/](https://www.nursing.upenn.edu/academics/a-penn-nursing-education/submatriculation/))

For more information about interdisciplinary submatriculation opportunities, click here (p. 293).

**School of Arts and Sciences**

For a list of School of Arts and Sciences departments that consider submatriculation applications, visit: [https://www.college.upenn.edu/submatriculation/](https://www.college.upenn.edu/submatriculation/).

In addition to submatriculating within a department, College undergraduate students are also eligible for the following specialized submatriculation programs:

**BA/JD Program in Arts & Sciences and Law**

This rigorous program offers an opportunity for highly qualified and motivated College students to apply to Penn Law School during what is generally the first semester of a student's junior year (between 16 and 23.99 course units). If accepted, the student will submatriculate into the J.D. program in their senior year. Applicants must be committed to the study of law in its theoretical and practical aspects.

For more information, visit: [https://www.college.upenn.edu/submatriculation/](https://www.college.upenn.edu/submatriculation/).

**Bio-Dental Program**

Bio-Dental submatriculation is a seven-year joint program of the College and Penn's School of Dental Medicine for students who will major in Biology and who wish to enroll in the Dental School during their senior year in the College. Application to the program must be made at the time of application to Penn. Applicants will be notified of their conditional acceptance into the program when they are notified of their admission to Penn. Full acceptance into the program is made after the student's senior year and is based on academic performance during those three years and meeting the admissions standards of the Dental School.

For more information, visit: [https://www.bio.upenn.edu/undergraduate/submatriculation/accelerated-dental-program](https://www.bio.upenn.edu/undergraduate/submatriculation/accelerated-dental-program/).

**Roy and Diana Vagelos Program in Molecular Life Sciences**

Ambitious and highly motivated students interested in the molecular view of life should consider the Vagelos Scholars Program in Molecular Life Sciences. Students begin as first-year students and major in two sciences or submatriculate for a Master of Science degree in the standard four years. Students in this program plan to pursue scientific research careers. Scholars are invited from the admitted pool of high school seniors at the beginning of April at the discretion of the faculty director and the admissions committee.

For more information, visit: [http://www.sas.upenn.edu/biochem/vspmls.html](http://www.sas.upenn.edu/biochem/vspmls.html).

**School of Engineering and Applied Sciences**

- Submatriculation is only available to students entering Fall 2017 and earlier.
- Both BSE and BAS degree students in Penn Engineering may apply for submatriculation into engineering master's programs. (Note that
Engineering students are not permitted to submatriculate into the Master of Computer and Information Technology (MCIT) program.

- Qualified undergraduates in Penn's other schools may apply to submatriculate into any of the Penn Engineering master's degree programs, subject to their home school’s rules and regulations.

For more information, visit https://catalog.upenn.edu/undergraduate/academic-resources/submatriculation/visit https://ugrad.seas.upenn.edu/student-handbook/programs-options/submatriculation-engineering/.

In addition to submatriculating within a department, Engineering undergraduate students are also eligible for the following specialized submatriculation program:

**Penn Engineering/Penn Law Program**

Penn’s Law School offers an opportunity for qualified juniors in Penn Engineering to apply early to the Law School and submatriculate into the JD program beginning their fourth year. The program is designed as a 3-year + 3-year accelerated program for highly qualified Engineering undergraduates either in the Bachelor of Applied Science (BAS) or Bachelor of Science in Engineering (BSE) degree programs.

For more information, visit: https://ugrad.seas.upenn.edu/student-handbook/programs-options/submatriculation-law/.

**Accelerated Masters**

- Accelerated Masters is only available to students entering Fall 2018 and later.
- Both BSE and BAS degree students in Penn Engineering may apply for accelerated master’s into engineering master’s programs. (Note that Engineering students are not permitted to submatriculate into the Master of Computer and Information Technology (MCIT) program.)
- Qualified undergraduates in Penn’s other schools may apply for the accelerated master’s program in any of the Penn Engineering master’s degree programs, subject to their home school’s rules and regulations.

**School of Nursing**

Nursing undergraduate students are eligible for the following specialized submatriculation programs:

**BSN/JD Program**

Submatriculation allows students in traditional and accelerated BSN programs to formally enroll in the JD program (https://www.law.upenn.edu/academics/degrees.php) at Penn Law School while still undergraduates. The current climate of healthcare litigation and malpractice suits is well suited for professionals who combine nursing education and experience with legal expertise. A background in both nursing and law gives students a powerful and marketable skillset, and prepares students to make an impact on the medical and legal professions.

To submatriculate into Penn Law, students should take the LSAT and apply (https://www.law.upenn.edu/admissions/jd/) during their junior year. If a student is admitted, they will begin taking courses at the law school during their fourth year, completing both the BSN and JD degrees in six years, instead of the usual seven.

For more information, visit https://www.nursing.upenn.edu/live/files/56-submatriculation-law (https://www.nursing.upenn.edu/live/files/56-submatriculation-law/).

**BSN/MSN Program**

The demand for nurses with MSN degrees is higher than ever. Submatriculation allows students in traditional and accelerated BSN programs to formally enroll in one of Penn Nursing’s MSN Programs (https://www.nursing.upenn.edu/academics/master-of-science-in-nursing-msn/) while still undergraduates. Students are encouraged to apply (https://www.applyweb.com/upenn/) as early as their junior year. If accepted, students will begin to take master’s level coursework, earning credit toward both degrees.

For more information, visit: https://www.nursing.upenn.edu/academics/a-penn-nursing-education/submatriculation/.

**The Wharton School**

Wharton undergraduate students are eligible for the following specialized submatriculation programs:

**Wharton Law School Submatriculation Program**

During the junior year, qualified Wharton undergraduate students may apply for admission to the Penn Law School and submatriculate into the Juris Doctor (JD) program. In this 3-year + 3-year accelerated program, the student’s fourth year of study is spent entirely at the Law School completing the first-year law curriculum. The remaining undergraduate and/or graduate degree requirements are then completed in the student’s fifth and sixth years of study.

For more information, visit: https://undergrad-inside.wharton.upenn.edu/submatriculation/.

**Wharton MBA Submatriculation Program**

Qualified juniors in the Wharton Undergraduate Program may apply for early entry (submatriculation) into the Wharton Master of Business Administration (MBA) Program. In this 3-year + 2-year accelerated program, students’ fourth and fifth years of study are spent entirely as part of the MBA Program. The program is designed to attract academically talented undergraduates with well-defined career goals and significant work experience. Students apply in the junior year.

For more information, visit: https://undergrad-inside.wharton.upenn.edu/submatriculation/.

**Wharton PhD Submatriculation Program**

The goal of the program is to allow selected Wharton undergraduates the opportunity to submatriculate into one of Wharton’s Ph.D. programs directly from the undergraduate program.

For more information, visit https://doctoral-inside.wharton.upenn.edu/submatriculation/.

**Penn Summer**

Penn Summer (https://summer.sas.upenn.edu/) offers current Penn students, alumni, high school, and visiting students the opportunity to dive into hundreds of exciting subjects and get ahead in their academic pursuits.
Current and Incoming Penn Students
Residential undergraduates can choose to enroll in on-campus and online courses; no additional application is necessary, and all Penn Summer courses earn academic credit. Incoming first-year students and undergraduates can learn more about how to enroll on the Penn Summer website (https://summer.sas.upenn.edu/programs/summer-sessions/enrollment/).

Current Penn students are encouraged to take advantage of advising resources during the summer term via their home school academic advisor. Before enrolling in courses, students should consult with their academic advisor (p. 300) regarding their intended coursework to ensure adequate degree progress.

Visiting Students, High-School students, International Students and Alumni
Visiting students are invited to take classes through one of our many programs (https://summer.sas.upenn.edu/programs/abroad/).

Penn Summer Abroad
Students can earn Penn credit as they experience culture in another country with Penn Summer Abroad (http://www.sas.upenn.edu/summer/programs/abroad/). Students travel with Penn faculty and other undergraduates with accommodations and excursions planned for them, enjoying the flexibility of a short-term commitment and making the most of their summer break.

For the most current Penn Summer Abroad information, visit: http://www.sas.upenn.edu/summer/programs/abroad (http://www.sas.upenn.edu/summer/programs/abroad/).

Transcripts
A transcript is a representation of a student’s academic record while at the University of Pennsylvania.

Official transcripts are ordered through the Office of the University Registrar website (https://srfs.upenn.edu/student-records/transcripts/). Unofficial transcripts are available at anytime, online for students and alumni class of 1988 or later via the Penn in Touch portal (https://pennintouch.apps.upenn.edu/pennInTouch/jsp/fast2.do?1=2&access=student&bhcp=1).

Wellness
There are a wide variety of resources available to support students at Penn. Some of the most commonly used resources are listed below.

Wellness at Penn (https://www.wellnessatpenn.com/)
The Wellness at Penn initiative provides support, resources, and practical tools for wellness across the Penn community. It affirms wellness as a core priority and necessary driver of life on campus; and it offers a wide range of opportunities to reflect and engage on issues of wellness, stress, mental health, resilience, happiness, personal and academic goals, and the meaning of success.

Counseling and Psychological Services (CAPS) (http://www.vpul.upenn.edu/caps/)
215-898-7021 (Nights and weekends, ask for CAPS counselor on call.)

Counseling and Psychological Services (CAPS) provides professional psychological and psychiatric services to undergraduate, graduate, and professional students who need support in fulfilling their academic, social, and personal objectives. Along with health and wellness partners throughout the Penn community, CAPS directly supports student mental health through counseling, crisis management, consultation, education and outreach, and training.

Division of Public Safety (https://www.publicsafety.upenn.edu/)

A central source for information about police, fire, and emergency services, security services, including walking escorts, and special victim services. Public safety also manages the University’s extensive electronic security infrastructure.

Student Disabilities Services (http://www.vpul.upenn.edu/lrc/sds/)
(215) 573-9235; TDD: (215) 746-6320

The Office of Student Disabilities Services (SDS), part of the Weingarten Learning Resources Center (http://www.vpul.upenn.edu/lrc/), provides comprehensive, professional services and programs for students who self-identify with disabilities to ensure equal academic opportunities and participation in University-sponsored programs. Professional staff evaluate current documentation, determine individual students’ eligibility according to program guidelines, and determine reasonable accommodations for all qualified students with documented disabilities on a case-by-case basis, including academic adjustments, e-text, accessible campus housing, and transportation and parking. SDS also coordinates auxiliary aids and services such as sign language interpreters and Computer Aided Realtime Translation (CART) reporters, as well as the loan of equipment and assistive technologies.

Student Health Service (http://www.vpul.upenn.edu/shs/)
215-746-3535

Student Health Service is a state-of-the-art primary care center dedicated to the health and well-being of Penn students. Student Health provides accessible, cost-effective, culturally-sensitive, and student-focused healthcare, including care for acute and chronic health problems, preventive health services, and health and wellness education. The Health Service works in close collaboration with our partners in the University Life Division, and with our colleagues in the University of Pennsylvania Health System (http://www.pennmedicine.org/) to help ensure the health and wellness of the campus community.

2023-24 Catalog | Generated 08/02/23
Student Intervention Services (http://www.vpul.upenn.edu/intervention.php)
215-898-6081
Penn Student Intervention Services (SIS) assists the University community in handling emergencies or critical incidents involving the welfare and safety of students.

Office of the Chaplain (https://chaplain.upenn.edu/)
215-898-8456
The staff of the Office of the Chaplain (https://chaplain.upenn.edu/about-us/staff/) is available to students, faculty and staff for pastoral support, guidance, or informal advising and counseling. The Chaplain, an ordained clergy person, participates in campus ceremonies such as Convocation, Baccalaureate and Commencement and also officiates at weddings (https://chaplain.upenn.edu/about-us/weddings-blessings/) and campus memorial services. The office serves and supports a wide range of student organizations (https://chaplain.upenn.edu/student-organizations/), fellowships and religious communities on our campus. They also develop programming designed to improve interfaith understanding and build meaningful, collaborative relationships across religious difference.

Campus Health (http://www.vpul.upenn.edu/shs/campushealth/)
Part of Student Health Service, Campus Health (http://www.vpul.upenn.edu/shs/campushealth/) seeks to empower the Penn community to Live Well through advocacy, education, and action. Campus Health staff focus on a wide variety of healthy living topics including sleep, hygiene, stress reduction, nutrition, exercise, tobacco-free lifestyles and bike safety. Key initiatives include annual flu immunization clinics, which vaccinate more than 2,000 people, and yearlong sexual wellness education through events such as “Sex Camp” and “Sex Jeopardy.”

Alcohol and Other Drug Program Initiatives (http://www.vpul.upenn.edu/alcohol/)
The Office of Alcohol and Other Drug Program Initiatives oversees critical areas of health and wellness that can challenge the academic success of Penn students. The office comprises alcohol policy initiatives, violence prevention, data collection, strategic project management, and (in a collaboration with Student Intervention Services (http://www.vpul.upenn.edu/intervention.php)) proactive crisis management.
POLICIES AND PROCEDURES

The following policies and procedures relate to undergraduate academics at Penn, and are organized by topic.

Most academic policies and procedures at Penn are school-based. University policies (http://catalog.upenn.edu/pennbook/) are also often administered through the schools. Students should consult with their school or program academic advisors (p. 300) with questions or for help in understanding academic policies and procedures.

- Course and Exam-Related Policies (p. 314)
- Grade and GPA-Related Policies (p. 317)
- Graduation Policies (p. 318)
- Leaves of Absence (p. 319)
- Residency Requirement (p. 319)
- Transfer Policies (p. 320)

Course and Exam-Related Policies

Students should consult with their academic advisors (p. 300) about course and course-related policies and procedures.

- Add/Drop Period (p. 314)
- Auditing (p. 314)
- Class Attendance (p. 314)
- Course Load (p. 314)
- Course Numbering & Academic Credit (p. 314)
- External Exam Credit (p. 315)
- Independent Study (p. 315)
- Liberal and Professional Studies Course Credit (p. 315)
- Part Time Status (p. 316)
- Petitions (p. 316)
- Policy on Common Midterm Examinations (p. 316)
- Retaking Courses (p. 316)
- Rules Governing Final Examinations (p. 316)
- Withdrawing From A Course (p. 317)

Add/Drop Period

Add/drop deadlines for each semester can be found in the Academic Calendar (p. 297).

Students should consult with their advisors before dropping below a defined number of course units (generally 4), which may have adverse consequences.

Some courses may have different add/drop policies; students should consult with their school's advising office for further details.

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/course-selection/)

Auditing

Undergraduate students cannot officially audit courses; however, subject to the approval of the instructor, students may be permitted to sit in on some courses without registering. These courses will not appear on students' records. Not all departments or schools allow this type of informal audit.

Class Attendance

Policies regarding class attendance vary by school and instructor.

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/attendance/)
- School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/courses-exam-related-policies/#attendance)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/attendance/)

Course Load

Policies regarding minimum and maximum course loads vary by school.

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/course-load/)
- School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/courses-exam-related-policies/#course%20load)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/course-load/)

Course Numbering & Academic Credit

Course Numbering

Courses are designated with a subject code and course number. The number assigned to a course generally denotes its level and may also indicate a course type.

- 0001-3999 Undergraduate courses
- 4000-4999 Mixed courses primarily for Undergraduate students
- 5000-5999 Mixed courses primarily for Graduate students
- 6000-9899 Graduate courses
- 9900-9999 Graduate individual study (thesis/dissertation) courses

Academic Credit at Penn
All of Penn's undergraduate programs and many of its graduate and professional programs use course units (CUs) as a general measure of academic work and progress toward a degree. Penn's use of CUs conforms to the practices of peer institutions that use a similar system of academic credit including Brown, Duke, Harvard, Princeton, and Yale. A CU is a general measure of academic work over a period of time, typically a term (semester or summer).

The Schools of Law, Dental Medicine, and Veterinary Medicine do not use CUs. The Law School uses credit hours in a way that is consistent with law schools in the United States. The Schools of Dental Medicine and Veterinary Medicine uses credit hours in ways that are consistent with professional education in those fields of study.

Definition of a Course Unit

A course unit (CU) is a general measure of academic work over a period of time, typically a term (semester or summer). A CU (or a fraction of a CU) represents different types of academic work across different types of academic programs and is the basic unit of progress toward a degree. One CU is usually converted to a four-semester-hour course. A degree from one of Penn's undergraduate programs requires the completion of 32 to 40 (or more) course units. Graduate and professional degrees vary in the number of years of study and the number of CUs required.

Assignment of Academic Credit

The course unit (CU) value of a course determined by the faculty reflects their judgment regarding the expected work of a student completing that course. Factors that may be considered when assigning academic credit for a course include scheduled class time, expected time outside of class, the difficulty and range of materials covered, and the mastery of specific knowledge through written reports, exams, and other evaluations.

The assignment of academic credit for a course is formally approved by the curriculum committee (or similar body) of the school when a course is first proposed. It is reviewed formally by the faculty of a program, department, or school through periodic program reviews or curriculum revisions. Additionally, it is reviewed by the faculty of a program, department, or school informally as part of ongoing assessments of curriculum and teaching effectiveness.

Transfer Credit

At the University of Pennsylvania, faculty in individual departments and schools make decisions about awarding credit for external courses (courses taken at a college or university other than Penn). Each school has policies and procedures for evaluating and awarding external credit. Judging both course content and student work, faculty determine whether external courses are equivalent to courses offered through their own departments and thus what credit, if any, to award. In awarding credit at Penn for external courses, faculty also determine how those credits may be used (e.g., whether they satisfy general education requirements or requirements in a major).

Undergraduate schools use a web-based, password protected application called the External Course Approval Tool, or (http://www.college.upenn.edu/xcat/) XCAT (http://www.college.upenn.edu/xcat/). When academic credit is awarded for courses taken at other institutions, typically courses worth 3, 4, or 5 semester hours or worth 5 quarter hours are awarded one course unit (CU) at Penn.

External Exam Credit

The University of Pennsylvania may award credit or advanced course standing to students who have taken Advanced Placement (AP), International Baccalaureate (IB), or other internationally-recognized examinations. Scores warranting University credit vary by department.

Penn Admissions External Exam Credit Policy (http://www.admissions.upenn.edu/apply/freshman-admission/externalexamcredit/) (for prospective students)

School specific policies:

• College of Arts and Sciences (https://www.college.upenn.edu/placement/)
• School of Engineering and Applied Science (http://www.seas.upenn.edu/undergraduate/handbook/policy/advanced-placement.php)
• School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/courses-exam-related-policies/#AP%20Policies)
• The Wharton School (https://undergrad-inside.wharton.upenn.edu/apib-credit/)

Independent Study

Independent study allows students to pursue academic interests not available in regularly offered courses.

Students should approach their academic or departmental advisor to explore the possibility of pursuing independent study.

Further information about independent study procedures is available by school.

• College of Arts and Sciences (https://www.college.upenn.edu/research/)
• School of Nursing (http://www.nursing.upenn.edu/live/files/157-independent-study-form-ipdf/)
• The Wharton School (https://undergrad-inside.wharton.upenn.edu/independent-study/)

Liberal and Professional Studies Course Credit

The College of Liberal and Professional Studies (LPS) (http://www.sas.upenn.edu/lps/) is a division of the School of Arts and Sciences. LPS administers programs for adult, professional, and part-time students and offers late-afternoon, evening, and Saturday courses at the undergraduate, post-baccalaureate, and graduate levels. Traditional undergraduate students are eligible to take LPS courses. A certain number of spaces may be reserved for LPS students until the first week of classes, and some classes have restricted enrollments for LPS students only. Students should direct questions about enrollment policies and permits for specific LPS classes to LPS (http://www.sas.upenn.edu/lps/).
Part Time Status

Traditional undergraduate students are generally expected to maintain full-time status. Students should consult with their school advising office for further details. Students who are enrolled either half-time or less than half-time are considered to be part-time students.

Please note that dropping to part-time status may affect other considerations, such as visa status, athletic eligibility, financial aid, and/or insurance coverage.

More information for specific populations of students can be found below:

- International Students: https://global.upenn.edu/isss/rcl
- Athletes: https://catalog.upenn.edu/pennbook/intercollegiate-athletics

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/part-time-policy/)
- School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/courses-exam-related-policies/#course%20load)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/part-time-status/)

Petitions

Students who believe a special circumstance might warrant an exemption from a school policy and/or requirement may submit a petition. Petitions are subject to review by a school-based committee. Students should first consult with their academic advisor.

For petitions regarding course registration deadlines, see the Guidelines for Student Petitions Regarding Course Registration Deadlines (http://catalog.upenn.edu/pennbook/student-petitions/).

Policies and procedures regarding petitions vary by school.

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/petitions/)
- School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/academic-regulations/#petition)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/petitions/)

Policy on Common Midterm Examinations

Instructors teaching a course with multiple sections who plan to schedule a common midterm examination outside the class’s regular meeting time must notify students of this event during the first week of the semester and be prepared to offer one or more make-up examinations to accommodate any student who is enrolled in a course that meets at the time of the common examination.

Students enrolled in a course that conflicts with the time of a common midterm examination must notify the instructor administering the common midterm examination of the conflict by the end of the course selection (add) period. Students may not be required to miss their regularly scheduled class.

(Source: Almanac – April 20, 2010, Volume 56, No. 30 (http://www.upenn.edu/almanac/volumes/v56/n30/provost.html))

Retaking Courses

Policies governing retaking a course vary by school.

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/retaking-courses/)
- School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/academic-regulations/#a)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/retaking-courses/)

Rules Governing Final Examinations

1. No instructor may hold a final examination nor require the submission of a take-home final exam except during the period in which final examinations are scheduled. When necessary, exceptions to this policy may be granted for postponed examinations (see 3 and 4 below). No final examinations may be scheduled during the last week of classes or on reading days.

2. No student may be required to take more than two final examinations on any calendar day during the period in which final examinations are scheduled. If more than two are scheduled, the student may postpone the middle exam. If a take-home final exam is due on a day when two final examinations are scheduled, the take-home exam shall be postponed by one day.

3. Examinations that are postponed because of conflicts with other examinations, or because more than two examinations are scheduled in the same day, may be taken at another time during the final examinations period if the faculty member and student can agree on that time. Otherwise, they must be taken during the official period for postponed examinations.

4. Examinations that are postponed because of illness, a death in the family, for religious observance, or some other unusual event may be taken only during the official periods: the first week of the spring and fall semesters. Students must obtain permission from their Dean’s office to take a postponed exam. Instructors in all courses must
be willing to offer a make-up examination to all students who are
excused from the final examination.
5. No instructor may change the time or date of a final exam without
permission from the appropriate Dean.
6. No instructor may increase the time allowed for a final exam beyond
the scheduled two hours without permission from the appropriate
Dean.
7. No classes or required class activities may be held during the reading
period.
8. The first examination of the day begins at 9 a.m. and the last
examination concludes by 8 p.m. There will be one hour between
exam time blocks.
9. All students must be allowed to see their final examination. Exams
should be available as soon as possible after being graded with
access ensured for a period of at least one regular semester after
the exam has been given. To help protect student privacy, a student
should have access only to his or her own exam and not the exams of
other students. Therefore, for example, it is not permissible to leave
student exams (or grades or papers) in publicly accessible areas.
10. Students may not be asked for their Social Security Numbers.
    Instructors may not publicly display a student’s Penn ID or any
    portion of the Social Security Number, nor use names, initials, or
    any personally identifiable information to post grades. Even when
    an identifier is masked or absent, grades may not be posted in
    alphabetical order, to protect student privacy.
11. Final exams for College of Liberal and Professional Studies (LPS)
courses must be given on the regular class meeting night during the
week of final examinations. No change in scheduling is permitted
without unanimous consent of all students in the class and the
director of LPS. LPS final exams may not be administered during the
last week of class or on a reading day.

In all matters relating to final exams, students with questions should first
consult with their Dean’s offices. Faculty wishing to seek exceptions to
the rules also should consult with their Dean’s offices. Finally, the Council
of Undergraduate Deans and Student Committee on Undergraduate
Education (SCUE) urge instructors to see that all examinations are
actively proctored.

(Source: Almanac, April 17, 2018, Volume 64, No. 31 (https://
almanac.upenn.edu/volume-64-number-31/#of-record-rules-governing-
final-examinations))

**Withdrawing From a Course**

Students may withdraw from a course through the end of the tenth
full week of the semester, with the permission of the instructor, and
should consult the Academic Calendar (p. 297) for the official withdrawal
deadline for each semester.

Summer courses and part-of-term courses have different deadlines.
Consult with an academic advisor for more information.

Withdrawal procedures vary by school:

- **College of Arts and Sciences** (https://www.college.upenn.edu/
  withdrawal/)
- **School of Engineering and Applied Science** (https://
  www.seas.upenn.edu/undergraduate/handbook/policy/withdraw-
course.php)
- **School of Nursing** (http://www.nursing.upenn.edu/student-services/
  resources/handbooks-forms-policies/bsn-handbook/courses-exam-
  related-policies/#withdraw)
- **The Wharton School** (https://undergrad-inside.wharton.upenn.edu/
  withdrawing/)

**Grade and GPA-Related Policies**

Students should consult with their academic advisors (p. 300) about
grading and GPA-related policies and procedures.

- **Academic Standing** (p. 317)
- **Dean’s List** (p. 317)
- **Grade Grievance Process** (p. 318)
- **Grades** (p. 318)
- **Incomplete Grades** (p. 318)
- **Pass/Fail** (p. 318)

**Academic Standing**

The University of Pennsylvania expects students to maintain a minimum
level of academic performance or risk being placed on Academic
Probation. The requirements for good academic standing vary by school;
students enrolled in more than one undergraduate school are subject to
the academic standing policies of both schools.

The requirements for good academic standing are:

- **College of Arts and Sciences** (https://www.college.upenn.edu/
  academic-standing/)
- **School of Engineering and Applied Science** (http://
  www.seas.upenn.edu/undergraduate/handbook/policy/academic-
  performance.php)
- **School of Nursing** (http://www.nursing.upenn.edu/student-services/
  resources/handbooks-forms-policies/bsn-handbook/academic-
  regulations/#Academic%20Standing)
- **The Wharton School** (https://undergrad-inside.wharton.upenn.edu/
  academic-standing/)

**Dean’s List**

Effective July 1, 2023, the University of Pennsylvania no longer awards
the Dean’s List citation.

Prior to July 1, 2023, the Dean’s List citation appeared on the transcript
and was awarded annually to any student who achieved a combined GPA
of 3.7 for the fall and spring semesters, provided that during those two
semesters, the student:

- Completed 6 or more credit units for letter grades
- Received no grades lower than C
- Completed all courses on time with no Incompletes, NRs, or GRs

A student who received a sanction of probation or greater for a violation
of the Code of Academic Integrity, the Code of Student Conduct, or
the Sexual Violence, Relationship Violence, and Stalking Policy was
not eligible for Dean’s List in the academic year in which the violation
occurred. The Dean’s List citation will be removed from the transcript
if the finding occurs after this honor has been posted or if the violation
occurs during the summer term following the academic year in which this
honor was awarded.

2023-24 Catalog | Generated 08/02/23
Grade Grievance Process

Students who wish to have a course grade reviewed must first attempt to resolve the issue with the course instructor. For detailed policies and procedures, students should refer to the policies of the school in which the course was taken.

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/grade-review-policy/)
- School of Engineering and Applied Science
  - Students are advised to discuss the grading discrepancy/grievance directly with the course director/instructor. If the student is not satisfied with the conclusion of that meeting, the student can proceed to speak with the department chairperson about the grievance.
- School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/grievance-policy/)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/grade-grievance/)

Grades

The grade point average (GPA) is calculated at the end of every term based on the following grading scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.0</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
</tr>
</tbody>
</table>

*There is no D-.

Policies regarding grades vary by school.

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/credits-grades-policy/)
- School of Engineering and Applied Science (http://www.seas.upenn.edu/undergraduate/handbook/policy/grades.php)
- School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/courses-exam-related-policies/#grading%20policy)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/grades/)

Incomplete Grades

The decision to grant an Incomplete is solely that of the instructor teaching the course. Students should request Incompletes rarely if at all; it is far better to plan ahead and use advising and academic support resources to ensure that coursework is finished on time. There are a number of consequences of requesting an Incomplete, and unfinished coursework may result in an F grade or delay of graduation. Generally, students with one Incomplete must finish the work by the fifth week of the next semester.

Specific procedures and policies regarding incomplete grades vary by school.

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/incompletes/)
- School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/academic-regulations/#incompletes)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/incomplete/)

Pass/Fail

Students may be eligible to take certain courses pass/fail. Policies regarding pass/fail options vary by school and course.

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/pass-fail/)
- School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/courses-exam-related-policies/#pass/fail)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/pas-fail/)

Graduation Policies

Students should consult with their academic advisors (p. 300) about graduation requirements, Latin honors, and the procedures for applying for graduation and participating in graduation ceremonies.

- Graduation Honors (p. 319)
- Graduation Requirements (p. 319)
- Maximum Time to Complete a Degree (p. 319)
Graduation Honors

In recognition of distinguished academic achievement and high standards of academic integrity, the University of Pennsylvania awards Latin honors to undergraduate students based on the cumulative GPA on their transcripts at the time of graduation:

- **Summa Cum Laude**: 3.80 or higher
- **Magna Cum Laude**: 3.60 or higher, but less than 3.80
- **Cum Laude**: 3.40 or higher, but less than 3.60

A student who has received a sanction of probation or greater for a violation of the Code of Academic Integrity, the Code of Student Conduct, or the Sexual Violence, Relationship Violence, and Stalking Policy is not eligible for Latin honors. Notation of Graduation Honors will be removed from the transcript if the finding occurs after this honor has been posted.

(Source: Almanac, April 20, 2010, Volume 56, No. 30 (http://www.upenn.edu/almanac/volumes/v56/n30/provost.html), updated May 3, 2016, Volume 62, No. 33 (http://www.upenn.edu/almanac/volumes/v62/n33/changes-to-policies.html))

Graduation Requirements

Students are responsible for fulfilling all the requirements of their curriculum as determined by their school in order to graduate.

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/graduation-policies/)
- School of Engineering and Applied Science (http://www.seas.upenn.edu/undergraduate/handbook/policy/course-requirements.php)
  - Students must complete all courses within their major, as addressed individually by each department.
- School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/graduation-academic-honors/#graduation%20requirements)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/degree-requirements/)

Maximum Time to Complete a Degree

Some schools set a maximum period within which students must complete their degree. Students with questions should contact their school advising office.

School specific policies:

- School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/academic-regulations/#completion)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/sunset-policy/)

Leaves of Absence

Students take time away from their studies for a wide variety of reasons, including to:

- Work on a political campaign
- Manage a medical concern
- Fulfill a family obligation
- Pursue career-related opportunities
- Complete career-related opportunities
- Take a break

Students typically take a leave for a full academic year. Individual circumstances may require more or less time; the length of the leave is determined by the school. Students on leave should remain in contact with their advisor and update them about plan changes. The return from leave process supports students in a successful re-entry to academic life at Penn. When preparing to return, students must consult their school advising office to develop a plan that includes connection with appropriate resources.

While interrupting one’s studies to take time away may seem intimidating, a leave is a means to the successful completion of a degree, not a barrier to graduating. Students considering a leave should take time to think carefully about their goals for the time away and for when they return. Speaking with an academic advisor is an important first step. Students should also consult others important to their decision-making process, such as family members or, if the student intends to address health concerns during the time away, their healthcare provider(s). Your school advising office will help you connect with other campus resources as you prepare to take a leave of absence, such as Student Financial Services, Housing, and International Student and Scholar Services.

Procedures for requesting a leave vary by school.

School specific policies:

- School of Arts and Sciences (https://www.college.upenn.edu/leave-of-absence/)
- School of Nursing (https://www.nursing.upenn.edu/live/files/216-leave-of-absence-policy/)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/leave/)

Residency Requirement

Residency requirement policies vary by school.

School specific policies:

- School of Arts and Sciences (https://www.college.upenn.edu/residency-requirement/)
- School of Nursing (http://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/academic-regulations/#residency)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/transfer-residency/)
Transfer Policies

Students should consult their academic advisors (p. 300) about transferring within Penn or receiving credit for academic experiences at other universities. Students who are intending to transfer to another institution should speak with officials at their new institution.

When students receive credit for courses or other types of academic work done elsewhere, it is referred to as equivalent credit. Some of these credits will be the result of coursework taken before matriculation at Penn, but it is also possible to do a limited number of courses “away” after matriculation.

Credit earned before the student matriculates at Penn is referred to as Transfer Credit (p. 320). Credit earned at another institution while the student is enrolled at Penn (post-matriculation) is referred to as Credit Away (p. 320).

Policies regarding the types and amount of equivalent credit allowed vary by school.

Students who wish to apply for an internal transfer between any of the four undergraduate schools should meet with an advisor in their home school and an advisor from the school they wish to enter. Applicants should be prepared to discuss why the curriculum of the school to which they are applying for transfer is a good fit for their academic interests and goals. Students applying for internal transfer must be in good academic standing in their home school and should have no NR's, GR's, or I's on their record.

External transfers admitted to any of Penn's undergraduate schools or divisions are not eligible to transfer again within the University.

Specific policies and procedures for transferring internally vary by school.

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/credits-grades-policy/)
- School of Nursing (https://www.nursing.upenn.edu/student-services/resources/handbooks-forms-policies/bsn-handbook/leaves-transfers-and-withdraw/)
- The Wharton School (https://undergrad-inside.wharton.upenn.edu/itdd/)

These policies govern the transfer of credits taken before a student is officially enrolled at the University of Pennsylvania.

Penn Admissions Policy: http://www.admissions.upenn.edu/apply/transfer-admission/transfer-of-credits(http://www.admissions.upenn.edu/apply/transfer-admission/transfer-of-credits/)

School specific policies:

- College of Arts and Sciences (https://www.college.upenn.edu/credits-grades-policy/)
Academic Foundations (ACFD)

ACFD 6000 Scholarship and Personal Development I
In this course, faculty participants will develop and expand upon high-level personal competencies foundational to success in faculty appointments. Focus will be on self-assessments, strategic career planning, fostering personal and professional relationships, and scholarly productivity. Prerequisite: Faculty interested in enrolling in ACFD 6000, Scholarship and Personal Development I, will first need to be admitted to the Academic Foundations Certificate program. Program prerequisites include (but are not limited to) a current, full time faculty appointment at an accredited university. Participation in this program requires prior approval from faculty chair/chief as appropriate.

0.5 Course Units

ACFD 6010 Scholarship and Personal Development II
In this course, faculty participants will develop and expand upon high-level personal competencies foundational to success in faculty appointments. Focus will be on core competencies of advanced time and team management techniques, effective allocation of research resources, and strategies for funding. Prerequisite: Faculty interested in enrolling in ACFD 6010, Scholarship and Personal Development II, will first need to be admitted to the Academic Foundations Certificate program and complete ACFD 6000, Scholarship and Personal Development I. Overall program prerequisites include (but are not limited to) a current, full time faculty appointment at an accredited university. Participation in this program requires prior approval from faculty chair/chief as appropriate.
Prerequisite: ACFD 6000

0.5 Course Units

ACFD 6020 Scholarship and Personal Development III
In this course, faculty participants will develop and expand upon high-level personal competencies foundational to success in faculty appointments. Focus will be on interpersonal skills critical to negotiation and crucial conversations, and strategic career planning. Prerequisite: Faculty interested in enrolling in ACFD 6020, Scholarship and Personal Development III will first need to be admitted to the Academic Foundations Certificate program, and complete ACFD 6000, Scholarship and Professional Development I, and ACFD 6010, Scholarship and Personal Development II. Program prerequisites include (but are not limited to) a current, full time faculty appointment at an accredited university. Participation in this program requires prior approval from faculty chair/chief as appropriate.
Prerequisite: ACFD 6000 AND ACFD 6010

0.5 Course Units

ACFD 6030 Scholarship and Personal Development IV
In this course, faculty participants will develop and expand upon high-level personal competencies foundational to success in faculty appointments. Focus will be on communication skills critical for networking, and delivering impactful talks. Prerequisite: Faculty interested in enrolling in ACFD 6030, Scholarship and Personal Development IV, will first need to be admitted to the Academic Foundations Certificate program and complete ACFD 6000, Scholarship and Personal Development I; ACFD 6010, Scholarship and Personal Development II; and ACFD 6020, Scholarship and Personal Development III. Overall program prerequisites include (but are not limited to) a current, full time faculty appointment at an accredited university. Participation in this program requires prior approval from faculty chair/chief as appropriate.
Prerequisite: ACFD 6000 AND ACFD 6010 AND ACFD 6020

0.5 Course Units

ACFD 6999 Independent Study in Academic Foundations
This course is reserved for students in the Academic Foundations Certificate to complete an independent study with a predetermined faculty member. The topics will be determined in coordination with that faculty. Consultation with ACFD program and faculty is required before registration. The option to complete an independent study requires approval from academic advisor and Director of the ACFD program.

0.5-1 Course Unit

Accounting (ACCT)

ACCT 1010 Accounting and Financial Reporting
This course is an introduction to the basic concepts and standards underlying financial accounting systems. Several important concepts will be studied in detail, including: revenue recognition, inventory, long-lived assets, present value, and long term liabilities. The course emphasizes the construction of the basic financial accounting statements - the income statement, balance sheet, and cash flow statement - as well as their interpretation.

Fall or Spring

1 Course Unit

ACCT 1020 Strategic Cost Analysis
Strategic Cost Analysis is the process of analyzing and managing costs in order to improve the strategic position of the business. This goal can be accomplished by having a thorough understanding of which activities and costs support an organization's strategic position and which activities and costs either weaken it or have no impact. Subsequent cost management efforts can then focus on reducing or limiting expenditures on activities that add little or no strategic value, while increasing expenditures on activities that support the strategic position of the organization. Performance can then be evaluated to ensure that the chosen actions are taken, and that these actions are yielding improved strategic performance. Throughout the course, a strategic cost analysis and management framework will be applied across functions and organizations to highlight the cost analysis and performance evaluation methods available to forecast financial performance and improve strategic position.

Fall, Spring, and Summer Terms

1 Course Unit
ACCT 2110 Tax Policy and Practice in the Philadelphia Community
The academic component of the course will focus on several areas: (1) The Color of Money: Black Banks and the Racial Wealth Gap. Students will read this book throughout the semester to support their understanding of the community that they will be serving. (2) Statutory tax system. Students will learn about the tax system as it relates to individuals and sole proprietors. The VITA training covers general tax preparation, with a specific focus on tax credits available to VITA-eligible taxpayers and the use of VITA software. In addition, one session of the course will include a guest lecture/discussion by Professor Jennifer Blouin. She will focus on statutory tax issues related to organizational form choice for self-employed and gig economy workers, which is an important statutory issue in low-income communities. (3) Social policy debate. Tax policy, including deductions, subsidies and credits, are one tool that lawmakers can use to get more cash in the hands of individuals and families, especially for low-income groups. Students will consider the effectiveness and usefulness of tax policies relative to other tools that the government has available. There are three guest lecturers for the sessions on tax policy: Wharton Professors Alex Rees-Jones and Kent Smetters, and Professor Amy Beth Castro from SP2. (4) Working with people. Volunteering with VITA requires students to work with people from a low-income community on the sensitive issue of personal finances. Students will learn to discuss sensitive financial issues with lower-income adults (including many seniors) through readings and in-class discussions, and by reflecting on their real-life experiences in the local community. This skill is important in a variety of roles such as healthcare (physicians and nurses), business (e.g., the HR function), and education. The community service part of the course is volunteering with VITA, which is the IRS’s “Volunteer Income Tax Assistance” program. Following training, students will perform tax services for the West Philadelphia community during the 2023 tax season. The course will meet once a week in three-hour sessions for 8-9 weeks during the Spring semester. Students are expected to be in the field performing service throughout a significant portion of the semester. As described on the IRS website, the VITA program has operated for over 50 years. Volunteers offer free tax help to people who need assistance in preparing their own tax returns, including: • People who generally make $58,000 or less • Persons with disabilities; and • Limited English-speaking taxpayers. Spring
Also Offered As: BEPP 2110
1 Course Unit

ACCT 2120 Financial Measurement and Disclosure
This course builds on the knowledge you obtained in your introductory financial accounting course. This is an intermediate level course on financial reporting which covers more complicated transactions than those found in ACCT 1010. We will cover major valuation and financial reporting topics on all three major sections of the balance sheet—assets, liabilities, and equity—along with their consequences for net income and cash flows. Case studies and illustrative examples from the financial press will be used to increase your familiarity with actual firms’ financial statements and to emphasize the effect of financial accounting rules on the information presented in financial statements. After completing this course, you will have obtained many of the tools necessary to both prepare and analyze financial statements and accounting information provided by firms. You will acquire an understanding of both the “how” of accounting procedures and the underlying reasons “why” these practices are adopted. These skills are essential for pursuing a broad range of professions in accounting and finance.
Fall
Prerequisite: ACCT 1010
1 Course Unit

ACCT 2420 Accounting and Business Analysis
In the course, students learn how to analyze firms’ financial statements and disclosures to determine how a firm’s particular accounting choices reflect the underlying economics of the firm. As a result, the course strengthens students’ ability to use financial statements as part of an overall assessment of the firm’s strategy and valuation. The course is especially useful for anyone interested in working on the buy or sell side. The course provides both a framework for and the tools necessary to analyze financial statements. At the conceptual level, it emphasizes that preparers and users of financial statements have different objectives and incentives. At the same time, the course is applied and stresses the use of actual financial statements. For example, students learn how to detect when firms are managing earnings and/or balance sheets. It draws heavily on real business problems and uses cases to illustrate the application of the techniques and tools. If ACCT 2420 is not offered in a given year, Undergraduate students can take ACCT 7420. Please submit a permission request through Path@Penn.edu.
Fall or Spring
Mutually Exclusive: ACCT 7420
Prerequisite: ACCT 1010
1 Course Unit

ACCT 2430 Accounting for Mergers, Acquisitions, and Complex Financial Structures
Since ACCT 2430 will not be cross listed with ACCT 7430 in the Fall 2021 semester, students interested in ACCT 2430 will need to be permitted into ACCT 7430. All prerequisites need to be completed in order to receive a permit. Please submit a permission request through Path@Penn.edu. Undergraduate students will be notified in August regarding a permit. Also this class will follow the MBA calendar. The objective of this course is to discuss and understand the accounting that underlies merger, acquisition, and investment activities among firms that result in complex financial structures. Key topics include the purchase accounting method for acquisitions, the equity method for investments, the preparation and interpretation of consolidated financial statements, tax implications of mergers and acquisitions, and earnings-per-share considerations, the accounting implications of intercompany transactions and non-domestic investments, etc.
Fall or Spring
Mutually Exclusive: ACCT 7430
Prerequisite: ACCT 1010 AND (ACCT 2120 OR ACCT 2420)
1 Course Unit
ACCT 2640 Climate and Financial Markets
Climate change might be the defining challenge of our times, with a wide range of effects on financial markets and the broader economy. At the same time, financial markets play an important role in financing the transition to a net-zero economy. This role, however, is shaped by the information that is available to market participants. In this course, we examine how climate risks—both physical and regulatory—affect firms, financial markets (including carbon and renewable-energy certificate markets), and markets for energy and real estate. We examine the role that firms’ disclosures and third-party information sources play. As climate change is high on the agenda of almost every company and government, this course will be valuable both for students with the ambition to pursue a career centered around sustainability and those who want to gain a better understanding of how climate issues affect more traditional roles in the financial sector, consulting, or non-profits. The starting point for this course is that financial market participants increasingly realize that climate change represents an important investment risk. One central concern focuses on transition risks, and in particular on the effects that regulatory responses to climate change have on the business models of carbon-intensive energy companies. We discuss how concerns about various climate risks influence the way investors allocate their capital and exercise their oversight of firms. We start with the price impacts of climate risks in equity, debt and real estate markets, including the role played by shareholder activism and engagement, divestment and portfolio alignment. Next, we study carbon markets with a focus on pricing and discuss strategies to hedge climate risks through financial instruments such as carbon or renewable-energy credits and derivative contracts. We then explore how different firms in the global energy sector—ranging from oil & gas to renewable energy to electric utilities—have responded to climate-related pressures from their investors and other stakeholders. Because outsiders’ reactions depend on the information that they have, we investigate the impact of ESG reporting on financial markets and on the choices that managers make. Here, we also discuss the costs and benefits of regulating ESG reporting and the impact of greenwashing. We pay special attention to the impact of climate risk and reporting on decisions inside organizations, such as spin-offs, hedging, catastrophe insurance, and the structure of executive-compensation contracts. Further topics include life-cycle emissions and the social cost of carbon.
Spring
Also Offered As: BEPP 2640
Mutually Exclusive: BEPP 7640
Prerequisite: ACCT 1010 AND BEPP 2500
0.5 Course Units

ACCT 2700 Forensic Analytics
Recent trends in Big Data and predictive analytics are revolutionizing the way stakeholders analyze financial data. This course teaches students the hands-on skills necessary to manipulate large-scale financial databases and build predictive models useful for strategic and investment decisions. The course will cover three applications of predictive analytics: (i) forecasting future earnings, (ii) predicting accounting fraud, and (iii) detecting insider trading. The course will draw on cutting-edge academic research in each area; introduce students to the basic SQL coding skills necessary to manipulate Big Data and conduct meaningful analyses; and leverage the datasets and computing power of Wharton Research Data Services. The course is organized as a hybrid of a traditional seminar course and a computer science course. The first few classes of each unit will cover the conceptual material and source material related to each topic. The later classes in each unit will cover the technical material and programming skills needed to manipulate the respective datasets, estimate predication models, and backtest algorithms.
Spring
Prerequisite: ACCT 1010 AND STAT 1020
1 Course Unit

ACCT 2970 Taxes and Business Strategy
The objective of this course is to develop a framework for understanding how taxes affect business decisions. The key themes of the framework - all parties, all taxes and all costs - are applied to decision contexts such as investments, compensation, organizational form, and mergers and acquisitions. The ultimate goal is to provide a new approach to thinking about taxes that will be valuable even as laws and governments change. If ACCT 2970 is not offered in a given year, Undergraduate students interested in ACCT 2970 will need to submit a permission through Path@Penn.edu. All prerequisites need to be completed in order to receive a permit. Also this class will follow the MBA calendar.
Spring
Also Offered As: FNCE 2970
Prerequisite: ACCT 1010 AND FNCE 1010
1 Course Unit

ACCT 3990 Independent Study
Intensive reading and study with some research under the direction of a faculty member. Approval from one of the departmental advisers must be obtained before registration. Also a 3.4 average in major related subjects required.
Fall or Spring
0.5-1 Course Unit
ACCT 6110 Fundamentals of Financial Accounting
The objective of this course is to provide an understanding of financial accounting fundamentals for prospective consumers of corporate financial information, such as managers, stockholders, financial analysts, and creditors. The course focuses on understanding how economic events like corporate investments, financing transactions and operating activities are recorded in the three main financial statements (i.e., the income statement, balance sheet, and statement of cash flows). Along the way, students will develop the technical skills needed to analyze corporate financial statements and disclosures for use in financial analysis, and to interpret how accounting standards and managerial incentives affect the financial reporting process. This course is recommended for students who want a more in-depth overview of the financial accounting required for understanding firm performance and potential future risks through analysis of reported financial information, such as students intending to go into security analysis and investment banking.

Fall or Spring
1 Course Unit

ACCT 6130 Fundamentals of Financial and Managerial Accounting
This course provides an introduction to both financial and managerial accounting, and emphasizes the analysis and evaluation of accounting information as part of the managerial processes of planning, decision-making, and control. A large aspect of the course covers the fundamentals of financial accounting. The objective is to provide a basic overview of financial accounting, including basic accounting concepts and principles, as well as the structure of the income statement, balance sheet, and statement of cash flows. The course also introduces elements of managerial accounting and emphasizes the development and use of accounting information for internal decisions. Topics include cost behavior and analysis, product and service costing, and relevant costs for internal decision-making. This course is recommended for students who will be using accounting information for managing manufacturing and service operations, controlling costs, and making strategic decisions, as well as those going into general consulting or thinking of starting their own businesses.

Fall or Spring
1 Course Unit

ACCT 7060 Cost Management
This course covers managerial accounting and cost management practices that can be strategically applied across the various functions of a business organization to improve organizational performance. The course emphasizes the methods available to measure and evaluate costs for decision-making and performance evaluation purposes. It reviews a number of cost management issues relating to the design and implementation of strategic, marketing, value analysis, and other management models in modern firms; and identifies major contemporary issues in managerial accounting and financial decision-making. A variety of case studies in different industries and decision contexts are used to examine the application of these concepts.

Fall or Spring
Prerequisite: ACCT 6110 OR ACCT 6130
0.5 Course Units

ACCT 7420 Financial Reporting and Business Analysis
This intensive one-semester course focuses on how to extract and interpret information in financial statements. The course adopts a user perspective of accounting by illustrating several specific accounting issues in a decision context.

Fall or Spring
Mutually Exclusive: ACCT 2420
Prerequisite: ACCT 6110 OR ACCT 6130
0.5-1 Course Unit

ACCT 7430 Accounting for Mergers, Acquisitions and Complex Financial Structures
This class studies how complex financial structures account for their activities. Primary emphasis is on the application of purchase accounting for mergers and acquisitions, the equity method for investments, and preparing and interpreting consolidated financial statements. Other topics covered include translations and remeasurements for nondomestic investments, and earnings per share calculations for complex financial structures. Tax considerations and acquisition strategies are of only peripheral interest in this class, and students who are concerned primarily with those topics are advised to seek a different elective.

Fall
Mutually Exclusive: ACCT 2430
Prerequisite: ACCT 6110 OR ACCT 6130
1 Course Unit

ACCT 7470 Financial Disclosure Analytics
This course focuses on the analysis of financial communications between corporate managers and outsiders, including the required financial statements, voluntary disclosures, and interactions with investors, analysts, and the media. The course draws on the findings of recent academic research to discuss a number of techniques that outsiders can use to detect potential bias or aggressiveness in financial reporting. FORMAT: Case discussions and lectures. Comprehensive final exam, group project, case write-ups, and class participation.

Fall or Spring
Mutually Exclusive: ACCT 7471
Prerequisite: ACCT 6110 OR ACCT 6130
0.5-1 Course Unit

ACCT 7471 Financial Disclosure Analytics
This course focuses on the analysis of financial communications between corporate managers and outsiders, including the required financial statements, voluntary disclosures, and interactions with investors, analysts, and the media. The course draws on the findings of recent academic research to discuss a number of techniques that outsiders can use to detect potential bias or aggressiveness in financial reporting. FORMAT: Case discussions and lectures. Comprehensive final exam, group project, case write-ups, and class participation. This course is for Wharton Executive MBA students only.

Fall or Spring
Mutually Exclusive: ACCT 7470
Prerequisite: ACCT 6110 OR ACCT 6130
0.5-1 Course Unit
ACCT 7640 Climate and Financial Markets
Climate change might be the defining challenge of our times, with a wide range of effects on financial markets and the broader economy. At the same time, financial markets play an important role in financing the transition to a net-zero economy. This role, however, is shaped by the information that is available to market participants. In this course, we examine how climate risks—both physical and regulatory—affect firms, financial markets (including carbon and renewable-energy certificate markets), and markets for energy and real estate. We examine the role that firms’ disclosures and third-party information sources play. As climate change is high on the agenda of almost every company and government, this course will be valuable both for students with the ambition to pursue a career centered around sustainability and those who want to gain a better understanding of how climate issues affect more traditional roles in the financial sector, consulting, or non-profits. The starting point for this course is that financial market participants increasingly realize that climate change represents an important investment risk. One central concern focuses on transition risks, and in particular on the effects that regulatory responses to climate change have on the business models of carbon-intensive energy companies. We discuss how concerns about various climate risks influence the way investors allocate their capital and exercise their oversight of firms. We start with the price impacts of climate risks in equity, debt and real estate markets, including the role played by shareholder activism and engagement, divestment and portfolio alignment. Next, we study carbon markets with a focus on pricing and discuss strategies to hedge climate risks through financial instruments such as carbon or renewable-energy credits and derivative contracts. We then explore how different firms in the global energy sector—ranging from oil & gas to renewable energy to electric utilities—have responded to climate-related pressures from their investors and other stakeholders. Because outsiders’ reactions depend on the information that they have, we investigate the impact of ESG reporting on financial markets and on the choices that managers make. Here, we also discuss the costs and benefits of regulating ESG reporting and the impact of greenwashing. We pay special attention to the impact of climate risk and reporting on decisions inside organizations, such as spin-offs, hedging, catastrophe insurance, and the structure of executive-compensation contracts. Further topics include life-cycle emissions and the social cost of carbon.

Spring
Also Offered As: BEPP 7640
Mutually Exclusive: BEPP 2640
Prerequisite: (ACCT 6110 OR ACCT 6130) AND MGEC 6110 AND MGEC 6120
0.5 Course Units

ACCT 8970 Taxes and Business Strategy
The objective of this course is to develop a framework for understanding how taxes affect business decisions. Traditional finance and strategy courses do not consider the role of taxes. Similarly, traditional tax courses often ignore the richness of the decision context in which tax factors operate. The key themes of the framework - all parties, all taxes and all costs - are applied to decision contexts such as investments, compensation, organizational form, regulated industries, financial instruments, tax-sheltered investments, mergers and acquisitions, multinational, and multistate. The ultimate goal is to provide a new approach to thinking about taxes (and all forms of government intervention) that will be valuable even as laws and governments change.

Fall or Spring
Also Offered As: FNCE 7970
Prerequisite: (ACCT 6110 OR ACCT 6130) AND FNCE 6110
0.5-1 Course Unit

ACCT 9300 Empirical Design in Accounting Research
This is an empirical research design course covering topics related to empirical methodology, causal inference, econometric analysis, and panel data approaches. At least one graduate level course in econometrics is recommended.

1 Course Unit

ACCT 9400 Research in Accounting I
This is Part I of a theoretical and empirical literature survey course covering topics that include corporate disclosure, cost of capital, incentives, compensation, governance, financial intermediation, financial reporting, tax, agency theory, cost accounting, capital structure, international financial reporting, analysts, and market efficiency.

Fall
1 Course Unit

ACCT 9410 Research in Accounting II
This is Part II of a theoretical and empirical literature survey sequence covering topics that include corporate disclosure, cost of capital, incentives, compensation, governance, financial intermediation, financial reporting, tax, agency theory, cost accounting, capital structure, international financial reporting, analysts, and market efficiency. Please contact the accounting doctoral coordinator for information on the specific upcoming modules/topics that will be taught.

Spring
1 Course Unit

ACCT 9420 Research in Accounting III
This is Part III of a theoretical and empirical literature survey sequence covering topics that include corporate disclosure, cost of capital, incentives, compensation, governance, financial intermediation, financial reporting, tax, agency theory, cost accounting, capital structure, international financial reporting, analysts, and market efficiency. Please contact the accounting doctoral coordinator for information on the specific upcoming modules/topics that will be taught.

Spring
1 Course Unit

ACCT 9430 Research in Accounting IV
This is Part IV of a theoretical and empirical literature survey sequence covering topics that include corporate disclosure, cost of capital, incentives, compensation, governance, financial intermediation, financial reporting, tax, agency theory, cost accounting, capital structure, international financial reporting, analysts, and market efficiency. Please contact the accounting doctoral coordinator for information on the specific upcoming modules/topics that will be taught.

1 Course Unit

ACCT 9810 Workshop Colloquium I
Students attend workshops in departments outside of accounting to provide student exposure to theory, research designs and methods that are being explored outside of accounting to provide breadth of exposure to foster innovative research ideas. Students are required to attend 15 non-accounting workshops over one academic year and write up a referee report for 8 of those workshop papers. They are also required to write up at least one research proposal that stems from theories or research methods gleaned from one or more of the workshops attended.

1 Course Unit

ACCT 9810 Workshop Colloquium I
Students attend workshops in departments outside of accounting to provide student exposure to theory, research designs and methods that are being explored outside of accounting to provide breadth of exposure to foster innovative research ideas. Students are required to attend 15 non-accounting workshops over one academic year and write up a referee report for 8 of those workshop papers. They are also required to write up at least one research proposal that stems from theories or research methods gleaned from one or more of the workshops attended.

1 Course Unit
ACCT 9820 Workshop Colloquium II
Students attend workshops in departments outside of accounting to provide student exposure to theory, research designs and methods that are being explored outside of accounting to provide breadth of exposure to foster innovative research ideas. Students are required to attend 15 non-accounting workshops over one academic year and write up a referee report for 8 of those workshop papers. They are also required to write up at least one research proposal that stems from theories or research methods gleaned from one or more of the workshops attended.
1 Course Unit

Africana Studies (AFRC)
AFRC 0008 Sociology of the Black Community
This course explores a broad set of issues defining important aspects of the Black/African American experience. In addition to the "usual suspects" (e.g., race, socioeconomic status, poverty, gender, and group culture), we also think about matters of health and well-being, the family, education, and identity in Black/African American communities. Our goal is to gain a deeper sociological understanding and appreciation of the diverse and ever-changing life experiences of Blacks/African Americans.
Spring
Also Offered As: SOCI 0100
1 Course Unit

AFRC 0010 Homelessness & Urban Inequality
This first-year seminar examines the homelessness problem from a variety of scientific and policy perspectives. Contemporary homelessness differs significantly from related conditions of destitute poverty during other eras of our nation's history. Advocates, researchers and policymakers have all played key roles in defining the current problem, measuring its prevalence, and designing interventions to reduce it. The first section of this course examines the definitional and measurement issues, and how they affect our understanding of the scale and composition of the problem. Explanations for homelessness have also been varied, and the second part of the course focuses on examining the merits of some of those explanations, and in particular, the role of the affordable housing crisis. The third section of the course focuses on the dynamics of homelessness, combining evidence from ethnographic studies of how people become homeless and experience homelessness, with quantitative research on the patterns of entry and exit from the condition. The final section of the course turns to the approaches taken by policymakers and advocates to address the problem, and considers the efficacy and quandaries associated with various policy strategies. The course concludes by contemplating the future of homelessness research and public policy.
Fall
Also Offered As: SOCI 2940, URBS 0010
1 Course Unit

AFRC 0012 Study of an African American Author
This course introduces students to literary study through the works of a major African American author. Reading an individual author across an entire career offers students the rare opportunity to examine works from several critical perspectives in a single course. How do our author's works help us to understand literary and cultural history? And how might we understand our author's legacy through performance, tributes, adaptations, or sequels? Exposing students to a range of approaches and assignments, this course is an ideal introduction to literary study. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: ENGL 0012
1 Course Unit

AFRC 0013 First-Year Seminar: Race, Class & Punishment
This first-year seminar analyzes the politics of "crime in the streets" and "crime in the suites." Key topics
Fall or Spring
Also Offered As: PSCI 0013
1 Course Unit

AFRC 0015 Race and Identity: Coming of Age in 20th Century America
In this First-Year Seminar, we will use coming-of-age autobiographies to explore some of the most significant historical developments of the 20th century. By coming of age I mean autobiographies in which the author focuses primarily on the periods of childhood and adolescence into young adulthood. We will read books by people who lived during segregation in the South, the Great Depression, Japanese Internment during World War II, and the Civil Rights Movement of the 1960s. We will consider many issues, including: race, racism, immigration, religion, social class, and gender. We will contemplate questions about identity, family, honesty, and memory. As we read each book we will examine an individual life in a particular place and time, and we will move out beyond the confines of a person, family, or town to explore the broader historical moment in which the individual lived. To make this deeper contextualization possible, the course is divided into segments that will allow us to study the historical context of the autobiography as well as engage in focused discussion of the texts themselves.
Fall
1 Course Unit

AFRC 0030 First-Year Seminar: Africa in World History
This seminar examines Africa's connections—economic, political, intellectual and cultural—with the wider world from ancient times to the 21st century, drawing on a diverse sample of historical sources. It also explores Africa's place in the imaginations of outsiders, from ancient Greeks to modern-day development "experts." Whether you know a lot or almost nothing about the continent, the course will get you to rethink your stereotypes and to question your assumptions about the importance of Africa in world history. First-year students only.
Fall or Spring
Also Offered As: HIST 0030
1 Course Unit

AFRC 0083 First-Year Seminar: First Chocolate
This seminar is a first-year seminar where students explore the phenomenon of chocolate. Students are introduced to the history of chocolate, its cultural significance, and its role in various societies around the world. They also participate in discussions and activities related to chocolate-making and eating.
Fall
1 Course Unit
AFRC 0081 Decolonizing French Food
Wine and cheese, baguettes and croissants, multiple courses and fresh ingredients straight from the market—these are the internationally recognized hallmarks of French food. Yet, even as the practices surrounding the mythical French table have been deemed worthy of a place on UNESCO’s World Heritage List since 2010, culinary traditions in France remain persistently rooted in legacies of colonialism that are invisible to many. In order to “decolonize” French food, this seminar turns to art, literature, and film, as well as archival documents such as advertisements, maps, and cookbooks. In what ways do writers and filmmakers use food to interrogate the human, environmental, and cultural toll that French colonialism has taken on the world? How do their references to food demonstrate the complex cultural creations, exchanges, and asymmetries that have arisen from legacies of colonialism? We will interpret artworks, read literature (in English or in translation), and watch films (subtitled in English) that span the twentieth and twenty-first centuries by authors and directors from across the Francosphere—from Haiti, Guadeloupe, and Martinique in the Caribbean; to Mauritius in the Indian Ocean; from the Vietnamese diaspora in France, Canada, and the United States; to North, Central, and West Africa. Just as food can be examined from many angles, our discussions will focus on art, literature, and film, but also take into account perspectives from the fields of history, anthropology, and environmental studies. Moreover, we will employ the theoretical tools supplied by food studies, feminist and gender studies, critical race studies, and postcolonial studies.
Not Offered Every Year
Also Offered As: COML 0081, FREN 0081
1 Course Unit

AFRC 0082 Caribbean Literature
This course will introduce students to Caribbean literature. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 0082, ENGL 1220
1 Course Unit

AFRC 0100 African Language Tutorial I
This is a course in beginning level of an African language that could be offered to students interested in particular region or country. The courses offerings are flexible and could be scheduled based on student requests.
Fall
1 Course Unit

AFRC 0200 African Language Tutorial II: Luganda II
Part II of the Luganda language course
Not Offered Every Year
1 Course Unit

AFRC 0300 Africa Before 1800
Survey of major themes and issues in African history before 1800. Topics include: early civilizations, African kingdoms and empires, population movements, the spread of Islam, and the slave trade. Also, emphasis on how historians use archaeology, linguistics, and oral traditions to reconstruct Africa’s early history.
Spring
Also Offered As: HIST 0300
1 Course Unit

AFRC 0320 First Year Seminar: Black Queer Traditions
This first-year seminar provides a critical introduction to Black Queer literature, art, and politics. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 0320, GSWS 0320
1 Course Unit

AFRC 0350 Africa Since 1800
Survey of major themes, events, and personalities in African history from the early nineteenth century through the 1960s. Topics include abolition of the slave trade, European imperialism, impact of colonial rule, African resistance, religious and cultural movements, rise of naturalism and pan-Africanism, issues of ethnicity and “tribalism” in modern Africa.
Fall
Also Offered As: HIST 0350
1 Course Unit

AFRC 0400 Colonial Latin America
The year 1492 was pivotal in the history of the world. It precipitated huge population movements within the Americas and across the Atlantic - a majority of them involuntary as in the case of indigenous and African people who were kidnapped and enslaved. It led to cataclysmic cultural upheavals, including the formation of new cultures in spaces inhabited by people of African, European and indigenous descent. This course explores the processes of destruction and creation in the region known today as Latin America in the period 1400 - 1800. Class readings are primary sources and provide opportunities to learn methods of source analysis in contexts marked by radically asymmetrical power relationships.
Fall
Also Offered As: HIST 0400, LALS 0400
1 Course Unit

AFRC 0496 Malagasy (Elementary II/Intermediate II): Language in a Cultural Context
Combining the Elementary II and Intermediate II levels of Malagasy, this class will create a communicative language environment where students will explore the language and culture of Madagascar. The course offers a unique opportunity for students to deepen their understanding of an island that has remained largely isolated from the rest of the world while fulfilling a language requirement. Emphasis will be placed on exposing students to Malagasy culture through speaking, reading, writing and listening, and students will be expected to use the target language in class as much as possible. At the end of the semester, students will travel to become fully immersed in the Malagasy language and to deepen their understanding of the history, environment, and unique culture of Madagascar. Students who are interested in taking this seminar must complete Malagasy Elementary I or Malagasy Intermediate I in the preceding fall. Malagasy Elementary I is available to all students.
Not Offered Every Year
Also Offered As: MALG 0496
1 Course Unit

AFRC 0521 Benjamin Franklin Seminar: 18th-Century Slavery and Abolition
This course examines how the slave trade was understood, justified, contested, and represented in British literature. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 0521
1 Course Unit
AFRC 1000 Introduction to Sociology
Sociology provides a unique way to look at human behavior and social interaction. Sociology is the systematic study of the groups and societies in which people live. In this introductory course, we analyze how social structures and cultures are created, maintained, and changed, and how they affect the lives of individuals. We will consider what theory and research can tell us about our social world.
Fall or Spring
Also Offered As: SOCI 1000
1 Course Unit

AFRC 1001 Introduction to Africana Studies
The term Africana emerged in public discourse amid the social, political, and cultural turbulence of the 1960s. The roots of the field, however, are much older, easily reaching back to oral histories and writings during the early days of the Trans-Atlantic African slave trade. The underpinnings of the field continued to grow in the works of enslaved Africans, abolitionists and social critics of the nineteenth century, and evolved in the twentieth century by black writers, journalists, activists, and educators as the sought to document African descended people's lives. Collectively, their work established Africana Studies as a discipline, epistemological standpoint and political practice dedicated to understanding the multiple trajectories and experiences of black people in the world throughout history. As an ever-transforming field of study, this course will examine the genealogy, major discourses, and future trajectory of Africana Studies. Using primary sources such as maps and letters, as well as literature and performance, our study of Africana will begin with continental Africa, move across the Atlantic during the middle passage and travel from the coasts of Bahia in the 18th century to the streets of Baltimore in the 21st century. The course is constructed around major themes in Black intellectual thought including: retentions and transferal, diaspora, black power, meanings of blackness, uplift and nationalism. While attending to narratives and theories that concern African descended people in the United States, the course is uniquely designed with a focus on gender and provides context for the African diasporic experience in the Caribbean and Latin America.
1 Course Unit

AFRC 1002 Introduction to Africa
This course provides an introduction to the study of Africa in all its diversity and complexity. Our focus is cultural, geographical, and historical: we will seek to understand Africa's current place in the world political and economic order and learn about the various social and physical factors that have influenced the historical trajectory of the continent. We study the cultural formations and empires that emerged in Africa before European colonial invasion and then how colonialism reshaped those sociocultural forms. We'll learn about the unique kinds of kinship and religion in precolonial Africa and the changes brought about by the spread of Islam and Christianity. Finally, we'll take a close look at contemporary issues such as ethnic violence, migration, popular culture and poverty, and we'll debate the various approaches to understanding those issues.
Fall
Also Offered As: ANTH 1002
1 Course Unit

AFRC 1019 Visions of America: Plural Nations, Places and Ideals
This course will introduce students to a more hemispheric understanding of the American experience, through the writings of many authors from the New World, including the United States, on what it means to be an American. Students will read texts from many genres including but not limited to poetry, film, prose, political speeches and autobiography, to come to terms with histories of native Americans, African-Americans, Latinos, and whites in the United States, as well as peoples of South America and the Caribbean. In the process students will become familiar with scholarship across the social sciences and humanities that consider issues of race, culture, nation, freedom and inequality in the Americas, and how racial slavery and the Afro-American hemispheric experience has informed multiple American visions.
Fall
1 Course Unit

AFRC 1060 Race and Ethnic Relations
The course will focus on race and ethnicity in the United States. We begin with a brief history of racial categorization and immigration to the U.S. The course continues by examining a number of topics including racial and ethnic identity, interracial and interethnic friendships and marriage, racial attitudes, mass media images, residential segregation, educational stratification, and labor market outcomes. The course will include discussions of African Americans, Whites, Hispanics, Asian Americans and multiracials.
Fall or Spring
Also Offered As: ASAM 1510, LALS 1060, SOCI 1060, URBS 1060
1 Course Unit

AFRC 1090 Urban Sociology
This course is a comprehensive introduction to the sociological study of urban areas. This includes more general topics as the rise of cities and theories urbanism, as well as more specific areas of inquiry, including American urbanism, segregation, urban poverty, suburbanization and sprawl, neighborhoods and crime, and immigrant ghettos. The course will also devote significant attention to globalization and the process of urbanization in less developed counties.
Not Offered Every Year
Also Offered As: LALS 1090, SOCI 1090, URBS 1090
1 Course Unit

AFRC 1092 Contemporary American Literature
The readings for this course expose students to a wide range of American fiction and poetry since World War II, giving considerable attention to recent work. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 1092, ENGL 1092
1 Course Unit

AFRC 1100 American Jesus
Images and beliefs about Jesus have always been a compelling part of American life. This course seeks to examine the social, political, religious and artistic ways that Jesus has been appropriated and used in American life, making him a unique figure for exploring American religious life. Special attention will be given to how Jesus is used to shape social and political concerns, including race, gender, sexuality and culture.
Not Offered Every Year
Also Offered As: RELS 1100
1 Course Unit
AFRC 1115 American Race: A Philadelphia Story (SNF Paideia Program Course)
This course proposes an examination of race with a two-pronged approach: one that broadly links the study of race in the United States with a multi-disciplinary approach and also simultaneously situates specific conversations within the immediate location of Philadelphia, home to the University. The broad historical examination advances key concepts of race and racialization, explores key theoretical methodologies, and highlights major scholarly works. For example, students will engage with the study of race through Africana Studies, Asian American Studies, Urban Studies and through Latin American & Latinx Studies. Readings and methodologies will introduce students to critical issues in education, in literature, in sociology, and with methods in oral history, archival work, and ethnography. Most importantly, this extensive approach highlights the impact of race across multiple communities including Black Americans, immigrant populations, and communities that are marginalized to emphasize connections, relationships, and shared solidarity. Students are intellectually pushed to see the linkages and the impacts of racism across and among all Americans historically and presently. As each theme is introduced a direct example from Philadelphia will be discussed. The combination of the national discourse on race, with an intimate perspective from the City of Philadelphia, engages students both intellectually and civically. The course will be led by Fariha Khan and Fernando Chang-Muy but guest instructors with varied disciplinary backgrounds and guest speakers from local community organizations. Each instructor not only brings specific disciplinary expertise, but also varied community engagement experience.

Spring
Also Offered As: ANTH 1150, ASAM 0115, LALS 0115, SAST 1115, SOCI 2976, URBS 1150
1 Course Unit

AFRC 1117 African American Religion
The unique history and experiences of African Americans can be traced through religion and belief. Through the mediums of literature, politics, music, and film, students will probe the religious experience of people of the African Diaspora within the context of the complex history of race in American history. The course will cover a broad spectrum of African American religious experience including Black Nationalism, urban religions, the "black church" and African religious traditions such as Santeria and Rastafarianism. Special attention will be paid to the role of race, gender, sexuality, and popular culture in the African American religious experience.

Fall or Spring
Also Offered As: RELS 1170
1 Course Unit

AFRC 1119 History of American Law to 1877
This course is designed to explore major themes and events in early American legal history. Because of the richness of the subject matter and the wealth of sources available, we will be selective in our focus. The course will emphasize several core areas of legal development that run throughout colonial and early national history: 1) the state: including topics such as war and other military or police action, insurrection, revolution, regulation, courts, economic policy, and public health; 2) labor: including race and racially-based slavery, varied forms of servitude and labor coercion, household labor, industrialization, unionization, and market development; 3) property: including property in persons, land, and business, and the role of lawyers in promoting the creation of wealth; 4) private spaces: including family, individual rights, sexuality, gender, and private relations of authority; 5) constitutionalism: various methods of setting norms (rules, principles, values) that create, structure, and define the limits of government power and authority in colonial/imperial, state, and national contexts; 6) democracy and belonging: including questions of citizenship, voting rights, and participation in public life. By placing primary sources within historical context, the course will expose students to the ways that legal change has affected the course of American history and contemporary life. The course will be conducted primarily in lecture format, but I invite student questions and participation. In the end, the central aim of this course is to acquaint students with a keen sense of the ways that law has operated to liberate, constrain, and organize Americans. Ideally, students will come away with sharper critical thinking and reading skills, as well. *This course is a core requirement for the Legal Studies and History Minor (LSHM).*

Fall
Also Offered As: HIST 1119
1 Course Unit

AFRC 1120 Religious Ethics and Modern Society
Religious beliefs of Malcolm X and MLK formed their social action during the Civil Rights for African Americans. This seminar will explore the religious biographies of each leader, how religion shaped their public and private personas, and the transformative and transgressive role that religion played in the history of the Civil Rights movement in the United States and abroad. Students in this course will leave with a clearer understanding of religious beliefs of Christianity, The Nation of Islam, and Islam, as well as religiously based social activism. Other course emphases include the public and private roles of religion within the context of the ideas of freedom, democracy, and equality in the United States, the role of the "Black church" in depicting messages of democracy and freedom, and religious oratory as exemplified through MLK and Malcolm X.

Fall or Spring
Also Offered As: RELS 1120
1 Course Unit

AFRC 1121 The American South
Southern culture and history from 1607-1860, from Jamestown to secession. Traces the rise of slavery and plantation society, the growth of Southern sectionalism and its explosion into Civil War.
Two Term Class, Student may enter either term; credit given for either
Also Offered As: HIST 1121
1 Course Unit
AFRC 1122 Witches, Rebels, and Prophets: People on the Margins in Early America
This course explores the lost worlds of witches, sexual offenders, rebellious enslaved people, rebellious colonists, and Native American leaders from the seventeenth to the nineteenth centuries. Using the life stories of unusual individuals from the past, we try to make sense of their contentious relationships with their societies. By following the careers of the troublemakers, the criminals, the rebels, and other non-conformists, we also learn about the foundations of social order and the impulse to reform that rocked American society during the nineteenth century. The lives of these unique “movers and shakers” help us to understand the issues that Americans debated in the years leading up to the Civil War.
Fall
Also Offered As: GSWS 1122, HIST 1122
1 Course Unit

AFRC 1123 Law and Society
After introducing students to the major theoretical concepts concerning law and society, significant controversial societal issues that deal with law and the legal systems both domestically and internationally will be examined. Class discussions will focus on issues involving civil liberties, the organization of courts, legislatures, the legal profession and administrative agencies. Although the focus will be on law in the United States, law and society in other countries of Africa, Asia, Europe and Latin America will be covered in a comparative context. Readings included research reports, statutes and cases.
Fall or Spring
Also Offered As: SOCI 1120
1 Course Unit

AFRC 1130 Contemporary African Politics
This class provides an introduction to contemporary African politics. The core questions that motivate the course are (i) to what extent are political outcomes in contemporary Africa a consequence of its history, culture and geography? (ii) Why are state structures and institutions weaker in Africa than elsewhere? (iii) What accounts for Africa’s relatively slow economic growth? (iv) Why have some African countries been plagued by high levels of political violence while others have not? (v) What explains the behavior of key African actors: parties or politicians?
Fall or Spring
Also Offered As: PSCI 1130
1 Course Unit

AFRC 1131 Discrimination: Sexual and Racial Conflict
This course is concerned with the structure, the causes and correlates, and the government policies to alleviate discrimination by race and gender in the United States. The central focus of the course is on employment differences by race and gender and the extent to which they arise from labor market discrimination versus other causes, although racial discrimination in housing is also considered. After a comprehensive overview of the structures of labor and housing markets and of nondiscriminatory reasons (that is, the cumulative effects of past discrimination and/or experiences) for the existence of group differentials in employment, wages and residential locations, various theories of the sources of current discrimination are reviewed and evaluated. Actual government policies and alternatives policies are evaluated in light of both the empirical evidence on group differences and the alternative theories of discrimination.
Not Offered Every Year
Also Offered As: GSWS 1130, SOCI 1130
1 Course Unit

AFRC 1151 Race, Space and Place in American History
This course provides with a historical introduction to America’s racial and ethnic groupings by examining the social, spatial and historical forces that have defined these groups. Weekly lectures and readings trace American racial formations, identities and experiences from the age of Columbus to the present day. Following the work of historians and geographers who emphasize the importance of space and place in constructions of racial and ethnic identity, most of the class readings chart the evolution of such identities within specific regions or communities. Early readings illuminate the origins of categories such as “white,” black, “Native American” and “Asian” by exploring the colonial encounters in which these identities first took shape; while later readings trace how these identities have been maintained and/or changed over time. Less a product of racial attitudes than of economic and political interests, early American conceptions of race first took shape amidst contests over land and labor that pitted European immigrants against the indigenous peoples of North America, and ultimately led to the development of racial slavery. Colonial legal distinctions between Christians and Heathens were supplanted by legislation that defined people by race and ethnicity. Over time these distinctions were reinforced by a variety of other forces. Distinctive from place to place, America’s racial and ethnic groupings have been shaped and reshaped by regional economies such as the slave South, political initiatives such as Indian Removal and Chinese Exclusion Acts, a changing national immigration policy, and sexual and social intermixture and assimilation. Course readings will examine the links between race, region, labor, law, immigration, politics, sexuality and the construction and character of racialized spaces and places in America.
Also Offered As: HIST 1151
1 Course Unit

AFRC 1160 Caribbean Culture and Politics
This course offers anthropological perspectives on the Caribbean as a geo-political and socio-cultural region, and on contemporary Caribbean diaspora cultures. We will examine how the region’s long and diverse colonial history has structured relationships between race, ethnicity, class, gender and power, as well as how people have challenged these structures. As a region in which there have been massive transplantations of peoples and their cultures from Africa, Asia, and Europe, and upon which the United States has exerted considerable influence, we will question the processes by which the meeting and mixing of peoples and cultures has occurred. Course readings include material on the political economy of slavery and the plantation system, family and community life, religious beliefs and practices, gender roles and ideologies, popular culture, and the differing ways national, ethnic, and racial identities are expressed on the islands and throughout the Caribbean diaspora.
Not Offered Every Year
Also Offered As: ANTH 1160, LALS 1160
1 Course Unit
AFRC 1169 History of American Law Since 1877
This course introduces students to major themes in U.S. legal history from 1877 to the present. Topics include (but are not limited to) citizenship and immigration, federalism, public regulation of economic activity, lawyers and the legal profession, criminalization, social welfare provision, and rights-claiming. Prominent through-lines include the relationship between law and politics; the struggles of marginalized groups for recognition and inclusion; and shifting, competing understandings of liberty, equality, and justice. Judicial decisions figure prominently in this course, but so, too, do other sources of law, including statutes, administrative decisions, and provisions of the U.S. Constitution. Students will leave this course with a better grasp of how the U.S. legal system operates and how it has channeled power, resources, and opportunity over time. *This course fulfills a core requirement for the Legal Studies and History Minor.*
Spring
Also Offered As: HIST 1169
1 Course Unit

AFRC 1172 Bodies, Race and Rights: Sex and Citizenship in Modern American History
What did it mean to be a man or woman in the post-Civil War United States? Was being a man the same as being a citizen? If African-American men were to be fully embraced as both men and citizens in the aftermath of slavery, where did that leave women, white and black? Why did a nation built on immigration become so hostile to certain groups of immigrants during this period? In this course, we consider how the meanings and experiences of womanhood, manhood, citizenship, and equality before the law changed from the period immediately after the Civil War until the present day. We look at political battles over the meaning of citizenship, the use of terror to subdue African Americans politically and economically, and the fears of white Americans that they would lose their political and economic dominance to immigrant groups they deemed irreconcilably different from themselves. We also consider the repercussions of these conflicts for medical, legal, and economic efforts to regulate the bodies of women, children, poor people, immigrants, working class laborers, military men, and African Americans. Throughout the course, we will follow the state’s changing use of racial, sexual, and economic categories to assess the bodily and intellectual capacities of different groups of citizens. We will also note some of the popular cultural expressions of manhood, womanhood, and citizenship. The lectures and reading assignments are organized around a series of historical problems, dynamic leaders, and controversies that illuminate these issues.
Spring
Also Offered As: GSWS 1172, HIST 1172
1 Course Unit

AFRC 1176 African American History 1550-1876
This course examines the experiences of Africans and African Americans in colonial America and in the United States to 1865. We will explore a variety of themes through the use of primary and secondary sources. Topics include: the development of racial slavery, labor, identity, gender, religion, education, law, protest, resistance, and abolition.
Fall
Also Offered As: HIST 1127
1 Course Unit

AFRC 1177 African American History 1876 to Present
A study of the major events, issues, and personalities in Afro-American history from Reconstruction to the present. The course will also examine the different slave experiences and the methods of black resistance and rebellion in the various slave systems.
Spring
Also Offered As: HIST 1177
1 Course Unit

AFRC 1187 The History of Women and Men of African Descent at the University of Penn
The history of the women and men of African Descent who have studied, taught, researched, and worked at the University of Pennsylvania provides a powerful window into the complex history of Blacks not only in America but throughout the Diaspora. This class will unpack, uncover, and present this history through close studies of texts and archived records on and at the university, as well as through first hand accounts by alumni and past and present faculty and staff members. These stories of the trials and triumphs of individuals on and around this campus demonstrate the amazing and absurd experience that Blacks have endured both at Penn and globally. Emphasis will be placed on the research process with the intent of creating a democratic classroom where all are students and all are instructors. Students will become familiar with archival historical research (and historical criticism) as well as with ethnographic research. Far more than just a survey of historical moments on campus and in the community, students will meet face to face with those who have lived and are presently living history and they will be faced with the challenge of discerning the most effective ways of documenting, protecting, and representing that history for future generations of Penn students.
Spring
1 Course Unit

AFRC 1200 African-American Literature
An introduction to African-American literature, ranging across a wide spectrum of moments, methodologies, and ideological postures, from Reconstruction and the Harlem Renaissance to the Civil Rights Movement. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 1200, GSWS 1201
1 Course Unit
AFRC 1201 Divinities, Diviners and Divinations: Religions of the African Diaspora
This undergraduate course is designed to provide students with a broad introduction to major themes within African Diasporic Religions. This is an interdisciplinary course. We will be drawing upon various theoretical methods, i.e. historical, ethnographical, and autobiographical. Additionally, we will be examining visual media to understand the presence and value of African Diasporic Religions in the 20th/21st century. Special attention will be given to Vodou, Santeria, and Candomble in the Americas. Thematically, we will work through concepts of the diaspora; memory, myth and authenticity; ritual and material practices; borders, migration, gender and sexuality, religious commodities and exchange. As we traverse through these various religious traditions, it is through the readings, lectures, invited speakers, films and class discussions that we will develop a complex understanding of integrative religious worldviews that impacts every aspect of life: family structure, gender relations, education, health, economics, politics, arts, and so on. It is with the hopes that we can apprehend how these traditions are indeed an American Religion.
Fall or Spring
Also Offered As: GSWS 1202, HIST 0867
1 Course Unit

AFRC 1202 Spirit possession in Caribbean Religions
This course is designed to provide students with a broad introduction to possession experiences in Caribbean Religions. Through historical, ethnographic, autobiographical, literary and visual texts this course examines complex, gendered practices within the possession process, the vibrant spiritual energy that sustains communal connections during religious ceremonies, and the transnational imaginations that animate Caribbean religious practices in the Americas. Special attention will be given to Santeria, Candomble, Vodou, Myal, Palo Monte, and Revival Zion in the Americas. Possession is a process through which gender and sexuality can be performed, contesting national and regional discourses of sexuality, gender, and race in the Caribbean. Thematically, we will work through concepts of memory, community, adornment, ritual, borders, and the senses. We will investigate religious ritual practices to understand various religious worldviews that shape communities' religious and social lives.
Not Offered Every Year
1 Course Unit

AFRC 1205 Constitutional Law
This class introduces students to the United States Constitution, specifically Articles I, II, III, the Tenth Amendment, Equal Protection Clause, and the First Amendment. The format for each class will consist of a 45-minute lecture followed by small group discussions on assigned issues and questions.
Fall or Spring
Also Offered As: PSCI 1205
1 Course Unit

AFRC 1206 American Constitutional Law II
This course examines American constitutional development from the eve of WWI through the second Obama administration. Topics include the growth of the New Deal and a Great Society regulatory and redistributive state, struggles for equal rights for racial and ethnic minorities, women and GLBT Americans, contests over freedoms of religion and expression, criminal justice issues, the Reagan Revolution and the revival of federalism and property rights, and issues of national security powers after September 11, 2001.
Also Offered As: PSCI 1206
1 Course Unit

AFRC 1210 Literatures of Jazz
That modernism is steeped as much in the rituals of race as of innovation is most evident in the emergence of the music we have come to know as jazz, which results from collaborations and confrontations taking place both across and within the color line. In this course we will look at jazz and the literary representations it engendered in order to understand modern American culture. We will explore a dizzying variety of forms, including autobiography and album liner notes, biography, poetry, fiction, and cinema. We'll examine how race, gender, and class influenced the development of jazz music, and then will use jazz music to develop critical approaches to literary form. Students are not required to have a critical understanding of music. Class will involve visits from musicians and critics, as well as field trips to some of Philadelphia's most vibrant jazz venues. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 1210
1 Course Unit

AFRC 1220 Popular Culture and Youth in Africa
All across the continent, Africa is alive with the energies of young people, expressed in music, art, fashion, drama, video, poetry, protest, and urban legends. In this course, we take a close look at the wide variety of popular forms produced and consumed by young people in a diversity of contexts, urban and rural, elite and marginal, mainstream and transgressive. We will examine how popular culture draws from African tradition to craft innovative versions of modernity and futurity. We will explore themes of democracy, inequality, and social justice threaded through popular genres as well as experiences of joy, anger, fear, and hilarity. We will see how popular culture provides escape and entertainment for young people while also working to transform African societies.
Spring
Also Offered As: ANTH 1202
1 Course Unit

AFRC 1310 Africa and the Transatlantic Slave Trade
This course focuses on the history of selected African societies from the sixteenth through the mid-nineteenth centuries. The primary goal is to study the political, economic, social, and cultural history of a number of peoples who participated in the Atlantic slave trade or were touched by it during the era of their involvement. The course is designed to serve as an introduction to the history and culture of African peoples who entered the diaspora during the era of the slave trade. Its audience is students interested in the history of Africa, the African diaspora, and the Atlantic world, as well as those who want to learn about the history of the slave trade. Case studies will include the Yoruba, Akan, and Fon, as well as Senegambian and West-central African peoples.
Fall or Spring
Also Offered As: HIST 1310, LALS 1310
1 Course Unit

AFRC 1350 Faces of Jihad in African Islam
This course is designed to provide the students with a broad understanding of the history of Islam in Africa. The focus will be mostly on West Africa, but we will also look at developments in other regions of the continent. We will explore Islam not only as religious practice but also as ideology and an instrument of social change. We will examine the process of Islamization in Africa and the different uses of Jihad. Topics include prophetic jihad, jihad of the pen and the different varieties of jihad of the sword throughout the history in Islam in sub-Saharan Africa.
Fall or Spring
Also Offered As: HIST 1350
1 Course Unit
AFRC 1358 Histories of Egypt
This course will explore Egypt's impact on the world in several historical eras – the ancient past and its unparalleled legacy; the nineteenth century and nationalism; the twentieth century's wars, peace and music and the twenty-first centuries lessons in revolution. We will examine European Egyptomania and Orientalism in the 19th century, Afrocentrism's ambitions for Egypt, and Egypt's centrality to pan-Arabism and pan-Africanism. And we will explore the history as Egypt's writers, filmmakers, musicians and poets have imagined it from the nineteenth century to the present.
Also Offered As: CIMS 1358, HIST 1358
1 Course Unit

AFRC 1370 African Environmental History
This new course will explore multiple dimensions of Africa's environmental history, drawing upon literature in the natural sciences, social sciences, and the humanities. It is one component of a pilot project supported by Penn Global and directed by the instructor on "Local Histories of Climate Change in the Horn of Africa", though we will cover topics and case studies from the entire continent. The course takes an historical perspective on environmental change in Africa, with an eye to engaging current debates on climate change and its impact on contemporary urban and rural communities. Students will read and discuss key works on the African environment, conduct their own literature reviews on selected topics, and prepare case studies of communities which have been impacted by severe climate events in the past half-century. The format combines lectures and seminar-style discussions, and we will draw upon the expertise of guest lecturers in a variety of disciplines which have contributed to the study of environmental change.
Also Offered As: HIST 1370
1 Course Unit

AFRC 1400 Jazz Style and History
This course is an exploration of the family of musical idioms called jazz. Attention will be given to issues of style development, selective musicians, and to the social and cultural conditions and the scholarly discourses that have informed the creation, dissemination and reception of this dynamic set of styles from the beginning of the 20th century to the present. Fulfills Cultural Diversity in the U.S.
Not Offered Every Year
Also Offered As: MUSC 1400
1 Course Unit

AFRC 1475 History of Brazil: Slavery, Inequality, Development
In the past decade, Brazil has emerged a leading global power. As the world's fifth-largest country, by size and population, and the ninth-largest by GDP, Brazil exerts tremendous influence on international politics and the global economy, seen in its position as an emerging BRIC nation and a regional heavyweight in South America. Brazil is often in the news for its strides in social welfare, leading investments in the Global South, as host of the World Cup and Olympics, and, most recently, for its political instability. It is also a nation of deep contradictions, in which myth of racial democracy -- the longstanding creed that Brazilian society has escaped racial discrimination -- functions alongside pervasive social inequality, state violence, political corruption, and an unforgiving penal system. This course examines six centuries of Brazilian history. It highlights the interplay between global events -- colonialism, slavery and emancipation, capitalism, and democratization -- and the local geographies, popular cultures, and social movements that have shaped this multi-ethnic and expansive nation. In particular, the readings will highlight Brazil's place in Latin America and the Lusophone World, as well as the ways in which Brazil stands as a counterpoint to the United States, especially in terms of the legacy of slavery and race relation. In this lecture, we will also follow the current political and economic crises unfolding in Brazil, at a moment when it has become all the more important to evaluate just how South America's largest nation has shaped and been shaped by global events.
Not Offered Every Year
Also Offered As: HIST 1475, LALS 1475
1 Course Unit

AFRC 1500 World Musics and Cultures
This course examines how we as consumers in the "Western" world engage with musical difference largely through the products of the global entertainment industry. We examine music cultures in contact in a variety of ways-- particularly as traditions in transformation. Students gain an understanding of traditional music as live, meaningful person-to-person music making, by examining the music in its original site of production, and then considering its transformation once it is removed, and recontextualized in a variety of ways. The purpose of the course is to enable students to become informed and critical consumers of "World Music" by telling a series of stories about particular recordings made with, or using the music of, peoples culturally and geographically distant from the US. Students come to understand that not all music downloads containing music from unfamiliar places are the same, and that particular recordings may be embedded in intriguing and controversial narratives of production and consumption. At the very least, students should emerge from the class with a clear understanding that the production, distribution, and consumption of world music is rarely a neutral process. Fulfills College Cross Cultural Foundational Requirement.
Fall or Spring
Also Offered As: ANTH 1500, MUSC 1500
1 Course Unit
AFRC 1510 Music of Africa
African Contemporary Music: North, South, East, and West. Come to know contemporary Africa through the sounds of its music: from South African kwela, jazz, marabi, and kwai to Zimbabwean chimurenga; Central African soukous and pygmy pop; West African Fuji, and North African rai and hophop. Through reading and listening to live performance, audio and video recordings, we will examine the music of Africa and its intersections with politics, history, gender, and religion in the colonial and post colonial era. (Formerly Music 053). Fulfills College Cross Cultural Foundational Requirement.

Not Offered Every Year
Also Offered As: MUSC 1510
1 Course Unit

AFRC 1560 Seeing/Hearing Globally
This is a Penn Global Seminars Abroad semester long class with travel abroad after. It focuses on the interrelationship of music, arts, community-building, land, politics, and history. Places covered in coursework and travel vary by semester, and students have to apply for the class through Penn Global. The class is limited in student participation to no more than 20 students.

Not Offered Every Year
Also Offered As: ANTH 1560, MUSC 1560
1 Course Unit

AFRC 1600 North Africa: History, Culture, Society
This interdisciplinary seminar aims to introduce students to the countries of North Africa, with a focus on the Maghreb and Libya (1830-present). It does so while examining the region’s close economic and cultural connections to sub-Saharan Africa, Europe, and the Middle East. Readings will include histories, political analyses, anthropological studies, and novels, and will cover a wide range of topics such as colonial and postcolonial experiences, developments in Islamic thought and practice, and labor migration. This class is intended for juniors, seniors, and graduate students.

Not Offered Every Year
Also Offered As: HIST 0835, NELC 1600
1 Course Unit

AFRC 1625 Era of Revolutions in the Atlantic World
This class examines the global ramifications of the era of Atlantic revolutions from the 1770s through the 1820s. With a particular focus on French Saint Domingue and Latin America, it provides an overview of key events and individuals from the period. Along the way, it assesses the impact of the American and French revolutions on the breakdown of colonial regimes across the Americas. Slavery and the transatlantic slave trade were seriously challenged in places such as Haiti, and the class investigates the appropriation and circulation of revolutionary ideas by enslaved people and other subaltern groups.

Also Offered As: HIST 1625, LALS 1625
1 Course Unit

AFRC 1627 History of North Africa
This class is an introductory overview of North Africa, with a focus on the Maghreb and Libya (1830-present). It does so while examining the region’s close economic and cultural connections to sub-Saharan Africa, Europe, and the Middle East. Readings will include histories, political analyses, anthropological studies, and novels, and will cover a wide range of topics such as colonial and postcolonial experiences, developments in Islamic thought and practice, and labor migration. This class is intended for juniors, seniors, and graduate students.

Not Offered Every Year
Also Offered As: ANTH 1560, MUSC 1560
1 Course Unit

AFRC 1700 The African Diaspora: Global Dimensions
This class examines the cultural and social ramifications of the African diaspora on a global level. It is divided into two major sections. The first section provides the historical background to the African diaspora by focusing on the forced migration of Africans to Spanish and Portuguese colonies in the Americas. We will then delve into the black experience in French and British colonial spaces. In this section, we will also endeavor to move beyond the Atlantic-centric paradigm in studies of the African diaspora by examining free and unfree migrations of African people across the Indian Ocean to places as far away as India and the Philippines. The second half of the class devotes significant attention to the historical legacy of slavery and colonialism in places like Brazil, Cuba and the United States. In this section, we will discuss such issues as race relations, the struggle for civil rights for African-descent people as well as the emergence and the implementation of affirmative action policies in places like Brazil and the US.

Spring
Also Offered As: HIST 1700, LALS 1700
1 Course Unit

AFRC 1780 Faculty-Student Collaborative Action Seminar in Urban University-Community Rlt
This seminar helps students develop their capacity to solve strategic, real-world problems by working collaboratively in the classroom, on campus, and in the West Philadelphia community. Students develop proposals that demonstrate how a Penn undergraduate education might better empower students to produce, not simply "consume," societally-useful knowledge, as well as to function as caring, contributing citizens of a democratic society. Their proposals help contribute to the improvement of education on campus and in the community, as well as to the improvement of university-community relations. Additionally, students provide college access support at Paul Robeson High School for one hour each week.

Fall or Spring
Also Offered As: HIST 0811, URBS 1780
1 Course Unit

AFRC 1810 Sounding Poetry
Never before has poetry been so inescapable. Hip hop, the soundtrack of our times, has made rhyme, meter, and word-play part of our daily lives. How did this happen? This course ranges through oral and lyric traditions in Europe, the Americas, and the Commonwealth. See the English Department's website at www.english.upenn.edu for a description of current offerings.

Fall
Also Offered As: COML 1810, ENGL 1810
1 Course Unit

AFRC 1880 African American Drama: From the 1920's to the present
This course will introduce students to Pulitzer-prize winning plays such as Lynn Nottage's Sweat, groundbreaking plays such as Ntozake Shange's For Colored Girls, as well as less known plays that show the wide range of form and themes in 20th and 21st century African American drama. See the English Department's website at www.english.upenn.edu for a description of the current offerings.

Fall or Spring
Also Offered As: ENGL 1880, THAR 1880
1 Course Unit
AFRC 2010 Social Statistics
This course offers a basic introduction to the application/interpretation of statistical analysis in sociology. Upon completion, you should be familiar with a variety of basic statistical techniques that allow examination of interesting social questions. We begin by learning to describe the characteristics of groups, followed by a discussion of how to examine and generalize about relationships between the characteristics of groups. Emphasis is placed on the understanding/interpretation of statistics used to describe and make generalizations about group characteristics. In addition to hand calculations, you will also become familiar with using PCs to run statistical tests.
Fall or Spring
Also Offered As: SOCI 2010
1 Course Unit

AFRC 2140 Tutankhamun's Tomb: Its Treasures and Significance
This course examines the short life of the young boy king and what the discovery of his tomb and its contents mean in terms of Egypt's long history and accomplishments.
Not Offered Every Year
Also Offered As: NELC 2140
Mutually Exclusive: NELC 6140
1 Course Unit

AFRC 2180 Diversity and the Law
The goal of this course is to study the role the law has played, and continues to play, in addressing the problems of racial discrimination in the United States. Contemporary issues such as racial profiling, affirmative action, and diversity will all be covered in their social and legal context. The basis for discussion will be assigned texts, articles, editorials and cases. In addition, interactive videos will also be used to aid class discussion. Course requirements will include a term paper and class case presentations.
Fall or Spring
Also Offered As: LGST 2180
1 Course Unit

AFRC 2200 African-American Literature Seminar
In this advanced seminar, students will be introduced to a variety of approaches to African American literatures, and to a wide spectrum of methodologies and ideological postures (for example, The Black Arts Movement). The course will present an assortment of emphases, some of them focused on geography (for example, the Harlem Renaissance), others focused on genre (autobiography, poetry or drama), the politics of gender and class, or a particular grouping of authors. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2200
1 Course Unit

AFRC 2210 Race and the Media
This course considers the theory and practice of minority representation in the public domain: film, theater, television, music, advertising and museums. How has "minority" been defined - who is included and why? How have notions of "minority" status been constructed in our public languages and what may be the impact of those images on both minority and non-minority populations? Our focus will be on representation and how it may work to marginalize or empower members of minority populations. While we will concentrate primarily on ethnic minorities, we will also consider how these same issues might affect sexual minorities. Our discussions will be supplemented by film and video examples. While the course will be theoretically situated in communication, it will consider how the perspectives of anthropology, feminism, and literary and ethnic studies have affected our understanding of public representations.
Not Offered Every Year
Also Offered As: SOCI 2210
1 Course Unit

AFRC 2211 (T)rap Music
This course examines the coming to pass of trap music from several perspectives: 1) that of its technological foundations and innovations (the Roland 808, Auto-tune, FL Studio (FruityLoops), etc.); 2) that of its masters/mastery (its transformation of stardom through the figures of the producer (Metro Boomin) and the rock star (Future)); 3) that of its interpretability and effects (what does the music say and do to us). We will thus engage with this music as a practice of art and form of technosociality that manifests uncanny and maximal attunement with the now.
See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2210
1 Course Unit

AFRC 2219 Social Inequalities: Caste and Race
This course introduces students to two systems of inequity, caste in South Asia, particularly in India, and race in the United States. It's main objective is to demonstrate how these modes of inequity, sometimes dismissed as outdated or irrelevant, continue to shape social and state institutions like family, law, and bureaucracy. The course will explore sociological literature on caste and race and examine how these systems existed in a range of historical contexts. It will examine how certain groups were recipients of economic, political, and social privilege, and how these groups othered communities such as Afro-Americans in the United States and Dalits in India. We will consider how privileged groups continue to represent modern institutions like state and law that fail to protect disadvantaged communities in both India and the United States. The course will also explore how privileged communities employ the tool of gendered violence of different kinds like physical violence against men and sexual violence against women of Afro-American communities and Dalit communities to maintain forms of social power and control. The final unit of the course will deal with the emerging and imagined solidarities between Afro-American social and political movements in the United States and Dalit movements in India.
Also Offered As: GSWS 2219, SAST 2219, SOCI 2970
1 Course Unit
AFRC 2220 African Women's Lives: Past and Present
Restoring women to African history is a worthy goal, but easier said than done. The course examines scholarship over the past forty years that brings to light previously overlooked contributions African women have made to political struggle, religious change, culture preservation, and economic development from pre-colonial times to present. The course addresses basic questions about changing women's roles and human rights controversies associated with African women within the wider cultural and historical contexts in which their lives are lived. It also raises fundamental questions about sources, methodology, and representation, including the value of African women's oral and written narrative and cinema production as avenues to insider perspectives on African women's lives.
Not Offered Every Year
Also Offered As: GSWS 2220
1 Course Unit

AFRC 2229 Dalit and Black Literatures: Caste, Race and Representation
The aim of this course is to study the historical conversations and comparisons between caste and racial oppression and the forging of categories of caste and/as race in the Dalit and African American literatures. Beginning with a brief survey of the historical conversations between the Black Panthers and Dalit Panthers, the course introduces some selected scholarly and literary debates on caste and/as racial discrimination, history of Afro-Dalit solidarity, literary representation of identities of caste and race and themes of freedom and equality. Selections of seminal texts and debates from the Dalit and African literary and cultural movements are included for discussion and analysis.
Not Offered Every Year
Also Offered As: SAST 2229
Mutually Exclusive: AFRC 5229, SAST 5229
1 Course Unit

AFRC 2232 Africa in India and Arabia
Africa has interwoven linkages for centuries with the Arabian Peninsula, and India, politically, historically, geographically, and culturally. These linkages were represented in continuous migrations of peoples, the circulation of goods and ideas, and the interaction with foreign forces. The ancient world of Africa, Arabia, and India had served as an epicenter of the global economy in the pre-modern world. As such, it gave rise to trading networks and political empires. The eastern and southern shores of Africa are both the recipients and the transmitters of cultural and political icons. The existence of many islands that separate Africa from India and Arabia stand as hybrid cultures that are influenced by forces from different continents. Political and cultural relations between African regions, India, and Arabia are evident with the presence of African-descent populations in these places, as well as the prevalence of cultural practices of African origin. Signs of interaction between these three regions are also apparent in several archeological sites and in the expansion that allowed the populations in these areas to share strategies during their independence movements to thwart western political hegemony. With the current advanced forms of globalization, this region is moving more towards economic and political cooperation and addressing the transnational natural and man-made threats. The objectives of this course are to achieve the followings: • Explore the geographic and historical interconnectedness between Africa, the Arabian Peninsula, and India. • Examine the history of the different forces that have shaped the cultural landscape of the African shores with reference to India and the Arabian Peninsula. • Examine the political, economic, and cultural interconnections between Africa, Arabia, and India and the impact of Europe's colonial expansion. • Explore the historical concept of globalization and the challenges of inter-disciplinary study and research in the study of Africa and its neighbors.
Fall or Spring
1 Course Unit

AFRC 2238 Modalities of Black Freedom and Escape: Ships
The course circulates around ships and boats. The course combines methods from environmental humanities, visual arts and history to consider multi-modal practices of black freedom and escape. From free black sailors in the eighteenth century Caribbean Sea, to twentieth and twenty-first century West African fishing boats, notions of Haitian “boat people,” Parliament Funkadelic’s mothership, and sinking boats with Somali and Ethiopian migrants off Yemen’s coast, ships have been and remain technologies of containment and freedom for communities of African descent. In the face of environmental vulnerabilities and the reality of water ways as systems of sustenance and imminent death, this course asks: how do black people use the ship and the process and practice of shipping as vessels for freedom, escape, and as a site to experiment with futures? Using the city of Philadelphia and the Schuykill and Delaware rivers as our primary site of interrogation, the course attends to the threats that black people experience following natural disaster (New Orleans, Haiti, Puerto Rico) and everyday engagement with the local and global state structures regarding water (Flint, MI). In this context, we also look to shipping as a site to theorize and account for black innovation, meanings of (non-)sovereignty, and alternative futures.
Not Offered Every Year
Also Offered As: ANTH 2338, LALS 2238
1 Course Unit
AFRC 2240 Law and Social Change
Beginning with discussion of various perspectives on social change and law, this course then examines in detail the interdependent relationship between changes in legal and societal institutions. Emphasis will be placed on (1) how and when law can be an instrument for social change, and (2) how and when social change can cause legal change. In the assessment of this relationship, emphasis will be on the laws of the United States. However, laws of other countries and international law relevant to civil liberties, economic, social and political progress will be studied. Throughout the course, discussions will include legal controversies relevant to social change such as issues of race, gender and the law. Other issues relevant to State-Building and development will discussed. A comparative framework will be used in the analysis of this interdependent relationship between law and social change.
Fall or Spring
Also Offered As: SOCI 2240
1 Course Unit

AFRC 2245 Dancing the African Diaspora
This seminar/studio course introduces students to theories, debates, and critical frameworks in African Diaspora Dance Studies. It asks: What role does dance play throughout the African diaspora? What makes a dance 'black'? How do conceptualizations of gender and sexuality inform our reading of dancing bodies? Using African diaspora, critical dance, performance, and black feminist frameworks, we will examine the history, politics, and aesthetics of "black dance". Through a keywords format, we'll construct both a vocabulary: a body of words used to describe a phenomena, and a grammar: a body of rules that lay bare the operations between terms. This course recognizes the fluidity of meaning between words depending on the context, geography, and circumstance of their evocation. Our key terms will allow us to examine a number of dancers, choreographers, companies, and movement practices. Moving across an African diasporic map, this course explores the politics of black choreography, and the political significance of black bodies in motion.
1 Course Unit

AFRC 2250 African Languages and Culture
The aim of the course is to provide an overall perspective on African languages and linguistics. No background in linguistics is necessary. Students will be introduced to theoretical linguistics-its concepts, theories, ways of argumentation, data collection, data analysis, and data interpretation. The focus will be on the languages and linguistics of Africa to provide you with the knowledge and skills required to handle the language and language-related issues typical of African conditions. We will cover topics related to formal linguistics (phonology/phonetics, morphology, syntax, and semantics), aspects of pragmatics as well as the general socio-linguistic character of African countries. We will also cover language in context, language and culture, borrowing, multilingualism, and cross-cultural communication in Africa.
Fall or Spring
1 Course Unit

AFRC 2251 Race and Ethnicity Seminar
This course explores an aspect of race and ethnicity intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2250
1 Course Unit

AFRC 2302 Sustainable Entrepreneurship
This course is designed to introduce students to the multiple methods of engaging African entrepreneurship, public service and philanthropy. Alongside a thorough review of both popular and independent activist media, students will be trained to use accessible technology to participate in international communications networks. "Big ideas," will be translated into succinct artistic statements. We will look intimately at the architecture of David Adjaye, Adjaye Associates; the initiatives of Majora Carter for Sustainable South Bronx and Majora Carter Group; the philanthropic equity of Vista Equity Partners and C.E.O. Robert Smith, and the political work of Mayor Ras Baraka, City of Newark among other examples from the public and private sector throughout the African Diaspora. Prior to the development of our own app ideas, we will focus on the urban market advertising strategies of majority companies that are lauded for their sustainable initiatives including Nike, Hewlett-Packard and Apple. We will also use as secondary resources macro approaches to sustainability from the United Nations Foundation. This course makes an argument for inclusion of race, class and gender equity in the evolving definition of sustainability. Our argument, consistent with the growth of so many of these professionals inside of and clearly influenced by hip-hop culture, is that they are best prepared, culturally, to "make something out of nothing."
Not Offered Every Year
1 Course Unit

AFRC 2310 Gender, Sexuality, and Literature Seminar
This advanced seminar focuses on literary, cultural, and political expressions of gender and sexuality. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 2310, ENGL 2310, GSWS 2310
1 Course Unit

AFRC 2321 War and Peace in Africa
The end of colonial rule was the springboard for the start of cold wars in various regions of Africa. Where peace could not be maintained violence erupted. Even where secession has been attained, as in the new country of South Sudan, the threat of civil war lingers. While domestic politics have led to the rise of armed conflicts and civil wars in many African countries, the external factors should also not be ignored. Important in all current conflicts is the concern to international peace and security. Overall this course will: (1) investigate the general nature of armed conflicts in Africa (2) provide in-depth analysis of the underlying factors (3) and discuss the regional and the international responses to these conflicts and their implications. Special emphasis will be placed upon African conflicts and civil wars in: great Lakes area, Mali, Nigeria, Senegal, Sudan, Somalia, South Sudan, and Uganda.
Fall or Spring
1 Course Unit
AFRC 2324 Dress and Fashion in Africa
Throughout Africa, social and cultural identities of ethnicity, gender, generation, rank and status were conveyed in a range of personal ornamentation that reflects the variation of African cultures. The meaning of one particular item of clothing can transform completely when moved across time and space. As one of many forms of expressive culture, dress shape and give forms to social bodies. In the study of dress and fashion, we could note two distinct broad approaches, the historical and the anthropological. While the former focuses on fashion as a western system that shifted across time and space, and linked with capitalism and western modernity; the latter approach defines dress as an assemblage of modification the body. The Africanist proponents of this anthropological approach insisted that fashion is not a dress system specific to the west and not tied with the rise of capitalism. This course will focus on studying the history of African dress by discussing the forces that have impacted and influenced it overtime, such as socio-economic, colonialism, religion, aesthetics, politics, globalization, and popular culture. The course will also discuss the significance of the different contexts that impacted the choices of what constitute an appropriate attire for distinct situations. African dress in this context is not a fixed relic from the past, but a live cultural item that is influenced by the surrounding forces.
Spring
Also Offered As: ANTH 2024, ARTH 2094
1 Course Unit

AFRC 2325 August Wilson and Beyond
"The people need to know the story. See how they fit into it. See what part they play." - August Wilson, King Hedley II If you want to get to know community members from West Philadelphia, collaborate deeply with classmates, gain deeper and more nuanced understandings of African American history and culture, engage in a wide range of learning methods, and explore some of the most treasured plays in the American theatre, then this is the course for you. No previous experience required, just curiosity and willingness to engage. In this intergenerational seminar, Penn students together with older community members read groundbreaking playwright August Wilson’s American Century Cycle: ten plays that form an iconic picture of African American traditions, traumas, and triumphs through the decades, nearly all told through the lens of Pittsburgh’s Hill District neighborhood. (Two of Wilson’s plays are receiving fresh attention with recent acclaimed film versions: Fences with Denzel Washington and Viola Davis; Ma Rainey’s Black Bottom with Davis and Chadwick Boseman.) Class participants develop relationships with one other while exploring the history and culture that shaped these powerful plays. As an Academically Based Community Service (ABCS) course, the class plans and hosts events for a multigenerational, West Philadelphia-focused audience with community partners West Philadelphia Cultural Alliance / Paul Robeson House & Museum, and Theatre in the X. Class members come to a deeper understanding of Black life in Philadelphia through stories community members share in oral history interviews. These stories form the basis for an original performance the class creates, presented at an end-of-semester gathering. Wilson’s plays provide the bridge between class members from various generations and backgrounds. The group embodies collaborative service through the art and connection-building conversations it offers to the community.
Fall
Also Offered As: ENGL 2222, THAR 2325
1 Course Unit

AFRC 2350 Migration and Refugees in African History
This seminar will examine the experiences of recent African emigrants and refugees within and from the continent Africa from a historical and comparative perspective. We will look at the relations of overseas Africans with both their home and host societies, drawing on some of the extensive comparative literature on immigration, ethnic diasporas, and transnationalism. Other topics include reasons for leaving Africa, patterns of economic and educational adaptation abroad, changes in gender and generational roles, issues of cultural, religious, and political identity, and the impact of international immigration policies. Students will have the opportunity to conduct focused research on specific African communities in Philadelphia or elsewhere in North America, Europe, or the Middle East. We will employ a variety of sources and methodologies from different disciplines—including newspapers, government and NGOs, literature and film, and diaspora internet sites—to explore the lives, aspirations, and perceptions of Africans abroad. History Majors may complete the research requirement if their paper is based on primary sources. Students not seeking credit for the research requirement may write papers drawing on secondary sources exclusively. Class will consist of a combination of lectures (including several by invited guests), discussions, video screenings, and presentations by students of their research in progress.
Fall or Spring
Also Offered As: HIST 2350
1 Course Unit

AFRC 2401 Indians, Pirates, Rebels and Runaways: Unofficial Histories of the Colonial Caribbean
This seminar considers the early history of the colonial Caribbean, not from the perspective of European colonizing powers but rather from “below.” Beginning with European-indigenous contact in the fifteenth century, and ending with the massive slave revolt that became the Haitian Revolution (1791-1804), we will focus on the different ways in which indigenous, African, European and creole men and women experienced European colonization in the Caribbean, as agents, victims and resisters of imperial projects. Each week or so, we will examine the experiences of a different social group and their treatment by historians, as well as anthropologists, archaeologists, sociologists, and novelists. Along the way, we will pay special attention to the question of primary sources: how can we recover the perspectives of people who rarely left their own accounts? How can we use documents and material objects—many of which were produced by colonial officials and elites—to access the experiences of the indigenous, the enslaved, and the poor? We will have some help approaching these questions from the knowledgeable staff at the Penn Museum, the Kislak Center for Special Collections, Rare Books and Manuscripts, and the Van Pelt Library.
Fall or Spring
Also Offered As: GSWS 2401, HIST 2401, LALS 2401
1 Course Unit
AFRC 2402 The Haitian Revolution
In August 1791, enslaved Africans on the northern plain of Saint Domingue (colonial Haiti) rose up in a coordinated attack against their French colonial masters, launching the initial revolt in what would come to be known as the Haitian Revolution. In the years that followed, their actions forced the abolition of racial discrimination and slavery throughout the French Empire. When Napoleon Bonaparte threatened to return slavery to Saint Domingue, they waged a war for independence, declaring Haiti the world’s first “Black Republic” in 1804. This seminar will examine some of the major themes and debates surrounding Haiti’s colonial and revolutionary history. We will begin by considering the colonial paradox: France’s leading role in the intellectual movement called the “Enlightenment” coincided with its ascent as a slaveholding colonial power. The seminar will also explore parallels and points of connection between the revolutionary movements in France and Saint Domingue: how did increasingly radical ideas in France shape events in the Caribbean? Likewise, how did west African traditions and political ideologies influence insurgents and their leaders? And how, in turn, did revolution in the Caribbean impact the revolution in France? Finally, we will ask how the Haitian Revolution influenced ideas about liberty, sovereignty and freedom throughout the Atlantic World. We will read a combination of primary and secondary materials each week. A final research paper will be required of all students.
Fall or Spring
Also Offered As: HIST 2402, LALS 2402
1 Course Unit

AFRC 2430 Race, Science & Justice
What is the role of the life and social sciences in shaping our understanding of race? How has racial stratification influenced scientists and how have scientists constructed racial difference and helped to maintain or contest racial inequities? How have these racial theories shaped the production of scientific knowledge and the way we think about human bodies, diversity, and commonality—and what are the consequences for justice in our society? This course draws on an interdisciplinary body of biological and social scientific literature to explore critically the connections between race, science, and justice in the United States, including scientific theories of racial inequality, from the eighteenth century to the genomic age. After investigating varying concepts of race, as well as their uses in eugenics, criminology, anthropology, sociology, neuroscience, medicine, and public health, we will focus on the recent expansion of genomic research and technologies that treat race as a biological category that can be identified at the molecular level, including race-specific pharmaceuticals, commercial ancestry testing, and racial profiling with DNA forensics. We will discuss the significance of scientific investigations of racial difference for advancing racial justice in the United States.
Fall or Spring
Also Offered As: SOCI 2430
1 Course Unit

AFRC 2542 Brazilian Baroque
This lecture course explores the art, architecture, and visual culture of the Portuguese Empire with emphasis on Brazil and its relations with Africa and Asia.
Not Offered Every Year
Also Offered As: ARTH 2542, ENGL 2542, LALS 2542
1 Course Unit

AFRC 2545 Sex, Love, and Race in African American Life and History
This course discusses the political and social implications of sex, race and personal relationships in U.S. political and social history. In this class, we examine how so-called ‘emotional’ human experiences such as falling in love, engaging in a sexual relationship, marriage, coming out of the closet, and other deeply personal events over the course of a lifetime are shaped by political, legal and historical forces. This course will examine the history of marriage rights, claims to ethnic and racial identity, activism among multiracial people in the United States, sex education in public schools, and debates about marriage and family rights in the 20th and 21st centuries.
Fall
Also Offered As: GSWS 2545, HIST 0818
1 Course Unit

AFRC 2630 Contemporary Issues in African Society
This course will deal with law and society in Africa. After surveying the various legal systems in Africa, the focus will be on how and to what extent the countries of Africa “re-Africanized” their legal systems by reconciling their indigenous law with western law and other legal traditions to create unified legal systems that are used as instruments of social change and development. Toward this end, the experiences of various African countries covering the various legal traditions will be included. Specific focus will be on laws covering both economic and social relations. This emphasis includes laws of contracts and civil wrongs, land law, law of succession, marriage and divorce and Africa’s laws of International Relations, among other laws. Throughout this course a comparative analysis with non-African countries will be stressed.
Also Offered As: SOCI 2630
1 Course Unit

AFRC 2670 Latin American Art
The numerous traditions of Latin American art have been formed from the historical confluence of Indigenous, European, African, and Asian cultural traditions, each one impacting the others. This lecture course serves as an introduction to these hybrid New World art forms and movements by both providing a large chronological sweep (1492-present) and focusing on several specific countries, including Brazil, Mexico, Cuba, Peru, and Argentina.
Not Offered Every Year
Also Offered As: ARTH 2670, LALS 2670
Mutually Exclusive: ARTH 6670
1 Course Unit

AFRC 2709 Pan-Africanism in Global Perspective
This course covers the history of Pan-Africanism from its early inception in the nineteenth century to the present. Pan-Africanism has sparked political struggles and provided a powerful catalyst to artistic endeavors across the globe. The class focuses on the early critiques of the transatlantic slave trade, tracing the development of a unifying sociopolitical movement and the struggle for identity among Africans and African descendants in the diaspora. C. L. R. James posits that people of African descent, no matter where they might live, are linked through ancestral ties to Africa and as victims of structural and historical racism in the West. The class will not only engage with the classics of Pan-Africanism but also explore the movement’s influence through the arts (music, movies, and literature) and politics. To stress Pan-Africanism’s global ramifications, the class pays significant attention to the movement’s impact on Africa and Latin America.
Also Offered As: HIST 2709, LALS 2709
1 Course Unit
AFRC 2740 Facing America
This course explores the visual history of race in the United States as both self-fashioning and cultural mythology by examining the ways that conceptions of Native American, Latino, and Asian identity, alongside ideas of Blackness and Whiteness, have combined to create the various cultural ideologies of class, gender, and sexuality that remain evident in historical visual and material culture. We also investigate the ways that these creations have subsequently helped to launch new visual entertainments, including museum spectacles, blackface minstrelsy, and early film, from the colonial period through the 1940s.
Not Offered Every Year
Also Offered As: ARTH 2740, CIMS 2740, LALS 2740
Mutually Exclusive: ARTH 6740
1 Course Unit

AFRC 2760 African American Life and Culture in Slavery
This course will examine the lives of enslaved African Americans in the United States, both in the North and the South. We will engage historiographical debates, and tackle questions that have long concerned historians. For example, if slaves were wrenched from families and traded, could they sustain family relationships? If slaves worked from sun-up until sun-down, how could they create music? We will engage with primary and secondary sources to expand our understandings of values, cultural practices, and daily life among enslaved people. Topics will include: literacy, family, labor, food, music and dance, hair and clothing, religion, material culture, resistance, and memories of slavery. Several disciplines including History, Archaeology, Literature, and Music, will help us in our explorations. Written, oral, and artistic texts for the course will provide us with rich sources for exploring the nuances of slave life, and students will have opportunities to delve deeply into topics that are of particular interest to them.
Not Offered Every Year
Also Offered As: HIST 0710
1 Course Unit

AFRC 2762 Everyday Life in Africa
This course will explore the different dimensions of everyday life in Africa. Everyday life has been described by Agnes Heller (1978) as “the secret yeast of history.” What constitutes this “yeast of history” in contemporary Africa? In exploring everyday life, we will examine the existing (in)capacities in the structures of state and society in Africa for human well-being in relation to the differences between political life (bios) and bare life (zoe). The course engages with the everyday life in terms of how social, economic, and political lives are constituted and the implications of this process for whether Africans live well or not, how they die, and their struggles for alternative lives. With (ethnographic) accounts and perspectives from different countries in Africa, the course focuses deeply on how to understand and explain the conditions under which everyday social needs and economic necessities are turned into political/existential struggles as well as the conditions under which political exigencies can transform into economic, social and bodily fatalities. The overarching questions that will animate this course include these: What are the prevalent conditions of everyday life in Africa? What and who determines (in)eligibility regarding the everyday tools of good life and human survival? How are these determinations related to the differential distribution of potential and/or actual injury, harm, and damage to human life and the conditions of its survival? What can ethnographic insight contribute to our understanding of everydayness in Africa? The roles of sexualities, gender, generation, humor, identities, racism, hate, memory, memorial, transactions, etc., in the construction, reconstruction, and deconstruction of daily life – and death – in the continent will be examined. Audio-visual materials will be used to analyze important themes about quotidian life in Africa.
Spring
Also Offered As: ANTH 2762, SOCI 2905
1 Course Unit

AFRC 2781 African American Art
This lecture course focuses on art, architecture, and visual culture made by peoples of African descent in the United States.
Fall or Spring
Also Offered As: ARTH 2781
1 Course Unit

AFRC 2850 Modern Art in Africa and Europe
The history of modern art is closely tied to and largely unfolds from the history of Western Imperialism. While the technologies made possible by colonial resource extraction produced new ways of looking, modern conceptions of the nation and how to represent it, developed in dialogue with racialized notions of the other. This course focuses on encounters between the cultures of Africa and Europe, from 1880 to 1960, and on the artistic practices that emerged on both continents as a result. Topics of special interest will include racial difference and the ramifications of colonialism, colonial masquerade, post-colonial monuments and memorials, the African influence on Dada and surrealism, Negritude and interwar Paris, colonial arts education, and the South African built environment under and after Apartheid.
Not Offered Every Year
Also Offered As: ARTH 2850
1 Course Unit
AFRC 2851 Advanced Swahili II
The objectives are to continue to strengthen students’ knowledge of speaking, listening, reading, and writing Swahili and to compare it with the language of the students; to continue learning about the cultures of East Africa and to continue making comparisons with the culture(s) of the students; to continue to consider the relationship between that knowledge and the knowledge of other disciplines; and using that knowledge, to continue to unite students with communities outside of class. Level 3 on the ILR (Interagency Language Roundtable) scale.

Spring
Also Offered As: SWAH 1200
1 Course Unit

AFRC 2852 The Black Arts Movement: Theatre and Performance
This course examines the Theatre and Performance practices of the Black Arts Movement from the mid-1960s to mid-1970s. The Black Arts Movement (BAM) emerges in New York, New Jersey, Chicago, Los Angeles, San Francisco, and Philadelphia among other locations, as a cultural component of the Black Power Movement, and its legacy continues to this day. BAM artists, poets, playwrights, musicians, dancers, producers, directors, and teachers, shared a goal to develop an alternative theatre based in Africanist and Black aesthetics combining poetry, music, and dance in a non-linear fashion allowing stories to emerge through alternative and abstract structures that are activist in nature. We will ground our examination of the period in a growing global black consciousness, as well as the relationship between black aesthetics and self-determination. The course will explore a breadth of mid twentieth century Black experimental theatre ranging from Jean Genet’s The Blacks and Imamu Amiri Baraka’s Black Arts Repertory Theater and School, to Ntozake Shange’s Choreopoems, and the performance poetry Jayne Cortez. The course culminates in the work of present-day performance artists that have taken up and evolved the form. The course is designed to incorporate theory and practice through play and poetry readings, movement investigations, student presentations of Theatre/Performance Artists, and viewing performances either virtually or in person. Students will develop either a choreopoem of their own or curate an imagined Black Arts Movement theatre festival or season.

Also Offered As: ENGL 2850, THAR 2850
1 Course Unit

AFRC 2860 Modern Art: Picasso to Pollock
Early twentieth-century art in Europe is marked by a number of exciting transformations. This period witnessed the rise of abstraction in painting and sculpture, as well as the inventions of collage, photomontage, constructed sculpture, the ready made and found object, and performance art. Encounters with the arts of Africa, Oceania and other traditions unfamiliar in the West spurred innovations in media, technique, and subject matter. Artists began to respond to the challenge of photography, to organize themselves into movements, and in some cases, to challenge the norms of art through “anti-art.” A new gallery system replaced traditional forms of exhibiting and selling art, and artists took on new roles as publicists, manifesto writers, and exhibition organizers. This course examines these developments, with attention to formal innovations as well as cultural and political contexts.

Fall or Spring
Also Offered As: ARTH 2860
1 Course Unit

AFRC 2870 Religion and Society in Africa
In recent decades, many African countries have perennially ranked very high among the most religious. This course serves as an introduction to major forms of religiosity in sub-Saharan Africa. Emphasis will be devoted to the indigenous religious traditions, Christianity and Islam, as they are practiced on the continent. We will examine how these religious traditions intersect with various aspects of life on the continent. The aim of this class is to help students to better understand various aspects of African cultures by dismantling stereotypes and assumptions that have long characterized the study of religions in Africa. The readings and lectures are will be drawn from historical and a few anthropological, and literary sources.

Also Offered As: HIST 0837, RELS 2870
1 Course Unit

AFRC 2903 Exhibiting Black Bodies
This course concerns the exhibiting of Black Bodies in Museums and gallery spaces. We will trace the evolution of public history from the “Cabinets of Curiosity” in 18th and 19th Century Europe, through to the current institutional confirmation of the vindications traditions represented by Museu Afro Brasil (Sao Paulo, Brazil), National Museum of African American History and Culture (Washington, D.C.), and the Museum of Black Civilization (Dakar, Senegal). We will give particular attention to “why these representations at these times in these places?” In the process of addressing these questions we will give voice to the figures who conceived the curatorial content from those with the colonial mentality, to those with the abolitionist and nationalist and Pan-African visions.

Also Offered As: SOCI 2903
1 Course Unit

AFRC 3051 Housing, Race, and Community in the United States
One’s home is the first site of self-identity, socialization, and notions of citizenship. In the United States, neighborhoods are the basic units of political organization, educational options, and familial wealth. This course explores the intersections between race and housing in the United States with a specific focus on the experiences of African-Americans in urban centers. The intersectional housing experiences of Asian, Latinx, first-generation immigrants, Arab, and indigenous communities will also be analyzed. This course represents both a timely and nuanced opportunity to address housing as a focal point of existing racial tensions and deepening socio-economic inequalities in the U.S. Increasingly, housing has become a contested subject, with heated debates concerning its status as a human, and potentially constitutional, right. Students will explore urban governance values, the commodification of urban landscapes, and the institutional dimensions of race in the United States. Students will develop a critical understanding of the underlying structural causation for the issues faced by minority populations seeking adequate, affordable, and safe housing in the U.S. Prior knowledge of urban planning, housing, or social policy is not necessary for this course. Students will finish the course equipped with a broad knowledge base of associated development topics including globalization, commodification, and social justice.

Spring
Also Offered As: URBS 3050
1 Course Unit
AFRC 3101 Poetry Workshop
Students will develop techniques for generating poems along with the critical tools necessary to revise and complete them. Through in-class exercises, weekly writing assignments, readings of established and emerging poets, and class critique, students will acquire an assortment of resources that will help them develop a more concrete sense of voice, rhythm, prosody, metaphor, and images as well as a deeper understanding of how these things come together to make a successful poem. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: ENGL 3101
1 Course Unit

AFRC 3106 Advanced Poetry Writing Workshop
This workshop is suitable for students with some prior experience in poetry who are interested in pushing their practice and learning new poetic forms, such as long poems, serial poems, cross-genre work, multimedia poetry, or poetry informed by research. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: ENGL 3106
1 Course Unit

AFRC 3110 Medicine, Health and Healing in Africa
This seminar course will examine how sub-Saharan Africans have interpreted and dealt with issues of health, healing, and medicine under colonial and postcolonial regimes. It will also look at how various social, economic, religious, and political factors have impacted health and healing on the continent and shaped African responses. Class discussions will center around both general themes affecting health and healing in Africa as well as case studies drawn from historical and anthropological works.
Fall or Spring
Also Offered As: HIST 0838
1 Course Unit

AFRC 3112 Experimental Writing
A creative writing workshop committed to experimentation. The workshop will be structured around writing experiments, collaborations, intensive readings, and new and innovative approaches to composition and form, which may also include work in digital, sound, and performance. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: ENGL 3112
1 Course Unit

AFRC 3151 The Civil Rights Movement
This course traces the history of the Civil Rights Movement from its earliest stirrings in the 1st half of the twentieth-century to the boycotts, sit-ins, school desegregation struggles, freedom rides and marches of the 1950s and 1960s, and beyond. Among the question we will consider are: What inspired the Civil Rights movement, when does it begin and end, and how did it change American life? Readings will include both historical works and first-hand accounts of the movement by participants.
Fall or Spring
Also Offered As: HIST 3151
1 Course Unit

AFRC 3152 Law and Social Change
This is a course in the history of law and social change. Discussion of assigned readings and papers will focus on the role law, lawyers, judges, other public officials and policy advocates and social movements and networks have played in proposing solutions to specific problems. The course will focus on evaluating the importance or lack thereof of historical perspective and legal expertise in making social change. Assigned readings will be discussed in class. Each student will submit a paper based on primary and secondary material on a topic of her choosing within the overall subject matter of the course. Paper drafts will be discussed in class. The Final Paper is due at the beginning of the final examination period.
Fall or Spring
Also Offered As: HIST 3152
1 Course Unit

AFRC 3173 Penn Slavery Project Research Seminar
This seminar course will examine how sub-Saharan Africans have interpreted and dealt with issues of health, healing, and medicine under colonial and postcolonial regimes. It will also look at how various social, economic, religious, and political factors have impacted health and healing on the continent and shaped African responses. Class discussions will center around both general themes affecting health and healing in Africa as well as case studies drawn from historical and anthropological works.
Fall or Spring
Also Offered As: HIST 3173
1 Course Unit

AFRC 3174 Free State Slavery and Bound Labor Research Seminar
This seminar invites students to do original research into the stories of Black refugees – including escaped, kidnapped, sojourning, and other temporary or permanent residents of Pennsylvania. Their stories unfolded through contentious freedom suits, daring escapes on the Underground Railroad, newspaper wars, gun fights and thuggery, treason cases, and more. We have assembled an archive of statutes, legal cases, testimony, judicial and administrative decisions, newspaper stories, images, memoirs, maps, and more to help students get started with their research. In addition, students will have opportunities to pursue additional research at the Historical Society of Pennsylvania, a co-sponsor of this course. Many of these materials have never been the subject of sustained study or placed in their historical context. Students will choose their topics in consultation with the professors and will produce research reports in written or digital or cinematic formats. Students are expected to contribute to the course website, a platform that will be available to the public as well as to the Penn community, and we aim to provide new information and venues for research. The course therefore will involve considerations of how best to convey what we learn, as well as explorations of historical methods and collaborating archives.
Also Offered As: HIST 3174
1 Course Unit

AFRC 3180 African Art Seminar
This seminar focuses on art of the African continent. It is open to undergraduates only. Not Offered Every Year
Also Offered As: ARTH 3180
1 Course Unit
AFRC 3230 Demography of Race
This course will examine demographic and statistical methods used to capture the impact of racial stratification in society. This course covers the skills and insights used by demographers and social statisticians in the study of racial data. A key challenge facing researchers is the interpretation of the vast amount of racial data generated by society. As these data do not directly answer important social questions, data analysis and statistics must be used to interpret them. The course will examine the logic used to communicate statistical results from racial data in various societies. We will question the scientific claims of social science methodology by extending the critical perspective to biases that may underlie research methods. We will discuss good and bad practices within the context of the historical developments of the methods.
Also Offered As: SOCI 3230
1 Course Unit

AFRC 3251 Writing for Children
A creative writing workshop devoted to the art and practice of writing for children. Students can expect to read texts by a variety of practitioners of the genre, complete regular writing assignments, and workshop writing by their peers. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: ENGL 3251
1 Course Unit

AFRC 3253 Writing for Young Adults
This writing workshop will explore the craft of young adult literature. Students will focus on concerns crucial to writing about and for teens, such as voice, point of view, immediacy, and pacing, and will draw on the many possibilities available in YA literary fiction: blurred genres, unreliable narrators, surrealism, retellings, and issues of identity and self-discovery. We will look beyond straightforward prose into forms such as epistolary and verse novels and other experimental mashups. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: ENGL 3253
1 Course Unit

AFRC 3255 Advanced Writing for Children
This workshop is suitable for students with some prior experience in writing for children, including early chapter books and teen fiction. Exercises may include studies in voice, point of view, plot development, humor, description, developing a fantasy world, writing historical fiction, or memoir. Students will read and discuss a wide variety of published work for children and workshop the writing of their peers. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: ENGL 3255
1 Course Unit

AFRC 3257 Advanced Writing for Young Adults
This workshop is suitable for students with some prior experience in writing for young adults and want to spend the semester making significant progress toward a major work for young adults. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: ENGL 3257
1 Course Unit

AFRC 3305 Creative Nonfiction Workshop: Youth Voices Amplified
Youth Voices Amplified is an improvisational workshop in creative nonfiction that connects you to current reporting opportunities; gives you structured choice in assignments; and teaches you how to write about hard subjects for and about young people. Big questions about the social, emotional, relational and physical structures that affect young people require clear, engaging prose that avoids self-importance. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: ENGL 3305
1 Course Unit

AFRC 3306 Writing and Politics
This is a course for students who are looking for ways to use their writing to participate in electoral politics. Student writers will use many forms, including essay, social media posts, videos, scripts, and podcasts, to explore our desire to live responsibly in the world and to have a say in the systems that govern and structure us. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Also Offered As: ENGL 3306
1 Course Unit

AFRC 3336 Africa and the Indian Ocean World
The Indian Ocean region represents an area with interwoven centuries of interactions, politically, historically, geographically and culturally. This area has witnessed continuous migrations of peoples, the circulation of goods and ideas, and the interaction with foreign forces. The Indian Ocean world has served as an epicenter of global economy in pre-modern world and as such, it gave rise to trading networks and political empires. As part of the Indian Ocean World, the eastern and southern shores of Africa are both the recipients and the transmitters of cultural and political icon. The existence of many islands that separate Africa from Asia stand as hybrid cultures that are influenced by forces from different continents. Political and cultural relations between African regions and the rest of the Indian Ocean world are evident with the prevalence of African-descent populations in these places, as well as the prevalent of cultural practices of African origin. Signs of interaction between the Indian Ocean world and the African shores are apparent in several archeological sites, as well as in the cultural practices of religion, language, architecture and modes of dress. The European colonial expansion, has allowed the populations in the Indian Ocean world to share strategies during their independence movements to thwart western political hegemony. With the current advanced forms of globalization, this region is moving more towards economic and political cooperation and in addressing the transnational natural and man-made threats.
Spring
1 Course Unit
AFRC 3340 Feminist Ethnography
This course will investigate the relationships among women, gender, sexuality, and anthropological research. We will begin by exploring the trajectory of research interest in women and gender, drawing first from the early work on gender and sex by anthropologists like Margaret Mead and Ruth Benedict; moving through the 1970s and 1980s arguments about gender, culture, and political economy; arriving at more current concerns with gender, race, sexuality, and empire. For the rest of the semester, we will critically read contemporary ethnographies addressing pressing issues such as nationalism, militarism, neoliberalism and fundamentalism. Throughout, we will investigate what it means not only to "write women's worlds", but also to analyze broader socio-cultural, political, and economic processes through a gendered lens. We will, finally, address the various ways feminist anthropology fundamentally challenged the discipline's epistemological certainties, as well as how it continues to transform our understanding of the foundations of the modern world.
Not Offered Every Year
Also Offered As: ANTH 3340, GSWS 3340
1 Course Unit

AFRC 3343 Global Engagement Seminar
This course is a Global Seminar which includes a travel component; topics vary. Topics and locations may include Chile, Ghana, or China. For more information and to apply: https://global.upenn.edu/pennabroad/ pgs.
1 Course Unit

AFRC 3350 Religion and Colonial Rule in Africa
This course is designed to introduce students to the religious experiences of Africans and to the politics of culture. We will examine how traditional African religious ideas and practices interacted with Christianity and Islam. We will look specifically at religious expressions among the Yoruba, Southern African independent churches and millenarist movements, and the variety of Muslim organizations that developed during the colonial era. The purpose of this course is threefold. First, to develop in students an awareness of the wide range of meanings of conversion and people's motives in creating and adhering to religious institutions; Second, to examine the political, cultural, and psychological dimensions in the expansion of religious social movements; And third, to investigate the role of religion as counterculture and instrument of resistance to European hegemony. Topics include: Mau Mau and Maji Maji movements in Kenya and Tanzania, Chimurenga in Mozambique, Watchtower churches in Southern Africa, anti-colonial Jihads in Sudan and Somalia and mystical Muslim orders in Senegal.
Fall or Spring
Also Offered As: HIST 3350
1 Course Unit

AFRC 3351 Africa and the Mid-East
This seminar will explore the historical relationship between these two regions from the early modern age to the present. We will examine the history of trade, particularly the slave trade, and its cultural and political legacy. We will compare the experiences of European imperialism—how the scramble for Africa dovetailed with the last decades of the Ottoman Empire—with an eye to how this shaped nationalist movements in both regions. The course will also explore the decades of independence with a special eye towards pan-Africanism and pan-Arabism. We will also study the ramifications of the Arab-Israeli conflict on the relationship between African and Middle-Eastern countries, from Uganda to Ethiopia, from OPEC to Darfur. The course will pay close attention to migrations through the regions, whether forced or economic or religious. Whenever possible we will explore, through film and literature, how people in Africa and the Middle East see their connections, and their differences.
Fall or Spring
Also Offered As: HIST 3351, NELC 3550
1 Course Unit

AFRC 3386 Digital Blackness
#BlackLivesMatter, #SayHerName, #ICantBreathe, #IfIDieInPoliceCustody, #BlackOutDay are just some of the many hashtags that Black people have created and use on social media to protest police brutality and proclaim their full humanity within the context of Blackness. Over the past three decades, Black people have created and utilized social media, along with other digital platforms, media, and tools to reconfigure the terms and terrain of debates and discussions on what it means to be Black in the United States and the larger world. This course is an interdisciplinary investigation into the relationship between historical and contemporary cultural, social and political expressions of Blackness and what might be called the "Digital," the use of computers and computerized technologies, including the internet, to construct the world around us. More specifically, lectures, readings, and class discussions will help students deconstruct the cultural, political economy, and social construction of Blackness in the Digital in an effort to uncover the ways that race more broadly and Blackness more narrowly influences and shapes Black people's present social status and struggles for social justice. Accordingly, the course fosters a critical understanding of Blackness within the "Digital" and provides students with theoretical and practical apparatuses to analyze and develop new constructions of race and freedom using technology.
Fall, Spring, and Summer Terms
1 Course Unit

AFRC 3408 Global Blackface, Minstrelsy and Passing
Global Blackface, Minstrelsy and Passing is an undergraduate seminar that will explore the performance of blackface across the world. We will look at the practice of "blacking up" in theater, opera, vaudeville and film through the Middle East, Africa, Europe, India, the Caribbean and put these historical practices in dialogue with British and American blackface performance. We will also look at how performers enlisted themselves or were hired for minstrelsy shows and how these translated around the world. The seminar will also explore the concept of passing, and whether it is just a matter of skin color, but also of language. This is a cultural history course that will also investigate constructions of blackness and whiteness around the world.
Also Offered As: HIST 3709
1 Course Unit
AFRC 3450 Studies in African-American Music
This course explores aspects of the origins, style development, aesthetic philosophies, historiography, and contemporary conventions of African-American musical traditions. Topics covered include: the music of West and Central Africa, the music of colonial America, 19th century church and dance music, minstrelsy, music of the Harlem Renaissance, jazz, blues, gospel, hip-hop, and film music. Special attention is given to the ways that black music produces "meaning" and to how the social energy circulating within black music articulates myriad issues about American identity at specific historical moments. The course will also engage other expressive art forms from visual and literary sources in order to better position music making into the larger framework of African American aesthetics. (Formerly Music 146).
Not Offered Every Year
Also Offered As: MUSC 3450
1 Course Unit

AFRC 3452 "Black Spiritual Journeys: Modern African American Religious Memoir"
This seminar presents African Americans who have created religious and spiritual lives amid the variety of possibilities for religious belonging in the second half of the twentieth century and the early twenty-first century. By engaging an emerging canon of memoirs, we will take seriously the writings of Black spiritual gurus, theologians, hip hop philosophers, religious laity, activists, LGBTQ clergy, religious minorities, and scholars of religion as foundational for considering contemporary religious authority through popular and/or institutional forms of African American religious leadership. Themes of spiritual formation and religious belonging as a process—healing, self-making, writing, growing up, renouncing, dreaming, and liberating—characterize the religious journeys of the African American writers, thinkers, and leaders whose works we will examine. Each weekly session will also incorporate relevant audiovisual religious media, including online exhibits, documentary films, recorded sermons, tv series, performance art, and music.
Fall
Also Offered As: RELS 3170
1 Course Unit

AFRC 3455 Undergraduate Research Seminar: The 1963 March on Washington
In this course, students will examine the origins of the March on Washington movement in the 1940s, biographies of the March organizers, and the ways the March has been memorialized over the past six decades. By exploring the dynamics that contributed to the demonstrations, students will delve into primary source documents, read secondary literature, and write their own article-length research papers based on the course material. The course will also examine the ways documentary film footage, photography, music, and media coverage of the March has contributed to understandings and misreadings of this moment in Civil Rights history.
Fall
Also Offered As: HIST 0816
1 Course Unit

AFRC 3460 The Blackness of Rock: Revisiting Histories of Race, Gender, and Genre
This course explores the history of rock music by focusing specifically on the innovations and contributions of black musicians. The course will address itself to the legacies of race records, the uninterrupted appropriation of black sounds by white artists (think Elvis), and the further complications introduced by the British Invasion, all while focusing on individual artists such as Fats Domino, Big Mama Thornton, Bo Diddley, Chuck Berry, Sister Rosetta Tharpe, and Jimi Hendrix. The course will highlight and offer hands-on explorations of the innovations brought to rock music by these black artists. And, because the guitar is such an iconic instrument in rock, the course also will introduce students, through a series of labs, to the gear that makes these sounds possible. Understanding how amplifiers, effects pedals, and guitars interact and produce radically divergent sounds depending on how they are set up will offer insights into the artistry of these early rock musicians. Understanding the circuits, and how using (and abusing) them in particular ways is part of the materiality of rock’s sound, will help shed light on the extent to which creative engagement with technology determined particular sonic pathways within the genre (distortion, overdrive, fuzz, feedback, etc.). And, these innovations literally shaped the future of rock, providing a foundation of sound and style and a particular relationship to gear that extends into the present. The final unit of the course will explore the racial politics, gender dynamics, and industry structures that have buried the black histories of rock and sidelined women’s crucial contributions to the genre, contributing to rock’s framing and marketing as a (mostly) male, white genre. The course will also ask how black musicians who perform rock today, such as Tosin Abasi, Lenny Kravitz, Brittany Howard of the Alabama Shakes, Bad Brains, Big Joanie, and Living Colour, among many others, negotiate these politics, these silenced histories, these industry barriers, and these audience expectations?
Fall
Also Offered As: MUSC 3460
1 Course Unit

AFRC 3500 American Slavery and the Law
In this course, we will work both chronologically and thematically to examine laws, constitutional provisions, and local and federal court decisions that established, regulated, and perpetuated slavery in the American colonies and states. We will concern ourselves both with change over time in the construction and application of the law, and the persistence of the desire to control and sublimate enslaved people. Our work will include engagement with secondary sources as well as immersion in the actual legal documents. Students will spend some time working with Mississippi murder cases from the 19th century. They will decipher and transcribe handwritten trial transcripts, and will historicize and analyze the cases with attention to procedural due process as well as what the testimony can tell us about the social history of the counties in which the murders occurred. The course will end with an examination of Black Codes that southern states enacted when slavery ended.
Spring
Also Offered As: HIST 0814
1 Course Unit
AFRC 3510 Love, Anger, Madness: History and Silences in Modern Haiti
On the stage of modern world history, Haiti plays the unique role as both the exceptionally victorious and tragic character. This course interrogates archival documents, oral histories, historical texts, and prose created within the nation and her diaspora in order to establish a nuanced image of the projection of Haiti's modern history. Using two classic Haitian texts, Marie Vieux-Chauvet's Love, Anger, Madness (1968) and Michel-Rolph Trouillot's Silencing the Past: Power and the Production of History (1995), this course examines how, why, and to what end Haiti's history and popular narratives about the country have served to construct and dismantle global movements, popular culture, and meanings of race, gender, and citizenship in the Americas. In our historical examination, we will question some of the iconic representations of Haiti through literature that deepen the affective historical profile of Haiti with interrogations of culture, sexuality, political, and media performance. Students will become familiar with the post-colonial history of Haiti and the region, meanings of race, and the production of history. The course is a research and historical methods seminar. Students will conduct archival research and write narratives from primary source material. This course qualifies as a "methods" course for Africana Studies undergraduate majors and minors.
Spring
Also Offered As: GSWS 3510, HIST 0840, LALS 3510
1 Course Unit

AFRC 3511 Brazilian Baroque Seminar
This undergraduate lecture explores the art, architecture, and visual culture of the Portuguese Empire with emphasis on Brazil and its relations with Africa and Asia.
Not Offered Every Year
Also Offered As: ARTH 3511, LALS 3511
1 Course Unit

AFRC 3515 Race, Rights and Rebellion
This course provides an in-depth examination of theories of race and different kinds of social struggles for freedom around the globe. We will critically engage the latest scholarship from a variety of scholars and social movement actors. From anti-slavery revolts to struggles for independence to anti-apartheid movements, this course will emphasize how racialized peoples have employed notions of rights and societal resources grounded in cultural differences. Though much of the readings will highlight the experiences of African descendant peoples in Africa and its diaspora, the course will also explore the intersections of Black struggles with social movements organized by indigenous peoples in the Americas. Students will also have the unique experience of accessing readings primarily written by primarily Black scholars, some of whom have participated as key actors in the social movements they describe. Key concepts include power, resistance, subaltern, hegemony, identity politics, consciousness, and intellectual activism. The course will be organized around the following objectives: 1. To explore a range of contemporary theoretical perspectives and methodological approaches to the study of social movements; 2. To focus on the relationship between race, gender, class, culture, and politics in the African diaspora; 3. To study the historical development of organized struggles, social protests, uprisings, revolutions, insurgencies, and rebellions; 4. To examine the political agency of African descendant peoples in the global struggle for liberation and citizenship.
Spring
Also Offered As: ANTH 2515, LALS 3515, SOCI 2907
1 Course Unit

AFRC 3540 Art, Medicine, & Magic: Bodily Remedies
In this activity-centric course, you will explore art, medicine, and magic as entangled approaches for healing human bodies across time, space, and societies. At first glance, artists, doctors, and religious leaders may seem to address questions about bodies and healing in very different ways. Yet, in practice, art, magic, and medicine have been in deep conversation with one another for millennia. 4,000 years ago in Mesopotamia, medical doctors were professionals who had offices, hospital beds, and pharmacological and surgical equipment expertise, but they often worked hand in hand with divers and exorcists. In rural Haiti today, Haitian Vodou priestesses collect herbs, craft sculptures, and sing as they clean wounds and disperse antibiotics within the course of a single "remed" (remedy). In the United States, megachurches send thousands of doctors on evangelical medical missions each year, while in Colombia, contemporary artists are called on to assuage profound social trauma related to decades of military conflict. Examples like these show that art, magic, and medical practice have long been entangled technologies; sometimes working together, sometimes at odds with one another, these practices have always been in dialog about what "healing" is and how it can be achieved. Attending to these entanglements this course asks "what does healing look like and feel like - in what ways do humans transform affliction?" Together, we will investigate how everyday bodily experiences of "wellbeing" and "illness" are configured through art, magic, and medical practices across human communities, shaping how people understand and manage disorders from COVID-19 to schizophrenia, from ancestral trauma to breast cancer. Throughout the course, you will use ethnographic case studies & in-class activities to work through three aspects of the core class question: 1) how do art, magic, and medicine work in communities? 2) how are they experienced in communities (who has access to what kind of healing and who doesn't have access; who can be a healer and who can't be; what should and does healing/sickness feel like?) 3) how do they approach inequalities? (e.g. how and why are illnesses unequally distributed; what illnesses matter more (and less) than others; which communities should be saved (and which sacrificed). Not Offered Every Year
Also Offered As: ANTH 3540
1 Course Unit

AFRC 3550 Accordions of the New World
This course focuses on the musical genres and styles (both traditional and popular) that have grown up around the accordion in the New World. We will begin our explorations in Nova Scotia and move toward the Midwest, travelling through the polka belt. From there, our investigation turns toward Louisiana and Texas — toward zydeco, Cajun, and Tex-Mex music. We will then work our way through Central and South America, considering norteno, cumbia, vallenato, tango, chamame, and forro. Our journey will conclude in the Caribbean, where we will spend some time thinking about merengue and rake-n-scape music. Throughout the semester, the musical case studies will be matched by readings and film that afford ample opportunity to think about the ways that music is bound up in ethnicity, identity, and class. We will also have occasion to think about the accordion as a multiply meaningful instrument that continues to be incorporated into debates over cultural politics and mobilized as part of strategies of representation through the New World. (Formerly Music 157).
Not Offered Every Year
Also Offered As: LALS 3550, MUSC 3550
1 Course Unit
AFRC 3560 Music and Performance of Africa
This class provides an overview of the most popular musical styles and
discussion of the cultural and political contexts in which they emerged
in contemporary Africa. Learning to perform a limited range of African
music/dance will be part of this course. No prior performance experience
required. (Formerly Music 253).
Not Offered Every Year
Also Offered As: ANTH 2560, MUSC 3560
1 Course Unit

AFRC 3561 Fighting the Dispossession of black bodies - The Brazilian
Black activism from slavery to the present
The objective of this seminar is to provide to the students an overview
of the history of black activism in Brazil. We will examine several forms
of racial conflict, focusing on the afro-Brazilian ways of organization. We
will explore the main periods and organizations of black activism, such
as the abolitionism, the Brazilian Black Front, the Experimental Black
Theater, the Black Unified Movement and the Quilombolas' movement.
Through this exploration, the classes will investigate the relationship
between black organizations, black thinkers and the circulation of black
ideas across Americas, Africa, and Europe. We will also examine how
the Brazilian black movement has elaborated values of democracy and
equality, handling notions of class, race and nationality.
Not Offered Every Year
Also Offered As: LALS 3560
1 Course Unit

AFRC 3570 Caribbean Music and Diaspora
This course considers Caribbean musics within a broad and historical
framework. Caribbean musical practices are explored by illustrating the
many ways that aesthetics, ritual, communication, religion, and social
structure are embodied in and contested through performance. These
initial inquiries open onto an investigation of a range of theoretical
concepts that become particularly pertinent in Caribbean contexts—
concepts such as post-colonialism, migration, ethnicity, hybridity,
syncretism, and globalization. Each of these concepts, moreover, will be
explored with a view toward understanding its connections to the central
analytical paradigm of the course—diaspora. Throughout the course, we
will listen to many different styles and repertories of music ranging from
calypso to junkanoo, from rumba to merengue, and from dance hall to
zouk. We will then work to understand them not only in relation to the
readings that frame our discussions but also in relation to our own North-
American contexts of music consumption and production. (Formerly
Music 258).
Not Offered Every Year
Also Offered As: ANTH 2570, LALS 3570, MUSC 3570
1 Course Unit

AFRC 35780 Latin American Music
This survey course considers Latin American musics within a broad
cultural and historical framework. Latin American musical practices
are explored by illustrating the many ways that aesthetics, ritual,
communication, religion, and social structure are embodied in and
contested through performance. These initial inquiries open onto an
investigation of a range of theoretical concepts that become particularly
pertinent in Latin American contexts—concepts such as post-colonialism,
migration, ethnicity, and globalization. Throughout the course, we will
listen to many different styles and repertories of music and then work
to understand them not only in relation to the readings that frame our
discussions but also in relation to our own, North American contexts of
music consumption and production. (Formerly Music 158).
Not Offered Every Year
Also Offered As: LALS 3580, MUSC 3580
1 Course Unit

AFRC 3665 Fables from the Flesh: Black feminist movement and the
embodied archive
Drawing inspiration from Harge's multiform fable project FLY | DROWN
and Audre Lorde's conception of biomythography, students will trace
their interiority to realize and imagine how personal histories, ancestral
inheritance, and metaphysics live/move through the body. We will
translate and transform stories of the flesh into a series of compositional
modalities—which may include text, movement, performance, sound,
and installation—to create lexicons that honor subjectivity as form. Informed
by surrender, refusal, imagination, and self-sovereignty; we will situate our
embodied archives as vessels for fable writing, create and correct myths
through movement, and expand our relationship to memory, time, space,
and illegibility. Throughout the course, we will turn to Black feminist
literary and performance works employing fable, myth, and ancestral
legacies including but not limited to: Toni Morrison's Beloved, Aretha
Franklin's gospel music, Jaamil Olawale Kosoko's Chameleon, and a close
reading of Harge's FLY | DROWN. The room will be grounded in practices
of Black fellowship, moving between study group, kickback, ceremony,
cypher, and incubator. We will oscillate between these formats depending
on the needs of the course and the cohort.
Not Offered Every Year
Also Offered As: LALS 3580, MUSC 3580
1 Course Unit

AFRC 3700 Abolitionism: A Global History
This class develops a transnational and global approach to the rise of
abolitionism in the nineteenth century. In a comparative framework, the
class traces the rise of abolitionism in Europe, the Americas, Africa, and
Asia, examining the suppression of the transatlantic slave trade, the rise
of colonialism in Africa, and the growth of forced labor in the wake of
transatlantic slave trade. We will deal with key debates in the literature
of African, Atlantic and Global histories, including the causes and
motivations of abolitionism, the relationship between the suppression
of the slave trade and the growth of forced labor in Africa, the historical
ties between abolitionism and the early stages of colonialism in Africa,
the flow of indentured laborers from Asia to the Americas in the wake of
the slave trade. This class is primarily geared towards the production of
a research paper. *Depending on the research paper topic, History Majors
and Minors can use this course to fulfill the US, Europe, Latin America or
Africa requirement.*
Fall or Spring
Also Offered As: HIST 3700, LALS 3700
1 Course Unit
AFRC 3770 Black Speculative Futures
Why do black cultural producers turn to the speculative? What, in turn, is speculative about blackness? These questions frame this seminar’s exploration of how black artists, theorists, and activists imagine different futures, often in the service of critiquing power asymmetries and creating radical transformation in the present. We will explore how the speculative works differently across black literature, visual culture and performance. Additionally, inspired by the multi-disciplinary work that we encounter in the course, we will experiment with crafting our own embodied speculative art in order to better understand its function as both art practice and politics. The course will be divided between discussions centered on close reading of primary and secondary material and creative writing/movement exploration (no previous movement experience necessary). Occasional guest lectures with visiting artists will provide additional fodder for our critical and creative work.
Not Offered Every Year
Also Offered As: ANTH 3770, FNAR 3770
1 Course Unit

AFRC 3804 Sighting Black Girlhood
The COVID-19 pandemic exposed the deep inequities of our social systems, and protests against police killings drew broader attention to anti-Black state violence worldwide, yet the gendered dimensions of these problems are not always fully understood. While many in the public have come to recognize the suffering of Black boys and men as acute and eventual, Black girls’ suffering has remained largely invisible, a slow confluence of violence that too often go unaddressed. As one way to bring the issues facing Black girls globally to public attention, and to celebrate and support Black girls, this course will provide a background for understanding the challenges faced by Black girls in Philadelphia, Jamaica, and South Africa. We will frame these challenges historically and geopolitically, drawing attention to the issues that contribute to the invisibility of the ordinary Black girl in diverse sites, as well as the resources that will begin to address them. This course also aims to equip students to understand the relationships between research and creative work, and to see artistic production as a catalyst for community-building and critical thinking and action. Toward this end, we will work with a number of partners in Philadelphia, including the Colored Girls Museum and Black Lives Matter-Philly. Because this course is part of a broader project, we will travel as a class to Jamaica during the summer of 2022 and students will participate in a range of projects there, working with partners in the arts, community engagement, and legal advocacy. The question motivating our project is: What are the personal, psychic, spiritual, and economic costs and benefits associated with Black girls fully exercising their humanity?
Not Offered Every Year
Also Offered As: ANTH 3804
Mutually Exclusive: ANTH 6804
1 Course Unit

AFRC 3812 Afro-Latin America: Culture, History, and Society
A transnational and interdisciplinary examination of the black experience in Latin America and the Spanish, French, and English-speaking Caribbean, since slavery to the present. Combining cultural analysis with the study of fundamental theoretical works on race and racialization, students will gain a thorough comprehension of historical, political and sociocultural processes shaping the existence of Afro-descendants in the Americas. The scrutiny of systemic racial exclusion and marginalization will allow the understanding of how these dividing practices condition cultural production.
Fall or Spring
Also Offered As: LALS 3812, SPAN 3812
1 Course Unit

AFRC 3814 The Caribbean and Its Diaspora: Culture, History, and Society
A thorough panorama of contemporary Caribbean societies and their diasporic communities, this course enhances the students’ knowledge of the region’s main historical, political, and sociocultural trends. We will examine Caribbean multiple narratives of survival and resilience within a global context, through the study of 20th and 21st-centuries literary, cinematographic, musical, visual and performative works. The cultural analysis will be supported by a theoretical framework encompassing critical Caribbean theories on identity and identification.
Fall or Spring
Also Offered As: LALS 3814, SPAN 3814
1 Course Unit

AFRC 3840 Cuban Visual Culture
This course will focus on the urban history and cultural politics of contemporary Cuba with an emphasis on contemporary art and contemporary developments in the city of Havana. Students will learn about the Spanish influence on early colonial art, the development of formal academic art training and the changes to art instruction and the form and content of art created since the Revolution.
Not Offered Every Year
Also Offered As: ARTH 3840, LALS 3840
1 Course Unit

AFRC 3930 Cinema and Civil Rights
This undergraduate seminar will examine key moments in the history of civil rights through a cinematic lens. Over the course of the semester, we will explore how filmmakers have depicted the lives, aspirations, and struggles of those who have struggled for equal rights; how different dilemmas have intersected with each other; what aesthetic strategies have been adopted to represent freedom and the denial of it; and how effective cinematic efforts to contribute to increased freedom have been as well as what criteria we use to evaluate success or failure in the first place. Each week, we will watch a film and read a series of texts that will be drawn from a variety of arenas, including histories of civil rights; civil rights pamphlets and speeches; filmmaker interviews; film and media theory; memoirs; and theories of race, gender and sexuality.
Course requirements: mutual respect; completion of all readings and screenings; participation in class discussion; weekly online responses; a final project that can be a research paper, film, art project, or community-based initiative.
Not Offered Every Year
Also Offered As: ARTH 3930, CIMS 3930, ENGL 0599, GSWS 3930
1 Course Unit

AFRC 3931 The History of Foreign Aid and Intervention in Africa
This course examines the history, politics, and significance of foreign aid to Africa since the late 19th century. While we do not typically think about the European colonial period in Africa in terms of ‘foreign aid,’ that era introduced ideas and institutions which formed the foundations for modern aid policies and practices. So we start there and move forward into more contemporary times. In addition to examining the objectives behind foreign assistance and the intentions of donors and recipients, we will look at some of the consequences (intended or unintended) of various forms of foreign aid to Africa over the past century. While not designed to be a comprehensive history of development theory, of African economics, or of international aid organizations, the course will touch on all of these topics. Previous course work on Africa is strongly advised.
Fall or Spring
Also Offered As: HIST 3930
1 Course Unit
AFRC 3932 Participatory Community Media, 1970-Present
What would it mean to understand the history of American cinema through the lens of participatory community media, collectively-made films made by and for specific communities to address personal, social and political needs using a range of affordable technologies and platforms, including 16mm film, Portapak, video, cable access television, satellite, digital video, mobile phones, social media, and drones? What methodologies do participatory community media makers employ, and how might those methods challenge and transform the methods used for cinema and media scholarship? How would such an approach to filmmaking challenge our understanding of terms like “authorship,” “amateur,” “exhibition,” “distribution,” “venue,” “completion,” “criticism,” “documentary,” “performance,” “narrative,” “community,” and “success”? How might we understand these U.S.-based works within a more expansive set of transnational conversations about the transformational capacities of collective media practices? This course will address these and other questions through a deep engagement with the films that make up the national traveling exhibition curated by Louis Massiah and Patricia R. Zimmerman, We Tell: Fifty Years of Participatory Community Media, which foregrounds six major themes: Body Publics (public health and sexualities); Collaborative Knowledges (intergenerational dialogue); Environments of Race and Place (immigration, migration, and racial identities unique to specific environments); States of Violence (war and the American criminal justice system); Turf (gentrification, homelessness, housing, and urban space); and Wages of Work (job opportunities, occupations, wages, unemployment, and underemployment). As part of that engagement, we will study the history of a series of Community Media Centers from around the U.S., including Philadelphia’s own Scribe Video Center, founded in 1982 by Louis Massiah, this course’s co-instructor. This is an undergraduate seminar, but it also available to graduate students in the form of group-guided independent studies. The course requirements include: weekly screenings, readings, and seminar discussions with class members and visiting practitioners, and completing both short assignments and a longer research paper.
Also Offered As: ARTH 3931, CIMS 3931, COML 3931, ENGL 2970, GSW 3931
Mutually Exclusive: ARTH 6931
1 Course Unit

AFRC 3999 Independent Study
A study, under faculty supervision, of a problem, area or topic not included in the formal curriculum.
Fall or Spring
1 Course Unit

AFRC 4000 Blacks in American Film and Television
This course is an examination and analysis of the changing images and achievements of African Americans in motion pictures and television. The first half of the course focuses on African-American film images from the early years of D.W. Griffith’s “renegade bucks” in The Birth of a Nation (1915); to the comic servants played by Steppin Fetchit, Hattie McDaniel, and others during the Depression era; to the post-World War II New Negro heroes and heroines of Pinky (1949) and The Defiant Ones (1958); to the rise of the new movement of African American directors such as Spike Lee (Do the Right Thing), Julie Dash (Daughters of the Dust), Charles Burnett, (To Sleep With Anger) and John Singleton (Boyz ‘N the Hood). The second half explores television images from the early sitcoms “Amos ‘n Andy” and “Beulah” to the “Cosby Show,” “Fresh Prince of Bel Air,” and “Martin.” Foremost this course will examine Black stereotypes in American films and television—and the manner in which those stereotypes have reflected national attitudes and outlooks during various historical periods. The in-class screenings and discussions will include such films as Show Boat (1936), the independently produced “race movies” of the 1930s and 1940s, Cabin in the Sky (1943), The Defiant Ones (1958), Imitation of Life (the 1959 remake) & Super Fly (1972).
Fall
Also Offered As: CIMS 4000
1 Course Unit

AFRC 4050 Religion, Social Justice & Urban Development
Urban development has been influenced by religious conceptions of social and economic justice. Progressive traditions within Judaism, Christianity, Islam, Buddhism, Hinduism, Jainism, Baha’i, Humanism and other religions and systems of moral thought have yielded powerful critiques of oppression and hierarchy as well as alternative economic frameworks for ownership, governance, production, labor, and community. Historical and contemporary case studies from the Americas, Europe, Africa, Asia, and the Middle East will be considered, as we examine the ways in which religious responses to poverty, inequality, and ecological destruction have generated new forms of resistance and development.
Spring
Also Offered As: RELS 4050, URBS 4050
1 Course Unit

After an examination of the philosophical, legal, and political perspectives on Human Rights, this course will focus on US policies and practices relevant to Human Rights. Toward that end, emphasis will be placed on both the domestic and the international aspects of Human Rights as reflected in US policies and practices. Domestically, the course will discuss (1) the process of incorporating the International Bill of Human Rights into the American legal system and (2) the US position on and practices regarding the political, civil, economic, social, and cultural rights of minorities and various other groups within the US. Internationally, the course will examine US Human Rights policies toward Africa. Specific cases of Rwanda, Kenya, South Africa, and Egypt, as well as other cases from the continent, will be presented in the assessment of US successes and failures in the pursuit of its Human Rights strategy in Africa. Readings will include research papers, reports, statutes, treaties, and cases.
Fall
Also Offered As: SOCI 2902
1 Course Unit
AFRC 4322 Understanding Africa
SPRING 2017 - UNDERSTANDING AFRICA: This course will explore the economic, social, and political realities facing sub-Saharan Africa today by placing them in historical and global contexts. Key themes will include colonial and precolonial history, nationalist movements and cold war politics, economic development and foreign aid, ethnic and political conflicts, media representation and popular culture. The course will focus on local and global dynamics that have a role in shaping the present day Africa.

Fall or Spring
1 Course Unit

AFRC 4327 Fashioning the Black Body
The fundamental query underlying this course is what is the relationship between dress, adornment, and corporeal figuring and race, specifically blackness? This course will draw upon a number of disciplines and fields including history, performance theory, cultural studies, gender studies, and queer studies to examine how blackness is fashioned, and refashioned within the United States and globally. Throughout the course we will investigate how not only race--but attendant issues of gender, sexuality and citizenship have all been constructed and contested through dress. Finally, we will explore what new and more nuanced insights might fashion, dress, adornment, and corporeal figuring offer us for understanding black subjectivities more broadly.

Not Offered Every Year
1 Course Unit

AFRC 4387 Black Feminist Approaches to History and Memory
Topics vary: Black Feminist Approaches to History & Memory - The term black feminism emerged in public discourse amid the social, political, and cultural turbulence of the 1960s. The roots of black feminism, however, are much older, easily reaching back to the work of black women abolitionists and social critics of the nineteenth century. The concept continued to grow and evolve in the work of twentieth century black women writers, journalists, activists, and educators as they sought to document black women's lives. Collectively, their work established black feminism as a political practice dedicated to the equality of all people.

More recently, black feminism has been deployed as a tool for theoretical and scholarly analysis that is characterized by an understanding that race, class, gender, and sexuality are inextricably interconnected. Using materials such as slave narratives, social criticism, and archival sources, this course will explore the theoretical and practical applications of black feminist thought in nineteenth and twentieth century North American culture and politics. In particular, we will consider the symbols and practices (storytelling, myth-making, art, archival research) that black women use to document lives. We will ask: how do these methods of documentation inform our understanding of the past and the production of historical knowledge? How can we understand black feminism as both theory and practice? And what are the implications of black feminist approaches for current research and scholarship? We will give particular attention to concepts such as gender, race, memory, the archive, and embodied knowledge to complicate our understanding of historical documentation, epistemology, and authenticity. The course material will include scholarship by Harriet Jacobs, Audre Lorde, Saidiya Hartman, Hazel Carby, Hershini Young, Evelyn Brooks Higginbotham, Toni Morrison, and others. (Image: From In Praise of Shadows, Kara Walker (2009). See the Africana Studies Department's website at https://africana.sas.upenn.edu for a description of the current offerings.

Fall or Spring
Also Offered As: GSWS 4387, HIST 0817, LALS 4387
1 Course Unit

AFRC 4400 African Art, 600-1400
This course examines the flourishing civilizations of the African continent between the Fall of the Roman Empire and the dawn of the "Age of Discovery." Although material remains of the complex cultures that created exceptional works of art are rare, current archaeology is bringing much new information to the fore, allowing for the first time a preliminary survey of the burgeoning artistic production of the African continent while Europe was building its cathedrals. Bronze casting, gold work, terracotta and wood sculpture, and monumental architecture - the course takes a multi-media approach to understanding the rich foundations of African cultures and their deep interconnection with the rest of the world before the disruptive interventions of colonialism.

Not Offered Every Year
Also Offered As: ARTH 4400
1 Course Unit

AFRC 4404 Black Geographies and the Meaning of Land Rights
This course will interweave issues of land dispossession and land rights, both in Africa and in the Americas, with endogenous concepts and practices of space and place. Specifically, this course will trace the concept of property, as developed among Europeans and European descendants, and explore how this concept interacted with the formation of the concept of race in order to established forms of social control and domination. The first part of this course will focus on Africa generally using Kenya as a case study. The material will cover the impact of colonialism and its legacy on land rights after independence. This first part will also explore contemporary forms of land dispossession happening through international land investments, often termed land grabs. The second part of the course will turn to the experiences of African descendants in the Americas. Using a few case studies, this section will examine different countries, histories, and rural and urban areas to unravel how different types of control over land interact with social relationships and specifically with the formation of race and racism. In both sections, we will also look at forms of resistance and resilience as local populations demand not only access to and control over land, but also impose their own ideologies of what it means to occupy space. By the end of this course, students should be able to more fully articulate the significance of control over land as it impacts and affects social relationships and specifically how it relates to the formation and continuation of inequalities along racial lines. Students will apply the concepts learned throughout the course to their own independent research done on an area in Philadelphia or Pennsylvania.

Not Offered Every Year
1 Course Unit

AFRC 4406 Existence in Black
Racial, colonial, and other political formations have encumbered Black existence since at least the fifteenth-century. Black experiences of and reflections on these matters have been the subject of existential writings and artistic expressions ranging from the blues to reggae, fiction and non-fiction. Reading some of these texts alongside canonical texts in European existential philosophy, this class will examine how issues of freedom self, alienation, finitude, absurdity, race, and gender shape and are shaped by the global Black experience. Since Black aliveness is literally critical to Black existential philosophy, we shall also engage questions of Black flourishing amidst the potential for pessimism and nihilism.

Spring
Also Offered As: HIST 0873, PHIL 4515
1 Course Unit
AFRC 4431 Mobilizing Decolonial Arts and Practice in the Black Atlantic and Beyond
This course will define CHOICE by looking at the transnational linkages connecting artistic, cultural is related to African, African American, or other curatorial, personal, and political choices. An overarching question of the course will be "how do artists, activist, curators, and communities, question, select, translate, and disseminate the information needed to incite large-scale movements and global change and how can we, as a class, do the same through our own choices?" Students will examine the significance of theories arising from museum studies, curatorial studies, global social justice movements, as well as dance and diaspora studies. As a way of emphasizing the perspectives, political practices, the political engagement of marginalized groups, and the work of activists in the global south, this class will explore rituals, performances, and visual and expressive cultures. Looking closely at altar-making practices, ritual performances, religious coalitions, and resistant narratives, we will learn how artists, activists, and communities seek economic gain, resist oppression, express political opinions, and create tenable lives in difficult situations. The class is divided into sections including: Geographies, Bodies, Spaces, Words, Futures so that students can begin to deconstruct the colonial frameworks that structure their thinking in these areas. The assignments of the class will also afford students opportunities to learn from the work of local curators, activists, artists, exhibitions, and initiatives, including those at the Penn Museum, The Philadelphia Museum of Art, and Philadelphia Assembled.
Spring
1 Course Unit

AFRC 4480 Neighborhood Displacement and Community Power
This course uses the history of black displacement to examine community power and advocacy. It examines the methods of advocacy (e.g. case, class, and legislative) and political action through which community activists can influence social policy development and community and institutional change. The course also analyzes selected strategies and tactics of change and seeks to develop alternative roles in the group advocacy, lobbying, public education and public relations, electoral politics, coalition building, and legal and ethical dilemmas in political action. Case studies of neighborhood displacement serve as central means of examining course topics.
Spring
Also Offered As: URBS 4480
1 Course Unit

AFRC 4500 Oil to Diamonds: The Political Economy of Natural Resources in Africa
This course examines the ways in which the processes of the extraction, refining, sale and use of natural resources – including oil and diamond – in Africa produce complex regional and global dynamics. We explore how values are placed on resources, how such values, the regimes of valuation, commodification and the social formations that are (re)produced by these regimes lead to cooperation and conflict in the contemporary African state, including in the relationships of resource-rich African countries with global powers. Specific cases will be examined against the backdrop of theoretical insights to encourage comparative analyses beyond Africa. Some audio-visual materials will be used to enhance the understanding of the political economy and sociality of natural resources.
Fall
Also Offered As: ANTH 3045, PSCI 4130, SOCI 2904
Mutually Exclusive: AFRC 5700
1 Course Unit

AFRC 4605 Topics in Black Feminism
This course examines the field of Black Feminism—or, the political, social, and economic forces that shape Black diasporic people’s gendered lives. Exploring iterations of Black feminism over time, it necessarily pluralizes feminism, paying attention to its meanings, uses, and applications across the African diaspora. Together, we’ll ride the three waves of Black feminism to explore how Black women and Black femme’s political and cultural work has been consequential to notions of citizenship, belonging, culture and liberation. Drawing from Black Studies, Gender, Women’s and Sexuality Studies, and Performance Studies we will ask: — How do Black women and Black femme’s lives, labor, and cultural productions lay bare the limits of maleness and whiteness as dominant frames? — How have/do their lives suggest other modalities of living, knowledge production, relations of being, and critiques of power/ violence? — How might we learn from the past in order to envision and build nourishing spaces for Black femmes today?
Fall or Spring
1 Course Unit

AFRC 4650 Race and Racism in the Contemporary World
This undergraduate seminar is for advanced undergraduates seeking to make sense of the upsurge in racist activism, combined with authoritarian populism and neo-fascist mobilization in many parts of the world. Contemporary manifestations of the phenomena noted above will be examined in a comparative and historical perspective to identify patterns and anomalies across various multiple nation-states. France, The United States, Britain, and Italy will be the countries examined. Not Offered Every Year
Also Offered As: LALS 4650, PSCI 4190
1 Course Unit

AFRC 4800 Liberation and Ownership
Who is going to own what we all have a part of creating? The history of the Americas, and of all peoples everywhere, is an evolving answer to the question of ownership. Ownership is about: the ties that bind and those that separate; production, participation, and control; the creation of community and the imposition of hierarchies—racial, sexual, and others; dreams of possessing and the burdens of debt and ecological despoliation; dependency and the slave yearning to breathe free. Of all the issues relevant to democracy, oppression, injustice, and inequality, ownership is arguably the most important and least understood. Utilizing a variety of disciplinary perspectives—with a particular emphasis on radical and critical theories of liberation, and by focusing on particular global sites and processes of capitalism, students will assess and refine their views regarding ownership and liberation in light of their own social, political, religious, aesthetic, and ethical commitments.
Fall
Also Offered As: URBS 4800
1 Course Unit
AFRC 4880 Topics: Culture, Sexuality and Global Health

What does it mean to claim that “Homosexuality is un-African”? This course explores the linked histories of race, nation, gender and sexuality in Africa such that an ideological claim invokes, yet effaces. The polemics that produce statements like this play out through the disciplinary tensions that exist between African and sexuality/queer studies. These tensions have as much to do with the role played by the relation between sexuality and race within cultures of European colonization, as they have with the role of gender and sexuality within postcolonial power relations in Africa. Such antagonisms are sustained through the marginalization of gender and sexuality perspectives within postcolonial scholarship on Africa, as well as the bracketing of African perspectives in queer and feminist studies. This course will deconstruct these impasses by exploring scholarship at the margins of each area of study. Students will be encouraged to ask questions about how issues of race, ethnicity, nation, gender and sexuality are produced as suppressed presences in a range of texts, films and other materials. The course will include readings from postcolonial, gender, sexuality and African studies, anthropology, history, literary studies and Marxism, giving students a grounding in historical and contemporary perspectives at the intersection of African, queer and feminist studies.

Fall

Also Offered As: GSWS 4880

1 Course Unit

AFRC 4920 The Inclusive City: Participatory Design at Taller Puertorriqueno

The Inclusive City: Participatory Design at Taller Puertorriqueno seminar will provide students in and beyond the Architecture department with the opportunity to learn from and with Taller Puertorriqueno about community, spacemaking, and memorialization in the built environment. Students will learn about a neighborhood and engage in collaborative participatory design, engaging primary sources in the Taller archives, and working on a collaborative design project. Starting from a general (region-urban) to particular (neighborhood) methodology research on site across several categories, and engaging primary sources in the Taller archives, the students will generate relational territorial cartographies and mappings, allowing them to develop a master architectural plan that includes urban strategies, as well as dynamic processes of community development. As a truly interdisciplinary course, students will utilize design concepts, historical methods, and ethnoracial lenses of analysis to collaborate with Taller Puertorriqueno to develop targeted architectural solutions that align with the organization’s programmatic goals.

Not Offered Every Year

Also Offered As: HIST 0874, LALS 4910, URBS 4910

1 Course Unit

AFRC 4990 Honors Course

Consult the Africana Studies Department for instructions. Suite 331A, 3401 Walnut or visit the department’s website at https://africana.sas.upenn.edu to submit an application.

Not Offered Every Year

1 Course Unit

AFRC 5020 Brujas and Blackness: Transnational Feminist Perspectives of AfroLatinidad

Blackness and brujería are taboo topics within Latinx communities; both typically connote negative imagery and are actively avoided. Recently, the bruja identity has been reclaimed by many AfroLatinx women who see it as an outward expression of their AfroLatinidad and source of personal empowerment. Lara (2005) describes this as a bruja positionality – “the re-membering, revising, and constructing of knowledge as well as participation in other forms of social change...built on healing the internalized desconocimientos that demonize la Bruja and the transgressive spirituality and sexuality that she represents” (p. 13). Latinx spiritual practices such as espiritismo, Santeria, Palo Monte, among others, will become avenues through which will explore key themes in Black/Latina/Chicana feminisms, including the politics of representation, stigmatization, multiple forms of state and interpersonal violence, intersecting forms of oppression, economic justice, reproductive justice, queerness/sexiuaty/lesbianism, and strategies of empowerment and resistance. Through a variety of course materials – academic articles, personal reflections, performance, and art – we will critically examine the construction of Afro-indigenous feminist identities within the contexts of Latin America and the diaspora.

Fall, Spring, and Summer Terms

Also Offered As: GSWS 5020, LALS 5020

1 Course Unit

AFRC 5030 Race in Latin America

In this course, we will examine historical, scholarly and community narratives about race and racialized communities in Latin America. Course texts and discussions will center Black and Indigenous histories and contemporary identities across the region. Our journey this semester will span from the pre-Columbian era to the present day, and will cover multiple Latin American geographies: the Caribbean, Central America, and South America. While we will focus most closely on the Spanish-speaking populations, we will also incorporate texts and discussion about populations speaking other languages in the region (Portuguese, French, Quechua, Kreyól, and English, for example). Finally, the diasporas of Latin America, particularly in the United States, will also figure in the discussions as sites of Latin American convergence, community and interaction in which race functions in various ways. As such, we will engage with a wide range of texts including books, articles (scholarly and popular), video, primary sources, and interviews.

Also Offered As: LALS 5030

1 Course Unit

AFRC 5060 Existence in Black

Racial, colonial, and other political formations have encumbered Black existence since at least the fifteenth-century. Black experiences of and reflections on these matters have been the subject of existential writings and artistic expressions ranging from the blues to reggae, fiction and non-fiction. Reading some of these texts alongside canonical texts in European existential philosophy, this class will examine how issues of freedom, self, alienation, finitude, absurdity, race, and gender shape and are shaped by the global Black experience. Since Black aliveness is literally critical to Black existential philosophy, we shall also engage questions of Black flourishing amidst the potential for pessimism and nihilism.

Spring

Also Offered As: PHIL 6515

1 Course Unit
AFRC 5091 African Art Seminar
This seminar covers aspects of the arts and visual/material cultures in Africa, including the global African diaspora, throughout the continent’s history. Topics will vary from semester to semester.
Also Offered As: ARTH 5090
1 Course Unit

AFRC 5100 African American History
Selected topics in African American History as determined by the instructor.
Not Offered Every Year
Also Offered As: HIST 5100
1 Course Unit

AFRC 5140 Africa and the Indian Ocean
The Indian Ocean region represents an area with interwoven centuries of interactions, politically, historically, geographically and culturally. This area has witnessed continuous migrations of peoples, the circulation of goods and ideas, and the interaction with foreign forces. The Indian Ocean world has served as an epicenter of global economy in pre-modern world and as such, it gave rise to trading networks and political empires. As part of the Indian Ocean World, the eastern and southern shores of Africa are both the recipients and the transmitters of cultural and political icons. The existence of many islands that separate Africa from Asia stand as hybrid cultures that are influenced by forces from different continents. Political and cultural relations between African regions and the rest of the Indian Ocean world are evident with the presence of African-descent populations in these places, as well as the prevalent of cultural practices of African origin. Signs of interaction between the Indian Ocean world and the African shores are apparent in several archeological sites, as well as in the cultural practices of religion, language, architecture and modes of dress. The European colonial expansion, has allowed the populations in the Indian Ocean world to share strategies during their independence movements to thwart western political hegemony. With the current advanced forms of globalization, this region is moving more towards economic and political cooperation and in addressing the transnational natural and man-made threats.
Fall
1 Course Unit

AFRC 5170 Topics in American Religion
From Marvin Gaye, to Tammy Faye Baker, to Sarah Palin and James Baldwin, Pentecostalism has influenced many, including politicians, preachers, writers, and the media. One of the fastest growing religious movements in the world, Pentecostalism continues to have a profound effect on the religious landscape. Pentecostalism's unique blend of charismatic worship, religious practices, and flamboyant, media-savy leadership, has drawn millions into this understudies and often controversial religious movement. This course will chronicle the inception and growth of Pentecostalism in the United States, giving particular attention to beliefs, practices, gender, ethnicity, and Global Pentecostalism.
Not Offered Every Year
Also Offered As: RELS 5170
1 Course Unit

AFRC 5220 Psychology of the African-American
Using an Afro-centric philosophical understanding of the world, this course will focus on psychological issues related to African Americans, including the history of African American psychology, its application across the life span, and contemporary community issues.
Spring
Also Offered As: EDUC 5522
1 Course Unit

AFRC 5229 Dalit and Black Literatures: Caste, Race, and Representation
The aim of this course is to study the historical conversations and comparisons between caste and racial oppression and the forging of categories of caste and/as race in the Dalit and African American literatures. Beginning with a brief survey of the historical conversations between the Black Panthers and Dalit Panthers, the course introduces some selected scholarly and literary debates on caste and/as racial discrimination, history of Afro-Dalit solidarity, literary representation of identities of caste and race and themes of freedom and equality. Selections of seminal texts and debates from the Dalit and African literary and cultural movements are included for discussion and analysis.
Not Offered Every Year
Also Offered As: SAST 5229
Mutually Exclusive: AFRC 2229, SAST 2229
1 Course Unit

AFRC 5240 Inequality & Race Policy
There is little question that inequality along the lines of race and ethnicity remain a constant problem in American society. And over time, the federal government has implemented several policy initiatives to address these inequities. However, less well understood is the success of these federal policies or the process in which they emerge from government as a viable solution. This course will provide an overview of the link between federal government action and changes in minority inequality. We will analyze several issue spaces that cover health, crime and incarceration, social policy and equal rights, education, welfare, and economics. We will take a multi-method approach to exploring the success of federal policies by conducting historical assessments and statistical analysis. Advanced undergraduates are welcome to take the course with permission.
Not Offered Every Year
Also Offered As: PSCI 5290
1 Course Unit

AFRC 5270 Market Women, Madames, Mistresses and Mother Superior
Market Women, Madames, Mistresses & Mother Superior studies gender, labor, sexuality, and race in the Caribbean. In our historical examination of primary source documents alongside literature, and popular media, we will question some of the iconic representations of Caribbean and Latin American women in order to understand the meaning, purpose and usages of these women s bodies as objects of praise, possession, obsession and/or ridicule by communities, governments and religions within and outside of the region. Beginning in the late-18th century and ending with contemporary migration narratives, this course considers the relationship between slave society and colonial pasts on gender performance in the modern Caribbean, Latin America, and their diasporas.
Fall or Spring
Also Offered As: GSWS 5270, LALS 5270
1 Course Unit
AFRC 5300 Black Performance Theory
In his 1995 documentary Black Is, Black Ain't Marlon Riggs traces a black cultural tradition while simultaneously destabilizing the very notion of blackness itself. He testifies that: Black is black, and black is blue. Black is bright. Black can do you in. In Riggs’s configuration, black is a color, black is a feeling, black is a sound, black is materiality, and black is a life sentence. In an effort to raise critical questions around blackness, performance, race, and feeling, this course follows in the tradition of Riggs’s work. In other words, this graduate level course examines the notion of blackness through theorizations of performance. It pursues the following questions: What is blackness? How is blackness embodied, felt, heard, represented, and seen through performance? How is black performance political? Discussions and written work will interrogate the slipperiness of, desire for, and policing of blackness in order to trouble conceptions of race as a biological essence. Organized by keywords in the field of Black Performance Theory - and exploring varying performance forms (the play, the dance, the film, the photograph, the performance of everyday life, the television program, the exhibit, and even the tweet) - This course foregrounds the micro-politics through which black racialized subjects are shaped in the realm of culture. Performances will be consulted each meeting which we will use to interpret and complicate the day’s readings. In examining blackness through a number of performance mediums, we will consider the politics of black creative labor and the processes of racialization produced through black bodies.  

Fall 1 Course Unit

AFRC 5310 Mobilizing Decolonial Arts and Practice in the Black Atlantic and Beyond
This course will define CHOICE by looking at the transnational linkages connecting artistic narratives related to African, African American, or other curatorial, personal, and political choices. An overarching question of the course will be “how do artists, activist, curators, and communities, question, select, translate, and disseminate the information needed to incite large-scale movements and global change and how can we, as a class, do the same through our own choices?” Students will examine the significance of theories arising from museum studies, curatorial studies, global social justice movements, as well as dance and diaspora studies. As a way of emphasizing the perspectives, artistic practices, the political engagement of marginalized groups, and the work of activists in the global south, this class will explore rituals, performances, and visual and expressive cultures. Looking closely at altar-making practices, ritual performances, religious coalitions, and resistant narratives, we will learn how artists, activists, and communities seek economic gain, resist oppression, express political opinions, and create tenable lives in difficult situations. The class is divided into sections including: Geographies, Bodies, Spaces, Words, Futures so that students can begin to deconstruct the colonial frameworks that structure their thinking in these areas. The assignments of the class will also afford students opportunities to learn from the work of local curators, activists, artists, exhibitions, and initiatives, including those at the Penn Museum, The Philadelphia Museum of Art, and Philadelphia Assembled.  

Spring 1 Course Unit

AFRC 5330 Sociology of Race and Ethnicity
Race and ethnicity are, above all, both converge as system of ideas by which men and women imagine the human body and their relationships within society. In this course we will question the concept of race and ethnicity and their place in modern society (1500 - 2020). While the course reviews the pre-1500 literature our focus will be on the last 500 years. This course reviews the research that has contributed to the ideas about ethnicity and race in human society. The review covers the discourse on race in political propaganda, religious doctrine, philosophy, history, biology and other human sciences.  

Also Offered As: DEMG 5330, SOCI 5330 1 Course Unit

AFRC 5420 Archiving Jazz: Visualia And Materiality In The Phila Jazz Community 1945-2019
This seminar will be organized around three distinct pathways. First, it will serve as an introduction to Jazz Studies and thus be attentive to the ways that jazz music has sparked an interdisciplinary conversation that is wide-ranging and ongoing. Second, we will be partnering with the African American Museum of Philadelphia to consider jazz within the realm of visual art. In light of efforts to map the “black interior,” how have visual artists (e.g. painters, sculptors, filmmakers, and photographers) sought to represent jazz? Third, we will endeavor to develop partnerships with the Philadelphia (and beyond) jazz community, especially as it pertains to creating and sustaining an archive that serves as way to understand jazz as an instrument of placemaking and also as a vehicle for jazz musicians to take ownership of their narratives. The seminar will meet at the African American Museum of Philadelphia and be taught with members of the Museum staff. The course will culminate with a virtual exhibit of visual works and archival materials centering on Philadelphia’s jazz community and (if funding is available) a free concert to be held at AAMP. Undergraduates are welcome to register for the course with permission of the instructor.  

Not Offered Every Year  
Also Offered As: ARTH 5190, URBS 5420 1 Course Unit

AFRC 5470 Topics in the Study of Religion
This course deals with various religious topics, such as Mass Religious Conversion.  

Not Offered Every Year  
Also Offered As: RELS 5470 1 Course Unit

AFRC 5490 Black France: History/Representation
Please check the department’s website for the course description: https://www.sas.upenn.edu/french/pc  

Fall or Spring  
Also Offered As: FREN 5490 1 Course Unit
AFRC 5500 Critical Ethnography
This graduate course introduces students to theories, practices, and critiques of critical ethnography. Ethnography – an approach to the study of culture which anthropologist James Clifford described as a process that “translates experiences into text” – will have our full attention. This process of translation, although seemingly straightforward, requires layers of interpretation, selection, and the imposition of a viewpoint or politics. While ethnography is often narrowly conceived of as a methodology, this course considers ethnography as a mode of inquiry, as a philosophy, as an ongoing question and performance. We wrestle with notions of "the self" and "the other" at the intersection of imbicated cultural and performance worlds. Together we'll ask: How is ethnography both critical and performative? What is the relationship between theory and method? How can we evaluate ethnographic work? And finally, what kinds of ethnographers do we want to be? This course considers a range of ethnographic examples in order to analyze both the craft and the stakes of "translating experiences into text.”
Not Offered Every Year
Also Offered As: ANTH 5500
1 Course Unit

AFRC 5570 Oil to Diamonds: The Political Economy of Natural Resources in Africa
This course examines the ways in which the processes of the extraction, refining, sale and use of natural resources – including oil and diamond – in Africa produce complex regional and global dynamics. We explore how values are placed on resources, how such values, the regimes of valuation, commodification and the social formations that are (re)produced by these regimes lead to cooperation and conflict in the contemporary African state, including in the relationships of resource-rich African countries with global powers. Specific cases will be examined against the backdrop of theoretical insights to encourage comparative analyses beyond Africa. Some audio-visual materials will be used to enhance the understanding of the political economy and sociality of natural resources.
Fall
Also Offered As: ANTH 5700, SOCI 5700
Mutually Exclusive: AFRC 4500
1 Course Unit

AFRC 5573 Psychoeducational Interactions with Black Males
The founder(s) of this course wondered, in an overtly and covertly racist society: "What if we engaged practitioners, educators and researchers in training (social work, policy, criminal justice, counseling, education, health care, etc.) to develop a more empathic imagination and reflection of the Black male before they encounter them in practice?" Core tenets underlying this class are that racial oppression exists, matters, is ubiquitous and pernicious and that those most affected are ignorant of this reality. Students will learn how to help the Black boys and men they engage to identify and challenge the effects of racial oppression on their academic, occupational, relational and cultural well-being, and to promote post-traumatic growth.
Not Offered Every Year
Also Offered As: EDUC 5573
1 Course Unit

AFRC 5600 Creating Black Sacred Cultures: Readings in African American Religious History
This graduate seminar entertains the history of African American cultural production primarily in the twentieth century through foundational and emerging works in the field. This seminar focuses on African American religious history, with a focus on the material, visual, auditory, and literary religious constructions of everyday worlds, lives, and professions. Our readings attend to intersectional dimensions of African American religious life, highlighting the connections of race, gender identity, sexual orientation, class, alternative religious identities, and region. A focus on Black cultural production and its producers enriches African American religious history. Seminar participants will engage the theoretical concerns and methodological approaches that illuminate the ways that Black women and men capture and (re)shape the meaning of their worlds in a variety of domestic, professional, social, and political settings. The seminar’s primary aims are to help participants define interests within the field to pursue further study, to consider potential areas of research, and to aid preparation for doctoral examinations.
Spring
Also Offered As: RELS 5600
1 Course Unit

AFRC 5701 Topics in Afro-Diasporic Literature and Culture
This course treats some important aspect of African American and Afro-Diasporic literature and culture. Some recent versions of the course have focused on the emergence of African-American women writers, on the relation between African-American literature and cultural studies, and on the Harlem Renaissance. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
Also Offered As: COML 5700, ENGL 5700
1 Course Unit

AFRC 5710 Visualizing W.E.B. DU BoIS
This seminar will focus on a project that views history as a result of our contemporary society in which biographical truths are constantly shifting. So the historical biographers write about the way they remembered and visualize the past, and not about the way that it happened. We will take Du Bois’s biography in his own words and interrogate his narrative with the visual narratives of his life and influence produced by others. “Visualizing W.E.B Du Bois” focuses on photographic, film, and video representations intended to present some aspect of Du Bois’s reality, primarily for the purposes of instruction or maintaining a historical record. Such projects include photos, materials originally shot on film stock, and digital images that can be either displayed in a book or magazine, and moving images made into a film or video for a TV show or released for screening in cinemas, or other broadcast mediums like YouTube and Vimeo.
Not Offered Every Year
Also Offered As: SOCI 5710
1 Course Unit

AFRC 5791 Globalism and National Identity in the Americas
This course examines the way that issues of universal, global, and national identity have been negotiated and challenged in art and visual culture of the Americas. It also aims to give students an introduction to the various theories and methodological practices that have been used to critique and explain these images and objects since the end of WWII. This course is open to graduate students and undergraduate students with permission of the instructor.
Not Offered Every Year
Also Offered As: ARTH 5791, GSWS 5791, LALS 5791
1 Course Unit
AFRC 5792 Biography and Art History
Beginning with the ancient Greeks, people have created specific biographical structures as a way to understand and explain the artistic process. Artists have often been labeled as natural prodigies possessing creative powers on par with the divine. This seminar will examine the role that biography plays in the assessment of visual art and the creative process over time and across European and American culture. During the semester we will read art historical texts, watch biographical films, and debate the historical and post-structuralist critical theory that has helped to shape the current cultural construction of the artist. Throughout the seminar we will discuss the underlying debates around these various approaches to biography. This course is open to graduate students and undergraduate students with permission of the instructor.
Not Offered Every Year
Also Offered As: ARTH 5792, CIMS 5792, GSWS 5792, LALS 5792
1 Course Unit

AFRC 5900 Introduction to Francophone Studies
An introduction to major literary movements and authors from five areas of Francophonie: the Maghreb, West Africa, Central Africa, the Caribbean and Quebec.
Not Offered Every Year
Also Offered As: COML 5900, FREN 5900
1 Course Unit

AFRC 5910 Francophone Postcolonial Studies
Please see the department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: COML 5910, FREN 5910
1 Course Unit

AFRC 6020 Stereotype Threat, Impostor Phenomenon, and African Americans
This course critically examines stereotype threat and impostor phenomenon as they relate to African Americans. Both stereotype threat and impostor phenomenon negatively affect African Americans. The apprehension experienced by African Americans that they might behave in a manner that confirms an existing negative cultural stereotype is stereotype threat, which usually results in reduced effectiveness in African Americans’ performance. Stereotype threat is linked with impostor phenomenon. Impostor phenomenon is an internal experience of intellectual phoniness in authentically talented individuals, in which they doubt their accomplishments and fear being exposed as a fraud. While stereotype threat relies on broad generalization, the impostor phenomenon describes feelings of personal inadequacy, especially in high-achieving African Americans. This course will explore the evolving meanings connected to both stereotype threat and impostor phenomenon in relation to African Americans.
Spring
1 Course Unit

AFRC 6140 Tutankhamun’s Tomb: Its Treasures and Significance
This course examines the short life of the young boy king and what the discovery of his tomb and its contents mean in terms of Egypt's long history and accomplishments.
Not Offered Every Year
Also Offered As: AAMW 6141, NELC 6140
Mutually Exclusive: NELC 2140
1 Course Unit

AFRC 6200 Exhibiting Black Bodies
This course concerns the exhibiting of Black Bodies in Museums and gallery spaces. We will trace the evolution of public history from the “Cabinets of Curiosity” in 18th and 19th Century Europe, through to the current institutional confirmation of the vindications traditions represented by Museu Afro Brasil (Sao Paulo, Brazil), National Museum of African American History and Culture (Washington, D.C.), and the Museum of Black Civilization (Dakar, Senegal). We will give particular attention to “why these representations at these times in these places?” In the process of addressing these questions we will give voice to the figures who conceived the curatorial content from those with the colonial mentality, to those with the abolitionist and nationalist and Pan-African visions.
Fall or Spring
Also Offered As: SOCI 6600
1 Course Unit

AFRC 6240 Race, Poverty, & Place
In recent years, long-disinvested cities have become the site of renewed investment, population growth, and economic development in a phenomenon often described as gentrification. Nonetheless, socioeconomic inequality between races, ethnicities, genders, and places within the larger metropolitan area continue to persist, suggesting that a rising tide does not raise all boats. Planners must grapple with these issues of inequality and inequity, particularly the implementation of plans and policies that may in theory provide benefits to all, but in practice continue to accumulate benefits for a select few. This course examines the construction of race, the making of a place, and the persistence of poverty in racialized places in the city. This course will engage in a critical discussion of the aforementioned themes, such that the normative notions of race, capitalism, urbanism, gender, power, and space are upended to privilege more marginalized perspectives of these processes.
Spring
1 Course Unit

AFRC 6400 Proseminar in Africana Studies
This course focuses on the historical and cultural relationship between Africans and their descendants abroad.
Fall
1 Course Unit

AFRC 6401 Proseminar in Africana Studies
This course focuses on the historical and cultural relationship between Africans and their descendants abroad.
Spring
1 Course Unit

AFRC 6410 Slavery in the Atlantic World
Using the lenses of labor, violence, gender, religion, and race, we will examine slavery in the Atlantic World, including Cuba, Brazil, Jamaica, and the United States, from the 16th through the 19th centuries.
Spring
1 Course Unit

AFRC 6450 Historical Research and Writing
This seminar is suitable for graduate students in any discipline in which historical research may be relevant. We will work with both secondary and primary sources, and students will have the opportunity to visit and undertake research in an archive.
Fall or Spring
1 Course Unit
AFRC 6542 Brazilian Baroque
This lecture course explores the art, architecture, and visual culture of the Portuguese Empire with emphasis on Brazil and its relations with Africa and Asia.
Not Offered Every Year
Also Offered As: ARTH 6542
1 Course Unit

AFRC 6550 Black Political Thought: Difference And Community
This course is designed to familiarize graduate students with some of the key texts and debates in Africana Studies concerning the relationship between racial slavery, modernity and politics. Beginning with the Haitian Revolution, much of black political thought (thinking and doing politics) has advocated group solidarity and cohesion in the face of often overwhelming conditions of servitude, enslavement and coercion within the political economy of slavery and the moral economy of white supremacy. Ideas and practices of freedom however, articulated by political actors and intellectuals alike, have been as varied as the routes to freedom itself. Thus, ideas and practices of liberty, citizenship and political community within many African and Afro-descendant communities have revealed multiple, often competing forms of political imagination. The multiple and varied forms of political imagination, represented in the writings of thinkers like Eric Williams, Richard Wright, Carole Boyce Davies and others, complicates any understanding of black political thought as having a single origin, genealogy or objective. Students will engage these and other authors in an effort to track black political thought’s consonance and dissonance with Western feminisms, Marxism, nationalism and related phenomena and ideologies of the 20th and now 21st century.
Also Offered As: GSWS 6550, LALS 6550
1 Course Unit

AFRC 6552 The State, Civil Society, and Democracy in Africa
This course examines the nature and dynamics of the state and civil society in Africa and how these determine the career of democracy, democratization and democratic rule in the continent. It considers different accounts of the state in Africa (or the African state), civil society and democracy in elaborating an informed understanding of the political, economic and social processes in the continent. How does the nature of the state in Africa account for the nature of the civil society and vice versa? How can the career of democracy in the continent illuminate our understanding of the nature of state-society relations? How robust is the relationship between civil society and the state? How can we account for the relationships among civil society, the state and democratic institutions and processes? What are the local, regional, and global forces that nurture and/or hinder democratic practices, including electoral democracy? These questions are confronted in light of their implications for, and complex interactions with, different social formations, institutions, groups, and social practices including gender, ethnicity, nationalism, race, religion, social protest, political institutions, economic formations, etc., etc.
Spring
Also Offered As: ANTH 6552
1 Course Unit

AFRC 6560 Politics and Social Movements in Contemporary Afro-Latin America
Over the past two decades there has been an explosion of research into Afro-Latin American populations in South America and the Caribbean. During this period a generation of scholars who were largely unsatisfied with the research methods and normative agendas of many scholars, activists and politicians of prior eras began to pose distinct research questions and methodological approaches to various subject matter. Afro-Latin identification and identity (as both separate from and entangled with national identity) is a major theme in the new literature. Race, racism and inequality, Afro-Latin involvement in social movements, political parties and other forms of political articulation have also been prominent themes. In previous eras, scholars largely emphasized various iterations of purportedly racial and ostensibly cultural mixture such as Mestizaje and Democracia Racial to explain why race and racism did not play a prominent role in social and political mobilization. Contemporary sociologists and anthropologists, however, have found ways to identify attitudes, behaviors, demographic and socio-economic indicators that belie imagery and ideologies of social and political equality achieved through miscegenation (cultural and physical) in Latin America.
Fall
Also Offered As: LALS 6560, PSCI 6120
1 Course Unit

AFRC 6620 North Africa: History, Culture, Society
This interdisciplinary seminar aims to introduce students to the countries of North Africa, with a focus on the Maghreb and Libya (1830-present). It does so while examining the region’s close economic and cultural connections to sub-Saharan Africa, Europe, and the Middle East. Readings will include histories, political analyses, anthropological studies, and novels, and will cover a wide range of topics such as colonial and postcolonial experiences, developments in Islamic thought and practice, and labor migration. This class is intended for juniors, seniors, and graduate students.
Not Offered Every Year
Also Offered As: NEFC 6620
1 Course Unit

AFRC 6665 Fables from the Flesh: Black feminist movement and the embodied archive
Drawing inspiration from Harge’s multiform fable project FLY | DROWN and Audre Lorde’s conception of biomythography, students will trace their interiority to realize and imagine how personal histories, ancestral inheritance, and metaphysics live/move through the body. We will translate and transform stories of the flesh into a series of compositional modalities—which may include text, movement, performance, sound, and installation—to create lexicons that honor subjectivity as form. Informed by surrender, refusal, imagination, and self-sovereignty, we will situate our embodied archives as vessels for fable writing, create and correct myths through movement, and expand our relationship to memory, time, space, and illegibility. Throughout the course, we will turn to Black feminist literary and performance works employing fable, myth, and ancestral legacies including but not limited to: Toni Morrison’s Beloved, Aretha Franklin’s gospel music, Jaamil Olawale Kosoko’s Chameleon, and a close reading of Harge’s FLY | DROWN. The room will be grounded in practices of Black fellowship, moving between study group, kickback, ceremony, cypher, and incubator. We will oscillate between these formats depending on the needs of the course and the cohort.
Not Offered Every Year
Also Offered As: ANTH 6665, GSWS 6665
Mutually Exclusive: ANTH 3665
1 Course Unit
AFRC 6740 Facing America
This course explores the visual history of race in the United States as both self-fashioning and cultural mythology by examining the ways that conceptions of Native American, Latino, and Asian identity, alongside ideas of Blackness and Whiteness, have combined to create the various cultural ideologies of class, gender, and sexuality that remain evident in historical visual and material culture. We also investigate the ways that these creations have subsequently helped to launch new visual entertainments, including museum spectacles, blackface minstrelsy, and early film, from the colonial period through the 1940s.
Not Offered Every Year
Also Offered As: ARTH 6740
Mutually Exclusive: ARTH 2740
1 Course Unit

AFRC 6750 Old Egyptian
This course is an introduction to the language of the Egyptian Old Kingdom. The grammar of the period will be introduced during the early part of the semester, using Ededl’s ALTAGYPTISCHE GRAMMATIK as the basic reference. Other grammatical studies to be utilized will include works by Allen, Baer, Polotsky, Satzinger, Gilula, Doret, and Silverman. The majority of time in the course will be devoted to reading varied textual material: the unpublished inscriptions in the tomb of the Old Kingdom official Kapure–on view in the collection of the University Museum; several autobiographical inscriptions as recorded by Sethe in URKUNDEN I; and a letter in hieratic (Baer, ZAS 93, 1966, 1-9).
Fall or Spring
Also Offered As: ANEL 6750
1 Course Unit

AFRC 6770 Black Speculative Futures
Why do black cultural producers turn to the speculative? What, in turn, is speculative about blackness? These questions frame this seminar’s exploration of how black artists, theorists, and activists imagine different futures, often in the service of critiquing power asymmetries and creating radical transformation in the present. We will explore how the speculative works differently across black literature, visual culture and performance. Additionally, inspired by the multi-disciplinary work that we encounter in the course, we will experiment with crafting our own embodied speculative art in order to better understand its function as both art practice and politics. The course will be divided between discussions centered on close reading of primary and secondary material and creative writing/movement exploration (no previous movement experience necessary). Occasional guest lectures with visiting artists will provide additional fodder for our critical and creative work.
Not Offered Every Year
Also Offered As: ANTH 6770, ENGL 6770
1 Course Unit

AFRC 6781 African American Art
This course surveys the most important and interesting art produced in the United States (or by American artists living abroad) up through the 1950s. This period encompasses the history of both early and modern art in the U.S., from its first appearances to its rise to prominence and institutionalization. While tracking this history, the course examines art’s relation to historical processes of modernization (industrialization, the development of transportation and communications, the spread of corporate organization in business, urbanization, technological development, the rise of mass media and mass markets, etc.) and to the economic polarization, social fragmentation, political conflict, and the cultural changes these developments entailed. In these circumstances, art is drawn simultaneously toward truth and fraud, realism and artifice, science and spirituality, commodification and ephemerality, nationalism and cosmopolitanism, individualism and collectivity, the past and the future, professionalization and popularity, celebrating modern life and criticizing it.
Fall or Spring
Also Offered As: ARTH 6781
1 Course Unit

AFRC 6804 Sighting Black Girlhood
The COVID-19 pandemic exposed the deep inequities of our social systems, and protests against police killings drew broader attention to anti-Black state violence worldwide, yet the gendered dimensions of these problems are not always fully understood. While many in the public have come to recognize the suffering of Black boys and men as acute and eventful, Black girls’ suffering has remained largely invisible, a slow confluence of violence that too often go unaddressed. As one way to bring the issues facing Black girls globally to public attention, and to celebrate and support Black girls, this course will provide a background for understanding the challenges faced by Black girls in Philadelphia, Jamaica, and South Africa. We will frame these challenges historically and geopolitically, drawing attention to the issues that contribute to the invisibility of the ordinary Black girl in diverse sites, as well as the resources that will begin to address them. This course also aims to equip students to understand the relationships between research and creative work, and to see artistic production as a catalyst for community-building and critical thinking and action. Toward this end, we will work with a number of partners in Philadelphia, including the Colored Girls Museum and Black Lives Matter-Philly. Because this course is part of a broader project, we will travel as a class to Jamaica during the summer of 2022 and students will participate in a range of projects there, working with partners in the arts, community engagement, and legal advocacy. The question motivating our project is: What are the personal, psychic, spiritual, and economic costs and benefits associated with Black girls fully exercising their humanity?
Also Offered As: ANTH 6804
Mutually Exclusive: ANTH 3804
1 Course Unit
AFRC 6850 Modern Art in Africa and Europe
The history of modern art is closely tied to and largely unfolds from the history of Western Imperialism. While the technologies made possible by colonial resource extraction produced new ways of looking, modern conceptions of the self and how to represent it developed in dialogue with racialized notions of the other. This course focuses on encounters between the cultures of Africa and Europe, from 1880 to 1960, and on the visual practices that emerged on both continents as a result. Topics of special interest will include racial difference and the birth of photography, colonial masquerade, impressionism, symbols of power in royal arts, cubism, mass marketing and colonial self-fashioning, West African studio photography, world’s fairs and the Musée de l’Homme, Dada and surrealism, Negritude and interwar Paris, anti-aesthetics, colonial arts education, National art schools in the age of African independence, humanism and South African photography under Apartheid.
Not Offered Every Year
Also Offered As: ARTH 6850
1 Course Unit

AFRC 6910 Transatlantic Black Feminisms in Francophone Literatures
This course explores the evolution of representations of the Black femme body in French and francophone imaginaries, tracing a chronological arc that begins with early colonial imagery and ends with the rise of a 2018 movement spearheaded by a collective of Black comediennes, denouncing exclusionary practices in the French entertainment industry. We will first focus on the male gaze — European, Caribbean and African — and the way it constructed the Black femme body, to better understand how Black female authors undermine, resist, parody, or continue to bear the weight of these early images when they take control of their own representation. While our primary readings will be authored by French-writing women, including Mayotte Capacia (Martinique), Marie Vieux-Chauvet (Haiti), Maryse Condé (Guadeloupe), Mariama Bâ (Senegal) and Marie Ndiaye (France), our theoretical foundation will include anglophone thinkers, such as bell hooks, Audre Lorde, Saidiya Hartman, and others. Readings and discussions will be in English.
Also Offered As: COML 6910, FREN 6910, GSWS 6910
1 Course Unit

AFRC 6971 Afro-Latin America
In-depth analysis of the black experience in Latin America and the Spanish, French and English-speaking Caribbean, since slavery to the present. The course opens with a general examination of the existence of Afro-descendants in the Americas, through the study of fundamental historical, political and sociocultural processes. This panoramic view provides the basic tools for the scrutiny of a broad selection of literary, musical, visual, performance, and cinematic works, which leads to the comprehension of the different ethical-aesthetic strategies used to express the Afro-diasporic experience. Essential concepts such as negritude, creolite, and mestizaje, as well as the most relevant theories on identity and identification in Latin America and the Caribbean, will be thoroughly examined, in articulation with the interpretation of artistic works. Power, nationalism, citizenship, violence, religious beliefs, family and community structures, migration, motherhood and fatherhood, national and gender identities, eroticism, and sexuality are some of the main issues discussed in this seminar.
Not Offered Every Year
Also Offered As: ENGL 7971, LALS 6971, SPAN 6971
1 Course Unit

AFRC 7010 Readings in African American Religion
Readings in African American Religion: Traditional narratives of African American Religion go from slavery to civil rights to “freedom” without taking into account the complex religious lives and intellectual production of people of African descent in the Americas. This course will focus on African American Religion and the historical and theoretical frameworks that have shaped the study of this field. Readings will cover religious studies, anthropology history, and African American studies in order to provide an understanding of the varieties of religion and religious experiences with this particular segment of the African Diaspora.
Not Offered Every Year
1 Course Unit

AFRC 7060 Introduction to Africa and African Diaspora Thought
This course examines the processes by which African peoples have established epistemological, cosmological, and religious systems both prior to and after the institution of Western slavery.
Fall or Spring
1 Course Unit

AFRC 7080 Cultural and Literary Theory of Africa and the African Diaspora
This course introduces students to the theoretical strategies underlying the construction of coherent communities and systems of representation and how those strategies influence the uses of expressive culture over time. Topics vary. See the Africana Studies Department’s website at https://africana Studies.sas.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: COML 7080, ENGL 7080
1 Course Unit

AFRC 7100 Political Economy and Social History of Africa and the African Diaspora
This course provides the opportunity for students to investigate the relationship between the emergence of African peoples as historical subjects and their location within specific geopolitical and economic circumstances. Topics vary.
Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: PSCI 7290
1 Course Unit

AFRC 7200 Graduate Prospectus and Grant-Writing Seminar
This course is intended to help students to write a strong dissertation proposal/prospectus. A proposal is a detailed plan for a long journey of conceptualization, research, and writing that will lead to the first major, independent scholarly contribution. Students will work closely with advisors, peers, and the professor in the course, to develop the questions, methodological approaches, and theoretical perspectives that will guide their research and writing. At the end of the semester, each student will have completed a proposal, and will be ready to defend it.
Fall or Spring
1 Course Unit
AFRC 7230 Multicultural Issues in Education
This course examines critical issues, problems, and perspectives in multicultural education. Intended to focus on access to literacy and educational opportunity, the course will engage class members in discussions around a variety of topics in educational practice, research, and policy. Specifically, the course will (1) review theoretical frameworks in multicultural education, (2) analyze the issues of race, racism, and culture in historical and contemporary perspective, and (3) identify obstacles to participation in the educational process by diverse cultural and ethnic groups. Students will be required to complete field experiences and classroom activities that enable them to reflect on their own belief systems, practices, and educational experiences.

Fall
Also Offered As: EDUC 7323
1 Course Unit

AFRC 7400 Seminar in African-American Music
Seminar on selected topics in African American Music. See department website (under course tab) for current term course description: https://music.sas.upenn.edu
Not Offered Every Year
Also Offered As: MUSC 7400
1 Course Unit

AFRC 7708 Black Classicisms
This course will explore heterogeneous responses to ancient Greek and Roman Classics in the literature, art, and political thought of Africa and the Black Diaspora, ranging from the late eighteenth century to the present day and encompassing Africa, the Caribbean, and North America. We will analyze how African and black diasporic writers, artists, and thinkers have engaged with and re-imagined Greco-Roman Classics, both to expose and critique discourses of racism, imperialism, and colonialism, and as a source of radical self-expression. Throughout, we will consider the reciprocal dynamic by which dialogues with ancient Greek and Roman classics contribute to the polyphony of black texts and these same texts write back to and signify on the Greek and Roman Classics, diversifying the horizon of expectation for their future interpretation.

Writers and artists whose work we will examine include Romare Bearden; Dionne Brand; Gwendolyn Brooks; Aimé Césaire; Austin Clarke; Anna Julia Cooper; Rita Dove; W.E.B. Du Bois; Ralph Ellison; Athol Fugard; John Kani; and Winston Ntshona; C.L.R. James; June Jordan; Toni Morrison; Julia Cooper; Rita Dove; W.E.B. Du Bois; Ralph Ellison; Athol Fugard; John Kani; and Winston Ntshona; C.L.R. James; June Jordan; Toni Morrison; Athol Fugard, John Kani, and Winston Ntshona; C.L.R. James; June Jordan; and Richard Wright. We will study these writers in the context of national and transnational histories and networks and in dialogue with relevant theoretical debates. Work for assessment will include a 15-page research paper and the preparation of a teaching syllabus for a course on an aspect of Black Classical Receptions.

Not Offered Every Year
Also Offered As: CLST 7708, COML 7708
1 Course Unit

AFRC 7910 African Film and Media Pedagogy
This graduate seminar offers an intensive, critical, and collaborative study of contemporary African film and media production. The past three decades have seen an unprecedented shift in the African media landscape. Not only has the wide availability of satellite media across the continent made international film and television programming part of African popular culture, but moreover the growing film industries within the continent, most notably Nollywood, have altered how Africans are carving an image of themselves on the big and small screens. In partnership with local, regional, and international film and media centers, we will study a range of films--features, shorts, documentaries, and television shows--paying close attention to the means and sites of production as well as the formal qualities that distinguish these works. Many of the films we will analyze will stand out both for their exceptional aesthetic quality as well as their remarkable ability to confront pressing political and social themes. But we will also think about trash: what counts as trashy media, and for whom? Who watches it, where, and why? Other questions we will ask include: What particular indigenous modes of storytelling do African films employ? What categories begin to emerge under the umbrella category of "African film and media" and where do diasporan film and media practitioners and critics fit in this landscape? How are these films tackling some of the urgent questions of our times, including migration and globalization; ethnic, political, and economic polarization; gender and sexuality; and massive urbanization and industrialization sweeping Africa and other parts of the Global South? What role do festivals in various countries play in shaping media production and distribution? How important is the concept of authorship in this context? And how do these films challenge the dominant Western trope of Africa as a spectacle, instead offering novel ways of picturing everyday African experiences that we rarely glimpse in Western media? To explore these questions, we will visit multiple sites of film production, distribution, exhibition, and education, including Scribe Video Center in Philadelphia, Sankofa Films in Washington, D.C., and the College of Performing and Visual Art at Addis Ababa University in Ethiopia. Location and knowledge production are inextricably connected, and by considering African media production from these multiple sites, and collaborating with multiple stakeholders, this course offers a directly engaged pedagogy of the complex artistic, cultural, social, and political dynamics of African audiovisual creation. The travel component of this course entails a day trip to Washington, D.C. during the semester (tentative date: April 2, 2020) and a week-long trip to Addis Ababa at the end of the spring term (students applying for this course should be prepared to travel to Addis Ababa May 30, 2020-June 7, 2020). All expenses for travel, accommodation, and food will be covered, but students will need to hold a passport. Ultimately, this course aims to use film and media production to intervene in a larger discourse on how Africa is figured in the global humanities, not as an absent or passive actor but one actively engaged in producing art and humanistic knowledge that has much to teach us and the world. Admission to the course will be by permission only and students are required to submit a short statement of interest (max. 250 words) to dagw@english.upenn.edu and redkaren@sas.upenn.edu. Students must be prepared to travel to Addis Ababa and Washington D.C. as described in the syllabus, and must hold a passport.

Not Offered Every Year
Also Offered As: ARTH 7910
1 Course Unit
AFRC 7920 Study of a Genre: The Manifesto
If ubiquity confers significance, the manifesto is a major literary form, and yet it has been relatively marginalized in genre studies, where attention to the manifesto has been largely devoted to anthologies. In this seminar we will focus on the manifesto as a genre by exploring its histories, rhetorics, definitions and reception from a Black Studies framework. Associated with politics, art, literature, pedagogy, film, and new technologies, the manifesto involves the taking of an engaged position that is tied to the moment of its enunciation. The manifesto's individual or collective authors seek to provoke radical change through critique and the modeling of new ways of being through language and images. Included on the syllabus will be anticolonial, anti-racist, feminist, LGBTQ manifestos of the 18th through 21st centuries from throughout the Black world. In addition to leading class discussion, students will be responsible for a seminar paper or a final project to be developed in consultation with the instructor.
Also Offered As: COML 7920, ENGL 7920
1 Course Unit

AFRC 9005 Finding Voice: Perspectives on Race, Class and Gender
This writing workshop explores the influence of identity, primarily race, class, gender, and sexuality, on the ways we convey our personal truths to the world.
Not Offered Every Year
Also Offered As: ENGL 9005, GSWS 9005, URBS 9005
1 Course Unit

AFRC 9006 Learning from James Baldwin
This class will examine the intellectual legacy that James Baldwin left to present-day writers such as Toni Morrison, Charles Johnson, Ta-Nehisi Coates, Thulani Davis, Caryl Phillips, and others. We will spend time reading and discussing Baldwin's novels, short stories, plays and essays, and students will research subjects of their own choosing about Baldwin's life and art.
Also Offered As: ENGL 9006, GSWS 9006, URBS 9006
1 Course Unit

AFRC 9016 Being Human: A Personal Approach to Race, Class & Gender
In this workshop, we will address the ways race, class, and gender impact our lives, our work, and our culture. As a class, we will create connection and community by practicing deep listening, daily writing, deep reading, and the sharing of ideas and observations.
Not Offered Every Year
Also Offered As: ENGL 9016, GSWS 9016, URBS 9016
1 Course Unit

AFRC 9017 Considering Race, Class and Punishment in the American Prison System
This graduate writing seminar will examine the origins, myths, and realities of the complex industry that currently imprisons more than 2,300,000 men, women and teens in America's city, county, state and federal prisons - the largest prison population and highest per-capita rate of imprisonment in the world.
Not Offered Every Year
Also Offered As: ENGL 9017, GSWS 9017, URBS 9017
1 Course Unit

American Sign Language (ASLD)

ASLD 0100 American Sign Language I
Introduction to American Sign Language (ASL). Introduces ASL in a contextualized and conversational manner. Course includes receptive and expressive readiness activities, sign vocabulary and grammar, and an introduction to important topics and people within Deaf communities and Deaf culture.
Fall or Spring
1 Course Unit

ASLD 0200 American Sign Language II
Increased communication skill in American Sign Language (ASL). Expressive and receptive abilities are expanded upon via a contextualized and conversational manner. Important topics to Deaf communities and Deaf culture are continued within online and in-class discussion.
Fall or Spring
Prerequisite: ASLD 0100
1 Course Unit

ASLD 0300 American Sign Language III
American Sign Language (ASL) at the Intermediate I level. Expressive and receptive abilities are expanded upon via a contextualized and conversational manner, including, but not limited to, narrative production. Important topics to Deaf communities and Deaf culture are continued within online and in-class discussion.
Fall or Spring
Prerequisite: ASLD 0200
1 Course Unit

ASLD 0340 American Sign Language III/IV
Expanded instruction of American Sign Language (ASL) on the Intermediate I and II levels. Includes receptive and expressive readiness activities, sign vocabulary and grammar growth, fingerspelling practice and narrative skills. Topics on Deaf cultural are also included in the course readings and discussions. Increases the emphasis on more abstract and challenging conversational and narrative range.
Not Offered Every Year
Prerequisite: ASLD 0200
2 Course Units

ASLD 0400 American Sign Language IV
American Sign Language (ASL) at the Intermediate II level. Expressive and receptive abilities are expanded upon via a contextualized and conversational manner, including, but not limited to, narrative production. Important topics to Deaf communities and Deaf culture are continued within online and in-class discussion.
Fall or Spring
Prerequisite: ASLD 0300
1 Course Unit
ASLD 1030 Advanced ASL and Deaf History
This is an advanced ASL course in which students expand their conversational and narrative range. While receptive readiness activities continue to be an important part of the class, the emphasis moves toward honing expressive sign skills through narrative presentation and ASL-only class discussions. The first half of the course centers on fact-sharing strategies and describing cultural norms while the second half focuses on American Deaf history and the forces that shape its culture. Topics covered in the second half of the course use textual readings, films, class lectures and discussions, and other outside resources to understand the past, present, and possible future trajectories of American Deaf people.
Fall, odd numbered years only
Prerequisite: ASLD 0400
1 Course Unit

ASLD 1031 Deaf Literature, Performance, Art, and Film
This course is an advanced/conversational ASL course that explores several key topics related to Deaf culture and the Deaf experience(s) influence on literature (both written and signed), theatre, fine and visual arts, and film—both Deaf and hearing directed and acted. Using only ASL in class, students learn about various perspectives and approaches to each of the themes and topics of the course. Some questions to explore and answer in this course will be: What is Deaf Literature? The Deaf Lens: What is it? How is it different from a hearing perspective on film? How is Deafness expressed differently in each of the arts discussed in this course? Analysis and discussion will come from readings as well as viewings of various types of Deaf arts.
Spring
Prerequisite: ASLD 0400
1 Course Unit

ASLD 1032 Deaf Culture
This course is an advanced/conversational ASL course that explores several key topics related to Deaf Culture. Using only ASL in class, students will read and discuss books, articles, and films related to the following topics: What is Deaf Culture?; The History of the Deaf American; Deaf Identities; Communication Debates and Language Deprivation; Technology and Deaf Culture; Deaf Art; Deaf Space; and Deaf Families, Deaf-Hearing Families. Ultimately, students will work collaboratively on a final project that benefits local Deaf community members. Completion of at least the fourth semester of ASL (or the equivalent ASL experience with permission from the instructor) is required to take this course.
Spring
1 Course Unit

ASLD 1034 ASL/Deaf Studies - ABCS
This Academically Based Community Service course is intended to be the final course in the ASL/Deaf Studies course sequence. Students will work with a Deaf community partner to learn about the organization and work on a mutually agreed on research project. Students will also have course meetings on a weekly basis with discussions and activities centering on reflection of community experiences through linguistic as well as cultural lenses. Ongoing reflections and discussions—formal and informal—on Deaf cultural/theoretical topics drawing from readings as well as community experiences will be integral to the course experience.
Fall
Prerequisite: ASLD 1032
1 Course Unit

ASLD 1039 Disability Rights and Oppression: Experiences within Global Deaf Communities
This course explores the linguistic and social statuses of global Deaf communities as a framework for understanding the Italian Deaf community’s quest for national recognition of their sign language (LIS) and their continued efforts toward parity with hearing people. Topics to be explored include the following: an overview of the cultural model of being deaf; the social and historical underpinnings of deaf people’s oppression and marginalization by hearing people; social construction of deafness as disability and Deaf-as-asset (Deaf-Gain); sign language as a human right; and language policy and practice as it relates to deaf people’s access to or restriction from learning a sign language as a first language. We will use first-hand accounts via text and film to elucidate a variety of global deaf perspectives. Travel to Italy will bring the theoretical topics discussed in the semester to life via the following experiential activities: academic and social interactions with Italian Deaf community members; visits to sites important to Italian Deaf people and their history; intensive beginner LIS instruction to facilitate direct conversation with Italian Deaf community members. No previous sign language experience is required to take this course.
Spring
1 Course Unit

ASLD 2047 Structure of American Sign Language
This course covers the linguistic structure of American Sign Language (ASL), including its phonology (articulatory features, phonological constraints, nonmanuals), morphology (morphological constraints, compounds, incorporation, borrowing), and syntax (syntactic categories, basic phrase structure, common sentence types). Also discussed are the topics of classifiers and deixis. In keeping with the comparative perspective of linguistic theory, parallels and differences between ASL and other (primarily spoken) languages are pointed out where appropriate. Historical and sociolinguistic issues are addressed where they are relevant to elucidating linguistic structure. Though the course focuses on ASL, it necessarily touches on issues concerning sign languages more generally, notably the possible effects of modality (sign vs. speech) on linguistic structure and the implications of the signed modality for general linguistics. Although the course does not presuppose knowledge of ASL, it does require acquaintance with basic concepts of linguistics.
Not Offered Every Year
Also Offered As: LING 2047
Prerequisite: LING 0001
1 Course Unit

ASLD 5999 Independent study in ASL/Studies for Special Purposes
This independent study is designed for students pursuing a practical inquiry into ASL/Deaf Studies. Prior consultation with and permission from the department is required.
Not Offered Every Year
0.5 Course Units


**Amharic (AMHR)**

**AMHR 0100 Elementary Amharic I**
The Elementary Amharic I course can be taken to fulfill a language requirement, or for linguistic preparation to do research on Ethiopia/Africa-related topics. The course emphasizes communicative competence to enable the students to acquire linguistic and extra-linguistic skills in Amharic. The content of the course is selected from various everyday life situations to enable the students to communicate in predictable common daily settings. Culture, as it relates to language use, is also part of the course content.

1 Course Unit

**AMHR 0200 Elementary Amharic II**
Continuation of Elementary Amharic I. Amharic belongs to the southern branch of Hemeto-Semitic languages, which is also referred to as "Afrasian." Amharic is the official language of Ethiopia and is spoken by 14 million native Amharas and by approximately 18 million of the other groups in Ethiopia. This course continues to introduce basic grammar, vocabulary, and the reading and writing of Amharic to new speakers.

Spring
Prerequisite: AMHR 0100
1 Course Unit

**AMHR 0300 Intermediate Amharic I**
This course will engage students in interpersonal and interpretive activities to enable them to satisfy most work requirements with language usage that is often, but not always, acceptable and effective. They will be able to handle with confidence, but not with facility, most normal, high-frequency social conversational situations including extensive, but casual conversations about current events, as well as work, family, and autobiographical information. Students can get the gist of most everyday conversations but has some difficulty understanding native speakers in situations that require specialized or sophisticated knowledge. Students will show considerable ability to communicate effectively on topics relating to particular interests and special fields of competence. Often, they will show a high degree of fluency and ease of speech, yet when under tension or pressure, the ability to use the language effectively may deteriorate. Comprehension of normal native speech is typically nearly complete. Typically, students with this proficiency level can participate in most social, formal, and informal interactions, but limitations either in range of contexts, types of tasks or level of accuracy hinder effectiveness.

Fall
1 Course Unit

**AMHR 0400 Intermediate Amharic II**
Continuation of AMHR 0300: Intermediate Amharic I; Level 2+ (Limited Working Proficiency, Plus)

Spring
1 Course Unit

**AMHR 1100 Advanced Amharic**
An advanced Amharic course that will further sharpen the students’ knowledge of the Amharic language and the culture of the Amharas. The learners communicative skills will be further developed through listening, speaking, reading and writing. There will also be discussions on cultural and political issues.

Fall or Spring
1 Course Unit

**AMHR 1300 Amharic Language and Culture**
Students will engage in interpersonal and interpretive communicative modes of language use to satisfy professional needs in a wide range of sophisticated and demanding tasks. While students will be able to demonstrate obvious strengths, they may exhibit some hesitancy, uncertainty, effort or errors which limit the range of language-use tasks that can be reliably performed. Occasional patterned errors may occur in low frequency and highly-complex structures. Typically, there will be particular strength in fluency and one or more, but not all, of the following: breadth of lexicon, structural precision, discourse competence in a wide range of contexts and tasks often matching a native speaker’s strategic and organizational abilities and expectations.

Fall or Spring
1 Course Unit

**Anatomy (ANAT)**

**ANAT 5050 Structural Adaptations to Function**
Veterinary gross anatomy course. The basic principles of mammalian and avian anatomy are studied in a veterinary context. The laboratory periods are given to the dissection of the dog, cat, horse, various ruminants, various laboratory animals, chicken and fish. Prerequisite: Permission of instructor in Veterinary School

Fall
2 Course Units

**ANAT 5120 Human Anatomy: Cardiovascular, Respiratory, Digestive, and Musculoskeletal Systems**
This human anatomy course will cover anatomy, embryology, histology, and imaging of the cardiovascular system; respiratory system; digestive system; and musculoskeletal system, including the limbs, vertebral column, and back. This course is open to LPS Post-Baccalaureate students only. Please contact Kimberly Halscheid (battilo@upenn.edu) if you have question. Cardiovascular and Respiratory Systems. The objectives are to: 1) define and discuss the structures that participate in the process of respiration; 2) compare and contrast structures situated in the chest (thorax and mediastinum); 3) describe anatomic differences of the right versus the left lung, structures in each lung, and how each lung functions; 4) summarize the anatomic differences in the atria and ventricles of the heart and how these chambers contract, resulting in the opening and closing of the atrioventricular and semilunar valves; 5) compare and contrast the histology of the heart, bronchi, bronchioles, and lung alveoli; 6) analyze and identify anatomic structures in plain films and/or other imaging modalities; and 7) discuss the embryology of the heart and lungs, including fetal and postnatal circulation and common congenital heart malformations.

0.5 Course Units
ANAT 5130 Human Anatomy: Cardiovascular and Respiratory Systems
This 0.5 CU human anatomy course will cover anatomy, embryology, histology, and imaging of the cardiovascular and respiratory systems. The objectives are to: 1) define and discuss the structures that participate in the process of respiration; 2) compare and contrast structures situated in the opening and closing of the atroventricular and semilunar valves; 3) compare and contrast the histology of the heart, bronchi, bronchioles, and lung alveoli; 6) analyze and identify anatomic structures in plain films and/or other imaging modalities; and 7) discuss the embryology of the heart and lungs, including fetal and postnatal circulation and common congenital heart malformations. This course is open to LPS Post-Baccalaureate students only. Please contact Kimberly Halscheid (battilo@upenn.edu) if you have questions.
0.5 Course Units

ANAT 5140 Human Anatomy: Digestive System
This 0.5 CU human anatomy course will cover anatomy, embryology, histology, and imaging of the digestive system. The objectives are to: 1) define the embryological basis for the formation of the gastrointestinal tract; 2) define and discuss the anatomic structures that make up the digestive system, including the mouth, larynx, esophagus, stomach, small intestine, large intestine, liver, and biliary tract; 3) compare and contrast the arterial blood supply and the functional and histologic differences in various parts of the gastrointestinal tract; and 4) analyze and identify anatomic structures in plain films and/or other imaging modalities. This course is open to LPS Post-Baccalaureate students only. Please contact Kimberly Halscheid (battilo@upenn.edu) if you have questions.
0.5 Course Units

ANAT 5150 Human Anatomy: Musculoskeletal System
This 1.0 CU human anatomy course will cover anatomy, embryology, histology, and imaging of the musculoskeletal system, including the limbs, vertebral column, and back. The objectives are to: 1) discuss the anatomic structures that make up the major parts of the musculoskeletal system, which are the vertebral column and back, upper limbs, and lower limbs; 2) identify the blood supply, innervation, and musculature of the upper limbs, including the shoulder, elbow, wrist, and hand; 3) identify the blood supply, innervation, and musculature of the lower limbs, including the hip, knee, ankle, and foot; 4) define the components of the nervous system that affect the musculoskeletal system, limbs, vertebral column, and back and discuss nerve lesions; 5) discuss how herniated disks, fractures of the upper and lower limbs, and impingement of nerve roots can result in musculoskeletal abnormalities, and 6) analyze and identify anatomic structures in plain films and/or other imaging modalities. Please contact Kimberly Halscheid (battilo@upenn.edu) if you have questions. Students who have completed ANAT 5120 are NOT eligible for this course.
1 Course Unit

ANAT 5160 Human Anatomy: Endocrine and Reproductive Systems
This 0.5 CU human anatomy course will cover anatomy, embryology, histology, and imaging of the endocrine and reproductive systems. The objectives are to: 1) define mechanisms of hormonal signaling; 2) describe the anatomic relationships and gross structure of major endocrine and reproductive organs, including the hypothalamus, pituitary glands, thyroid gland, parathyroid glands, pancreas, adrenal glands, gonads, breasts, and male and female reproductive systems; 3) characterize the microscopic anatomy of major endocrine and reproductive organs; 5) assess the regulation of major hormonal axes and intuit pathophysiologic effects of hormonal dysregulation; 6) explain the effects of significant hormones on their respective target tissues; 7) trace the embryologic origins of the endocrine and reproductive organs, including the pharyngeal apparatus. This course is open to LPS Post-Baccalaureate students only. Please contact Kimberly Halscheid (battilo@upenn.edu) if you have questions.
0.5 Course Units

ANAT 5170 Anatomy of the Head and Neck: Cranial Nerves and Their Distribution
This 0.5 CU human anatomy course will cover anatomy, embryology, histology, and imaging of the head and neck with emphasis on the cranial nerves and their distribution. The objectives are to: 1) identify major bone and cartilage components of the neck and skull and how they develop; 2) describe sources of innervation to face, CN V and VII; 3) name cranial nerve innervations of extraocular muscles of the eyes; 4) name major elements that make up naso-, oro-, and laryngeal pharynx; 5) name the cranial nerves involved in swallowing; 6) identify the signs and symptoms of lesions of each of the cranial nerves; and 7) identify structures on CT and plain film imaging of head and neck. This course is open to LPS Post-Baccalaureate students only. Please contact Kimberly Halscheid (battilo@upenn.edu) if you have questions. This course is open to LPS Post-Baccalaureate students only. Please contact Kimberly Halscheid (battilo@upenn.edu) if you have questions.
0.5 Course Units
ANAT 5180 Brain and Spinal Cord: Longitudinal Neural Pathways
This course, covering the anatomy, development, and cytology of the central nervous system, including a detailed examination of the functional and clinical neuroanatomy of the spinal cord, prepares students to: - Compare and contrast the differences in how the neural tube and neural crest develop, and list their postnatal derivatives. - Describe the malformations that result in open versus closed neural tube defects, including the ability to distinguish the different forms of spina bifida. - List the major excitatory and inhibitory neurotransmitters used by neurons in the central and peripheral nervous system. - Compare the functions of Schwann cells and Oligodendrocytes in forming myelin and the differences in autoimmune diseases (MS and Guillain Barre) associated with each. - Recall the basic anatomy of the spinal cord including the vertebral level where the cord end and meninges end, what makes up the conus medullaris and cauda equina, and which cord segments innervate the upper and lower limbs. - Contrast the two divisions of the ANS in terms of locations of pre and post ganglionic neuron cell bodies, neurotransmitters utilized and receptors that they bind to. - Describe the names and locations of the two neurons that generate voluntary versus reflex contractions of skeletal muscle, and be able to draw and label a cord section with these neurons. - Recall the differences between the myotatic and inverse myotatic reflexes. - Describe how these two sensory systems utilize three neurons to process sensory information. - Draw out the three neurons that are components of the DC/ML System and label the modalities of their dorsal roots, their course and sites of termination. - Draw out the three neurons that are components of the Anterolateral System and label the modalities of their dorsal roots, their course and sites of termination. - Summarize the major signs and symptoms of the 7 common spinal cord diseases and clinical conditions including Polio, Tabes dorsalis, ALS, Subacute Combined Degeneration, Syringomyelia, Anterior cord syndrome, Brown Sequard Syndrome
1 Course Unit

ANAT 5190 Brain and Spinal Cord: Motor and Sensory Functional Systems
This course, covering the anatomy of the central nervous system, including a detailed examination of the functional and clinical neuroanatomy of the brainstem, cerebellum, diencephalon, visual system, auditory system and cerebral cortex, prepares students to: - Describe the brainstem connectional anatomy that permits the right side of the cerebellum to promote fine-tuning of skeletal muscles on the right side of the body. - Recall how cerebellar lesions cause tremor with movement and how hemisphere lesions of the cerebellum differ from vermis lesions. - Identify which lesions result in dysmetria, disdiadochokinesis, and gait ataxia. - Describe the major components of the Direct and Indirect Basal Ganglia Pathways, the neurotransmitters that they use and their roles in initiating movement or suppressing unwanted movement. - Contrast the signs and symptoms of those with a direct (Parkinson's) and indirect (Huntington's) basal ganglia disease and how each causes different forms of resting tremors. - Name the 4 major tracts that traverse the brainstem and the signs and symptoms if each is lesioned. - Discuss how motor and sensory nuclei of brainstem cranial nerves are organized into functional longitudinal columns in the brainstem and note how this organization correlates with the entry and exit points of cranial nerves. - Distinguish the gaze malfunctions that result from lesions to the Frontal Eye Field, PPRF, and MLF. - Trace the path of a visual stimulus from the nasal and temporal parts of the retina to the cuneus and temporal gyrus of visual cortex. - Draw out the different visual field deficits and the causes evident in lesions to the optic nerve, optic chiasm, optic tract, optic radiations and visual cortex. - Describe the three components of the ear and how the organ of Corti transduces mechanical energy into generator potentials. - Distinguish between the lesion sites and causes of a sensorineural versus a conductive hearing loss and how one uses the Weber and Rinne tests to determine the nature of the hearing loss. - Differentiate the major nuclei of the thalamus and their functions. - Describe the different embryonic origins of the pituitary and the nuclei in the hypothalamus that control or contribute to the functional activity of each pituitary component. - Name the lobes that make up the cortex and distinguish the vascular territories of the anterior, middle and posterior cerebral arteries. - Describe how the dominant hemisphere differs functionally from the non dominant hemisphere. - List four different lesion sites in the dominant hemisphere that result in an aphasia and list the signs and symptoms of that aphasia. -
1 Course Unit

Ancient History (ANCH)

ANCH 0020 Travel and Ethnography
In this class we will read a broad selection of travel narratives, from Herodotus to Ibn Battuta and from the Jesuit Relations describing New France up to the 20th century writers such as Lawrence Durrell, Robyn Davidson and Rory Stewart. Our focus will be on exploring how travel and travel writing create exotic cultures. The journey also becomes a discovery of self by an encounter with the Other. In the process, entire worlds of wonder open up for the viewer. How material is selected for recording reflects the priorities, anxieties and worldview of the writer, reflecting travel's ability to focus our attention and stimulate thoughtful reflection.
Not Offered Every Year
Also Offered As: CLST 0020
1 Course Unit
ANCH 0100 Introduction to the Ancient Near East
The great pyramids and mysterious mummies of Egypt, the fabled Tower of Babel, and the laws of the Babylonian king Hammurabi are some of the things that might come to mind when you think of the ancient Near East. Yet these are only a very few of the many fascinating — and at time perplexing — aspects of civilizations that flourished there c. 3300-300 BCE. This is where writing first developed, where people thought that the gods wrote down what would happen in the future on the lungs and livers of sacrificed sheep, and where people knew how to determine the length of hypotenuse a thousand years before the Greek Pythagoras was born. During this course, we will learn more about these other matters and discover their place in the cultures and civilizations of that area. This is an interdisciplinary survey of the history, society and culture of the ancient Near East, in particular Egypt and Mesopotamia, utilizing extensive readings from ancient texts in translation (including the Epic of Gilgamesh, "one of the great masterpieces of world literature"), but also making use of archaeological and art historical materials. The goal of the course is to gain an appreciation of the various societies of the time, to understand some of their great achievements, to become acquainted with some of the fascinating individuals of the time (such as Hatshepsut, "the women pharaoh," and Akhenaten, "the heretic king"), and to appreciate the rich heritage that they have left us.

Fall
Also Offered As: HIST 0730, NELC 0001
1 Course Unit

ANCH 0101 Ancient Greece
The Greeks enjoy a special place in the construction of western culture and identity, and yet many of us have only the vaguest notion of what their culture was like. A few Greek myths at bedtime when we are kids, maybe a Greek tragedy like Sophokles' Oidipous when we are at school: these are often the only contact we have with the world of the ancient Mediterranean. The story of the Greeks, however, deserves a wider and more intimate audience, because so much of what we esteem in our own culture derives from them: democracy, epic poetry, lyric poetry, tragedy, history writing, philosophy, aesthetic taste, all of these and many other features of cultural life enter the West from Greece. The oracle of Apollo at Delphi had inscribed over the temple, "Know Thyself." For us, that also means knowing the Greeks. We will cover the period from the Late Bronze Age, c. 1500 BC, down to the time of Alexander the Great, concentrating on the two hundred year interval from 600-400 BC.

Fall
Also Offered As: CLST 0101, HIST 0720
1 Course Unit

ANCH 0102 Ancient Rome
At its furthest extent during the second century CE, the Roman Empire was truly a "world empire", stretching from northern Britain to North Africa and Egypt, encompassing the whole of Asia Minor, and bordering the Danube in its route from the Black Forest region of Germany to the Black Sea. But in its earliest history it comprised a few small hamlets on a collection of hills adjacent to the Tiber river in central Italy. Over a period of nearly 1500 years, the Roman state transformed from a mythical Kingdom to a Republic dominated by a heterogeneous, competitive aristocracy to an Empire ruled, at least notionally, by one man. It developed complex legal and administrative structures, supported a sophisticated and highly successful military machine, and sustained elaborate systems of economic production and exchange. It was, above all, a society characterized both by a willingness to include newly conquered peoples in the project of empire, and by fundamental, deep-seated practices of social exclusion and domination. This course focuses in particular upon the history of the Roman state between the fifth century BCE and the third century CE, exploring its religious and cultural practices, political, social and economic structures. It also scrutinizes the fundamental tensions and enduring conflicts that characterized this society throughout this 800-year period.

Spring
Also Offered As: CLST 0102, HIST 0721
1 Course Unit

ANCH 1100 Ancient Mediterranean Empires
What constituted an empire in antiquity and how was imperialism legitimized? Which measures were used to maintain and organize imperial power? How did foreign rule affect the daily life of people all over the Mediterranean? In this course we will discuss and compare ancient empires from Achaemenid Persia to Alexander the Great and the Hellenistic kingdoms of his successors to the emergence of Rome as one of the most influential empires in world history. Topics that will be discussed include ancient ideas and concepts of imperial rule, patterns of political, economic and cultural power and their interrelations as well as imperial crises and local resistance. All texts will be discussed in translation. There are no prerequisites.

Fall
Also Offered As: CLST 1100
1 Course Unit

ANCH 1102 The Decline and Fall of the Roman Empire?
The Roman Empire, teetering under the weight of its bureaucracy, oppressed by the demands of its soldiers, weakened by wave after wave of barbarian invasions, and, with the rise of Christianity, confronted by its own immorality, finally fell when the last Roman emperor, Romulus Augustulus, was sent into exile in 476 CE. That, at least, is one version of the story. In truth, there are many stories that can be told of the period between the apogee of the Roman empire in the 2nd c. AD and the rise of Christianity and Islam and origins of the so-called Barbarian Kingdoms in the 7th and 8th centuries AD. This course will explore this period of 600 years, using methodologies from history, archaeology, social science and the sciences to understand the complex problem of empire and its evolutions. No previous knowledge of ancient or medieval history required.

Also Offered As: CLST 1102
1 Course Unit
ANCH 1103 Ancient Iranian Empires
Iran - as a landmass and a political entity - was central to the ancient world in a variety of ways. Ancient Iranian Empires were of central importance to - and centrally located in - the ancient world. It was the successor kingdom to the Assyrians and Babylonians; the power against which Greece and Rome defined themselves; and the crucible in which various communities and models of rule developed. This course offers a survey of the history of the ancient Persianate world, focusing in particular on the political and imperial entities that rose to power, the cultural, political, mercantile, and other contacts they shared with their neighbors to the East and West, and the communities and religious groups that arose and flourished within their lands. Ancient Iranian empires rivaled the Greek and Roman Empires to their West, and the central and eastern Asian Empires to their east, and the ongoing history of diplomacy, cultural contact, and war between these regions was formative to each and to the ancient world as a whole. Iran was home to and similarly formative for a variety of religions, including Zoroastrianism, Judaism, Christianity, Manichaeanism, and Islam, and a central question Ancient Iranian political powers sought to address was how to negotiate and address the variety of populations under their control. The course will conclude by studying how, rather than a simplistic story of decline, the strategies, policies, institutions, and memory of the Iranian Empires continued to shape early Islam, medieval imagination, and modern political regimes.  
Also Offered As: NELC 2040, RELS 2040
1 Course Unit

ANCH 1202 The Ancient Economy
This class presents an introduction to economies before economics, a study of economic activity in the Greco-Roman world. Ancient Greece and Rome have been called some of the first "global" economies - they engaged in long-distance trade, introduced the first coinage systems, and built and manufactured at large scales. At the same time, they remained agrarian societies, with majority peasant populations, high levels of inequality and social systems that often placed social capital ahead of profit. Using textual sources, archaeology and techniques from the natural and social sciences, this class will not only look at basic elements of economic activity in the ancient world - demographics, trade, monetization, industry - but also ask critical questions about how - or if - modern economic methods can be applied to the distant past. No previous knowledge of the ancient world or economics is necessary. 
Fall or Spring
Also Offered As: CLST 1206
1 Course Unit

ANCH 1203 Myths and Religions of the Ancient World
This course will survey the religions of the ancient Middle East, situating each in its historical and socio-cultural context and focusing on the key issues of concern to humanity: creation, birth, the place of humans in the order of the universe, death, and destruction. The course will cover not only the better-known cultures from the area, such as Egypt and Mesopotamia, but also some lesser-known traditions, such as those of the Hittites, or of the ancient Mediterranean town of Ugarit. Religion will not be viewed merely as a separate, sealed-off element of the ancient societies, but rather as an element in various cultural contexts, for example, the relationship between religion and magic and the role of religion in politics will be recurring topics in the survey. Background readings for the lectures will be drawn not only from the modern scholarly literature, but also from the words of the ancients themselves in the form of their myths, rituals, and liturgies.  
Spring
Also Offered As: NELC 0004, RELS 0004
1 Course Unit

ANCH 1205 Race and Ethnicity in the Ancient World
Modern political and artistic movements often appeal to an ancient past in order to construct their own social and racial identities. But how did ancient peoples understand themselves and others? How should we understand race and ethnicity in the ancient past? And how are perceptions of the past used today to construct or dismantle structures of power? This course explores both ancient and modern representations of race and ethnicity in antiquity. We will investigate both how ancient peoples around or near the Mediterranean (e.g. Greeks, Romans, Egyptians, Persians, and Nubians) understood difference and also how modern eras have appropriated ancient identities. Our dialogues will include ancient ethnographies, literature, and visual arts as well as modern theories and media, with an emphasis on active learning and collaboration. Students will be encouraged to produce both analytical and creative responses to our materials. 
Not Offered Every Year
Also Offered As: CLST 1205
1 Course Unit

ANCH 1206 Citizenship, Belonging and Exclusion in the Roman World
What did it mean to be a citizen in the Roman world? What did citizens do in order to support their claims to belong in the civic community? Conversely, what about those members of the community who were judged not to belong? What limitations acted upon them, and what were the terms of their exclusion? This course will begin by exploring practices of citizenship in the Roman Republic and Empire: voting, serving in the military, running for office, and so on. It will then examine the experiences of those who, for some reason, were excluded from one or more of these roles. Fundamentally, our question is: “To what extent was Roman society diverse and inclusive?” No prior knowledge of Roman History is required. 
Texts will be discussed in translation. 
Not Offered Every Year
Also Offered As: CLST 1206
1 Course Unit

ANCH 1207 Greek Parties, Speech, and Identity
The ancient Greek symposium existed as a stylized elite drinking party from the Archaic period until the end of the Roman Empire a millennium later, inspiring many works of literature and philosophical debates. Conversation and correct behavior were key at these parties to form social bonds and indicate one’s belonging to Greek elite society while simultaneously excluding certain demographics from the group. In this course we will learn about the ancient Greek world through the institution of the symposium and will complicate our understanding of the ancient world by putting it in dialog with our modern cultural expectations. We will read from a selection of authors in translation including Plato, Plutarch, and Athenaeus, focusing on the conversational and presentational aspects of the texts. Students will also develop personalized techniques for public speaking and will practice several varieties of public speaking inspired by the symposium. This course is a CWIC Critical Speaking Seminar, in which most of the course grade will be based on oral assignments. No prior experience with the ancient world or with public speaking is required. 
Not Offered Every Year
Also Offered As: CLST 1207
1 Course Unit
ANCH 1305 Art and Architecture in Ancient Egypt
This course will be an introduction to the art, architecture and minor arts that were produced during the three thousand years of ancient Egyptian history. This material will be presented in its cultural and historical contexts through illustrated lectures and will include visits to the collection of the University Museum.
Not Offered Every Year
Also Offered As: ARTH 2180, NELC 0210
1 Course Unit

ANCH 3101 Periclean Athens
Athens in the 5th Century BCE is often viewed as a high point of human civilization. We will assess this claim by looking at the period's cultural achievements (in such areas as drama, architecture, and oratory) within their social and political contexts. Topics for discussion include: the structure and workings of the Athenian democracy; the interplay between pro-democratic and anti-democratic positions in Athenian political life; the connections between democracy and imperialism; conceptions of citizenship and relations between citizens and non-citizens (women, slaves, and resident foreigners); the role of the law courts in both dispute resolution and elite competition; sexual politics; and the civic significance of religious ritual.
Not Offered Every Year
Also Offered As: CLST 3101
1 Course Unit

ANCH 3102 The Rise and Decline of Macedonia
In this course, we will study the rise and development of Macedonia from a tiny kingdom on the northern fringes of the Greek world to one of the major powers of the region and beyond. Regarded by the Greeks as an at least semi-barbarian culture on the periphery, Macedonia became the dominant power in the Greek world during the fourth century BC and its king Alexander the Great set out to conquer the world. After his death, Macedonia was one of the Hellenistic kingdoms competing for power and influence in the Mediterranean until it finally came under Roman control. Topics that will be discussed include questions of ethnicity and identity, Macedonian kingship, culture and society (including the role of women) and the role of Macedonian traditions in the Hellenistic era in general. Special emphasis will therefore be laid on critical reading and interpretation of ancient literary texts, documentary evidence and archaeological material. that will be discussed include questions of ethnicity and identity, Macedonian kingship, culture and society (including the role of women) and the role of Macedonian traditions in the Hellenistic era in general.
Not Offered Every Year
Also Offered As: CLST 3102
1 Course Unit

ANCH 3103 The Hellenistic and Roman Near East
In this course we will study the history of the Hellenistic and Roman period from a Near Eastern perspective. From the conquests of Alexander the Great to the end of Roman rule in late antiquity, this region was the scene of conflicts, but also of peaceful and fruitful interactions between Greeks, Romans, Egyptians, Jews, Syrians, Arabs and many other societies. What was the impact of Greek and Roman rule and how did the peoples of the region react to these fundamental changes? On the other hand, how did they influence the culture and worldview of their conquerors? We will use historical texts, documents and archaeological evidence to discuss these political, cultural and religious encounters that made the Near East to a key region of Greco-Roman history. All texts will be discussed in translation. No prerequisites, although it would be useful to have some background in Hellenistic and/or Roman history.
Also Offered As: CLST 3103, NELC 3060
1 Course Unit

ANCH 3104 Greek World After Alexander the Great
This class is designed as a detailed investigation of the world created by Alexander the Great. We will cover the three hundred year period known as the Hellenistic Age from the career of Alexander the Great (354-323 BC) until the defeat of Antony and Cleopatra at the Battle of Actium (31 BC). This was a period during which the world of the Greeks underwent extraordinary and far-reaching changes, as Greek culture was established as far afield as northwestern India, central Asia and Egypt. In the same period kingdoms controlled by Alexanders's Successors used Greek culture to define their rule, establishing a Greek culture of the elite in regions which previously had been dominated by the Persians. As Greek and non-Greek worlds collided, a new interpretation of Greek culture emerged, giving rise, among other things, to universities and professional schools, state subsidized health care, triumphalist architecture, the heroization of the noble savage, coinage with royal portraits, the deification of men and a multitude of other social, artistic and political forms familiar to us. It was an age of radical change, dislocation, as Greek populations colonized regions previously unknown to them.
Not Offered Every Year
Also Offered As: CLST 3104
1 Course Unit

ANCH 3107 Age of Caesar
A course on Roman culture and society in a period of tumultuous political change, the lifetime of Julius Caesar (100-44BCE). Focuses on the interplay between shifting political and military realities and developments in social organization and literary production at Rome and in the wider Mediterranean world. The reception of Caesar in later ages will also be considered. Readings (all in translation) will include Catullus, Cicero, Lucretius, Plutarach, Sallust, Suetonius, and, of course, Caesar himself.
Not Offered Every Year
Also Offered As: CLST 3107
1 Course Unit
ANCH 3109 Living and Dying in Ancient Athens
This class is designed to explore the experience of daily life in ancient Athens, with special attention to the values and practices that constitute the habits of life in the classical period. Methodologically the class will attempt a bottom-up reconstruction of lived experience by focusing on those features of ordinary life that were taken for granted by the Greeks but which strike us as either alien, odd or hard to understand. Topics covered include: settlement and resource extraction; crops and risk mitigation; trade and manufacturing; slavery; sex work; the symposium; military service; and burial.
Not Offered Every Year
Also Offered As: CLST 3109
1 Course Unit

ANCH 3201 Disasters in the Ancient Mediterranean World
Natural disasters occupy a powerful place in our imagination. Stories of floods, plagues, earthquakes and storms excite and horrify us, and communities mobilize their resources quickly in response to these events. In the ancient Mediterranean world, natural disasters could take on potent meaning, indicating the anger or disfavor of the gods, acting as warnings against certain courses of action, or confirmations of individuals' fears or suspicions about the world in which they lived. In this course, we will explore the evidence for some disasters in the ancient Mediterranean world, the ways in which contemporaries reacted to those disasters and interpreted their causes. This project is, of necessity, multidisciplinary, involving textual, archaeological, geological, and comparative materials and drawing on methodologies from history, political and archaeological science, and the emerging field of disaster studies. In the process, we will gain an appreciation of the social structures of communities in the period, the thought-world in which they operated, and the challenges and opportunities that attend a project of this sort. No prior knowledge of Ancient History is required, although it would be useful to have taken an introductory survey course such as ANCH 0100, ANCH 0101, or ANCH 0102. Texts will be discussed in translation.
Not Offered Every Year
Also Offered As: ANCH 3201, CLST 3201
1 Course Unit

ANCH 3203 Power and Peril: The Paradox of Monarchy among Ancient Greeks, Romans, and Jews
We imagine ancient Greece and Rome as the cradles of democracy and republicanism, early Judea as a pious theocracy, but monarchy was the most common and prevalent form of government in antiquity (and the premodern world in general). In this class, we will take a special look at kinship among the Jews, Greeks, and Romans to assess and discuss similarities, differences, and mutual influences. In all these cultures, the king was a polarizing figure in reality and in conception. On the one hand, some revered the monarch as ideal leader, and monarchy provided the language with which to describe and even imagine the very gods. On the other, monarchs were widely reviled in both theory and practice, from the Greek tyrants to biblical Saul. The Emperor Augustus loudly denied his own affinity to the office of king, even as he ruled alone and was revered as a god. In other words, kings stood both for the ideal and the worst form of government. This class confronts the paradox of monarchical rule and will, through the lens of the king, explore ideas of god, government, human frailty, and utopianism.
Not Offered Every Year
Also Offered As: CLST 3203, JWST 3203, RELS 3203
1 Course Unit

ANCH 3204 Lies My Ancient History Teacher Told Me
The neat, comforting narratives that we construct of the histories of ancient Greece and Rome cover up a collection of controversies and debates that continue to rage in contemporary scholarship. Can we use the Homeric epics as sources of early Greek history? Who was responsible for the Peloponnesian War? How can we best explain Rome’s acquisition of empire? How new was the political revolution of Augustus? What were the main reasons for the rise of Christianity? In this course, we will explore these and other controversies, focusing on both modern scholarship and the ancient sources. All texts will be discussed in translation. No prior knowledge of Ancient History is required, although it would be useful to have taken ANCH 0101 and/or ANCH 0102.
Not Offered Every Year
Also Offered As: CLST 3204
1 Course Unit

ANCH 3205 Religion and the Polis
This class is designed to introduce students to the study of Greek religion with particular attention to the notion of polis religion, a recent model used to understand the function and structure of Greek religion. In this class we will look at the major institutions of Greek religion, notably sacrifice, festivals, and processions, but will also examine the importance of sanctuaries and temples in the heart of the city, on the edges of its territory and in the countryside. We will also examine religion as a system of belief and action, and will consider the intersection of local, state and international religious institutions.
Not Offered Every Year
Also Offered As: CLST 3205
1 Course Unit

ANCH 3206 Jewish Diaspora in the Roman Empire
Under the Roman Empire, Jewish communities developed and flourished especially in the cities of the Eastern Mediterranean, in Egypt, Syria, Asia Minor, Greece, Northern Africa, and Italy proper. In many of these cities, the Jews formed a considerable part of the population; they influenced the cultural, social, and political communal life and developed an identity that was distinctively different from that in Judea. In this seminar, we will trace Jewish life in the Diaspora under Roman rule. How did Jews and non-Jews interact? What was the legal status of Jewish communities under the Roman Empire? What caused conflicts and how were they solved? What can the history of Jewish Diaspora communities tell us about minorities in the Roman Empire in general? We will use literary texts, inscriptions, papyri, and archaeological material to answer these questions and many more.
Also Offered As: CLST 3206, JWST 3206
1 Course Unit
ANCH 3207 Cleopatra
Cleopatra VII (70/69 30 BCE) is one of the most famous women in world history. She has been remembered, admired, and reproached as a power-hungry Hellenistic queen, as the last pharaoh of Egypt, as a self-confident female ruler, and as the vicious seductress of Julius Caesar and Mark Antony. Her supposedly extravagant lifestyle, her political schemes, but also her integrity in choosing suicide over submission have inspired poets, artists, and historians from her own time to the modern world. In this seminar, we will take a closer look at some of the common perceptions and stereotypes that have shaped the image of Cleopatra for more than 2000 years. The main focus, however, will be on the historical queen, her biography, and the political and cultural contexts of her life. We will use ancient literary texts, papyri, inscriptions, coins, and archaeological evidence to analyze Cleopatra’s rise to power, how she presented herself to her subjects, and how she was perceived by others, as well as her role in the tumultuous events that led to the end of the Hellenistic period and the rise of imperial Rome under the rule of Augustus. No prerequisites, but some background in Hellenistic and/or Roman history will be helpful.
Not Offered Every Year
1 Course Unit

ANCH 3209 Foreigners in Rome
According to the stories the Romans told about the origins of their city, Rome began as a community of immigrants. As a growing metropolis and, eventually, the center of an empire, the city remained a magnet for people from other parts of the Empire and beyond. Foreigners came to the city as merchants and travelers, they settled here seeking a different and better life, pursuing a career, or escaping hardships in their home communities. Others were brought to Rome against their will, as prisoners or slaves. In this seminar, we will explore the different communities of foreigners and immigrants that shaped Rome. How and why did they move to the city? How did they experience their new home? How did they adapt to life in Rome and how, in turn, did they influence what we define as “Roman” today? Finally, what can the legal, social, political, and social status of immigrants tell us about Roman society in general? To answer these questions (and more), we will look at a wide array of primary sources, including literary texts, inscriptions, and material culture.
Also Offered As: CLST 3209
1 Course Unit

ANCH 3210 Classicism in the Black Atlantic, 1776-1968
During the eighteenth century, Britain, France, and the other imperial powers embraced the classical aesthetic to broadcast their genealogical connections with ancient Greece and Rome. As they expanded across the Atlantic, they brought with them an aesthetic of white marble, symmetry, restraint, and cultivated ‘taste’ that served to aestheticize the dependence of the imperial system on enslaved labor. This course explores how freed slaves and their descendants negotiated with the ideology of classicism during the long battle for civil rights in the Atlantic world. Beginning with the work of Phillis Wheatley, Olaudah Equiano, Ignatius Sancho, and Ottobah Cugoano, we will investigate how participants in the world of what Paul Gilroy called “the Black Atlantic” embraced, questioned, or rejected the classical aesthetic up to the final collapse of the colonial system in the late 1960s. Along the way, we will ask important questions including: who ‘owns’ ancient Greece and Rome? Can an aesthetic be inherently political? And was the Black classicism of the 18th-20th centuries effective in fulfilling an agenda of liberation?
Not Offered Every Year
Also Offered As: HIST 0875
1 Course Unit

ANCH 3202 Writing History in Greece and Rome
What constituted history in ancient Greece and Rome? What claims to knowledge did history make, and how did these differ from other forms of knowledge? How did historians envision their task, and how did they go about performing it? We will read the works of the major Greek and Roman historians in translation in an attempt to answer those questions. Other issues to consider include the origins and development of historical writing, the place of history within the ancient literary tradition, and the similarities and differences between the ancient and modern practice of history.
Fall or Spring
Also Offered As: CLST 3602
1 Course Unit

ANCH 3999 Independent Study
This course is taken by students doing independent work with a faculty advisor, equivalent to work in regular 3000-level courses.
Fall or Spring
Also Offered As: LATN 0000
1 Course Unit

ANCH 4998 Senior Research Paper (Honors Thesis)
This course is taken in the senior year by students approved to write a Senior Research Paper for the Ancient History major. For policies see the Classical Studies department website.
Fall or Spring
Also Offered As: LATN 4998
1 Course Unit

ANCH 5800 MLA Proseminar: Ancient Economies
This class presents an introduction to economies before economics, a study of economic activity in the Greco-Roman world. Ancient Greece and Rome have been called some of the first “global” economies - they engaged in long-distance trade, introduced the first coinage systems, and built and manufactured at large scales. At the same time, they remained agrarian societies, with majority peasant populations, high levels of inequality and social systems that often placed social capital ahead of profit. Using textual sources, archaeology and techniques from the natural and social sciences, this class will not only look at basic elements of economic activity in the ancient world - demographics, trade, monetization, industry - but also ask critical questions about how - or if - modern economic methods can be applied to the distant past. No previous knowledge of the ancient world or economics is necessary.
Spring
1 Course Unit
ANCH 6080 Worlds of Late Antiquity
The period between the third and eighth centuries - from the Tetrarchy led by Diocletian to the rise of Umayyad Caliphate - is characteristically regarded as a period of ferment and change, whether that be on the still-influential model of Decline and Fall first proposed by Edward Gibbon in the eighteenth century or the somewhat less deterministic account of transformation favored by Peter Brown in the late twentieth. These narratives tend to emphasize the large-scale processes that played out over these centuries, such as the florescence and fragmentation of two world empires; the emergence of two highly influential monotheistic religions of the book; and the codification of legal systems that continue to dominate contemporary practices and theories of law. Equally, what characterizes these centuries is the particular granularity and character of the textual and archaeological evidence that exists for the functioning of this world at the micro-scale, as against the periods that preceded and followed. This course traces the social, economic, cultural, and religious institutions and processes that make this period distinctive, explores the nature of the evidence for those institutions and processes, and exposes to scrutiny the assumptions and preconceptions that underpin the scholarly narratives that have been constructed about them.
Not Offered Every Year
Also Offered As: NELC 6080, RELS 6080
1 Course Unit

ANCH 6101 Problems in Greek History
This course will explore some of the pressing and problematic scholarly debates in the historiography of the Greek archaic and classical periods.
Not Offered Every Year
1 Course Unit

ANCH 6102 Problems in Hellenistic History
This course will explore seminal trends and debates that have shaped modern inquiries in the period between the campaigns of Alexander and the Battle of Actium. The purpose of the seminar is to gain familiarity with the field of Hellenistic studies broadly defined as well as specific approaches. Special emphasis will be laid on the debate of whether terms such as "Hellenism" or "Hellenization" adequately describe the complex political, social, and cultural dynamics of the period and the new frameworks of interaction, confluence, and power structures that shaped it.
Fall or Spring
1 Course Unit

ANCH 6103 Problems in Roman History: Roman Empire
This course will explore some of the pressing and problematic scholarly debates in the historiography of the Roman imperial period, from the accession of the first emperor, Augustus, to the reign of Justinian (ruled 527-363 CE). Students will gain a familiarity with both the broad historical narratives of the Roman empire and the details of specific scholarly disagreements in the intellectual, political, socio-economic, and cultural history of the period.
Fall or Spring
1 Course Unit

ANCH 7202 Greek Epigraphy
An introduction to the principles and practices of Greek Epigraphy. Study of selected Greek inscriptions.
Not Offered Every Year
Also Offered As: GREEK 7802
1 Course Unit

ANCH 7203 Ancient Economies
Scholars have long debated the nature of the ancient economy, the terms in which it can best be approached, and the decision-making processes that underpinned economic behavior in antiquity. In particular, controversy has surrounded the extent to which the economies of Greco-Roman antiquity can be modeled using contemporary tools of analysis. In recent scholarship, many of the tenets laid down by Moses Finley in his The Ancient Economy have been re-evaluated, with the result that the field is currently in a state of intellectual ferment. It is the purpose of this course to explore the terms in which contemporary debates over ancient economic systems are formulated, with reference to a variety of societies and periods, from the palace economies of the Mycenaean period to the system of taxation introduced in the early fourth century by the emperor Diocletian and his colleagues in the Tetrarchy.
Fall or Spring
Also Offered As: CLST 7203
1 Course Unit

ANCH 7204 Provincial Perspectives
Most of the primary sources available to us are commonly taken to reflect the ideology, concepts, and realities of Roman imperial rule through the lenses of the central power. However, a number of sources provide insights into how provincials and imperial subjects perceived the empire and their own status within its political, cultural, and social frameworks. In this seminar, we will focus on how ethnic, religious, cultural, and regional identities were developed, maintained, adapted, and interpreted within and in reaction to the empire in concept and reality. Historiographical and auto-ethnographic works, orations, philosophical, and religious texts reflect different attitudes towards the imperial center, ranging from open hostility and frustrated acceptance to praise and identification. Texts to be discussed include canonical works (Polybius, Dionysius of Halicarnassus, Second Sophistic) as well as lesser-known texts and authors. Special emphasis will be laid on scholarly approaches, including concepts of identity, hybridization and cultural change, the dynamics of imperial integration, and the (de-)construction of modern narratives of Romanization.
Not Offered Every Year
1 Course Unit

ANCH 7205 Greek Sanctuaries
Sanctuaries remain an important focal point for the study of Greek religion. Both as sites for worship, dedication, oracular activity and other cult activity and as sites for the mediation of elite and state competition sanctuaries are, along with the polis, the most essential structuring institutions of Greek life. This seminar takes a selection of larger and smaller extra-urban sanctuaries and examines their growth, articulation and function.
Not Offered Every Year
1 Course Unit
ANCH 7208 Biographical Approaches to Antiquity
Biographical approaches, long used and despised as a genre reducing history to the actions of a few protagonists, have gained prominence again in recent scholarship. Instead of focusing the historical analysis on the usual suspects (from emperors to canonical authors), more recent applications of biographical approaches have deliberately decentered the narrative, employed the perspective of those whose position has been marginalized, and revealed influences and patterns that otherwise would remain unnoticed. This course will explore the potential, variations, and pitfalls of approaches that focus on individuals, from biographies that follow a traditional format yet have shaped the field of ancient studies to microhistory and prosopographical studies. Using examples from the late Hellenistic to the High Imperial Period, we will discuss methodologies to reconstruct an individual life despite the general scarcity of sources, how such an approach can transform our understanding of the respective cultural, political, and social circumstances, and what insights into the broader historical processes such a focus offers or obscures. Graduate-level Latin and Greek required as pre-requisite for course.
Not Offered Every Year
Also Offered As: CLST 7208
1 Course Unit

ANCH 7209 Fragmentary Historians
This is research seminar in which students will be expected to prepare translations of and commentaries on a wide range of lesser-known and fragmentary historians of the Hellenistic and Imperial periods, ranging from Duris of Samos to Dexippos of Athens. Students will use the model of Jacoby's Die Fragmente der Griechischen Historiker for the presentation of their work and will report on the major genres of later Greek historiography: ethnography, regional history, universal history, genealogy and horography. The semester will consist of three units. In the first part, the emphasis will be on acquiring familiarity with and confidence in working with Jacoby's brilliant but idiosyncratic masterwork. Students will be assigned short entries from FGrH in order to practice translation, writing commentaries and mastering the format of the genre. In addition, students will be reading a wide range of contemporary historians on the general subject of Greek historiography and will be expected to acquire a broad grasp of the development of Greek history writing in the Hellenistic and Imperial periods. Topics to be discussed will include the development of Universal histories, geographic and perihegetic literature, local histories, genealogy, mythography and Greek writing by non-Greeks. In the second unit we will work on longer entries in Jacoby. Each student will have responsibility for an historian for whom we have approximately 20-30 pages of testimonia and fragments. Each week each student will present a portion of the overall FGrH entry and will receive comments and help from the other seminar participants. Students will be free to choose which historian they wish to work on and will be encouraged to find authors whose interests intersect with the students' proposed course of research. In the third unit the entire seminar will work collaboratively on a single, lengthy entry in Brill's New Jacoby. Each student will be assigned a portion of the text and commentary and will produce a segment of approximately eight pages of translation and commentary.
Not Offered Every Year
1 Course Unit

ANCH 7210 The Principate under Pressure: Gaius Caligula
The course discusses the principate of Gaius Caligula in regard to contemporary evidence, later reception in antiquity, and modern scholarship.
Not Offered Every Year
Also Offered As: LATN 7210
1 Course Unit

ANCH 7310 Ancient Greek Colonies
This seminar examines the archaeology of Greek colonization from the Late Bronze Age to ca. 500 B.C. These colonies were highly diverse in their motivations, physical settings, and political and social structures, as well as in their relationships with mother cities and the new worlds they inhabited. Emphasis is placed on the colonial experience as a cross-cultural and negotiated process; several streams of the changing theoretical and conceptual approaches to Greek colonization are explored. In addition to archaeological and epigraphic evidence, literary and historical traditions are examined. Colonies from the southern Balkan peninsula, Black Sea, Ionia, northern Africa, and Magna Graecia will be the focus of reading and reports. Seminar meetings will consist of oral reports and discussion of these reports and other topics. Depending on the number of participants, each person will be responsible for two or three reports of approximately 30-45 minutes length. Accompanying the oral report will be a PowerPoint document (in most cases), a synopsis/summary of one to two pages, and a bibliography. These will all be posted on the course Canvas site. No later than one week before an oral presentation, the presenter will identify one or two key readings for all to read, in consultation with the instructor. These will be posted, in PDF format, on the Canvas site. One or more visits to the Penn Museum may be built into the course.
Not Offered Every Year
Also Offered As: AAMW 5190, CLST 7310
1 Course Unit

ANCH 7403 Borderlines: Art and Artifact in the Roman Empire
What made art and artifacts 'Roman', or not, in a Roman world? 'Roman provincial art' is an active scholarly category. This seminar reframes it, to test productive models to understand visual culture outside the empire's Italian heartland from the Late Republic into Late Antiquity, in the Roman polity's interactions with many peoples in situations of diaspora, colonization, hegemony, conflict, economic exchange, and religious interaction. As 'Rome' expanded, cultural relations across many borderlines - social, ethnic, territorial - potentially became cultural politics. A traditional topic for that has been Roman interaction with Greek culture. This seminar extends that range, while tackling 'Hellenization', as we reflect on models of 'Romanization', globalization and identity formation within the Empire's boundaries in its provinces and client kingdoms, and also at its frontier zones. Various disciplines apply: art history, archaeology, history, and more. Case studies, evolved with students, may range from Britain to Iran, northern Africa to the Black Sea in space and, in time, from interactions with the Hellenistic East and West and with Iron Age Europe, to the age of Germanic, Sasanian and Umayyad conquests of Roman terrain, ca 3rd c. CE. The market in art and artifact, the nature and status of makers, and conditions of patronage and viewing are key considerations. Private and public objects, images, architecture and urbanism, and landscapes can all concern us, as we try out disciplinary approaches that take in eg cultural appropriation, translation and hybridity, creolization, discrepant experience, object agency, and communities of taste and style. 'Ethnicity' is a loaded concept in ancient Mediterranean studies, as is 'race,' our course must engage those, and the ways in which things and styles have been made to serve those terms. And who owns, is heir to, the cultural legacies we look at, and how to name them, are problems that tangle with current national identity formation, and academic and museum practice. Our own Museum's holdings can make topics. Students are welcome to bring in interests in language and text cultures, in disciplines outside art history and archaeology, and in other world cultures and epochs.
Not Offered Every Year
Also Offered As: AAMW 5250, ARTH 5250, CLST 7403
1 Course Unit
ANCH 9000 Dissertation Prospectus Workshop
Designed to prepare graduates in any aspect of study in the ancient world to prepare for the dissertation prospectus. Course will be centered around individual presentations and group critique of prospectus’ in process, as well the fundamentals of large-project research design and presentation.
Spring
Also Offered As: CLST 9000
1 Course Unit

ANCH 9999 Independent Study
This course is taken by graduate students doing independent work with a faculty advisor.
Fall or Spring
1 Course Unit

Ancient Near East Languages (ANEL)

ANEL 4000 First Year Akkadian I
Introduction to the grammar of the Akkadian language with emphasis on developing skills in the cuneiform writing system and reading of selected texts.
Fall
1 Course Unit

ANEL 4100 First Year Akkadian II
A continuation of First Year Akkadian I, this class teaches the grammar of the Akkadian language with emphasis on developing skills in the cuneiform writing system and reading of selected texts.
Spring
Prerequisite: ANEL 4000 OR ANEL 6000
1 Course Unit

ANEL 4200 Beginning Sumerian
An introduction to the grammar and writing system of the Sumerian language.
Fall or Spring
1 Course Unit

ANEL 4250 Akkadian Literary Texts
Readings in Akkadian literary texts from ancient Mesopotamia.
Mutually Exclusive: ANEL 4250
Prerequisite: ANEL 4100
1 Course Unit

ANEL 4300 Akkadian Historical Texts
Readings in Akkadian historical texts from ancient Mesopotamia.
Not Offered Every Year
Mutually Exclusive: ANEL 6300
1 Course Unit

ANEL 4420 Sumerian Daily Texts
Reading administrative and economic texts in the Sumerian Language from ancient Mesopotamia.
Not Offered Every Year
Mutually Exclusive: ANEL 7300
1 Course Unit

ANEL 4500 Middle Egyptian
Introduction to the grammar of Middle Egyptian.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

ANEL 4600 Middle Egyptian Texts
This course will deal with those texts of the Middle Kingdom that are written in the classical form of the language. It will include both monumental inscriptions, such as autobiographical stela inscriptions (P. Newberry, BENI HASSAN) and stelae (Seth, LESESTUCKE) as well as narratives in prose (DeBuck, READING BOOK). Religious texts (ibid. and COFFIN TEXTS) will also be studied and analyzed. Distinctions between the grammar of the literary and non-literary genres will be discussed.
Fall or Spring
Prerequisite: ANEL 4500
1 Course Unit

ANEL 6000 First Year Akkadian I
Introduction to the grammar of the Akkadian language with emphasis on developing skills in the cuneiform writing system and reading of selected texts.
Fall
1 Course Unit

ANEL 6100 First Year Akkadian II
A continuation of 1st Year Akkadian I, this class builds on the lessons of that class on the grammar of the Akkadian language with emphasis on developing skills in the cuneiform writing system and reading of selected texts. To take this class without first having taken 1st Year Akkadian I requires permission of the instructor.
Not Offered Every Year
Prerequisite: ANEL 6000
1 Course Unit

ANEL 6250 Akkadian Literary Texts
Readings in Akkadian literary texts from ancient Mesopotamia.
Fall or Spring
Mutually Exclusive: ANEL 4250
Prerequisite: ANEL 6100
1 Course Unit

ANEL 6300 Akkadian Historical Texts
Readings in Akkadian historical texts from ancient Mesopotamia.
Fall or Spring
Mutually Exclusive: ANEL 4300
Prerequisite: ANEL 6100
1 Course Unit

ANEL 6350 Akkadian Letters
Readings in Akkadian letters from ancient Mesopotamia.
Fall or Spring
Prerequisite: ANEL 6100
1 Course Unit

ANEL 6400 Intermediate Sumerian
Reading literary texts in the Sumerian Language from ancient Mesopotamia.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

ANEL 6650 Demotic
The course will be an introduction to the writing, grammar, and literature of Demotic, the phase of the language in use during the latter periods of Egyptian history.
Not Offered Every Year
1 Course Unit
**ANEL 6700 Late Egyptian**
Introduction to the grammar of Late Egyptian.
Fall or Spring
Prerequisite: ANEL 4500
1 Course Unit

**ANEL 6750 Old Egyptian**
This course is an introduction to the language of the Egyptian Old Kingdom. The grammar of the period will be introduced during the early part of the semester, using Ededl's ALTAGYPTISCHE GRAMMATIK as the basic reference. Other grammatical studies to be utilized will include works by Allen, Baer, Polotsky, Satzinger, Gilula, Doret, and Silverman. The majority of time in the course will be devoted to reading varied textual material: the unpublished inscriptions in the tomb of the Old Kingdom official Kapure—on view in the collection of the University Museum; several autobiographical inscriptions as recorded by Sethe in URKUNDEN I; and a letter in hieratic (Baer, ZAS 93, 1966, 1-9).
Fall or Spring
Also Offered As: AFRC 6750
Prerequisite: ANEL 4500
1 Course Unit

**ANEL 6800 Coptic**
The course will be an introduction to the writing, grammar, and literature of Coptic.
Not Offered Every Year
Also Offered As: RELS 6800
1 Course Unit

**ANEL 7000 Readings in Akkadian Texts I**
Readings in Akkadian texts on selected topics.
Not Offered Every Year
Prerequisite: ANEL 6100
1 Course Unit

**ANEL 7200 The Land of Sumer: Writing, Language, and Culture**
This self-contained course sets the Sumerian language, writing system and use of writing in their social and historical context. The aim is to provide students of ancient history and culture from diverse disciplines with a good grounding in Sumerian culture, familiarity with the Sumerian language and cuneiform writing system and the requisite knowledge for critical assessment of published translations and of the secondary literature. The course is organized as two threads, culture on the one hand and language on the other. The two threads are united by taking examples in the language exercises, vocabulary assignments, etc., as far as possible from the domain of the week’s cultural topics. The net effect is to examine the culture both through contemporary secondary literature and through direct contact with elementary primary texts of relevance to the various topics of discussion. The language component of the course will be carried out in a combination of transliteration and cuneiform, with an expectation that all students will gain familiarity with at least the core 80 syllabic signs, and about 100 additional logographic signs.
Not Offered Every Year
1 Course Unit

**ANEL 7300 Sumerian Daily Texts**
Reading administrative and economic texts in the Sumerian Language from ancient Mesopotamia.
Not Offered Every Year
Mutually Exclusive: ANEL 4420
1 Course Unit

**ANEL 7400 Akkadian Religious and Scientific Texts**
Readings in Akkadian of religious and scientific texts from ancient Mesopotamia.
Fall or Spring
Prerequisite: ANEL 6100
1 Course Unit

**ANEL 7430 Peripheral Akkadian**
Readings in selected texts in Akkadian from the periphery of Mesopotamia, including Alalah, Ugarit, Nuzi, Suza and El-Amarna.
Fall or Spring
Prerequisite: ANEL 6100
1 Course Unit

**ANEL 7500 Akkadian Legal Texts**
Readings in Akkadian legal texts and law corpora from ancient Mesopotamia.
Fall or Spring
Prerequisite: ANEL 6100
1 Course Unit

**ANEL 7600 Akkadian Economic Texts**
Readings in Akkadian economic texts from ancient Mesopotamia.
Not Offered Every Year
Prerequisite: ANEL 6100
1 Course Unit

**ANEL 7700 Readings in Sumerian Texts**
Selected readings in Sumerian texts.
Fall or Spring
Prerequisite: ANEL 7200
1 Course Unit

**Anthropology (ANTH)**

**ANTH 0002 The City in South Asia**
This interdisciplinary social science course examines key topics, themes, and analytic methods in the study of South Asia by focusing on significant South Asian cities. With one-fifth of the world’s population, South Asia and its urban centers are playing an increasingly important role in recent global economic transformations, resulting in fundamental changes within both the subcontinent and the larger world. Drawing primarily on ethnographic studies of South Asia in the context of rapid historical change, the course also incorporates research drawn from urban studies, architecture, political science, and history, as well as fiction and film. Topics include globalization and new economic dynamics in South Asia; the formation of a new urban middle class; consumption and consumer culture; urban political formations, democratic institutions, and practices; criminality & the underworld; population growth, changes in the built environment, and demographic shifts; everyday life in South Asia and ethnic, cultural, and linguistic identities, differences, and violence in South Asia's urban environments. This is an introductory level course appropriate for students with no background in South Asia or for those seeking to better understand South Asia's urban environments in the context of recent globalization and rapid historical changes. No prerequisites. Fulfills College sector requirement in Society and foundational approach in Cross-Cultural Analysis.
Fall or Spring
Also Offered As: SAST 0002, URBS 0002
1 Course Unit
ANTH 0020 Anthropology, Race, and the Making of the Modern World
Anthropology as a field is the study of human beings - past, present, and future. It asks questions about what it means to be human, and whether there are universal aspects to human existence. What do we share and how do we differ? What is "natural" and what is "cultural"? What is the relationship between the past and the present? This course is designed to investigate the ways anthropology, as a discipline, emerged in conjunction with European (and later, American) imperialism, the trans-Atlantic slave trade, and the will to know and categorize difference across the world. We will probe the relationships between anthropology and modern race-making by investigating how anthropologists have studied key institutions and systems that structure human life: family and kinship, inequality and hierarchy, race and ethnicity, ritual and symbolic systems, gender and sexuality, reciprocity and exchange, and globalization and social change. The course fundamentally probes how the material and ideological constellations of any given moment shape the questions we ask and the knowledge we produce about human
Fall
1 Course Unit

ANTH 0030 Human Origins, Evolution and Diversity
How did humans evolve? When did humans start to walk on two legs? How are humans related to non-human primates? This course focuses on the scientific study of human evolution describing the emergence, development, and diversification of our species, Homo sapiens. As a starting point, we discuss the conceptual framework of evolutionary theory as well as basic genetics and heredity as they relate to human morphological, physiological, and genetic variation. We then examine what studies of nonhuman primates (monkeys and apes) can reveal about our own evolutionary past, reviewing the behavioral and ecological diversity seen among living primates. We conclude the course examining the "hard" evidence of human evolution - the fossil and material culture record of human history from our earliest primate ancestors to the emergence of modern Homo sapiens - and also explore the new insights into modern human origins and dispersal provided by genetic studies. We will further examine the nature of human biological variation and discuss the history of scientific racism in physical anthropology. As part of this course, you will have the opportunity, during recitations, to conduct hands-on exercises collecting and analyzing behavioral, morphological, and genetic data on both humans and nonhuman primates and work with the Department of Anthropology's extensive collection of fossil casts.
Fall
1 Course Unit

ANTH 0040 The Modern World and Its Cultural Background
An introduction to the diversity of cultures in the world. This course is divided into two parts. The first briefly examines different models of understanding human diversity: ethnicities, religions, languages, political forms, economic structures, cultures, and "civilizations". Students will learn to think about the world as an interconnected whole, and know the significance of culture on a global scale. The second part is an introduction to area studies, in which we undertake a survey of the different regions of the world. We conduct the survey paying attention to the different aspects of human diversities, which we examine in the first part of this course. Students will acquire a greater appreciation and understanding of cultural differences in the more comprehensive social context.
Spring
1 Course Unit

ANTH 0050 Great Transformations
This course explores the history and archaeology of the last 20,000 years from the development of agriculture to the industrial revolution. Why did people across the world abandon foraging for farming? How and why did cities and states develop? Why did societies succeed or fail? How have humans transformed themselves and the natural world, including the landscape and the climate? We will explore the methods that archaeologists use to consider these questions and analyze evidence for social and economic change from the Middle East, the Americas, Asia, Africa, Australia and Europe. In addition, students will have a chance to conduct hands-on exercises with artifacts from the Penn Museum during practicums.
Spring
1 Course Unit

ANTH 0058 Doing Research: First-Year Seminar
This interdisciplinary course introduces students to qualitative research methods and frameworks in the social sciences and humanities. The goals of the semester will be for each student to develop their own research proposal for a specific project that they could imagine pursuing over the summer or later in their undergraduate career, and to develop a web-based exhibit of one Penn-based research collection of interest. Students will be introduced to a range of textual, archival and media collections and databases available at Penn, with particular attention to South Asia and other specific regions of interest to course participants. The class will visit the Penn Museum object collections and archives, the Art library, the Kislak Center for Rare Books and Manuscripts, Film Archives, and other special collections on campus, and meet with a representative from the Center for Undergraduate Research Funding (CURF). Students will learn how to frame an effective research question, situate it in relation to existing research, select the most appropriate methods for addressing the question, and develop an effective research plan. Each week students will be introduced to a new set of frameworks for analysis, see specific examples of their application drawn from anthropological, historical, and related scholarship and have opportunities to practice applying and evaluating the strengths and weaknesses of specific methodological tools. Students will also have the opportunity to identify sources of funding for summer research projects and prepare applications for these opportunities as part of the course. The course is ideal as an introduction to both the excellent libraries and research collections housed at Penn, and to a wide range of intellectual frameworks for engaging with these collections - a great way to kick off your undergraduate experience at Penn!
Not Offered Every Year
Also Offered As: SAST 0058
1 Course Unit
Sugar and Spices. Tea and Coffee. Opium and Cocaine. Hop aboard the Indian Ocean dhows, Chinese junks, Dutch schooners, and British and American clipper ships that made possible the rise of global capitalism, new colonial relationships, and the intensified forms of cultural change. How have the desires to possess and consume particular commodities shaped cultures and the course of modern history? This class introduces students to the cultural history of the modern world through an interdisciplinary analysis of connections between East and West, South and North. Following the circulation of commodities and the development of modern capitalism, the course examines the impact of global exchange on interactions and relationships between regions, nations, cultures, and peoples and the influences on cultural practices and meanings. The role of slavery and labor migrations, colonial and imperial relations, and struggles for economic and political independence are also considered. From the role of spices in the formation of European joint stock companies circa 1600 to the contemporary cocaine trade, the course's use of both original primary sources and secondary readings written by historians and anthropologists will enable particular attention to the ways that global trade has impacted social, cultural, and political formations and practices throughout the world.
Fall or Spring
Also Offered As: SAST 0063
1 Course Unit

ANTH 0091 Sustainable Development and Culture in Latin America
This interdisciplinary course exposes students to the three dimensions of sustainable development - environmental, economic, and social - through an examination of three products - peyote, coca, and coffee - that are crucial in shaping modern identity in areas of Latin America. The course integrates this analysis of sustainable development in relation to cultural sustainability and cultural practices associated with peyote, coca, and coffee and their rich, traditional heritage and place in literature, film, and the arts.
Fall, even numbered years only
Also Offered As: ENVS 0053, LALS 0091, SPAN 0091
1 Course Unit

ANTH 0103 Origin and Culture of Cities
The UN estimates that 2.9 of the world’s 6.1 billion people live in cities and that this percentage is rapidly increasing in many parts of the world. This course examines urban life and urban problems by providing anthropological perspectives on this distinctive form of human association and land use. First we will examine the "origin" of cities, focusing on several of the places where cities first developed, including Mesopotamia and the Valley of Mexico. We will then investigate the internal structure of non-industrial cities by looking at case studies from around the world and from connections between the cities of the past and the city in which we live and work today.
Fall
Also Offered As: NELC 0003, URBS 0003
1 Course Unit

ANTH 0105 Ancient Civilizations of the World
This course explores the archaeology (material culture) of early complex societies or civilizations in Egypt, Mesopotamia, and the Aegean. According to the traditional paradigm, civilization first emerged during the fourth millennium BCE in Egypt and Mesopotamia. In the Mediterranean, state-level societies first appeared in Crete and mainland Greece in the early second millennium BCE. This course investigates how and why these civilizations developed, as well as their appearance and structure in the early historic (or literate) phases of their existence. A comparative perspective will illustrate what these early civilizations have in common and the ways in which they are unique. This course will consist largely of lectures which will outline classic archaeological and anthropological theories on state formation, before turning to examine the available archaeological (and textual) data on emerging complexity in Egypt, Mesopotamia, and the Aegean. This course does not presuppose any knowledge of archaeology or ancient languages; the instructor will provide any background necessary. Because this is a course on material culture, some of the class periods will be spent at the Penn Museum of Archaeology and Anthropology. These will consist of a guided tour of a relevant gallery, as well as a hands-on object-based lab with archaeological materials selected by the instructor.
Spring, odd numbered years only
Also Offered As: NELC 0050, URBS 0050
1 Course Unit

ANTH 0111 Archaeology & The Bible
Archaeology and the Bible is a chronological survey of the long span of human occupation in the land of the Bible, known by the names of the modern nation-states and political entities that occupy the area, as well as various short hands such as Levant and Syria-Palestine, from ca. 10,000 BCE, when humans first began to farm and herd animals through the time of the Divided Monarchy of Israel and Judah. While archaeology has moved beyond a primary concern with illuminating the Bible, NELC 155 will investigate the broader import of archaeological discoveries for our understanding of ancient Israel and its neighbors.
Not Offered Every Year
Also Offered As: JWST 0111, NELC 0100
1 Course Unit
ANTH 0120 Globalization And Its Historical Significance
This course sets the current state of globalization in historical perspective. It applies the concepts of anthropology, history, political economy and sociology to the study of globalization. We focus on a series of questions not only about what is happening, but about the growing awareness of it and the consequences of this increasing awareness. In answering these questions we draw on a variety of case studies, from historical examples of early globalization (e.g. The Atlantic and Indian Ocean Worlds, global flows of conspicuous commodities such as sugar, coffee, and tea, the rise and transformations of early capitalism), to issues facing our current globalized world (e.g. mass-mediatization and multilingualism, border regimes and international migration, planetary urbanization). The body of the course deals with particular dimensions of globalization, reviewing both the early and recent history of each. The overall approach is historical and comparative, setting globalization on the larger stage of the economic, political and cultural development of various parts of the modern world. The course is taught by anthropologists who draw from economic, linguistic, sociocultural, archaeological, and historical perspectives, offering the opportunity to compare and contrast distinct disciplinary approaches. It seeks to develop a general social-science-based theoretical understanding of the various historical dimensions of globalization: economic, political, social and cultural.
Fall
Also Offered As: HIST 0862, SOCI 2910
1 Course Unit

ANTH 0184 Food and Culture
This course is designed to survey the complex ways that food and food-related activities are woven into human behavior. We will examine foodways from an anthropological perspective by examining the biological, cultural, and historic contexts of our food production, preparation, presentation, and consumption. We will consider aspects of "food and culture" at several critical junctions of human history and address contemporary issues related to food, health, identity, and society.
Spring, even numbered years only
1 Course Unit

ANTH 0330 Language, Society, and the Human Experience
Anthropology is the study of what it means to be human across space and time. In this introductory course, we explore how language is at the heart of what it means to be human, examining the constituting role of language in the human experience in societies across the globe. We address a number of questions: How is being a speaker being a member of a society? How do ways of speaking about the world shape ways of experiencing the world? What is linguistic diversity and why is it important? How does one's identity emerge through one's way of speaking? How are large-scale forces like globalization shaping languages and fashions of speaking around the world? Throughout, we explore how language reflects and shapes the ways in which human beings navigate the flux of everyday life.
Spring
1 Course Unit

ANTH 0630 Behind the Iron Curtain
This first-year seminar provides an introduction to the histories, cultures, and societies of Central and Eastern Europe, including Poland, the Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Albania, and the successor states of Yugoslavia. Through a selection of articles and essays written by anthropologists and sociologists and based on their extended fieldwork in the region, students will explore both the ethnographic method and the experience of everyday life during and after the communist era. Topics will include: popular music under socialism, food and wine, environmental concerns, the status of Muslim minorities, socialist aesthetics, public memory and cultures of commemoration, privatization, advertising, women's rights, gender and sexuality, emergent nationalisms, and the rise of income inequality and homelessness. All readings and assignments in English.
Not Offered Every Year
Also Offered As: REES 0630
1 Course Unit

ANTH 0905 Water in the Middle East Throughout History
Water scarcity is one of most important problems facing much of the Middle East and North Africa today. These are arid regions, but human and natural systems have interacted to determine relative water scarcity and abundance at different times and places. This course examines the distribution of water resources throughout the Middle East and the archaeology and anthropology of water exploitation and management over the last 9000 years, looking at continuities and changes through time. Students will learn to make basic digital maps representing Middle Eastern hydro-geography and arguments about modern and historic water resources in the region. The class will cooperatively play an "irrigation management game" designed to familiarize personnel involved in the operation of irrigation schemes with the logistical and social issues involved in water management. We will engage with a variety of media, including academic readings, popular journalism, films, satellite imagery, and digital maps, in our quest to explore whether or not the past can inform present efforts to better manage modern water resources.
The course is structured in units focused on each of the major hydro-environmental zones of the Middle East: the river valleys of Mesopotamia, Egypt, and the Levant, the internal basins of western Central Asia and the Levant, the deserts of Arabia and North Africa, highland zones in Yemen and Iran, and coastal marsh areas along the Persian Gulf. We will examine irrigation systems, water supply systems, and ways of life surrounding water sources known from ethnographic studies, history, and archaeological excavations. These data will allow us to engage with debates in Middle Eastern anthropology, including those concerning the relationship between water and political power, the environment in which the world’s earliest cities arose, and the relevance of “lessons of the past” for present and potential future water crises and “water wars.” In our final weeks, we will discuss archaeology and historical anthropology’s contribution to conceptions of water “sustainability” and examine attempts to revive traditional/ancient technologies and attitudes about water.
Fall
Also Offered As: NELC 0905
1 Course Unit
ANTH 0930 Latinx Environmental Justice
This course explores the involvement of the Latinx environmental justice movement since the 1960s. It addresses theories and concepts of environmental racism and environmental justice, underscoring how Latinx have challenged, expanded, and contributed to the environmental justice discourse. In this course, students will explore national case studies of environmental and racial injustice as they bear on Latinx communities both in rural areas and in urban barrios throughout the United States. The course will analyze these case studies through the lens of Latinx artistic and literary texts (essays, paintings, short stories, documentaries, and short films) as they provide a unique historic and multicultural perspective of the Latinx experience with environmental injustice and of how Latinxs imagine alternative transitions and responses to environmental marginalization. In addition, the works of Latinx artists and writers will serve as case studies to deconstruct racial stereotypes of Latinxs as uninterested in environmental issues, shedding light on how they share a broad engagement with environmental ideas. The case studies analyzed in this course emphasize race and class differences between farmworkers and urban barrio residents and how they affect their respective struggles. The unit on farmworkers will focus on workplace health issues such as toxic chemicals and collective bargaining contracts. The unit on urban barrios will focus on gentrification, affordable housing, and toxic substances in the home. We will also review current and past programs that have been organized to address the aforementioned problems. This is an Academically Based Community Service Course (ABCS course) through which students will learn from and provide support to a Latinx-serving organization in the City of Philadelphia on preventing exposure to hazardous substances, thus bridging the information gap on environmental justice issues in the Latinx community in Philadelphia. Information dissemination and education efforts will be conducted by collaborating with Esperanza Academy Charter School in Philadelphia to implement lessons on preventing exposure to hazardous substances. Studying environmental justice and pairing it with community service will heighten students’ awareness of the complexities of culture, race, gender, and class while providing them with an invaluable experience of cross-cultural understanding.
Spring
Also Offered As: ENVS 0054, LALS 0093, SPAN 0093, URBS 0093
1 Course Unit

ANTH 1040 Sex and Human Nature
Within an evolutionary framework, the course examines genetic, physiological, ecological, social and behavioral aspects of sex in humans. After providing the basic principles of evolutionary biology, the course delves into the development of sexual anatomy and physiology. Among the subjects to be explored are sex determination, the nature of orgasms, and the sexual development of females and males from birth to adulthood. The role of ecology and social life in shaping human mating patterns is also evaluated using ethnographic and cross-cultural materials from a variety of human cultures. In particular, the course examines why humans marry or pair bond, whether there is a biological basis of love, which biological and psychological factors produce jealousy. Finally, the course explores topics relevant to human sexuality today, such as the "hook-up culture", contraception and abortion, sex work, sexual transmitted diseases, and the ethical and legal dimensions of human sexuality.
Not Offered Every Year
Also Offered As: GSWS 1040
1 Course Unit
ANTH 1104 On the Stage and in the Streets: An Introduction to Performance Studies
What do Hamilton, RuPaul’s Drag Race, political protest, TikTok Ratatouille, and Queen Elizabeth’s funeral have in common? They all compose repertoires of performance. From artistic performances in theatres, galleries, and concert halls to an individual’s comportment in everyday life, to sporting events, celebrations, courtroom proceedings, performance studies explores what happens when embodied activities are repeatable and given to be seen. In this course we ask: what is performance? How do we describe, analyze, and interpret it? What do theatre and everyday life have in common? How does performance legitimize or challenge the exercise of power? How has social media shifted our understanding of the relationship of our daily lives to performance? How does culture shape what is considered to be performance and how it functions? What isn’t performance? Throughout the semester students will apply key readings in performance theory to case studies drawn from global repertoires of contemporary and historical performance. In addition to analyzing artistic performances, we will also consider sporting events, celebrations, political events, and the performance of everyday life. We will attend to the challenges provoked by performance’s embodied, ephemeral, affective, effective, relational, and contingent aspects. Coursework will include discussion posts, class facilitation, and the opportunity to choose between a research paper or creative project for the final assessment.
Also Offered As: COML 0104, ENGL 1890, THAR 0104
1 Course Unit

ANTH 1120 Sacred Stuff: Religious Bodies, Places, and Objects
Does religion start with what’s in our heads? Or are religious commitments made, shaped and strengthened by the people, places, and things around us? This course will explore how religion happens in the material world. We'll start with classical and contemporary theories on the relationship of religion to stuff. We'll then consider examples of how religion is animated not just by texts, but through interactions with objects, spaces, bodies, monuments, color, design, architecture, and film. We'll ask how these material expressions of religion move beyond private faith and connect religion to politics and identity.
Fall or Spring
Also Offered As: ARTH 0339, RELS 1020
1 Course Unit

ANTH 1140 Migration and Borders
We live in an interconnected world of ever-intensifying flows of people, goods, and ideas. Rather than giving rise to a "borderless world," however, these flows have instead led to the proliferation and elaboration of borders on a planetary scale. This introductory course explores this paradox, evaluating the links between migration and borders in different contexts across the globe. We ask a number of related questions: What is migration? What is a border? What is the relationship between migration and borders? How might anthropology - the study of what it means to be human - shed light on this relationship? In so doing, we explore a number of case studies from archaeological, biological, cultural, and linguistic perspectives to better understand migration and borders as conjoined anthropological phenomena.
Not Offered Every Year
1 Course Unit

ANTH 1151 Madness and Mental Health in East Asian Worlds
Madness, however conceived, can trouble the limits of our worlds. Since COVID-19, questions of mental health have resurfaced with a sense of urgency, as many faced unprecedented changes in collective and intimate life. This course explores madness and mental health in East Asian worlds, across geographies, histories, social-political transformations, and racialized imaginations. How do East Asian therapeutics approach madness, through and beyond the concepts of psychiatry, neuroscience, or even ‘mental health'? What happens when Euro-American diagnostic categories and treatments travel to East Asia as part of missionary and empire-building projects? Bringing together readings in medical and psychological anthropology, as well as history, literature, psychoanalysis, and transcultural psychiatry, we will explore themes such as: shifting concepts of madness in Chinese, Korean, and Japanese medical and spiritual cures, colonial legacies of 'culture-bound syndromes,' and race as a site of psychic struggle in Asian American diasporas.
Also Offered As: ASAM 1620
1 Course Unit

ANTH 1160 Caribbean Culture and Politics
This course offers anthropological perspectives on the Caribbean as a geo-political and socio-cultural region, and on contemporary Caribbean diaspora cultures. We will examine how the region's long and diverse colonial history has structured relationships between race, ethnicity, class, gender and power, as well as how people have challenged these structures. As a region in which there have been massive transplantations of peoples and their cultures from Africa, Asia, and Europe, and upon which the United States has exerted considerable influence, we will question the processes by which the meeting and mixing of peoples and cultures has occurred. Course readings include material on the political economy of slavery and the plantation system, family and community life, religious beliefs and practices, gender roles and ideologies, popular culture, and the differing ways national, ethnic, and racial identities are expressed on the islands and throughout the Caribbean diaspora.
Not Offered Every Year
Also Offered As: AFRIC 1160, LALS 1160
1 Course Unit

ANTH 1169 Merchants, Saints, Slaves and Sojourners: the Worlds of the Indian Ocean
Do oceans serve to divide and demarcate distinct cultures and regions? Or do they facilitate exchange, connection and cosmopolitanism? This course will explore the manner in which the Indian Ocean has played both roles throughout history, and how the nature of those divisions and connections has changed over time from the ancient to the modern world. We will reconstruct the intertwined mercantile, religious and kinship networks that spanned the Indian Ocean world, across the Middle East, East Africa, South Asia, Southeast Asia and China, illuminating the histories of Hinduism, Buddhism and Islam, while also considering the role of successive imperial political formations, from Rome to Britain. Throughout the semester we will seek to understand the Indian Ocean through the people who lived and worked in its milieu - from consuls and military commanders, to traders, brokers, sailors, prisoners and slaves. Course materials will draw on a variety of disciplines (anthropology, archaeology, material culture, religious studies) to construct the cultural, economic, and environmental history of the Indian Ocean.
Not Offered Every Year
Also Offered As: SAST 1169
1 Course Unit
ANTH 1171 Devotion’s New Market: Religion, Economics, and the City
This graduate and undergraduate level course introduces students to the new forms of devotion as circulated in various urban centers in South Asia with a focus on growing market economy and urbanization. This course will particularly discuss case studies of how different modes of Hinduism, Islam, Christianity and other minor religions operate in an urbanized middle-class and educated communities. We will read theoretical and ethnographical works of contemporary research in religious studies and anthropology that deal with the questions of modernity, reformism and economic developmentalism. Throughout the semester, we focus on 1) how does religious forms such as sainthood practices, private and public rituals, narrative modes and everyday life evolve in the background of growing politics of development; 2) we discuss the tensions between classical notions of devotion and their new transformations in the city life, and finally 3) theoretically, we analyze concepts such as reformism, fundamentalism, recent discourses on identity politics and gender implications as connected to urban religious life. Not Offered Every Year
Also Offered As: RELS 1640, SAST 1171
Mutually Exclusive: SAST 5571
1 Course Unit

ANTH 1219 Archaeology in the City of Brotherly Love
This course introduces the archaeology of Philadelphia and the surrounding area through guided visits to local prehistoric and historic sites, accompanied by readings, discussions, and guest lectures. This is an experiential course, in that students will explore local archaeological sites, both well known and rarely discussed, in person. Moving beyond the histories of places like Eastern State Penitentiary, the President’s House, or Sycamore Mills, students will engage with social scientific analysis of the material culture and landscape features that remain in the archaeological record. This course is open to all undergraduates, no previous archaeological experience is required. The course will be held Fridays from 10am - 5pm including travel time to the sites and back to the Penn Museum, transportation provided by the university. Enrollment is limited so permission of the instructor is required. Course may be repeated for credit.
Spring
1 Course Unit

ANTH 1303 The Material Past in a Digital World
The material remains of the human past - objects and spaces - provide tangible evidence of past people’s lives. Today’s information technologies improve our ability to document, study, and present these materials. But what does it mean to deal with material evidence in a virtual context? In this class, students will learn basic digital methods for studying the past while working with objects, including those in the collections of the Penn Museum. This class will teach relational database design and 3D object modeling. As we learn about acquiring and managing data, we will gain valuable experience in the evaluation and use of digital tools. The digital humanities are a platform both for learning the basic digital literacy students need to succeed in today’s world and for discussing the human consequences of these new technologies and data. We will discuss information technology’s impact on the study and presentation of the past, including topics such as public participation in archaeological projects, educational technologies in museum galleries, and the issues raised by digitizing and disseminating historic texts and objects. Finally, we will touch on technology’s role in the preservation of the past in today’s turbulent world. No prior technical experience is required, but we hope students will share an enthusiasm for the past.
Also Offered As: ARTH 0127, CLST 1303, HIST 0871
1 Course Unit
ANTH 1310 Small Business Anthropology
With a focus on minority-owned small businesses in the City of Philadelphia, this class will introduce students to the work of anthropologists who have made their careers in the business world using the tools they acquired through training in anthropology. By bringing anthropological perspectives into the workplace, business anthropologists seek to promote well-being for employees and owners, as well as consumers and the communities in which businesses operate. The class will also introduce students to Philadelphia from the point of view of minority owned small businesses. One of the two class days each week will focus on business anthropology as a profession and include readings on organizational culture, design anthropology, and the role of anthropologists in marketing and advertising, as well as in globalization processes and entrepreneurship. The second of the two days each week will focus on the city of Philadelphia and the role of small businesses within it. We will study the spatial layout of the city, the kinds of small businesses that are operative within the city and where they are located, the relationship of business to ethnicity, gentrification and its impact on small business, and the role of government and community groups in relationship to small businesses and their owners and employees. As part of the class, students will engage in guided research on specific small businesses, with the aim of developing an ethnographic understanding of the experiences of owners and employees, the opportunities they have seized upon and the problems they have confronted. We hope in the course of the semester to provide an ethnographic profile of a sampling of small businesses from different industries, which can in turn contribute to understanding larger social and cultural patterns within Philadelphia. Through a class blog or other means, we hope as well to contribute to the ability of minority small business owners to voice their experiences, as well as their fears and hopes for the future, to members of the University community and beyond.
Also Offered As: URBS 1310
1 Course Unit

ANTH 1340 Making the Natural World: An Introduction to Political Ecology
What are the limits of nature? When do natural systems become human or socio-natural systems? In this course, we examine the human construction of nature both conceptually, through ideas about environment, ecosystem, organism, and ecology; and materially, through trajectories of direct action and in on the landscape. Beginning with a consideration of foundational concepts in human ecology, we will discuss current problems and approaches, centering on political ecology. Readings and case studies are drawn from human-environmental contexts in Oceania, South Asia, Southeast Asia, Sub-Saharan Africa, Latin America, Europe, and North America. We will also consider topics including a) the relationship between indigenous and technocratic knowledge and resource governance, b) environmental movements themselves as objects of ethnographic study; c) justice and sustainability as environmental goals; d) inequality, displacement and violence as environmental problems; and e) fair trade and food security or sovereignty.
Fall
1 Course Unit

ANTH 1410 Museums, Monuments, and Social Justice
Monuments, museums, and heritage are all critical parts of the world that we have created and are shaped by. These institutions and sites often claim to represent our past, who we imagine ourselves to be today, and how we might define our futures. We often rely on museums and monuments to frame history and history's relationship to our current social and cultural systems. However, in recent years, social, racial, and economic justice movements have pushed us to rethink the function of monuments, museums, and heritage. In particular, these social movements have helped us understand how racism, sexism, and colonialism are responsible for the creation of monuments and museums. This course examines the echoes and continuities of colonial representations in museums and monuments. In addition, we will examine how new ways of commemorating and representing the past can result in a new vision for our future. By visiting a variety of local monuments and sites and by engaging in conversations about accountability and social justice, this course will challenge us to rethink the tangible and intangible ways that we weave the past into the present for the creation of the future.
Fall
Also Offered As: ARTH 0141
1 Course Unit

ANTH 1430 Explorations in Human Biology
This course is an exploration of human biology from a biocultural and evolutionary perspective. The class will provide you with a better understanding of what it means to be human, how humans came to exhibit such a wide range variation, and what biological anthropology can contribute to your understanding of the world. In this class students will learn to integrate the theory and methods used in human biology research through lectures, assignments, and lab sessions. This course will explore topics including human genetics, growth and development, nutrition, disease, and reproduction. We will also use the course as an opportunity to introduce you to the important contributions of biological anthropologists to the study of race, inequality, sex and gender, and health among others.
Spring
1 Course Unit
ANTH 1440 Liquid Histories and Floating Archives
Climate change transforms the natural and built environments, and it is re-shaping how we understand, make sense, and care for our past. Climate changes history. This course explores the Anthropocene, the age when humans are remaking earth's systems, from an on-water perspective. In on-line dialogue and video conferences with research teams in port cities on four continents, this undergraduate course focuses on Philadelphia as one case study of how rising waters are transfiguring urban history, as well as its present and future. Students projects take them into the archives at the Independence Seaport Museum and at Bartram's Garden. Field trips by boat on the Schuylkill and Delaware Rivers and on land to the Port of Philadelphia and to the John Heinz National Wildlife Refuge invite transhistorical dialogues about how colonial and then industrial-era energy and port infrastructure transformed the region's vast tidal marshlands wetlands. Excursions also help document how extreme rain events, storms, and rising waters are re-making the built environment, redrawing lines that had demarcated land from water. In dialogue with one another and invited guest artists, writers, and landscape architects, students final projects consider how our waters might themselves be read and investigated as archives. What do rising seas subsume and hold? Whose stories do they tell? What floats to the surface?
Not Offered Every Year
Also Offered As: COML 1140, ENGL 1589, ENVS 1440, GRMN 1140, HIST 0872
1 Course Unit

ANTH 1480 Food and Fire: Archaeology in the Laboratory
This course will let students explore the essential heritage of human technology through archaeology. People have been transforming their environment from the first use of fire for cooking. Since then, humans have adapted to the world they created using the resources around them. We use artifacts to understand how the archaeological record can be used to trace breakthroughs such as breaking stone and bone, baking bread, weaving cloth and firing pottery and metals. The seminar will meet in the Penn Museum's Center for the Analysis of Archaeological Materials. Students will become familiar with the Museum's collections and the scientific methods used to study different materials. Class sessions will include discussions, guest presentations, museum field trips, and hands-on experience in the laboratory.
Fall or Spring
Also Offered As: CLST 1302, NELC 0910
1 Course Unit

ANTH 1490 Introduction to Native American and Indigenous Studies
This course offers a broad introduction to evolving scholarship in the combined fields of Native American Studies and Indigenous Studies worldwide. Students will examine the various ways that Indigenous peoples and academic researchers are currently engaging with Indigenous knowledges, while also exploring the lingering impacts of settler colonialism and the influence of decolonizing methodologies. Students will gain foundational understandings of the cross-disciplinary nature of Native American and Indigenous Studies (NAIS), by studying theoretical interpretations of Indigenous peoples in academic and historical contexts, and by examining practical approaches to Indigenous research in diverse worldwide settings. Students will approach topics from a variety of disciplinary traditions, utilizing historical texts, ethnological studies, oral literature, material culture, and modern media, including websites and databases produced by and for Indigenous communities. Readings will include the work of researchers who bridge the disciplines of anthropology, history, folklore, art, law, science, etc. Students will watch a selection of films by Indigenous filmmakers, and attend lectures by a selection of Indigenous guest speakers. NAIS faculty advisors from various schools at Penn (e.g., School of Arts and Sciences, Education, Law, Nursing) will also present several guest lectures to highlight their unique experiences and research projects with Indigenous communities. Special case studies will focus on: new directions in collaborative research; issues in museum representation and repatriation; heritage site protection and Indigenous archaeology; legal interventions and protections for Indigenous rights; and innovative projects in language restoration and cultural recovery.
Fall or Spring
1 Course Unit

ANTH 1500 World Musics and Cultures
This course examines how we as consumers in the "Western" world engage with musical difference largely through the products of the global entertainment industry. We examine music cultures in contact in a variety of ways—particularly as traditions in transformation. Students gain an understanding of traditional music as live, meaningful person-to-person music making, by examining the music in its original site of production, and then considering its transformation once it is removed, and recontextualized in a variety of ways. The purpose of the course is to enable students to become informed and critical consumers of "World Music" by telling a series of stories about particular recordings made with, or using the music of, peoples culturally and geographically distant from the US. Students come to understand that not all music downloads containing music from unfamiliar places are the same, and that particular recordings may be embedded in intriguing and controversial narratives of production and consumption. At the very least, students should emerge from the class with a clear understanding that the production, distribution, and consumption of world music is rarely a neutral process. Fulfills College Cross Cultural Foundational Requirement.
Fall or Spring
Also Offered As: AFRC 1500, MUSC 1500
1 Course Unit
ANTH 1533 Music in Troubled Places
In this class, we go beyond the headlines to discuss the history and cultures of peoples who have had to endure terrible suffering, particularly through ethnic conflict and civil war. We will focus on a curious phenomenon: populations typically defined as separate from one another (e.g., Israelis and Palestinians) often have a history of shared or related cultural practices, of which music is a prime example. We will survey a number of current and recent conflict zones and use music as a way to deepen our understanding of the identities and relationships between the peoples involved through a consideration of my own fieldwork in Sri Lanka. Querying the very definitions of music, trouble, and place, the course then broadens out to consider how musicians have been affected by and/or responded to important global problems like slavery, sexual violence, climate change, and other ecological disasters, like Hurricane Katrina. Regions to be considered in our lectures and/or readings include: Afghanistan, Iraq, Syria (including Kurdish musics), Israel-Palestine, Sri Lanka, the Maldives, Myanmar/Burma, Uganda, Sierra Leone, North and South Korea, the Marshall Islands, Cambodia, Mexico, and the United States.
Not Offered Every Year
Also Offered As: MUSC 1530
1 Course Unit

ANTH 1560 Seeing/Hearing Globally
This is a Penn Global Seminars Abroad semester long class with travel abroad after. It focuses on the interrelationship of music, arts, community-building, land, politics, and history. Places covered in coursework and travel vary by semester, and students have to apply for the course through Penn Global. The class is limited in student participation to no more than 20 students.
Not Offered Every Year
Also Offered As: AFRC 1560, MUSC 1560
1 Course Unit

ANTH 1610 Humans and the Earth System: How it Works, How We Got Here, and How to Save Our Planet
As our planet's climate changes, it is imperative to understand the basic structures of the earth system and our connections to these, past, present, and future. The goal of this course is to help students develop an integrated understanding of climate change, linking the fundamental science - from the microscopic to the global scale - to human actions and possible futures. This course brings together approaches from environmental science, social sciences, history, and policy. Beyond providing basic climate and environmental literacy, we will also explore current and projected impacts of change, including changes to human life and biodiversity as well as other physical and biological systems. The course is divided into three units: 1. Science: what are the chemical and physical drivers of our changing climate, and what are the biological, health and environmental implications so far. 2. Impacts: how human activity has affected environments and climate so far and how climate change is currently impacting society, nature, agriculture, health, cities, and the most vulnerable communities. 3. Solutions: the roles of policy, business, agriculture, planning, and personal choices. The course is open to undergraduate students of all disciplines. While the reading and weekly assignments will be specific to the module, students may define a capstone project that reflects their academic interests.
Spring
Also Offered As: ENVS 1020
1 Course Unit

ANTH 1630 Witchcraft and Possession
This course explores world witchcraft and possession from the persecutions of the early seventeenth century through the rise of Wicca in the twentieth century. The mere mention of these terms, or of such close cousins as demonology, sorcery, exorcism, magic, and the witches Sabbath, raises clear ethnographic and historical challenges. How can the analysis of witchcraft-- including beliefs, patterns of accusation, the general social position of victims, the intensity and timing of witch hunts, and its relation to religious practice, law, language, gender, social marginalization, and property--lead us to a more humane understanding of belief and action? Films such as The Exorcist, The Blair Witch Project, The Crucible, and Three Sovereigns for Sarah will focus discussion.
Fall or Spring
Also Offered As: GSWS 1630, HIST 1630, RELS 1630
1 Course Unit

ANTH 1670 Population and Public Health in Eastern Europe
Since the collapse of communism in 1989 in Eastern Europe (and 1991 in the Soviet Union), many of the countries in the region have experienced public health crises and demographic catastrophe. Below replacement fertility rates and massive out migration have decimated the populations of these countries even as populations age and place unsustainable strains on pension systems and medical services. The demographic collapse has also been accompanied by falling male life expectancy and the rise of alcoholism, depression, domestic violence, and suicide. The economic exigencies of the transition from communism to capitalism dismantled welfare states at the exact moment when health services were most needed, leaving charities and nongovernmental organization to try to fill in the gaps. Through a combination of readings from the fields of epidemiology, demography, and medical anthropology, this course examines the public health implications of poverty and social dislocation in post-communist states. All readings and assignments are in English.
Also Offered As: REES 1670, SOCI 2950
1 Course Unit

ANTH 1688 Sex and Socialism
This seminar examines classic and current scholarship and literature on gender and sexuality in contemporary Eastern Europe, and examines the dialogue and interchange of ideas between East and West. Although the scholarly and creative works will primarily investigate the changing status of women during the last three decades, the course will also look at changing constructions of masculinity and LGBT movements and communities in the former communist bloc. Topics will include: the woman question before 1989; gender and emerging nationalisms; visual representations in television and film; social movements; work; romance and intimacy; spirituality; and investigations into the constructed concepts of "freedom" and "human rights."
Also Offered As: GSWS 1680, REES 1680, SOCI 2972
1 Course Unit

ANTH 1755 Listening in Troubled Times (SNF Paideia Program Course)
In this course, we will explore histories and theories of listening and the power of listening as a means to connect with other times and spaces. This course is part of the Stavros Niarchos Foundation (SNF) Paideia Program. See the English Department's website at wwwenglish.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 0755
1 Course Unit
ANTH 1900 Pastoral Nomadism in the Past and Present
Pastoral nomadism is a "third way" of human subsistence separate from farming and foraging. It is a sustainable human adaptation to grassland and arid environments practiced through particular technologies and domesticated animals. This course begins by examining the human ecology and social organization that emerge from mobile ways of life, drawing on modern, ethnographic, and archaeological examples of pastoral nomadic groups in the Middle East and Central Asia. Academic readings and ethnographic films will form the basis of discussions about several larger themes, including: the origins of pastoral nomadism and horse riding; the development of dairy-based foods and human adaptations allowing the digestion of lactose; the historical relationship between mobile groups of pastoralists and territorial states; popular perceptions of nomads in various forms of historical and modern media; and the influence of ideas about nomads on modern senses of heritage and nationalism in the Middle East and Central Asia.
Also Offered As: NELC 0900
1 Course Unit

ANTH 1905 GIS for the Digital Humanities and Social Sciences
This course introduces students to theory and methodology of the geospatial humanities and social sciences, understood broadly as the application of Geographical Information Systems (GIS) and spatial analysis techniques to the study of social and cultural patterns in the past and present. By engaging with spatial theory, spatial analysis case studies, and technical methodologies, students will develop an understanding of the questions driving, and tools available for, humanistic and social science research projects that explore change over space and time. We will use ESRI's ArcGIS software to visualize, analyze, and integrate historical, anthropological, and environmental data. Techniques will be introduced through the discussion of case studies and through demonstration of software skills. During supervised laboratory sessions, the various techniques and analyses covered will be applied to sample data and also to data from a region/topic chosen by the student.
Fall
Also Offered As: NELC 1905
1 Course Unit

ANTH 1925 Who Owns the Past? Archaeology and Politics in the Middle East
This course explores the role of cultural heritage and archaeological discoveries in the politics of the Middle East from the nineteenth century to the recent aftermath of the Arab Spring. We will explore how modern Middle East populations relate to their pasts and how archaeology and cultural heritage have been employed to support particular political and social agendas, including colonialism, nationalism, imperialism, and the construction of ethnic-religious identities. Although it was first introduced to the Middle East as a colonial enterprise by European powers, archaeology became a pivotal tool for local populations of the Middle East to construct new histories and identities during the post-World War I period of intensive nation-building after the dissolution of the Ottoman Empire. To understand this process, we will first look at the nineteenth-century establishment of archaeology by institutions like the Penn Museum. Then we will move on to individual case studies in Turkey, Iraq, Egypt, Israel/Palestine, Iran, and the republics of former Soviet Transcaucasia to look at the role of archaeology and cultural heritage in the formation of these countries as modern nation-states with a shared identity among citizens. We will conclude with an examination of the recent impact of the Islamic State on material heritage in Syria and Iraq, the changing attitudes of Middle Eastern countries toward foreign museums, and the role of UNESCO in defining Middle Eastern sites of world heritage. The course will also include field trips to the Penn Museum.
Fall or Spring
Also Offered As: NELC 2900
1 Course Unit

ANTH 2020 Language, Migration, Diaspora
Centering on the relation between language, migration, and diaspora, this course uses linguistic anthropological approaches to understand how the 'very big' is reflected in the 'very small.' We will approach language use as a process that unfolds in the microclimate of everyday interaction, but whose effects extend to and shape large-scale social processes. We will ask a number of interrelated questions: How does language use shape global phenomena like transnationalism and diasporic populations? How do globalizing forces impact and shape language structure and use? How are mobility and (im)migration enabled or constrained through everyday communicative interaction? We begin by exploring the ideologies inherent in everyday speech, evaluating how language is linked to social identities like class, race, gender, and sexuality, and to social personae like 'the migrant,' 'the refugee,' 'the foreigner,' or to the 'diasporic subject' more generally. We then explore the cultural politics of languages in and across nation-states, attending to their uses and values in unprecedented global flows of information, goods, and people.
Not Offered Every Year
1 Course Unit
ANTH 2024 Dress and Fashion in Africa
Throughout Africa, social and cultural identities of ethnicity, gender, generation, rank and status were conveyed in a range of personal ornamentation that reflects the variation of African cultures. The meaning of one particular item of clothing can transform completely when moved across time and space. As one of many forms of expressive culture, dress shape and give forms to social bodies. In the study of dress and fashion, we could note two distinct broad approaches, the historical and the anthropological. While the former focuses on fashion as a western system that shifted across time and space, and linked with capitalism and western modernity; the latter approach defines dress as an assemblage of modification the body. The Africanist proponents of this anthropological approach insisted that fashion is not a dress system specific to the west and not tied with the rise of capitalism. This course will focus on studying the history of African dress by discussing the forces that have impacted and influenced it overtime, such as socio-economic, colonialism, religion, aesthetics, politics, globalization, and popular culture. The course will also discuss the significance of the different contexts that impacted the choices of what constitute an appropriate attire for distinct situations. African dress in this context is not a fixed relic from the past, but a live cultural item that is influenced by the surrounding forces.
Spring
Also Offered As: AFRC 2324, ARTH 2094
1 Course Unit

ANTH 2060 Cultures of Science and Technology
Science and technology figure centrally in the economic, political, and socio-cultural changes that impact our worlds. Happenings in the life sciences, including the discovery of new genes, pathways, and processes, are redrawing concepts of the body and human nature and refiguring social and political relations. The seminar starts from the premise that scientific facts are made, not things existing a priori in the world and that are merely picked up by researchers and consumed by lay audiences. Likewise, technologies are created through a process of intense negotiation between producers and their sophisticated users. Focusing on the biosciences, we explore the production of science and technology and how they 1) affect individuals, self-identities, subjectivity, kinship, and social relationships; 2) have interacted with or reinforced political programs, racial classifications, unequal access to knowledge, and patterns of social injustice; 3) inform contemporary institutional structures, strategies of governance, and policies of citizenship.
We will combine methods and perspectives from social and cultural anthropology, and the social studies of science and technology, and will draw from historical case studies, contemporary ethnographies of science, scientific and medical journals, documentary films and media reports.
Not Offered Every Year
1 Course Unit

ANTH 2080 Anthropology of Futurity
How should we think about the future amid worlds on edge? What is an inevitable versus a contingent course of events? What role do humans and non-humans, machines, animals, and plants play as agents of futurity in the context of the Anthropocene? This seminar explores these pressing questions, linking multiple sources of knowledge production—biological, medical, ecological, engineering, economic, and anthropological—with manifestations of the future. It starts with the basic premise that futures are made, molded by competing material, economic, and creative desires and possibilities, and not foreordained. Innovating futures also entails unexpected ethical and technical entanglements that current forms of knowledge cannot always anticipate. Drawing from readings in anthropology, the social studies of science and technology, Indigenous studies, as well as from engineering, AI, and scientific journals and films, we explore tensions between knowledge and uncertainty on the one hand, and ethics and innovation on the other. With these tensions in mind, we consider the myriad of agents whose role will be vital to shaping planetary futures—as well as how alternative futures, especially among communities confronting systemic inequalities and colonial and race-based injustices, are imagined and realized. From the climate crises to the ongoing pandemics, militarization, and mass migrations that have torn apart social fabrics, we will learn to become ‘technologists of the future’—that is, individuals and collectives with the tools to realize more inclusive, flourishing, and just futurities.
Not Offered Every Year
Also Offered As: DSGN 3120
1 Course Unit

ANTH 2070 Primate Behavior and Ecology
This course explores the behavior of wild primates and the ecological models that attempt to explain the evolution of these behaviors. The evolution and taxonomy of primates will be reviewed, followed by a brief history of wild primate studies. We will then explore primate behavior through theoretical frameworks ranging from socioecological theory to sexual selection. Topics discussed include, but are not limited to, socioecology, aggression, kinship, cooperation, reproductive strategies, cognition, and conservation. Those enrolled in the graduate section (ANTH 6070) will have additional responsibilities assigned.
Not Offered Every Year
Mutually Exclusive: ANTH 6070
1 Course Unit
ANTH 2109 Adivasis/Indigenous Peoples & British Colonialism in India

Modern Western colonialism impacted the world in many ways. However, each country and community has had a different encounter and experience with colonialism. For the Adivasis (indigenous peoples) of India, it was catastrophic and marked a new phase in their history. The pre-colonial symbolizes a period of freedom in the hills and forest, whereas the colonial era symbolizes state coercion, eviction from land and the end of free movement in the forest. The proposed course discusses Adivasis’ encounters with the British colonial state. The course examines Indian history from the perspectives of Adivasis and contrasts these with dominant paradigms of Indian history. In this way, the course allows students to understand India from a different perspective. Under British colonialism, the diverse ethnic self-governing communities were imagined as primitive, uncivilized, barbaric, violent, backward and childlike people. The course discusses how such constructions impacted Adivasi social life and development. It traces how the expansion of the colonial state in forests and hills put an end to self-rule and induced massive migration from the plains of India and asks how Adivasi areas were integrated into the colonial economy. How did the colonial state use revenue and forest policies and regulations to bring these areas under its control? How did commercialization of agriculture and forest conservation work to further marginalize Adivasis? The course also examines how Adivasi knowledge of cultivation and forest conservation were viewed by the colonial state and asks why the colonial state encouraged caste-Hindu peasant migration into Adivasi areas. Finally, it traces the ways that colonial intervention has resulted in a series of contestations, acts of resistance, and insurgencies by Adivasi groups? Tracing forms of Adivasi resistance, the course puts these into conversation with intellectual history, emphasizing the role of rumours, myths, and orality, which provided the basis for the new insurgent consciousness that spread throughout Adivasi communities. Adivasi resistance movements have been documented and analyzed by colonial rulers and anthropologists. Colonial discourses were successful in criminalizing Adivasi politics. Ironically, many colonial-era discourses concerning Adivasis have been perpetuated within the post-colonial academy. The anti-colonial struggles of Adivasis were constructed as sporadic, spontaneous, unorganized and apolitical. The inauguration of the Subaltern Studies Project has reversed such arguments and attempted to provide ideological integrity to Adivasi politics. Students will be introduced to important literature on Adivasi anti-colonial insurgent consciousness and will be encouraged to think critically about the concepts and theories of subaltern politics. Assigned readings include texts by James Scott, Ranajit Guha, David Arnold, David Hardiman, Ajay Skaria, Dhanagare, Ramachandra Guha, Biswamoy Pati, Alpa Shah, Crispin Bates, Jangkhomang Guite and Bhangya Bhukya. One aim of the course is to sensitize the students to how the political and cultural mobilizations by subalterns have contributed to the shaping of democracy.
Spring
Also Offered As: HIST 0853, SAST 2239, SOCI 2974
Mutually Exclusive: SAST 5239
1 Course Unit

ANTH 2110 Religion and Ecology

This class will introduce the overlaps between religion and ecology. Rather than assuming that there is a necessary positive or negative relationship between religion and ecology, we will look at how these relationships have materialized in complicated ways at different moments in history. We’ll consider perspectives and case studies from a range of different moments in history. We’ll consider perspectives and case studies from a range of different traditions, with a special attention paid to the genesis of the field of Religion and Ecology in critiques of Christian attitudes toward the environment in the 1960s and 1970s.
Not Offered Every Year
Also Offered As: ENVS 2410, RELS 2110
1 Course Unit

ANTH 2120 Animals and Religion

Religion is full of animals—lions and lambs, monkeys and elephants, buffalo and snakes, even mythical beings. The identity of the human being is explained, in many traditions, by contrast with the identity of other species. We know who we are because we know who they are, or do we? This course interrogates—through an exploration of sacred texts, art, film, and museum artifacts—the tension present in many traditions between an anthropocentric prioritization of the human being and religious resources that encourage a valuing of other animal species. We’ll explore the way animals function both as religious objects and as religious subjects across diverse traditions, asking how human-animal relationships have shaped religion and how religion has shaped the way we think about and interact with other animals. We’ll ask how religion has engaged with animals over time and across global cultures, understanding them as symbols, messengers, and manifestations of the divine; as material for ritual and sacrifice; as kin and subordinates; as food and as filth; as helpmeets and as tempters. How have these perspectives shaped animal ethics, influencing the treatment, use, and consumption of animals and their bodies? Finally, we’ll ask what it means that we ourselves are evolved animals. How does our own animality factor into the practice of human religion? Is our religious capacity part of what sets us apart from other animals or is religiosity a trait we might expect to find in other species? To what extent is religion a function of the animal?
Not Offered Every Year
Also Offered As: ENVS 2420, RELS 2120
1 Course Unit
ANTH 2145 Reading Maya Culture: Decipherment and a New Window into the Ancient Americas

The past three decades have seen a revolution in the study of the Ancient Americas, one with far-reaching implications for how we understand indigenous society and culture on this continent. This course will take us on a journey of academic discovery—encompassing language, art, and materiality—that explains how the decipherment of a major writing system has revealed a previously hidden world. The Maya are one of the most distinctive and best-known of Mesoamerican peoples, who live today, as they did in ancient times, in the Yucatan Peninsula and a region that spans modern southern Mexico, the whole of Guatemala and Belize, and the westernmost fringes of Honduras and El Salvador. From as early as 1000 BCE they were erecting major architecture and flourished for twenty-five more centuries before the invasion of Europeans brought their independence to an end in the sixteenth century CE. Within their elaborate urban spaces, the Maya erected large stone monuments inscribed with imagery and hieroglyphic texts—most of them commissioned in the Classic Period that reaches from 150-900 CE—although the script is also found on many smaller and more intimate objects. For the first century of research these texts proved all but unintelligible, as faulty assumptions and lack of adequate sources left a deep pessimism that they could ever be understood. But beginning in the 1980s major progress in "cracking the code" took place and today we can read almost all inscriptions to some extent, a decent number in their entirety. This course will teach practical skills that allow students with no previous background to read Maya inscriptions and gain access to the history, politics, religious beliefs, and practical material culture they describe. The fabulous design of the hieroglyphs, that at first seem so impenetrable, will be broken-down to reveal not only language but an iconographic system that reveals much about the ancient Maya aesthetics and visual culture.

Not Offered Every Year
Also Offered As: ARTH 2145, LALS 2145
1 Course Unit

ANTH 2150 The Ancient Maya: Integrating Material, Text, and Image

Ancient Maya studies is one of the most dynamic and innovative fields in world archaeology today. Emerging as a true historical archaeology only in the past three decades, the decipherment of Maya script now provides a powerful complement and counterpoint to both traditional excavation data and new remote sensing technologies. Equally, the reading of images, and their interaction with texts and artifacts, forms a vital part of our interest in the broader humanistic concerns of worldview and the transcendent—where our primary interest lies in gaining access to past mentalities. This course will provide a comprehensive introduction into current knowledge of the Ancient Maya, with a recurring methodological focus on how different types of evidence are integrated to assemble a persuasive "portrait of the past.” This scope of this process is unique in the ancient Americas, since only the Maya offer us the opportunity to read their own descriptions of the world two millennia or more in the past. Geographically, we will be looking at the greater Yucatan Peninsula, which today covers parts of southeastern Mexico, the whole of Guatemala and Belize, and the western extremities of Honduras and El Salvador. Since archaic times (before 1200 BCE) this has been occupied by speakers of the Mayan language group, and millions of people identified as Maya by that means continue to do so today (despite popular notions to the contrary, they have never "disappeared`). No prior knowledge of archaeology or art history is necessary. The course structure is one 3-hour session per week, consisting of a lecture followed by group discussion in seminar-style. Additionally, in Week 6 there will be a virtual tour of the new Mexico and Central American Gallery at Penn Museum. This will introduce the class to the issues of disseminating scholarship and building narratives that are accessible to the wider public.

Not Offered Every Year
Also Offered As: ARTH 2200, LALS 2150
1 Course Unit

ANTH 2154 Performing History

This seminar concentrates on the ways that various peoples in the world make their history by means other than relying on written texts alone. Over the course of the semester, we therefore may be examining such different public events and civic rituals as parades, political and religious processions, local historical pageants, carnivals, historic preservation, museums, military reenactments, and history theme parks. The emphasis in each of these forms, places, and semiotic processes will be on their identity and function as key performances that transform consciousness, shift individuals alternately into both actors and spectators, reframe the everyday as the metaphysical, and intensify the status of cultural values in the histories they present to view. Course requirements: a seminar paper, the topic of which you will discuss with me no later than week five of the course; and a working annotated bibliography and statement of your paper’s main thesis. I will say more about these assignments as they approach.

Not Offered Every Year
Also Offered As: ARTH 3790, HIST 3154
1 Course Unit
ANTH 2221 Material World in Archaeological Science
By focusing on the scientific analysis of inorganic archaeological materials, this course will explore processes of creation in the past. Class will take place in the Center for the Analysis of Archaeological Materials (CAAM) and will be team taught in three modules: analysis of lithics, analysis of ceramics and analysis of metals. Each module will combine laboratory and classroom exercises to give students hands-on experience with archaeological materials. We will examine how the transformation of materials into objects provides key information about past human behaviors and the socio-economic contexts of production, distribution, exchange and use. Discussion topics will include invention and adoption of new technologies, change and innovation, use of fire, and craft specialization.
Not Offered Every Year
Also Offered As: ARTH 0221, CLST 3302, NELC 2960
1 Course Unit

ANTH 2267 Living World in Archaeological Science
By focusing on the scientific analysis of archaeological remains, this course will explore life and death in the past. It takes place in the Center for the Analysis of Archaeological Materials (CAAM) and is team taught in three modules: human skeletal analysis, analysis of animal remains, and analysis of plant remains. Each module will combine laboratory and classroom exercises to give students hands-on experience with archaeological materials. We will examine how organic materials provide key information about past environments, human behavior, and cultural change through discussions of topics such as health and disease, inequality, and food.
Not Offered Every Year
Also Offered As: CLST 3303, NELC 2950
Mutually Exclusive: ANTH 5267
1 Course Unit

ANTH 2307 Contemporary Native Americans
This course examines the social and political lives of contemporary Native American Indians in the United States and Canada. Topics include: Indigenous identity; homelands and natural resources; popular culture and media; Indigenous arts and cultural expression; museum representations; athletics; gender relations; tribal recognition and sovereignty; and resistance movements. We will consider the origins of federal programs and legislation that have become essential to the protection of Native American freedoms. Students can expect to gain an appreciation of the complexity and cultural diversity of Native communities and tribal nations and insights into their interactions with other cultures over time.
Not Offered Every Year
1 Course Unit

ANTH 2308 Ethnohistory of the Native Northeast
Ethnohistory is a multi-disciplinary form of ethnographic study and documentary research that employs both anthropological and historical approaches. This course examines the foundations of the ethnohistorical method as a means to interpret cross-cultural colonial interactions and conflicts, and to better understand the complex histories of Native American Indian peoples from Pennsylvania and northward and eastward. Students will develop skills and strategies for interpreting and contextualizing primary and secondary source materials, oral traditions, colonial records, historical maps, and material culture. Hands-on study will include visits to local archives and historical sites to view relevant documents and landscapes.
Not Offered Every Year
1 Course Unit

ANTH 2317 The Politics of Matter and the Matter of Politics
What is nature? What is culture? What kinds of practices and actors constitute what we call science? Who and what constitute the sphere we refer to as politics? A number of theoretical developments in cultural anthropology, political theory, critical geography, and feminist science studies have problematized the modernist ontological divide between Nature and Culture and a whole series of binary oppositions (such as objects/subjects, matter/form, bio/geo) that follow from it. Taking inspiration from this literature and placing it in conversation with Native and Indigenous scholarship and a series of contemporary socio-environmental struggles occurring in Latin America and beyond, this course will discuss the conceptual-methodological tools that concern with politics of matter has generated. The epistemic and political implications of these tools go beyond their analytical usefulness as innovative devices to expand novel phenomena. They complicate well-established fields of inquiry, such as political ecology and economy, environmental studies, ethics, social justice, and modern politics; and, indeed, the singular ontology that these fields may inadvertently and explicitly sustain. We will explore how it is that things, stuff, matter, ‘nature’ came to fall outside modern politics as such, and the kinds of ethico-political repercussions that problematizing this division may produce.
Fall or Spring
Also Offered As: LALS 2317
1 Course Unit

ANTH 2327 Dispossession and Territorial Recovery Among Indigenous Peoples in South America
This seminar will focus on contemporary dynamics of dispossession, territorial claims and territorial recovery involving indigenous peoples in South America. Drawing on cases from different countries (particularly from Brazil, Argentina, Chile, Bolivia and Colombia), we will examine, in historical perspective, processes of territorial dispossession, socio-environmental conflicts, collective action, and struggles for territorial recovery and recognition set against the policies of settler colonial nation-states and economic activities that tend to evict people from their lands. More specifically, we will focus on actions carried out by indigenous peoples and movements to fight territorial dispossession, recover and protect their lands. Particular attention will be paid to the period marked by the growing visibility of the indigenous movements in South America, from 1970s to the present. The perspectives and strategies of indigenous peoples and movements regarding their territorial rights and projects of living well will be considered within the broader framework of identity, ethnicity and land issues. In that sense, the course will draw connections to the actions carried out by landless peasants and other groups. By devoting our attention to different contexts through the region, we will be able both to understand specific situations and identify underlying dynamics.
Not Offered Every Year
Also Offered As: LALS 3260
1 Course Unit

2023-24 Catalog | Generated 08/02/23
ANTH 2329 Psychoanalytic and Anthropological Perspectives on Childhood
How do people become who they are, both similar to others and uniquely individual? How might these similarities and differences be shaped by childhood experiences in family, community, and societies around the world? How do children develop emotionally? Morally? What features of human development, expression of emotions, and relational patterns are universal for our species? What features are not universal? And what is and is not known about these questions? In this course, we will consider these and many other questions. We will read about and discuss complex and dynamic interactions between culture and individual psychology, and between nature and nurture from birth to adulthood. We will carefully examine various phases of human development as described by psychoanalysts and anthropologists. The course includes anthropologic and psychoanalytic readings and videotapes, as well as literature, fairy tales, and mythologies from cultures around the world. The instructors are both psychoanalysts, one a psychiatrist and one a pediatrician. The course counts towards the Psychoanalytic Studies (PSYS) Minor.
Not Offered Every Year
1 Course Unit

ANTH 2330 Origins of Art / Origins of Writing
Each of the earliest systems of writing had intimate and enduring ties to pictorial traditions. This seminar addresses the fundamental relationship between texts and visual imagery in the Mesopotamian, Egyptian, Chinese, and Maya traditions. The class will take a comparative approach to examine the parallel development of scripts and images, extending from their earliest beginnings to their on-going lives as mature systems. As the individual scripts became more capable of representing speech, the subject matter, composition, and function of images changed, and one goal of this class is to identify these processes. Emphasis will be put on seeing text and image as collaborative and interactive constructions, in which parts of a single message can be encoded and presented in different ways. The class will make extensive use of the collections and the curatorial expertise of the Penn Museum.
Not Offered Every Year
Also Offered As: ARTH 3230, NELC 3070
1 Course Unit

ANTH 2332 Medicine and the Language of Pain
Pain can be a particularly complex and morally charged object of biomedicine. The interiority of pain—the deeply private nature of pain experience—complicates its communication. Pain, particularly its chronic form, defies purely biological explanation, troubling fundamental biomedical distinctions between mind and body, subject and object. And decisions about analgesia are fraught, as doctors and patients pursue relief from pain amidst a widespread epidemic of opiate abuse that infuses their interaction with concerns about addiction, drug seeking, culpability, and responsibility. This seminar seeks to shed light on these issues by using concepts from linguistic and medical anthropology to explore how we experience, think about, and talk about pain. As an interdisciplinary endeavor, the course is of relevance not only to anthropology but also to medical sociology, medical ethics, public health, health policy, and science and technology studies.
Not Offered Every Year
1 Course Unit

ANTH 2338 Modalities of Black Freedom and Escape: Ships
The course circulates around ships and boats. The course combines methods from environmental humanities, visual arts and history to consider multi-modal practices of black freedom and escape. From free black sailors in the eighteenth century Caribbean Sea, to twentieth and twenty-first century West African fishing boats, notions of Haitian “boat people,” Parliament Funkadelic’s mothership, and sinking boats with Somali and Ethiopian migrants off Yemen’s coast, ships have been and remain technologies of containment and freedom for communities of African descent. In the face of environmental vulnerabilities and the reality of water ways as systems of sustenance and imminent death, this course asks: how do black people use the ship and the process and practice of shipping as vessels for freedom, escape, and as a site to experiment with futures? Using the city of Philadelphia and the Schuykill and Delaware rivers as our primary site of interrogation, the course attends to the threats that black people experience following natural disaster (New Orleans, Haiti, Puerto Rico) and everyday engagement with the local and global state structures regarding water (Flint, MI). In this context, we also look to shipping as a site to theorize and account for black innovation, meanings of (non-)sovereignty, and alternative futures.
Not Offered Every Year
Also Offered As: AFRC 2238, LALS 2238
1 Course Unit

ANTH 2340 Pharmaceuticals and Global Health
In some parts of the world, spending on pharmaceuticals is astronomical. In others, people do not have access to basic or life-saving drugs. Individuals struggle to afford medications; whole populations are neglected, considered too poor to constitute profitable markets for the development and distribution of necessary drugs. This seminar analyzes the dynamics of the burgeoning international pharmaceutical trade and the global inequalities that emerge from and are reinforced by market-driven medicine. Questions about who will be treated and who will not filter through every phase of pharmaceutical production—from preclinical research to human testing, marketing, distribution, prescription, and consumption. Whether considering how the pharmaceutical industry shapes popular understandings of mental illness in North America and Great Britain, how Brazil has created a model of HIV/AIDS prevention and treatment program, or how the urban poor in Delhi understand and access healthcare, the seminar draws on anthropological case studies to illuminate the roles of corporations, governments, non-governmental organizations, and individuals in relation to global pharmaceuticals. As we analyze each case and gain familiarity with ethnographic methods, we will ask how individual and group health is shaped by new medical technologies and their evolving regulatory regimes and markets. The course familiarizes students with critical debates on globalization and with local responses to globalizing processes; and it contributes to ethical and political debates on the development and access to new medical technologies.
Not Offered Every Year
1 Course Unit
ANTH 2440 Disease and Human Evolution
This course will explore the role played by disease in human evolution, from the emergence of the human lineage to the present day. We will evaluate both infectious and non-infectious diseases and examine the way in which populations and disease organisms have co-evolved. Related issues to be explored include the nature of the virulence and pathogenicity of infectious agents, and the impact of vaccination on pathogen evolution. In addition, we will discuss the epidemiological transition and the rise of complex diseases of modernization (e.g., diabetes, cancer) that has occurred in the past several centuries. Overall, the course will provide a broader understanding of the influence of disease processes on the evolution of the human species.
Not Offered Every Year
1 Course Unit

ANTH 2450 Environment in India: Nature, Culture, & Conservation in the Western Ghats
India, one of the world’s most populous countries, also ranks as one of the most important centers of biodiversity, conservation, and environmental movements. Despite pervasive scholarly and popular narratives of inevitable ecological damage associated with population growth, human land use has, at times, enhanced biodiversity, preserved existing environments, and created new ones. In this course, students will examine long-term human and natural histories from a number of perspectives to develop more accurate, historically-informed understandings of how India’s natural spaces have developed and how the spaces can be best sustained. During the travel component, students will visit India and work with local partners who are actively engaged in protecting human livelihoods, reducing human-wildlife conflict, and conserving biodiversity in the Western Ghat Mountains, a biodiversity hotspot.
Not Offered Every Year
1 Course Unit

ANTH 2460 Molecular Anthropology
In this course, we will explore the molecular revolution in biological anthropology. In particular, we will examine how molecular data can be used to illuminate anthropological question concerning human origins, evolution and biological variation. Some of the specific topics to be covered in this course are the phylogenetic relationships among primates, kinship in apes and monkeys, the hominoid trichotomy, modern human origins and migrations, Neanderthal and Denisovan admixture with modern humans, biogeogenetics of skin color, and physiological, phenotypic and disease adaptations.
Not Offered Every Year
1 Course Unit

ANTH 2490 Evolutionary Medicine
Evolutionary medicine is the application of modern evolutionary theory to studies of health and disease in humans. In taking this approach, the course will explore the role that disease played in human evolution. We will examine both infectious and non-infectious diseases, and assess the way in which populations and disease organisms have co-evolved. Related issues to be examined are the nature of the virulence and pathogenicity of infectious agents, and their efforts to subvert the immune system’s responses to infection. We will also explore the evolved responses that enable individuals to protect, heal and recuperate themselves from infections and injuries, such as fever and sickness behavior, and the fitness enhancing aspects of these processes. Finally, we will study how past adaptations of early humans to their environments now affects modern humans, who have very different diets, life expectancy, activity patterns, and hygiene than their ancestors.
Not Offered Every Year
1 Course Unit

ANTH 2515 Race, Rights and Rebellion
This course provides an in-depth examination of theories of race and different kinds of social struggles for freedom around the globe. We will critically engage the latest scholarship from a variety of scholars and social movement actors. From anti-slavery revolts to struggles for independence to anti-apartheid movements, this course will emphasize how racialized peoples have employed notions of rights and societal resources grounded in cultural differences. Though much of the readings will highlight the experiences of African descendant peoples in Africa and its diaspora, the course will also explore the intersections of Black struggles with social movements organized by indigenous peoples in the Americas. Students will also have the unique experience of accessing readings primarily written by primarily Black scholars, some of whom have participated as key actors in the social movements they describe. Key concepts include power, resistance, subaltern, hegemony, identity politics, consciousness, and intellectual activism. The course will be organized around the following objectives: 1. To explore a range of contemporary theoretical perspectives and methodological approaches to the study of social movements; 2. To focus on the relationship between race, gender, class, culture, and politics in the African diaspora; 3. To study the historical development of organized struggles, social protests, uprisings, revolutions, insurgencies, and rebellions; 4. To examine the political agency of African descendant peoples in the global struggle for liberation and citizenship.
Spring
Also Offered As: AFRC 3515, LALS 3515, SOCI 2907
1 Course Unit

ANTH 2540 Violence, Tolerance, Freedom
This seminar examines how the adjective "religious" has been used to modify the nouns "violence," "tolerance," and "freedom." It traces the historical development of liberal ideas of tolerance and human rights, interrogates the common assumption that religion exerts a perverse influence on politics and vice versa, critically examines the concept of terrorism, and connects the neoliberal ideal of unfettered free markets to the idea of being "spiritual but not religious."
Spring
Also Offered As: RELS 2540
1 Course Unit
ANTH 2550 Modern Southeast Asia
This first-year friendly course provides a broad introductory overview of modern Southeast Asia, surveying the region’s extraordinary diversity and ongoing social, economic, and political transformations. Centering on the nation-states that have emerged following the second World War, we will assess elements of Southeast Asian geography, history, language and literature, cosmologies, kinship systems, music, art and architecture, agriculture, industrialization and urbanization, politics, and economic change. We will remain particularly attentive to the ways Southeast Asians negotiate and contend with ongoing challenges of modernization, development, and globalization.
Also Offered As: SAST 2550
1 Course Unit

ANTH 2560 Music and Performance of Africa
This class provides an overview of the most popular musical styles and discussion of the cultural and political contexts in which they emerged in contemporary Africa. Learning to perform a limited range of African music/dance will be part of this course. No prior performance experience required. (Formerly Music 253).
Not Offered Every Year
Also Offered As: AFRC 3560, MUSC 3560
1 Course Unit

ANTH 2570 Caribbean Music and Diaspora
This course considers Caribbean musics within a broad and historical framework. Caribbean musical practices are explored by illustrating the many ways that aesthetics, ritual, communication, religion, and social structure are embodied in and contested through performance. These initial inquiries open onto an investigation of a range of theoretical concepts that become particularly pertinent in Caribbean contexts—concepts such as post-colonialism, migration, ethnicity, hybridity, syncretism, and globalization. Each of these concepts, moreover, will be explored with a view toward understanding its connections to the central analytical paradigm of the course—diaspora. Throughout the course, we will listen to many different styles and repertories of music ranging from calpso to junkanoo, from rumba to merengue, and from dance hall to zouk. We will then work to understand them not only in relation to the readings that frame our discussions but also in relation to our own North-American contexts of music consumption and production. (Formerly Music 258).
Not Offered Every Year
Also Offered As: AFRC 3570, LALS 3570, MUSC 3570
1 Course Unit

ANTH 2590 Nutritional Anthropology
The course is an introduction to nutritional anthropology, an area of anthropology concerned with human nutrition and food systems in social, cultural and historical contexts. On the one hand, nutritional anthropologists study the significance of the food quest in terms of survival and health. On the other hand, they also know that people eat food for a variety of reasons that may have little, if anything, to do with nutrition, health, or survival. While the availability of food is dependent upon the physical environment, food production systems, and economic resources, food choice and the strategies human groups employ to gain access to and distribute food are deeply embedded in specific cultural patterns, social relationships, and political and economic systems. Thus, nutritional anthropology represents the interface between anthropology and the nutritional sciences, and as such, can provide powerful insights into the interactions of social and biological factors in the context of the nutritional health of individuals and populations. Because food and nutrition are quintessential biocultural issues, the course takes a biocultural approach drawing on perspectives from biological, socio-cultural and political-economic anthropology. Course content will include: a discussion of approaches to nutritional anthropology; basics of human nutrition; food systems, food behaviors and ideas; methods of dietary and nutritional assessment; and a series of case studies addressing causes and consequences to nutritional problems across the world.
Not Offered Every Year
Also Offered As: LALS 2590, URBS 2590
1 Course Unit

ANTH 2730 Global Health: Anthropological Perspectives
In some parts of the world spending on pharmaceuticals is astronomical. In others, people struggle for survival amid new and reemerging epidemics and have little or no access to basic or life-saving therapies. Treatments for infectious diseases that disproportionately affect the world’s poor remain under-researched and global health disparities are increasing. This interdisciplinary seminar integrates perspectives from the social sciences and the biomedical sciences to explore 1) the development and global flows of medical technologies; 2) how the health of individuals and groups is affected by medical technologies, public policy, and the forces of globalization as each of these impacts local worlds. The seminar is structured to allow us to examine specific case material from around the world (Haiti, South Africa, Brazil, Russia, China, India, for example), and to address the ways in which social, political-economic, and technological factors -- which are increasingly global in nature -- influence basic biological mechanisms and disease outcomes and distribution. As we analyze each case and gain familiarity with ethnographic methods, we will ask how more effective interventions can be formulated. The course draws from historical and ethnographic accounts, medical journals, ethical analyses, and films, and familiarizes students with critical debates on globalization and with local responses to globalizing processes.
Fall or Spring
Also Offered As: HSOC 2382
1 Course Unit
ANTH 2762 Everyday Life in Africa
This course will explore the different dimensions of everyday life in Africa. Everyday life has been described by Agnes Heller (1978) as "the secret yeast of history." What constitutes this "yeast of history" in contemporary Africa? In exploring everyday life, we will examine the existing (in)capacities in the structures of state and society in Africa for human well-being in relation to the differences between political life (bios) and bare life (zoe). The course engages with the everyday life in terms of how social, economic, and political lives are constituted and the implications of this process for whether Africans live well or not, how they die, and their struggles for alternative lives. With (ethnographic) accounts and perspectives from different countries in Africa, the course focuses deeply on how to understand and explain the conditions under which everyday social needs and economic necessities are turned into political/existential struggles as well as the conditions under which political exigencies can transform into economic, social and bodily fatalities. The overarching questions that will animate this course include these: What are the prevalent conditions of everyday life in Africa? What and who determines (in)eligibility regarding the everyday tools of good life and human survival? How are these determinations related to the differential distribution of potential and/or actual injury, harm, and damage to human life and the conditions of its survival? What can ethnographic insight contribute to our understanding of everydayness in Africa? The roles of sexualities, gender, generation, humor, identities, racism, hate, memory, memorial, transactions, etc., in the construction, reconstruction, and deconstruction of daily life – and death – in the continent will be examined. Audio-visual materials will be used to analyze important themes about quotidian life in Africa.
Spring
Also Offered As: AFRC 2762, SOCI 2905
1 Course Unit

ANTH 2790 Theorizing the Role of Affect in Society and Culture
Affect has held a prominent place in social theory, including the role of fear in Hobbes’s formulation of the origins of civil society, respect (for the sacred) in Durkheim’s theory of religion, and guilt in Freud’s understanding of civilization. Can such formulations be brought into conversation with the biological understandings of human beings from Darwin up to recent developments in affective neuroscience? This reading and discussion-based seminar focuses on such questions. We explore the terrain of social, cultural, and psychoanalytic theory in light of conceptualizations growing out of the biological side of anthropology. We trace social and cultural theorization through the twentieth developments, including A.R. Radcliffe-Brown on joking and lamentation, Frantz Fanon on hate and guilt in race relations, Clifford Geertz on long-lasting moods and motivations, and others. We also explore twenty-first century developments in affect theory within anthropology and adjacent disciplines, including works by Lauren Berlant and Kathleen Stewart. During the course of the semester, students will write short reading response papers, and lead class discussions based on their responses. They will also work on and submit a final term paper based on their exploration of some aspect of the literature in which they are especially interested.
Not Offered Every Year
1 Course Unit

ANTH 2840 World Heritage in Global Conflict
Heritage is always political. Such a statement might refer to the everyday politics of local stakeholder interests on one end of the spectrum, or the volatile politics of destruction and erasure of heritage during conflict, on the other. If heritage is always political then one might expect that the workings of World Heritage might be especially fraught given the international dimension. In particular, the intergovernmental system of UNESCO World Heritage must navigate the inherent tension between state sovereignty and nationalist interests and the wider concerns of a universal regime. The World Heritage List has almost 1200 properties has many such contentious examples, including sites in Iraq, Mali, Syria, Crimea, Palestine, Armenia and Cambodia. As an organization UNESCO was born of war with an explicit mission to end global conflict and help the world rebuild materially and morally yet has found its own history increasingly entwined with that of international politics and violence. Fall or Spring
Also Offered As: CLST 3319, NELC 2920
1 Course Unit

ANTH 2840 World Heritage in Global Conflict
This course examines the futures of urbanization in most of the world. With cities in “developing” countries set to absorb 95% of urban population growth in the next generation, the course explores the plans, spaces and social experiences of this dramatic urban century. How do proliferating urban populations sustain themselves in the cities of Latin America, Africa and Asia? What kinds of social and political claims do these populations make more just and sustainable cities? The course investigates the ongoing experiences in urban planning, infrastructure development and environmental governance in cities of the Global South. In so doing, it imagines new forms of citizenship, development and sustainability that are currently unfolding in these cities of the future.
Not Offered Every Year
Also Offered As: URBS 2940
1 Course Unit

ANTH 2970 Nature Culture Environmentalism
Water wars, deforestation, climate change. Amidst many uncertain crises, in this course we will explore the emergent relationship between people and the environment in different parts of the world. How do people access the resources they need to live? How, when and for whom does ‘nature’ come to matter? Why does it matter? And what analytical tools we might use to think, mitigate and adapt to the effects of climate change? Drawing together classical anthropological texts and some of the emergent debates in the field of climate studies and environmental justice, in this class we focus on the social-ecological processes through which different groups of humans imagine, produce and inhabit anthropogenic environments.
Fall
Also Offered As: SAST 2970, URBS 2970
1 Course Unit
ANTH 2978 Just Futures Seminar II: Health and Healing in Abiayala (the Americas)
Health and Healing in Abiayala (the Americas) will introduce students to ecosocial notions of health, colonialism's contributions to ill-health, and decolonial action as healing action. Part one of the course introduces general concepts of body, health, and illness in biomedical models. It then pivots to the relational and ecosocial practices of body, health, and wellbeing among many First Peoples of the Abiayala, highlighting “radical relationality.” For many First Peoples, community includes humans, plants, animals, ancestors, and earth beings (such as the land, mountains, rivers, and lakes) that are materially, socially, and spiritually interdependent. These beings work together to maintain a “shared body” through practices of reciprocal care. Part two of the course examines how the shared body has been and is threatened by the colonization of Indigenous lands and bodies through (e.g.) land dispossession, pollution, extractive industry, lack of access to quality education and medical care, forced sterilization, forced removal of children, exploitative economic relations, and political violence. The third part of the course will follow how First Peoples of Abiayala are healing from the physical, social, and spiritual wounds of colonialism through decolonial action. First Peoples are creating their own healing centers and ecological protection agencies, engaging in Land Back movements, in legal and direct-action processes to protect the shared body from extractive industry, and reproductive justice movements. Healing is future oriented, powering the “radical resurgence” of First Peoples. Some questions addressed in this class include, where does the body begin and end? What constitutes personhood? How does continuing colonization affected indigenous peoples’ health—and that of all peoples? How do indigenous peoples use ancestral knowledges, relation ethics, and local ecologies to help heal historic and contemporary wounds to power their futures? Is there a political dimension to healing? How do autonomy and self-determination figure into healing and wellbeing? Not Offered Every Year
Also Offered As: GSWS 2978, HSOC 2332, LALS 2978
1 Course Unit

ANTH 3015 The Maya in Mesoamerica: The Development of Ancient Maya Culture within its Broader Regional Context
This class offers both an introduction and examination of Ancient Maya culture and society reflecting the major new finds offered by recent research. Fusing archaeology, epigraphy (the decipherment of Maya writing), art history, and ethnography, with the emerging technologies of LiDAR, speleothem, and isotopic analyses, “The Maya in Mesoamerica” explores the development of a vibrant, distinctive, and visually rich society, and how it fits into the wider history of a Mesoamerican region stretching from Mexico to Nicaragua. Including Maya inscriptions, we will be interested not only in etic historical studies in the present day but the emic voice of the only ancient American people to leave us a copious body of literature. Not Offered Every Year
1 Course Unit

ANTH 3022 Bodies of Water: Conflicts and Collaborations around Wetlands and Watersheds
In less than half a decade, the idea that “nature” possesses inalienable rights akin to human rights has gone from a strictly theoretical concept to the basis of policy changes in several countries and U.S. municipalities. This seminar will introduce students to current legal, political, ethical, and practical debates about the implementation and impacts of granting “rights to nature” in these different contexts with a particular focus on the rights associated with bodies of water. We will begin by examining how the Community Environmental Legal Defense Fund (CELDF) supported citizens of Tamaqua, Pennsylvania to write the world's first local "rights of nature" ordinance. We will then go on to compare the politics of "rights of nature" cases in Ecuador, New Zealand, India, and Colombia paying special attention to the cases of rivers. We will focus on the ways biocentric constitutional moves may transform concepts and understandings of environmental justice and socio-environmental conflicts. In particular, how the recognition of "nature" as a victim of war may transform understandings of violence, and hence, approaches to constructing peace and engaging and reparative and restorative practices within the larger framework of planetary and community efforts to mitigate climate change, deforestation, and the degradation of watersheds and wetlands. Lastly, we will explore the possibilities and tensions between community decision-making, the "rights of nature," and national level policies regarding the intensification of extractive activities and questions of territorial ordinance as they relate to multiple bodies of water. Not Offered Every Year
Also Offered As: LALS 3022
1 Course Unit

ANTH 3030 Research Methods in Cultural Anthropology
This undergraduate seminar is about how ethnographers do research. It introduces fundamental concepts and techniques - research design, participant observation, interviews, questionnaires, field notes, archives, data collection and analysis. It also addresses ethical and legal issues- cultural protocols, intellectual property rights, collaborative anthropology, and institutional review boards. Students will conduct original ethnographic research in partnership with the Netter Center. Not Offered Every Year
1 Course Unit

ANTH 3045 Oil to Diamonds: The Political Economy of Natural Resources in Africa
This course examines the ways in which the processes of the extraction, refining, sale and use of natural resources — including oil and diamond — in Africa produce complex regional and global dynamics. We explore how values are placed on resources, how such values, the regimes of valuation, commodification and the social formations that are (re)produced by these regimes lead to cooperation and conflict in the contemporary African state, including in the relationships of resource-rich African countries with global powers. Specific cases will be examined against the backdrop of theoretical insights to encourage comparative analyses beyond Africa. Some audio-visual materials will be used to enhance the understanding of the political economy and sociality of natural resources.
Fall
Also Offered As: AFRC 4500, PSCI 4130, SOCI 2904
Mutually Exclusive: AFRC 5700
1 Course Unit
ANTH 3050 Anthropology and Policy: History, Theory, Practice
From the inception of the discipline, anthropologists have applied their ethnographic and theoretical knowledge to policy issues concerning the alleviation of practical human problems. This approach has not only benefited peoples in need but it has also enriched the discipline, providing anthropologists with the opportunity to develop new theories and methodologies from a problem-centered approach. The class will examine the connection between anthropology and policy, theory and practice (or ‘praxis’), research and application. We will study these connections by reading about historical and current projects. As an ABCS course, students will also volunteer in a volunteer organization of their choice in the Philadelphia area, conduct anthropological research on the organization, and suggest ways that the anthropological approach might support the efforts of the organization.
Not Offered Every Year
1 Course Unit

ANTH 3052 An Anthropological Approach to Bioethics
Bioethics and anthropology have a complicated relationship. Though the two disciplines have long studied overlapping topics, the contribution of anthropological work to bioethical discussions and associated health policy interventions has been limited. This course will investigate whether and how anthropology can contribute to ethics and characterize the unique perspective that the discipline adds to bioethics topics. We will begin by carrying out an anthropology of bioethics, exploring how bioethics developed as a field with a specific philosophical and political orientation and a particular conception of which issues in health, illness, and medicine are worthy of attention as ethical problems. Next, we will clarify how anthropology can contribute to bioethical theory and debate by considering decades-old, ongoing debates about the relevance of (descriptive) social scientific findings to the development of (prescriptive) bioethics frameworks. Finally, we will apply an anthropological lens to bioethical problems. We will use anthropology's global, ethnographic orientation to explore a series of classic bioethics topics (e.g., the rights of research subjects, the allocation of medical resources, the uses and ramifications of genetic testing, the withdrawal of life-sustaining care), examining how anthropologists’ conclusions about these topics might differ from bioethicists’, why, and with what ramifications.
Not Offered Every Year
Also Offered As: ANCH 0100, ANCH 0101, or ANCH 0102
1 Course Unit

ANTH 3090 Psychoanalysis and Anthropology
This course will introduce students to the rich literature that has grown up around the encounter between psychoanalysis and anthropology, from totem and taboo, to studies of the Oedipus complex, child-rearing practices, ritual symbolism, mythology, and dreams. The class will also look to the future, endeavoring to examine as well such issues as the role of computers (are they self objects?) and the internet (including such online games as "Second Life"), dreams in space alien abduction narratives, sexuality in advertising, political psychology, and other contemporary issues. This course counts towards the Psychoanalytic Studies (PSYS) Minor.
Not Offered Every Year
1 Course Unit

ANTH 3101 Disasters in the Ancient Mediterranean World
Natural disasters occupy a powerful place in our imagination. Stories of floods, earthquakes, and storms excite and horrify us, and communities mobilize their resources quickly in response to these events. In the ancient Mediterranean world, natural disasters could take on potent meaning, indicating the anger or disfavor of the gods, acting as warnings against certain courses of action, or confirmations of individuals’ fears or suspicions about the world in which they lived. In this course, we explore the evidence for some disasters in the ancient Mediterranean world, the ways in which contemporaries reacted to those disasters and interpreted their causes. This project is, of necessity, multidisciplinary, involving textual, archaeological, geological, and comparative materials and drawing on methodologies from history, political and archaeological science, and the emerging field of disaster studies. In the process, we will gain an appreciation of the social structures of communities in the period, the thought-world in which they operated, and the challenges and opportunities that attend a project of this sort. No prior knowledge of Ancient History is required, although it would be useful to have taken an introductory survey course such as ANCH 0100.
Also Offered As: ANCH 3201, CLST 3201
1 Course Unit

ANTH 3110 Transdisciplinary Environmental Humanities
Emergent transdisciplinary fields, such as the environmental and medical humanities, reflect a growing awareness that responses to contemporary environmental dilemmas require the collaborative work of not only diverse scientists, medical practitioners, and engineers, but also more expansive publics, including artists, urban and rural communities, social scientists, and legal fields. This course is inspired by the need to attend to environmental challenges, and their health, justice, and knowledge production implications, as inherently social concerns. The class is co-taught by faculty from the School of Arts and Sciences and the School of Medicine, and will address the challenges and possibilities of working across disciplinary boundaries, building collaborative affiliations, and negotiating frictions between diverse methodologies and epistemological approaches. Dr. Kristina Lyons from the Department of Anthropology brings years of experience collaborating with scientists, small farmers, indigenous communities, lawyers, and judges in Colombia and Chile on watershed restoration projects, soil degradation, toxicity, and the implementation of socio-ecological justice. Dr. Marilyn Howarth is a medical doctor from the Center of Excellence in Environmental Toxicology of the School of Medicine and has experience engaging the public, legislators and regulators around environmental health issues affecting the quality of air, water, soil and consumer products. Through their different lenses, they will foster interdisciplinary environmental collaboration and scholarship by engaging students in discussions and research that bring together the arts and sciences regarding issues of urban air pollution, soil remediation, deforestation, and water contamination, among other environmental health problems. This class offers a unique opportunity for students from engineering, natural and social sciences, humanities, and the arts to learn to converse and collaborate around pressing socio-environmental and public health issues.
Spring
Also Offered As: LALS 3110
1 Course Unit
ANTH 3130 Gender, Capitalism, and Environment
What is “the economy,” and how is “it” gendered? How is access to land, resources, and livelihood options mediated by hierarchies of gender that are co-constituted with race, class, age, and ability? How are gender equality, economic justice, and environmental interrelated?
This course grapples with these and other foundational questions concerning the ways that gender, economy, and environment are intimately linked. Using case studies from around the world, we will consider Marxist-feminist, ecofeminist, political ecology, queer, critical race, and postcolonial approaches to understanding how abstract economic processes are materialized in social relations and in human-environment interactions. From women peasant farmer’s online practices in Myanmar to land-grabs and contemporary witch-hunting in African countries, together we will engage with the material histories, politics, and power relations shaping the uneven distribution of wealth and resources among gendered populations - and how different social groups are mobilizing to contest these gender, economic, and environmental inequalities together. In addition to our core questions, this course asks: How is capitalism itself gendered, and with what effects? What is considered productive work, and how are categories of worker gendered? Why are women overrepresented as peasant farmers in global south countries? How and why is climate change gendered? How and why are solutions to climate change and other environmental problems gendered? What are the gendered benefits and costs of sustainable development, and who bears them? Most of these questions lack clear answers, but by the end of the semester you will be able to give compelling oral and written explanations in response to each. Using a diverse array of texts - including film, podcasts, poetry, and peer-reviewed academic literature - this course will equip students with tools to thoughtfully and ethically engage with academic, activist, policy, and development spaces that are concerned with the intersection of gender, economy, and the environment.
Also Offered As: GSWS 3130
1 Course Unit

ANTH 3137 Environmental (In)Equalities
This seminar focuses on the interrelations of equity, justice, and environmental crisis. Beginning with a discussion of the emergence of climate justice as a critical term in international negotiations, we will consider several dimensions of substantive and historical inequality and the framing of justice as an environmental right as they arise from these settings. Broadening the discussion to include a larger framework of environmental issues in relation to inequality, the course will draw on considerations of geographies of vulnerability, exploitation as inhabited risk, and ecological debt in relation to “natural disaster” or environmental crisis. Moving from an historical account of structural inequalities in socio-natural systems to contemporary environmental politics, we will then discuss the disjuncture in environmental movements and aspirations between the global south and north, and particularly, how justice and equity figure into environmentalism(s) on a global basis. Finally, we discuss emerging frameworks including Just Transition movements, ecological sovereignty and rights discourses, and flourishing and capabilities approaches.
Not Offered Every Year
Mutually Exclusive: ANTH 5137
1 Course Unit

ANTH 3180 Anthropology and Praxis
This course focuses on real world community problems, engaged scholarship, and the evaluation of actively-running Penn programs intended to improve social conditions in West Philadelphia. Two trends emerge in public interest social science that students will explore through research and evaluation: 1.) merging problem solving with theory and analysis in the interest of change motivated by a commitment to social justice, racial harmony, equality, and human rights; and 2.) engaging in public debate on human issues to make the research results accessible to a broad audience. As part of the course, students will learn the foundations of anthropology, social theory, and evaluation as they work with qualitative and quantitative data while conducting an evaluation based on community and partner need. Students will gain direct experience conducting evaluation research as a collaborative process and have an opportunity to engage in academically-based community service with a focus on social change.
Not Offered Every Year
Mutually Exclusive: ANTH 6180
1 Course Unit

ANTH 3215 Archaeology of Animals
This course introduces the study of animal bones from archaeological sites. Faunal analysis is an interdisciplinary science which draws methods from archaeology, biology, and paleontology. Bones, shells, and other remains yield evidence for the use of animals by humans, and evidence for the biology of animals and for past environments. The course will focus on research approaches to important transitions in human-animal relationships: the development of human hunting and fishing, animal domestication, early pastoralism, and the emergence of market economies in animal products. Class presentations will include lectures and discussion concerning research design and archaeological case material, with additional videos, sidework with field and laboratory equipment, and supervised work identifying and describing archaeological materials from the University Museum’s collections. This class is taught in the Zooarchaeology Laboratory of the Center for the Analysis of Archaeological Materials.
Not Offered Every Year
Mutually Exclusive: ANTH 5215
1 Course Unit

ANTH 3219 Mining Archaeology
In ancient times, materials such as stone and metals were used to produce artifacts including pigments, jewelry, tools, and weapons. This course is designed to introduce students to research on the early exploitation of mineral resources. Which techniques were used to access and process raw materials in antiquity? Which archaeological methods can be used to investigate these features and artifacts? The course will provide worldwide examples through time, ranging from Stone Age flint mining, Iron Age rock salt mining to Medieval silver mining. Ethnographic studies and hands-on activities will contribute to our understanding of mining in archaeology, and artifacts from the Museum’s collections will undergo scientific analysis in the Center for the Analysis of Archaeological Materials.
Spring
Also Offered As: CLST 3314, NELC 4950
Mutually Exclusive: ANTH 5219
1 Course Unit
ANTH 3221 Surface Archaeology
Non-invasive and non-destructive methods make up an ever-greater proportion of archaeological investigations, for both intellectual and practical reasons. These methods comprise collection of data from the surface (pedestrian surface survey, geophysical prospection, geoarchaeology) and from above-ground platforms (drones, aircraft, balloons, kites, satellites), using a variety of sensors from human perception to multispectral scanning devices. The data acquired from these methods complement the contextual information drawn from traditional excavation, but also allow the archaeologist to address diverse research questions at a scale much greater than the excavated site. Aspiring archaeologists should have a good working knowledge of surface archaeological methods. In this course, we will delve deeply into these methods, and read and analyze case studies to expose strengths and weaknesses and to identify best practices. Students will have the opportunity for hands-on training in the Philadelphia area or elsewhere.
Not Offered Every Year
Also Offered As: CLST 3321
Mutually Exclusive: CLST 5321
1 Course Unit

ANTH 3230 Forensic Anthropology
This course will investigate and discuss the various techniques of analysis that biological anthropologists can apply to forensic cases. Topics include human osteology, the recovery of bodies, the analysis of life history, the reconstruction of causes of death, and various case studies where anthropologists have contributed significantly to solving forensic cases. Discussions will include the limitations of forensic anthropology and the application of DNA recovery to skeletal/mummified materials.
Not Offered Every Year
Also Offered As: CRIM 2230
1 Course Unit

ANTH 3235 The Past Preserved: Conservation In Archaeology
This course explores the scientific conservation of cultural materials from archaeological contexts. It is intended to familiarize students with the basics of artifact conservation but is not intended to train them as conservators. The course will cover how various materials interact with their deposit environments; general techniques for on-site conservation triage and retrieval of delicate materials; what factors need to be considered in planning for artifact conservation; and related topics. Students should expect to gain a thorough understanding of the role of conservation in archaeology and how the two fields interact.
Also Offered As: ARTH 0143, CLST 3315, NELC 4955
Mutually Exclusive: ANTH 5235
1 Course Unit

ANTH 3240 Plants and Society
Interactions between humans and the living landscape around us have played - and continue to play - a fundamental role in shaping our worldview. This course is designed to introduce students to the diverse ways in which humans interact with plants. We will focus on the integration of ethnographic information and archaeological case studies in order to understand the range of interactions between humans and plants, as well as how plants and people have profoundly changed one another. Topics will include the origins of agriculture; cooking and plant processing; human health and the world of ethnomedicine; and poisonous and psychoactive plants. We will examine ancient plant material firsthand at the Center for the Analysis of Archaeological Materials (CAAM) and will handle botanical ecofacts from the Penn Museum's collections. Students will also carry out a substantial research project focused on an archaeological culture and plant species of their own interest.
Not Offered Every Year
Also Offered As: CLST 3316
Mutually Exclusive: ANTH 5240
1 Course Unit

ANTH 3244 Introduction to the Human Skeleton
An introduction to the anatomy and biology of the human skeleton. Laboratory work will be supplemented by lectures and demonstrations on the development structure, function, and evolution of the human skeleton.
Not Offered Every Year
Mutually Exclusive: ANTH 5244
1 Course Unit

ANTH 3307 Intro to Digital Archaeology
Students in this course will be exposed to the broad spectrum of digital approaches in archaeology with an emphasis on fieldwork, through a survey of current literature and applied learning opportunities that focus on African American mortuary landscapes of greater Philadelphia. As an Academically Based Community Service (ABCS) course, we will work with stakeholders from cemetery companies, historic preservation advocacy groups, and members of the African Methodist Episcopal Church to collect data from three field sites. We will then use these data to reconstruct the original plans, untangle site taphonomy, and assess our results for each site. Our results will be examined within the broader constellation of threatened and lost African American burial grounds and our interpretations will be shared with community stakeholders using digital storytelling techniques. This course can count toward the minor in Digital Humanities, minor in Archaeological Science and the Graduate Certificate in Archaeological Science.
Also Offered As: CLST 3307, NELC 3950
Mutually Exclusive: CLST 5620
1 Course Unit
ANTH 3310 Historical Ecology
The relationship between the human beings and the environment is complex, dynamic, and contentious. Historical ecology addresses this relationship over the long term through the physical signatures and patterns of past human activity that are embedded in landscape. In some preindustrial cases, humans caused environmental degradation and societal collapse. In other situations, people transformed, created, and managed resources for sustainable lifeways over centuries and increased biodiversity. This seminar will examine the Myth of the Ecologically Noble Savage, the Myth of the Pristine Environment, domestication of landscape, biocultural diversity, the alliance between native peoples and Green Politics, and the contribution of past societies to appropriate technology, sustainable development, and biodiversity through the historical, ethnographic, and archaeological record.
Not Offered Every Year
1 Course Unit

ANTH 3328 Performing Culture, Native American Arts
This course analyzes cultural performances as sites for the formation, expression, and transmission of social identity. Students will read ethnographies, critiques, and reports of performance genres including ritual, theater, music, dance, art, and spoken word, with a particular focus on Native American and Indigenous arts and expressions. Topics include: expressive culture as survivance; debates around authenticity and invented traditions; public identity and sexuality; political resistance; the effects of globalization; transnationalism and hybridity; cultural appropriation; and the transformation of folk performances in the wake of modern media.
Fall or Spring
1 Course Unit

ANTH 3340 Feminist Ethnography
This course will investigate the relationships among women, gender, sexuality, and anthropological research. We will begin by exploring the trajectory of research interest in women and gender, drawing first from the early work on gender and sex by anthropologists like Margaret Mead and Ruth Benedict; moving through the 1970s and 1980s arguments about gender, culture, and political economy; arriving at more current concerns with gender, race, sexuality, and empire. For the rest of the semester, we will critically read contemporary ethnographies addressing pressing issues such as nationalism, militarism, neoliberalism and fundamentalism. Throughout, we will investigate what it means not only to “write women’s worlds”, but also to analyze broader socio-cultural, political, and economic processes through a gendered lens. We will, finally, address the various ways feminist anthropology fundamentally challenged the discipline’s epistemological certainties, as well as how it continues to transform our understanding of the foundations of the modern world.
Not Offered Every Year
Also Offered As: AFRC 3340, GSWS 3340
1 Course Unit

ANTH 3360 The Peopling of the Americas
The peopling of the Americas is a question that has intrigued scholars and laymen for over 500 years. The origin of Native Americans was also a seminal issue during the emergence of American Anthropology as a discipline at the turn of the 20th century, with research on this topic animating current studies of ethnohistory, indigenous archeology, post-colonialism and repatriation. The proposed course will review the scholarship dedicated to describing this long history from an interdisciplinary perspective. It will explore their roots in the expansion of modern humans into Eurasia, evaluate the new archeological and genetic research that has fundamentally altered our understanding of the migration history and diversity of indigenous peoples in the American continents, and examine issues of identity, ethnicity and cultural heritage in contemporary Native populations that extend from this knowledge. The course will further draw on the instructor’s fieldwork experience working with indigenous communities in Alaska, Canada, the Lower 48, Mexico and the Caribbean, as well as native Siberians in Russia, where the cultural and biological roots of ancestral Native American populations lie.
Not Offered Every Year
Also Offered As: LALS 3360
1 Course Unit

ANTH 3368 Anthropology of Museums
This course examines museums as sites where issues of Indigenous identity, memory, place and power intersect. Museums have long been engaged in the selective preservation, representation, and contextualization of Indigenous objects, cultures, and histories. We will examine antiquarian impulses that inspired the collecting of curiosities, scientific studies that drove the collection of biological specimens, and nationalist ideals that shaped monuments to house imperialist memories. Museums are now sites for complex, often contentious discourse around Indigenous collections. Students will review histories of local and national collecting processes, with a particular focus on Native American collections and concerns. We will also consider how Indigenous curators and new kinds of museums have developed innovative displays and interpretations.
1 Course Unit

ANTH 3376 Ethnographic Approaches to Urban Athletics and Human Movement
Rooted in the rubric of public interest social science, the course focuses on bridging theory and practice motivated by a commitment to social justice through original ethnographic research. In particular, this course will focus on kinesiology and the anthropology of sports and well-being through intense analysis of the Young Quakers Community Athletics (YQCA) program, a collaboration between the Netter Center for Community Partnerships and Penn Athletics. In guest lecturers from multiple disciplines will help to round out the course. The core learning objective is to bring a broad range of specialized expertise to foster a holistic examination of a complex institutional partnership intended to promote positive social transformation and improved human health and well-being.
1 Course Unit
ANTH 3390 Imagining Environmental Justice
Advanced seminar in Environmental Humanities centered around issues of international environmental justice. Sustained engagement with Indigenous North American, African American, Palestinian, and South African imaginary traditions will highlight diverse ways of relating to land, water and nonhuman animals challenge that challenge capitalist and colonial logics of extraction. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 2595, ENGL 2595
1 Course Unit

ANTH 3407 Human Evolution
An examination of fossils and other evidence documenting human evolution. Lectures and readings are supplemented with slide and fossil reproduction materials.
Not Offered Every Year
Mutually Exclusive: ANTH 5407
1 Course Unit

ANTH 3420 Dispossessions in the Americas: The Loss and Recovery of Indigenous Lands, Bodies, and Heritage
Settler colonialism in the Americas is both material and ideological, rooted in dispossession that are traceable to historical conquest, yet marked in the present. To rectify dispossession is to look both backwards and forwards, to repair material losses and to attend to the values and ideologies that hybridize our present. This course delves into case histories of Indigenous, Latinx, Afro-descendant, and other marginalized populations who have been dispossessed of territory, natural resources, freedom, political rights, and cultural heritage. Our primary goals are the following: first, we seek to document specific territorial, embodied, and heritage dispossession through the mechanisms of deceit, disease, and warfare (both broadly and specifically); second, we aspire to outline and identify models and processes that promote recovery and restorative justice. Faculty from several departments and programs (anthropology, history, Latin American studies, Native American studies, gender studies, etc.) will present guest lectures highlighting their critical studies of archaeological, museological, artistic, and other processes of dispossession and recovery. Their case studies include: counter-mapping techniques for identifying indigenous lands; mapping the movements of bodies and objects among museums; tracking trends in heritage loss and recovery; etc. Students will learn about useful resources and initiatives for decolonizing, and will gain experience in understanding dispossession of the past, while applying restorative methodologies in the present.
Fall, odd numbered years only
1 Course Unit

ANTH 3424 Political Ecologies of the City
Cities have been centres of aspiration for much of human history. They have provided a limited yet critical locus for social mobility, both in political and economic terms. As large agglomerations of political and economic power, urban residents have also consumed growing proportions of the earths mineral, food and water resources from the national (and international) body. The contradictory aspects of urban aspiration frame this course. Drawing on the frameworks of political ecology, in this course we think through the cities of the global south to understand how cities are made. To do this, we will first focus on the construction on the liberal city and how it has been occupied, both formally and informally, by urban subjects in most of the world. Next, we will learn about projects through which natural resources have been directed to and through the city. Finally we will conclude with a particular attention to how urban resources are claimed by marginalized migrants, and the particular sorts of governance institutions these practices engender.
Not Offered Every Year
Also Offered As: URBS 3424
Mutually Exclusive: ANTH 5424
1 Course Unit

ANTH 3429 Anthropology of the Environment
This seminar draws from social scientific and scientific literatures to explore current themes in the anthropology of the environment. We will investigate the links between climate change science and social science, and the ways in which anthropologists can contribute via in-depth fieldwork methodology and long engagement in issues of society-environment interactions. We will also explore how potential environmental, social, and biological impacts of global warming on the future are being assessed through conceptual paradigms linked to risk, probability, scenario forecasting, tipping points, planetary boundaries, and extinction.
Mutually Exclusive: ANTH 5429
1 Course Unit

ANTH 3444 Human Growth and Development
In this course we will examine key issues and the processes involved in human growth and development. By their very nature, growth and development are biocultural processes that require an integrated analysis of social construction and biological phenomena. As such, we will incorporate insight from evolutionary theory, ecology, developmental biology, psychology, human biology, and cultural anthropology in our study of growth and development. Such an integrated perspective will help students to see that development is not just a biological unfolding from birth through adolescence and adulthood. Rather, development is best understood as process that is deeply intertwined with the environment within which the organism develops. Additionally, we will apply these biocultural and socio-ecological insights to emerging health challenges associated with various developmental stages. The study of human growth and development is useful to all students in biological, health-related, and social sciences. Course enrollment is restricted to juniors, seniors, and graduate students only.
Not Offered Every Year
Mutually Exclusive: ANTH 5444
1 Course Unit
ANTH 3447 From Puberty to Parenting: The Evolutionary Context of Reproduction
This course explores the processes that influence reproduction in human populations. We adopt an evolutionary perspective to examine the factors that have shaped human reproductive physiology and contribute to variation in reproductive parameters between populations. To place human reproduction in a broad evolutionary context, we will consider similarities and differences between humans and other apes in how ecology shapes reproduction. The biology of puberty, pregnancy, hormonal changes across the lifespan, the cessation of reproduction, the impact of parenting behavior on the biology of offspring and parents themselves, and the influence of sex and gender diversity on reproduction will be discussed. Both the ecological and sociocultural factors that influence the steps in the reproductive process will be considered.
Not Offered Every Year
Also Offered As: GSWS 3447
Mutually Exclusive: ANTH 5447
1 Course Unit

ANTH 3451 Historical Archaeology
Archaeology of the Modern World from the Columbian voyage (1492) to the 20th century. Topics such as the rise of early modern Europe, European exploration and colonization, African American Archaeology, Asian American Archaeology, the rise of colonial society, contact with native peoples, the Industrial Revolution, and the archaeology of the 20th century will be covered.
Not Offered Every Year
1 Course Unit

ANTH 3454 Quantitative Analysis of Anthropological Data
This course is designed to provide students with a basic understanding of how to work with and present quantitative data. Topics include graphical display of numerical data, probability, sampling, descriptive and inferential statistics (parametric and non-parametric two-and three group tests, regression and correlation). Using examples drawn from the social sciences and anthropology, the focus is on teaching the logic behind quantitative arguments and statistical tests, rather than on the mathematical formulas, making the course especially relevant for students who do not have a strong background in mathematics. This course fulfills the Colleges Quantitative Data Analysis requirement.
Fall or Spring
Mutually Exclusive: ANTH 5454
1 Course Unit

ANTH 3470 Anthropology of Corporations
Modern business corporations can be characterized as having their own internal cultures, more or less distinct from one another. They also exist within encompassing cultures and cultural flows. At the same time, corporations are producers and disseminators, and thus have effects on their surrounding environments, effects that extend from the local to the global. This course examines modern corporations from these three perspectives through theoretical and ethnographic readings, guest speakers from the corporate world, and independent research conducted by the students. Course requirements include student presentations of their research and readings; one or more take-home exams; and a final research paper.
Fall or Spring
1 Course Unit

ANTH 3480 Colonialism and its Legacies
In this course we explore the history and long-term consequences of European colonial expansion, with a primary focus on Eurasia and the British Empire, though we will range further afield as needed. Rather than attempting a comprehensive historical overview, we will use a series of case studies to illustrate changing understandings of colonialism and associated processes, including anti-colonial movements, decolonization, postcoloniality, and the enduring effects of colonialism in the present. This is a seminar-style course.
Not Offered Every Year
1 Course Unit

ANTH 3520 Music, Religion, Ritual in South and Southeast Asia.
What role does music play in articulating religious identities and spaces? What is the importance of ritual musics as they persist and change in the modern world? How does music reflect and articulate religious ways of thinking and acting? In this course, we explore these and other questions about the interrelations between music, religion, and ritual in South and Southeast Asia. Focusing on India, Sri Lanka, Malaysia, and Indonesia, the course emphasizes musics from Hindu, Buddhist, Muslim and Christian traditions; nevertheless, it draws widely to touch upon sacred musics in Pakistan, Nepal, Burma, Thailand, Vietnam, and among some indigenous peoples in the region. Throughout, we explore ontologies of sound; sonic occurrences in religious structures, public processions, and pilgrimage sites; the construction of religion and ritual as ideas forged through colonial encounter and modern scholarship on religion; the politics of sacred sounds in today’s public spaces and contemporary media, such as television and online; and the surprising fluidity between popular and sacred musical genres.
Not Offered Every Year
Also Offered As: MUSC 3520
1 Course Unit
ANTH 3540 Art, Medicine, & Magic: Bodily Remedies
In this activity-centric course, you will explore art, medicine, and magic as entangled approaches for healing human bodies across time, space, and societies. At first glance, artists, doctors, and religious leaders may seem to address questions about bodies and healing in very different ways. Yet, in practice, art, magic, and medicine have been in deep conversation with one another for millennia. 4,000 years ago in Mesopotamia, medical doctors were professional men who had offices, hospital beds, and pharmacological and surgical equipment expertise, but they often worked hand in hand with diviners and exorcists. In rural Haiti today, Haitian Vodou priestesses collect herbs, craft sculptures, and sing as they clean wounds and dispense antibiotics within the course of a single "remed" (remedy). In the United States, megachurches send thousands of doctors on evangelical medical missions each year, while in Colombia, contemporary artists are called on to assuage profound social trauma related to decades of military conflict. Examples like these show that art, magic, and medical practice have long been entangled technologies; sometimes working together, sometimes at odds with one another, these practices have always been in dialogue about what "healing" is and how it can be achieved. Attending to these entanglements this course asks "what does healing look like and feel like - in what ways do humans transform affliction?" Together, we will investigate how everyday bodily experiences of "wellbeing" and "illness" are configured through art, magic, and medical practices across human communities, shaping how people understand and manage disorders from COVID-19 to schizophrenia, from ancestral trauma to breast cancer. Throughout the course, you will use ethnographic case studies & in-class activities to work through three aspects of the core class question: 1) how do art, magic, and medicine work in communities? 2) how are they experienced in communities (who has access to what kind of healing and who doesn’t have access; who can be a healer and who can’t be; what should and does healing/sickness feel like?) 3) how do they approach inequalities? (e.g. how and why are illnesses unequally distributed; what illnesses matter more (and less) than others; which communities should be saved (and which sacrificed). Not Offered Every Year
Also Offered As: AFRC 3540
1 Course Unit

ANTH 3664 Documentary Ethnography for Museum of Exhibition practices
This course will investigate research modalities that center around documentary storytelling in the museum context. During the semester, we will examine research strategies that collaborate with curatorial experts. This class will utilize cinematic techniques that investigate cultural narratives revolving around cultural heritage sites, rituals and ceremonies, artifacts, materials and living traditions. Students will engage Solomon's process of her creation of the new digital and in-gallery content that will reframe the Metropolitan Museum's African art galleries. This semester will culminate in students creating their own short film content that will screen publicly in the gallery at the end of the semester.
Not Offered Every Year
Also Offered As: CIMS 3664, FNAR 3664
1 Course Unit

ANTH 3665 Fables from the Flesh: Black feminist movement and the embodied archive
Drawing inspiration from Harge's multiform fable project FLY | DROWN and Audre Lorde's conception of biomythography, students will trace their interiority to realize and imagine how personal histories, ancestral inheritance, and metaphysics live/move through the body. We will translate and transform stories of the flesh into a series of compositional modalities—which may include text, movement, performance, sound, and installation—to create lexicons that honor subjectivity as form. Informed by surrender, refusal, imagination, and self-sovereignty; we will situate our embodied archives as vessels for fable writing, create and correct myths through movement, and expand our relationship to memory, time, space, and illegibility. Throughout the course, we will turn to Black feminist literary and performance works employing fable, myth, and ancestral legacies including but not limited to: Toni Morrison's Beloved, Aretha Franklin's gospel music, Jaamil Olawale Kosoko's Chameleon, and a close reading of Harge's FLY | DROWN. The room will be grounded in practices of Black fellowship, moving between study group, kickback, ceremony, cypher, and incubator. We will oscillate between these formats depending on the needs of the course and the cohort.
Not Offered Every Year
Also Offered As: AFRC 3665, GSWS 3665
1 Course Unit

ANTH 3690 Language and Identity
If language lies at the heart of what it means to be human, then our everyday linguistic and communicative practices lie at the heart of our communal and individual identities. This seminar examines the relationship between 'language' and 'identity,' while also unsettling our preconceived notions about these sociocultural phenomena. We explore a number of interrelated questions: What does what we say (and how we say it) say about who we are? Is it true an individual can 'choose' their identity, and if so, how and why? What is the 'self' and how is it expressed through movement, and expand our relationship to memory, time, space, and illegibility. Throughout the course, we will turn to Black feminist literary and performance works employing fable, myth, and ancestral legacies including but not limited to: Toni Morrison's Beloved, Aretha Franklin's gospel music, Jaamil Olawale Kosoko's Chameleon, and a close reading of Harge's FLY | DROWN. The room will be grounded in practices of Black fellowship, moving between study group, kickback, ceremony, cypher, and incubator. We will oscillate between these formats depending on the needs of the course and the cohort.
Fall, odd numbered years only
1 Course Unit
ANTH 3766 Cultures of Surveillance
Developments in digital technology have generated urgent political discussions about the pervasive role of surveillance in our everyday life, from the mundane to the exceptional. But surveillance has a much longer history. In this course, students will learn to think and write critically about the historical, socio-cultural, and political dynamics that define surveillance today. This course asks: how can we historicize what we call surveillance to understand its political and social implications beyond what appears in the document caches of the NSA or on a Black Mirror episode? What role does identity and identification play in surveillance? How do surveillance and computational technologies produce racializing effects? Students will apply course concepts to technologies of daily use, such as self-tracking devices like fitbits or identity documents, and reflect on debates surrounding race, policing, imperialism, and privacy. Through primary source materials, films, podcasts, and key texts, we will engage in a cross-cultural exploration of the multi-faceted phenomena of surveillance technology. Through regular writing assignments, such as surveillancediaries, students will analyze and articulate how they understand surveillance to operate in various domains of everyday life. In this course, students will: (1) Apply course concepts to their lived experience, from securitized architecture to search engines, in order to understand how surveillance operates in everyday life; (2) Analyze how historical context has shaped the current configuration of securitization and surveillance on a global scale; (3) Use ethnographic approaches to study the interaction between individuals, their social relations, and technologies of surveillance.
Fall
Also Offered As: STSC 3766
1 Course Unit

ANTH 3770 Black Speculative Futures
Why do black cultural producers turn to the speculative? What, in turn, is speculative about blackness? These questions frame this seminar’s exploration of how black artists, theorists, and activists imagine different futures, often in the service of critiquing power asymmetries and creating radical transformation in the present. We will explore how the speculative works differently across black literature, visual culture and performance. Additionally, inspired by the multi-disciplinary work that we encounter in the course, we will experiment with crafting our own embodied speculative art in order to better understand its function as both art practice and politics. The course will be divided between discussions centered on close reading of primary and secondary material and creative writing/movement exploration (no previous movement experience necessary). Occasional guest lectures with visiting artists will provide additional fodder for our critical and creative work.
Not Offered Every Year
Also Offered As: AFRC 3770, FNAR 3770
1 Course Unit

ANTH 3780 The Biology of Inequality
What is a more important predictor of how long you will live, the genes you inherit from your parents or the zip code where you were raised? In this class, we will try to answer this question and others regarding the origins of social disparities in health in the US. The course will also consider the broader global context, and ask why the US spends so much money on health care, but lags behind many nations in key indicators of population health. We will examine how social stratification by race/ethnicity, national origin, sexual orientation, education, and neighborhood quality shapes our biology and the health status of individuals, families, and populations; and, conversely, how health itself can be a fundamental determinant of key social outcomes such as educational achievement. This class takes a biocultural perspective seeking to understand how social inequalities interact with human biology, especially nutrition, health, and physiological stress. The course begins by reviewing perspectives on various forms of inequality and the ways inequalities become embodied as biology (including a review of biological systems and processes), and introduces several overlapping biocultural models that have emerged from anthropology and public health. A series of readings and case studies follow that link some aspect of human biology (nutrition, health, reproduction, psychosocial stress) to poverty and inequalities, and try to present both quantitative and qualitative aspects of these linkages, as well as how inequalities and poor health reinforce and reproduce each other. In order to be successful, this class requires engagement, participation, and discussion.
Not Offered Every Year
1 Course Unit

ANTH 3804 Sighting Black Girlhood
The COVID-19 pandemic exposed the deep inequities of our social systems, and protests against police killings drew broader attention to anti-Black state violence worldwide, yet the gendered dimensions of these problems are not always fully understood. While many in the public have come to recognize the suffering of Black boys and men as acute and eventful, Black girls’ suffering has remained largely invisible, a slow confluence of violences that too often go unaddressed. As one way to bring the issues facing Black girls globally to public attention, and to celebrate and support Black girls, this course will provide a background for understanding the challenges faced by Black girls in Philadelphia, Jamaica, and South Africa. We will frame these challenges historically and geopolitically, drawing attention to the issues that contribute to the invisibility of the ordinary Black girl in diverse sites, as well as the resources that will begin to address them. This course also aims to equip students to understand the relationships between research and creative work, and to see artistic production as a catalyst for community-building and critical thinking and action. Toward this end, we will work with a number of partners in Philadelphia, including the Colored Girls Museum and Black Lives Matter-Philly. Because this course is part of a broader project, we will travel as a class to Jamaica during the summer of 2022 and students will participate in a range of projects there, working with partners in the arts, community engagement, and legal advocacy. The question motivating our project is: What are the personal, psychic, spiritual, and economic costs and benefits associated with Black girls fully exercising their humanity?
Not Offered Every Year
Also Offered As: AFRC 3804
Mutually Exclusive: ANTH 6804
1 Course Unit
ANTH 3820 Writing, Society & Power: How Pre-Modern Scripts Shaped Societies and Political Action
The written word, expressed in a range of different visual media and materials, envelops us today in ways as ubiquitous as it is largely unexamined as a cultural artifact. This course examines the power of writing through societies other than our own, examining a range of ancient scripts from two linked perspectives. It looks at them first as semiotic systems with specific origins and structures, and then moves to the purposes to which they were put. The overriding focus here is not writing as prosaic tool, but how it was used to create and sustain social and political power. Preferred prerequisite: previous class in social studies and humanities
Not Offered Every Year
1 Course Unit

ANTH 3910 Multi-Modal Ethnography: Anthropology Beyond Text
What does the digital age mean for humanistic, social scientific, and professional inquiry and practice? How do non-text based formats—such as film, dance and other kinds of performance, creative writing, and soundscapes—transform both the processes and products of research? How do they inform and transform our disciplines, and what might this mean for the communities with which we work? This advanced undergraduate seminar will address these (and other related) questions. Taught by the invited Fellows from the Center for Experimental Ethnography, this course will take shape differently each semester according to the Fellow’s area of expertise and practice. Students will be encouraged to explore alternative formats of representation that move beyond text while still being grounded in ethnographic research, and they will develop skills in relevant media. https://www.sas.upenn.edu/anthropology/courses/topics-courses
Fall or Spring
1 Course Unit

ANTH 3930 Latinx Environmental Justice
This course explores the involvement of the Latinx environmental justice movement since the 1960s. It addresses theories and concepts of environmental racism and environmental justice, underscoring how Latinx have challenged, expanded, and contributed to the environmental justice discourse. In this course, students will explore national case studies of environmental and racial injustice as they bear on Latinx communities both in rural areas and in urban barrios throughout the United States. The course will analyze these case studies through the lens of Latinx artistic and literary texts (essays, paintings, short stories, documentaries, and short films) as they provide a unique historic and multicultural perspective of the Latinx experience with environmental injustice and of how Latinxs imagine alternative transitions and responses to environmental marginalization. In addition, the works of Latinx artists and writers will serve as case studies to deconstruct racial stereotypes of Latinx as unconcerned about environmental issues, shedding light on how they share a broad engagement with environmental ideas. The case studies analyzed in this course emphasize race and class differences between farmworkers and urban barrio residents and how they affect their respective struggles. The unit on farmworkers will focus on workplace health issues such as toxic chemicals and collective bargaining contracts. The unit on urban barrios will focus on gentrification, affordable housing, and toxic substances in the home. We will also review current and past programs that have been organized to address the aforementioned problems. This is an Academically Based Community Service Course (ABCS course) through which students will learn from and provide support to a Latinx-serving organization in the City of Philadelphia on preventing exposure to hazardous substances, thus bridging the information gap on environmental justice issues in the Latinx community in Philadelphia. Information dissemination and education efforts will be conducted by collaborating with Esperanza Academy Charter School in Philadelphia to implement lessons on preventing exposure to hazardous substances. Studying environmental justice and pairing it with community service will heighten students’ awareness of the complexities of culture, race, gender, and class while providing them with an invaluable experience of cross-cultural understanding.
Spring
Also Offered As: ENVS 3445, LALS 3930, SPAN 3930, URBS 3930
Prerequisite: SPAN 1800 AND SPAN 1900
1 Course Unit

ANTH 3999 Independent Study in Anthropology
A study under faculty supervision of a problem area or topic not included in the formal curriculum.
Fall or Spring
1 Course Unit

ANTH 4000 Research Seminar in Anthropology
ANTH 4000 is a Research Seminar for anthropology majors. It defines the Penn anthropology major by bringing together and inter-relating major threads from the different subfields of the Penn anthropology curriculum. Each session includes contributions from members of the standing faculty and seminar discussions of a research theme in which anthropological knowledge is currently progressing.
Fall
1 Course Unit

ANTH 4010 Senior Thesis
Individual research under faculty supervision culminating in a thesis.
Fall or Spring
1 Course Unit
ANTH 5024 Mesopotamia 2200-1600 BCE
This seminar style class will focus on two canonical periods of Mesopotamian history from 2100-1600 BCE. It is structured to examine fundamental institutions of kingship, religion, economy, law and literature. Practices well established in Sumer by the end of the third millennium evolved during the first half of the second millennium BCE when Amorite speaking peoples assume central roles in Mesopotamian institutions. The class will be structured around case studies engaging key monuments of art, architecture and literature. It will be team-taught by Prof. Pittman, focusing on material remains and visual arts and by Prof. Steve Tinney who brings expertise to the rich cuneiform textual traditions.
Also Offered As: AAMW 5020, ARTH 5240, NELC 5020
1 Course Unit

ANTH 5026 Material & Methods in Mediterranean Archaeology
This course is intended to provide an introduction to archaeological methods and theory in a Mediterranean context, focusing on the contemporary landscape. The class will cover work with museum collections (focusing on the holdings of the Penn Museum), field work and laboratory analysis in order to give students a diverse toolkit that they can later employ in their own original research. Each week, invited lecturers will address the class on different aspects of archaeological methodology in their own research, emphasizing specific themes that will be highlighted in readings and subsequent discussion. The course is divided into three sections: Method and Theory in Mediterranean Archaeology; Museum collections; and Decolonizing Mediterranean Archaeology. The course is designed for new AAMW graduate students, though other graduate students or advanced undergraduate students may participate with the permission of the instructor.
Fall
Also Offered As: AAMW 5260, CLST 6300
1 Course Unit

ANTH 5080 Conservation of Archaeological Sites and Landscapes
This seminar will address the history, theories, principles, and practices of the preservation and interpretation of archaeological sites and landscapes. The course will draw from a wide range of published material and experiences representing both national and international contexts. Topics will include site and landscape documentation and recording; site formation and degradation; intervention strategies including interpretation and display, legislation, policy, and contemporary issues of descendent community ownership and global heritage. Depending on the site, students will study specific issues leading toward the critique or development of a conservation and management program in accordance with guidelines established by ICOMOS/ ICAHM and other official agencies.
Fall or Spring
Also Offered As: HSPV 7470
1 Course Unit

ANTH 5100 Ethics, Archaeology, and Cultural Heritage
This seminar will explore some of the most important issues that are now a central part of archaeological, anthropological and historical research throughout the world. The identification and control of cultural heritage is a central part of the framework for research within other communities. Issues for this course will also include cultural identity, human rights, repatriation, colonialism, working with communities and many other topics. Field research today must be based upon a new series of ethical standards that will be discussed and examined within this class. Major topics include: cultural heritage - definitions and constructs, cosmopolitanism and collecting, archaeology and looting, cultural heritage preservation, museums - universal and national, museum acquisition policies, cultural identity, international conventions (including underwater issues), national laws of ownership, community-based development, cultural tourism, development models, and human rights.
Not Offered Every Year
Also Offered As: LALS 5110
1 Course Unit

ANTH 5137 Environmental (In)Equalities
This seminar focuses on the interrelations of equity, justice, and environmental crisis. Beginning with a discussion of the emergence of climate justice as a critical term in international negotiations, we will consider several dimensions of substantive and historical inequality and the framing of justice as an environmental right as they arise from these settings. Broadening the discussion to include a larger framework of environmental issues in relation to inequality, the course will draw on considerations of geographies of vulnerability, environments as inhabited risk, and ecological debt in relation to “natural disaster” or environmental crisis. Moving from an historical account of structural inequalities in socio-natural systems to contemporary environmental politics, we will then discuss the disjuncture in environmental movements and aspirations between the global south and north, and particularly, how justice and equity figure into environmentalism(s) on a global basis. Finally, we discuss emerging frameworks including Just Transition movements, ecological sovereignty and rights discourses, and flourishing and capabilities approaches.
Mutually Exclusive: ANTH 3137
1 Course Unit

ANTH 5211 Petrography of Cultural Materials
Introduction to thin-section petrography of stone and ceramic archaeological materials. Using polarized light microscopy, the first half of this course will cover the basics of mineralogy and the petrography of igneous, metamorphic and sedimentary rocks. The second half will focus on the petrographic description of ceramic materials, mainly pottery, with emphasis on the interpretation of provenance and technology. As part of this course, students will characterize and analyze archaeological samples from various collections. Prior knowledge of geology is not required.
Not Offered Every Year
Also Offered As: AAMW 5120, CLST 7311
1 Course Unit
ANTH 5215 Archaeology of Animals
This course introduces the study of animal bones from archaeological sites. Faunal analysis is an interdisciplinary science which draws methods from archaeology, biology, and paleontology. Bones, shells, and other remains yield evidence for the use of animals by humans, and evidence for the biology of animals and for past environments. The course will focus on research approaches to important transitions in human-animal relationships: the development of human hunting and fishing, animal domestication, early pastoralism, and the emergence of market economies in animal products. Class presentations will include lectures and discussion concerning research design and archaeological case material, with additional videos, sidework with field and laboratory equipment, and supervised work identifying and describing archaeological materials from the University Museum’s collections. This class is taught in the Zooarchaeology Laboratory of the Center for the Analysis of Archaeological Materials.
Not Offered Every Year
Mutually Exclusive: ANTH 3215
1 Course Unit

ANTH 5219 Mining Archaeology
In ancient times, materials such as stone and metals were used to produce artifacts including pigments, jewelry, tools, and weapons. This course is designed to introduce students to research on the early exploitation of mineral resources. Which techniques were used to access and process raw materials in antiquity? Which archaeological methods can be used to investigate these features and artifacts? The course will provide worldwide examples through time, ranging from Stone Age flint mining, Iron Age rock salt mining to Medieval silver mining. Ethnographic studies and hands-on activities will contribute to our understanding of mining in archaeology, and artifacts from the Museum’s collections will undergo scientific analysis in the Center for the Analysis of Archaeological Materials.
Spring
Also Offered As: CLST 5314
Mutually Exclusive: ANTH 3219
1 Course Unit

ANTH 5220 Intro to Digital Archaeology
Students in this course will be exposed to the broad spectrum of digital approaches in archaeology with an emphasis on fieldwork, through a survey of current literature and applied learning opportunities that focus on African American mortuary landscapes of greater Philadelphia. As an Academically Based Community Service (ABCS) course, we will work with stakeholders from cemetery companies, historic preservation advocacy groups, and members of the African Methodist Episcopal Church to collect data from three field sites. We will then use these data to reconstruct the original plans, untangle site taphonomy, and assess our results for each site. Our results will be examined within the broader constellation of threatened and lost African American burial grounds and our interpretations will be shared with community stakeholders using digital storytelling techniques. This course can count toward the minor in Digital Humanities, minor in Archaeological Science and the Graduate Certificate in Archaeological Science.
Also Offered As: AAMW 5620, CLST 5620
Mutually Exclusive: CLST 3307
1 Course Unit

ANTH 5221 Material World in Archaeological Science
By focusing on the scientific analysis of inorganic archaeological materials, this course will explore processes of creation in the past. Class will take place in the Center for the Analysis of Archaeological Materials (CAAM) and will be team taught in three modules: analysis of lithics, analysis of ceramics and analysis of metals. Each module will combine laboratory and classroom exercises to give students hands-on experience with archaeological materials. We will examine how the transformation of materials into objects provides key information about past human behaviors and the socio-economic contexts of production, distribution, exchange and use. Discussion topics will include invention and adoption of new technologies, change and innovation, use of fire, and craft specialization.
Not Offered Every Year
Also Offered As: NELC 6920
1 Course Unit

ANTH 5230 Archaeobotany Seminar
In this course we will approach the relationship between plants and people from archaeological and anthropological perspectives in order to investigate diverse plant consumption, use, and management strategies. Topics will include: archaeological formation processes, archaeobotanical sampling and recovery, lab sorting and identification, quantification methods, and archaeobotany as a means of preserving cultural heritage. Students will learn both field procedures and laboratory methods of archaeobotany through a series of hands-on activities and lab-based experiments. The final research project will involve an original in-depth analysis and interpretation of archaeobotanical specimens. By the end of the course, students will feel comfortable reading and evaluating archaeobotanical literature and will have a solid understanding of how archaeobotanists interpret human activities of the past.
Not Offered Every Year
Also Offered As: AAMW 5390, CLST 7313, NELC 6930
1 Course Unit

ANTH 5231 Surface Archaeology
Non-invasive and non-destructive methods make up an ever-greater proportion of archaeological investigations, for both intellectual and practical reasons. These methods comprise collection of data from the surface (pedestrian surface survey, geophysical prospection, geoastronomy) and from above-ground platforms (drones, aircraft, balloons, kites, satellites), using a variety of sensors from human perception to multispectral scanning devices. The data acquired from these methods complement the contextual information drawn from traditional excavation, but also allow the archaeologist to address diverse research questions at a scale much greater than the excavated site. Aspiring archaeologists should have a good working knowledge of surface archaeological methods. In this course, we will delve deeply into these methods, and read and analyze case studies to expose strengths and weaknesses and to identify best practices. Students will have the opportunity for hands-on training in the Philadelphia area or elsewhere.
Not Offered Every Year
Also Offered As: AAMW 5239, CLST 5321
1 Course Unit
ANTH 5235 The Past Preserved: Conservation In Archaeology
This course explores the scientific conservation of cultural materials from archaeological contexts. It is intended to familiarize students with the basics of artifact conservation but is not intended to train them as conservators. The course will cover how various materials interact with their deposit environments; general techniques for on-site conservation triage and retrieval of delicate materials; what factors need to be considered in planning for artifact conservation; and related topics. Students should expect to gain a thorough understanding of the role of conservation in archaeology and how the two fields interact.
Also Offered As: CLST 5315
Mutually Exclusive: ANTH 3235
1 Course Unit

ANTH 5239 Adivasis/Indigenous Peoples & British Colonialism in India
Modern Western colonialism impacted the world in many ways. However, each country and community has had a different encounter and experience with colonialism. For the Adivasis (indigenous peoples) of India, it was catastrophic and marked a new phase in their history. The pre-colonial symbolizes a period of freedom in the hills and forest, whereas the colonial era symbolizes state coercion, eviction from land and the end of free movement in the forest. The proposed course discusses Adivasis’ encounters with the British colonial state. The course examines Indian history from the perspectives of Adivasis and contrasts these with dominant paradigms of Indian history. In this way, the course allows students to understand India from a different perspective. Under British colonialism, the diverse ethnic self-governing communities were imagined as primitive, uncivilized, barbaric, violent, backward and childlike people. The course discusses how such constructions impacted Adivasi social life and development. It traces how the expansion of the colonial state in forests and hills put an end to self-rule and induced massive migration from the plains of India and asks how Adivasi areas were integrated into the colonial economy. How did the colonial state use revenue and forest policies and regulations to bring these areas under its control? How did commercialization of agriculture and forest conservation work to further marginalize Adivasis? The course also examines how Adivasi knowledge of cultivation and forest conservation were viewed by the colonial state and asks why the colonial state encouraged caste-Hindu peasant migration into Adivasi areas. Finally, it traces the ways that colonial intervention has resulted in a series of contestations, acts of resistance, and insurgencies by Adivasi groups? Tracing forms of Adivasi resistance, the course puts these into conversation with intellectual history, emphasizing the role of rumours, myths, and orality, which provided the basis for the new insurgent consciousness that spread throughout Adivasi communities. Adivasi resistance movements have been documented and analyzed by colonial rulers and anthropologists. Colonial discourses were successful in criminalizing Adivasi politics. Ironically, many colonial-era discourses concerning Adivasis have been perpetuated within the post-colonial academy. The anti-colonial struggles of Adivasis were constructed as sporadic, spontaneous, unorganized and apolitical. The inauguration of the Subaltern Studies Project has reversed such arguments and attempted to provide ideological integrity to Adivasi politics. Students will be introduced to important literature on Adivasi anti-colonial insurgent consciousness and will be encouraged to think critically about the concepts and theories of subaltern politics. Assigned readings include texts by James Scott, Ranajit Guha, David Arnold, David Hardiman, Ajay Skaria, Dhanagare, Ramachandra Guha, Biswamoy Pati, Alpa Shah, Crispin Bates, Jangkhomang Guite and Bhangya Bhukya. One aim of the course is to sensitize the students to how the political and cultural mobilizations by subalterns have contributed to the shaping of democracy. Course Requirements: Short writing responses to readings In-class presentations on readings Midterm short essay Final research paper based on primary and secondary sources. (No exams) Instructor’s Objectives: 1. Students will understand indigenous perspectives on Indian culture and history 2. Students will be able to situate indigenous movements in relation to Subaltern Studies, dominant schools of historiography, and colonial and postcolonial ethnography 3. Students will be able to analyze primary sources and identify different schools of thought within secondary literature 4. Students will be able to analyze the impact of colonial practices and discourses on indigenous cultures, histories and practices, and the forms of resistance that indigenous groups have utilized
Spring
Also Offered As: SAST 5239
Mutually Exclusive: SAST 2239
ANTH 5240 Plants and Society
Interactions between humans and the living landscape around us have played - and continue to play - a fundamental role in shaping our worldview. This course is designed to introduce students to the diverse ways in which humans interact with plants. We will focus on the integration of ethnographic information and archaeological case studies in order to understand the range of interactions between humans and plants, as well as how plants and people have profoundly changed one another. Topics will include the origins of agriculture; cooking and plant processing; human health and the world of ethnomedicine; and poisonous and psychoactive plants. We will examine ancient plant material firsthand at the Center for the Analysis of Archaeological Materials (CAAM) and will handle botanical ecofacts from the Penn Museum's collections. Students will also carry out a substantial research project focused on an archaeological culture and plant species of their own interest.
Not Offered Every Year
Also Offered As: CLST 5316
Mutually Exclusive: ANTH 3240
1 Course Unit

ANTH 5244 Introduction to the Human Skeleton
An introduction to the anatomy and biology of the human skeleton. Laboratory work will be supplemented by lectures and demonstrations on the development structure, function, and evolution of the human skeleton.
Not Offered Every Year
Mutually Exclusive: ANTH 3244
1 Course Unit

ANTH 5267 Living World in Archaeological Science
By focusing on the scientific analysis of archaeological remains, this course will explore life and death in the past. It takes place in the Center for the Analysis of Archaeological Materials (CAAM) and is team taught in three modules: human skeletal analysis, analysis of animal remains, and analysis of plant remains. Each module will combine laboratory and classroom exercises to give students hands-on experience with archaeological materials. We will examine how organic materials provide key information about past environments, human behavior, and cultural change through discussions of topics such as health and disease, inequality, and food.
Not Offered Every Year
Also Offered As: CLST 5303
Mutually Exclusive: ANTH 2267
1 Course Unit

ANTH 5320 Medical Anthropology in the Anthropocene
Ongoing climate crises, militarization, racial injustice, and mass migration have torn apart social fabrics and have further exposed the unequal structures of power that have defined health, how it is realized, and for whom. The massive human toll of COVID-19 and demands for reparations from communities around the world confront health institutions and expose their colonial, scientific, and epistemic underpinnings. From colonial histories of medicine to movements to decolonize global and planetary health, this seminar charts how anthropological and trans-disciplinary forms of research can help shift knowledge claims about injury and vulnerability away from hegemonic centers to frontline communities. This shift implies tracking the lived aspects of health both in and beyond clinical spaces and into multiple environments (from low-wage work to toxic exposures and militarized zones) that perpetuate human/nonhuman vulnerabilities and unequal exposures to disease. As we consider multi-faceted efforts (including traditions of mutual aid and care, de-occupation and, more recently, abolition medicine) to reverse such trends, we probe innovations, forms of resistance, and ethical and political potentials unleashed by diverse justice struggles, and through which diverse planetary futures are imagined and realized.
Not Offered Every Year
1 Course Unit

ANTH 5360 The Peopling of the Americas
The peopling of the Americas is a question that has intrigued scholars and laymen for over 500 years. The origin of Native Americans was also a seminal issue during the emergence of American Anthropology as a discipline at the turn of the 20th century, with research on this topic animating current studies of ethnohistory, indigenous archeology, post-colonialism and repatriation. The proposed course will review the scholarship dedicated to describing this long history from an interdisciplinary perspective. It will explore their roots in the expansion of modern humans into Eurasia, evaluate the new archeological and genetic research that has fundamentally altered our understanding of the migration history and diversity of indigenous peoples in the American continents, and examine issues of identity, ethnicity and cultural heritage in contemporary Native populations that extend from this knowledge. The course will further draw on the instructor's fieldwork experience working with indigenous communities in Alaska, Canada, the Lower 48, Mexico and the Caribbean, as well as native Siberians in Russia, where the cultural and biological roots of ancestral Native American populations lie.
Not Offered Every Year
1 Course Unit

ANTH 5407 Human Evolution
An examination of fossils and other evidence documenting human evolution. Lectures and readings are supplemented with slide and fossil reproduction materials.
Not Offered Every Year
Mutually Exclusive: ANTH 3407
1 Course Unit
ANTH 5410 Critical Engagements with Science(s) and Justice(s)
This course places science studies in conversation with counterforensic and ethnographic methodologies, decolonial and feminist approaches, data and environmental justice, critical race and disability studies, and conflict medicine, among other topics. We will be looking at the ways that the arts, natural and social sciences, and community-oriented research agendas come together, and what tensions and possibilities these emergent alliances, intersectional modes of thinking, and practical collaborations may produce. This class offers a unique opportunity for graduate students from engineering, the medical school, natural and social sciences, humanities, and the arts to learn to converse and collaborate around pressing socio-environmental and public health issues. Emergent transdisciplinary fields, such as the environmental and medical humanities, reflect a growing awareness that responses to the environmental and public health dilemmas being faced require the collaborative work of not only diverse scientists, but also more expansive publics, including artists, urban and rural communities, and their relationships with nonhumans and materialities. Aspirations for justice and the possibilities for evidence making require translation across different practices, temporalities and scales; negotiations with the forces of extractive economic structures; and endurance within racist and colonial legacies as well as situations of everyday militarization and social and armed conflict. Throughout the course we will collectively explore moments of newly shared insight, mutual incomprehension, and partial connection between disparate actors and potentially unlikely allies. The idea is not for us to necessarily give up our disciplinary orientations, but rather to learn how to approach shared matters of concern without canceling out our differences and the generative agonisms they produce.
Not Offered Every Year
1 Course Unit

ANTH 5424 Political Ecologies of the City
Cities have been centres of aspiration for much of human history. They have provided a limited yet critical locus for social mobility, both in political and economic terms. As large agglomerations of political and economic power, urban residents have also consumed growing proportions of the earth's mineral, food and water resources from the national (and international) body. The contradictory aspects of urban aspiration frame this course. Drawing on the frameworks of political ecology, in this course we think through the cities of the global south to understand how cities are made. To do this, we will first focus on the construction on the liberal city and how it has been occupied, both formally and informally, by urban subjects in most of the world. Next, we will learn about projects through which natural resources have been directed to and through the city. Finally we will conclude with a particular attention to how urban resources are claimed by marginalized migrants, and the particular sorts of governance institutions these practices engender.
Not Offered Every Year
Mutually Exclusive: ANTH 3424
1 Course Unit

ANTH 5429 Anthropology of the Environment
This seminar draws from social scientific and scientific literatures to explore current themes in the anthropology of the environment. We will investigate the links between climate change science and social science, and the ways in which anthropologists can contribute via in-depth fieldwork methodology and long engagement in issues of society-environment interactions. We will also explore how potential environmental, social, and biological impacts of global warming on the future are being assessed through conceptual paradigms linked to risk, probability, scenario forecasting, tipping points, planetary boundaries, and extinction.
Mutually Exclusive: ANTH 3429
1 Course Unit

ANTH 5433 Andean Archaeology
Consideration of the culture history of the native peoples of the Andean area, with emphasis on the pre-conquest archaeology of the Central-Andean region.
Not Offered Every Year
Mutually Exclusive: ANTH 3433
1 Course Unit

ANTH 5440 Public Environmental Humanities
This broadly interdisciplinary course is designed for Graduate and Undergraduate Fellows in the Penn Program in Environmental Humanities (PPEH) who hail from departments across Arts and Sciences as well as other schools at the university. The course is also open to others with permission of the instructors. Work in environmental humanities by necessity spans academic disciplines. By design, it can also address and engage publics beyond traditional academic settings. This seminar, with limited enrollment, explores best practices in public environmental humanities. Students receive close mentoring to develop and execute cross-disciplinary, public engagement projects on the environment. In spring 2018, participants have the opportunity to participate in PPEH's public engagement projects on urban waters and environmental data. These ongoing projects document the variety of uses that Philadelphians make of federal climate and environmental data, in and beyond city government; they also shine light on climate and environmental challenges our city faces and the kinds of data we need to address them. Working with five community partners across Philadelphia, including the City's Office of Sustainability, students in this course will develop data use stories and surface the specific environmental questions neighborhoods have and the kinds of data they find useful. The course hosts guest speakers and research partners from related public engagement projects across the planet; community, neighborhood, open data, and open science advocates; and project partners in government in the City of Philadelphia and Commonwealth of Pennsylvania. Course assignments include: * 2 short-form essays (course blog posts); * a 12-hour research stay (conducted over multiple visits) with a community course partner to canvas data uses and desires; * authorship of 3 multimedia data stories; * co-organization and participation in a city-wide data storytelling event on May 2, 2018.
Not Offered Every Year
Also Offered As: COML 5440, ENVS 5440, GRMN 5440, URBS 5440
1 Course Unit
ANTH 5444 Human Growth and Development
In this course we will examine key issues and the processes involved in human growth and development. By their very nature, growth and development are biocultural processes that require an integrated analysis of social construction and biological phenomena. As such, we will incorporate insight from evolutionary theory, ecology, developmental biology, psychology, human biology, and cultural anthropology in our study of growth and development. Such an integrated perspective will help students to see that development is not just a biological unfolding from birth through adolescence and adulthood. Rather, development is best understood as a process that is deeply intertwined with the environment within which the organism develops. Additionally, we will apply these biocultural and socio-ecological insights to emerging health challenges associated with various developmental stages. The study of human growth and development is useful to all students in biological, health-related, and social sciences. Course enrollment is restricted to juniors, seniors, and graduate students only.
Not Offered Every Year
Mutually Exclusive: ANTH 3444
1 Course Unit

ANTH 5447 From Puberty to Parenting: The Evolutionary Context of Reproduction
This course explores the processes that influence reproduction in human populations. We adopt an evolutionary perspective to examine the factors that have shaped human reproductive physiology and contribute to variation in reproductive parameters between populations. To place human reproduction in a broad evolutionary context, we will consider similarities and differences between humans and other apes in how ecology shapes reproduction. The biology of puberty, pregnancy, hormonal changes across the lifespan, the cessation of reproduction, the impact of parenting behavior on the biology of offspring and parents themselves, and the influence of sex and gender diversity on reproduction will be discussed. Both the ecological and sociocultural factors that influence the steps in the reproductive process will be considered.
Not Offered Every Year
Mutually Exclusive: ANTH 3447, GSWS 3447
1 Course Unit

ANTH 5451 Historical Archaeology
Archaeology of the Modern World from the Columbian voyage (1492) to the 20th century. Topics such as the rise of early modern Europe, European exploration and colonization, African American Archaeology, Asian American Archaeology, the rise of colonial society, contact with native peoples, the Industrial Revolution, and the archaeology of the 20th century will be covered.
Not Offered Every Year
1 Course Unit

ANTH 5454 Quantitative Analysis of Anthropological Data
This course is designed to provide students with a basic understanding of how to work with and present quantitative data. Topics include graphical display of numerical data, probability, sampling, descriptive and inferential statistics (parametric and non-parametric two-and three group tests, regression and correlation). Using examples drawn from the social sciences and anthropology, the focus is on teaching the logic behind quantitative arguments and statistical tests, rather than on the mathematical formulas, making the course especially relevant for students who do not have a strong background in mathematics. This course fulfills the Colleges Quantitative Data Analysis requirement.
Fall or Spring
Mutually Exclusive: ANTH 3454
1 Course Unit

ANTH 5460 Global Citizenship
This course examines the possibilities and limitations of conceiving of and realizing citizenship on a global scale. Readings, guest lecturers, and discussions will focus on dilemmas associated with addressing issues that transcend national boundaries. In particular, the course compares global/local dynamics that emerge across different types of improvement efforts focusing on distinctive institutions and social domains, including: educational development; human rights; humanitarian aid; free trade; micro-finance initiatives; and the global environmental movement. The course has two objectives: to explore research and theoretical work related to global citizenship, social engagement, and international development; and to discuss ethical and practical issues that emerge in the local contexts where development initiatives are implemented.
Spring
Also Offered As: EDUC 5431, URBS 5460
1 Course Unit

ANTH 5467 Community Youth Filmmaking
This course focuses on how the filmmaking medium and process can provide a means for engaging youth in ethnographically grounded civic action projects where they learn about, reflect on, and communicate to others about their issues in their schools and communities. Students receive advanced training in film and video for social change. A project-based service-learning course, students collaborate with Philadelphia high school students and community groups to make films and videos that encourage creative self-expression and represent issues important to youth, schools, and local communities. Stories and themes on emotional well-being, safety, health, environmental issues, racism and social justice are particularly encouraged. A central thread throughout is to assess and reflect upon the strengths (and weaknesses) of contemporary film (digital, online) in fostering debate, discussion and catalyzing community action and social change. The filmmaking medium and process itself is explored as a means to engage and interact with communities. This course provides a grounding in theories, concepts, methods and practices of community engagement derived from Community Participatory Video, Youth Participatory Action Research (YPAR) and Ethnographic methods. For the very first time, Penn students will be trained to operate a state-of-the-art TV studio at PSTV (Philadelphia Schools TV). At the end of the semester approved films will be screened with an accompanying panel discussion at an event at the School District of Philadelphia (SDP). These films will also be broadcast on Comcast Philadelphia's PSTV Channel 52 and webcast via the district's website and YouTube channel. This is an ABCS course, and students will produce short ethnographic films with students in Philadelphia high schools as part of a partnership project with the School District of Philadelphia. EDUC 5466 Ethnographic Filmmaking (or equivalent) is a pre-requisite or permission of instructor.
Spring
Also Offered As: EDUC 5467
1 Course Unit

ANTH 5470 Anthropology and Education
An introduction to the intent, approach, and contribution of anthropology to the study of socialization and schooling in cross-cultural perspective. Education is examined in traditional, colonial, and complex industrial societies.
Fall, Spring, and Summer Terms
Also Offered As: EDUC 5495, URBS 5470
1 Course Unit
ANTH 5480 Colonialism and its Legacies
In this course we explore the history and long-term consequences of European colonial expansion, with a primary focus on Eurasia and on the British Empire, though we will range further afield as needed. Rather than attempting a comprehensive historical overview, we will use a series of case studies to illustrate changing understandings of colonialism and associated processes, including anti-colonial movements, decolonization, postcoloniality, and the enduring effects of colonialism in the present. This is a seminar-style course.
Not Offered Every Year
1 Course Unit

ANTH 5490 Topics in Archaeological Method and Theory
The subject matter of this seminar will vary by term and instructor. Each course will concern itself with contemporary archaeology through an in-depth examination of new directions in archaeological method and theory. Please check https://www.sas.upenn.edu/anthropology/courses/topics-courses for the term-specific course description.
Not Offered Every Year
1 Course Unit

ANTH 5500 Critical Ethnography
"This graduate course introduces students to theories, practices, and critiques of critical ethnography. Ethnography – an approach to the study of culture which anthropologist James Clifford described as a process that "translates experiences into text" - will have our full attention. This process of translation, although seemingly straightforward, requires layers of interpretation, selection, and the imposition of a viewpoint or politics. While ethnography is often narrowly conceived of as a methodology, this course considers ethnography as a mode of inquiry, as a philosophy, as an ongoing question and performance. We wrestle with notions of "the self" and "the other" at the intersection of imbricated cultural and performance worlds. Together we'll ask: How is ethnography both critical and performatve? What is the relationship between theory and method? How can we evaluate ethnographic work? And finally, what kinds of ethnographers do we want to be? This course considers a range of ethnographic examples in order to analyze both the craft and the stakes of "translating experiences into text."
Not Offered Every Year
Also Offered As: AFRC 5500
1 Course Unit

ANTH 5510 Experimenting with Ethnography: Craft, Genre & Conceptual Work
This course takes inspiration from conversations and practices occurring at the interfaces of cultural anthropology, creative nonfiction, and experimental ethnography. Anthropologist Stuart McLean (2017) has asked: "What might become of anthropology if it were to suspend its sometime claims to be a social science? What if it were to turn instead to exploring its affinities with art and literature as a mode of engaged creative practice carried forward in a world heterogeneously composed of humans and other than humans?" At the same time, the emergence of the environmental and medical humanities as academic disciplines in the twenty-first century reflect the growing conviction that environmental and public health problems cannot be solved by science and technology alone. Instead, the need for public engaged writing and experimental methods and alliance building between the arts and social and natural sciences ask us to reflect about the craft, expanding genre, and conceptual work of our ethnographic practice. In this course, we will push our methodological premises and analytical training to experiment with the contexts, human interlocutors, matters of concern, and diverse materialities that emerge from and participate in our ethnographic research. This is a writing intensive seminar, and we will workshop different elements of the craft of ethnographic writing, as well as introduce several multimodal techniques into our modes of ethnographic conceptualization.
Fall or Spring
1 Course Unit

ANTH 5564 Colonial Ecologies
This seminar explores the historical ecology of European colonial expansion in a comparative framework, concentrating on the production of "periphery" and the transformation of incorporated societies and environments. We begin with a discussion of the theoretical frameworks, sources of evidence, and analytical strategies employed by researchers to address the conjunction of environmental and human history in colonial contexts, including underdevelopment and global systems of circulation; political ecology; and ecological imperialism. We then discuss the circulation of persons, crops, invasives, and microbes as fundamental conditions of emerging global systems. Drawing on these elements, we discuss landscapes as sites of misrecognition, rationalization, and cultural production. This discussion sets the stage for an examination of novel forms of economic and ecological production, including the emergence of the 'drug foods', the transformation of forest products, and the rise of the plantation. We then consider the political ecology of crisis in colonial settings, including agrarian collapse, famine, and 'ecological poverty'.
Not Offered Every Year
1 Course Unit
ANTH 5570 Archaeology of Landscapes
Traditionally, archaeological research has focused on the "site" or "sites." Regional investigation tends to stress settlement pattern and settlement system determined through archaeological site survey. This seminar will stress the space between the sites or "points" on the landscape. Most previous attempts at "landscape archaeology" tended to focus on the relationship of sites and the natural environment. This course will highlight the cultural, "anthropogenic," or "built environment"--in this case human modification and transformation of the natural landscape in the form of pathways, roads, causeways, monuments, walls, agricultural fields and their boundaries, gardens, astronomical and calendrical alignments, and water distribution networks. Features will be examined in terms of the "social logic" or formal patterning of cultural space. These can provide insights into indigenous structures such as measurement systems, land tenure, social organization, engineering, cosmology, calendric, astronomy, cognition, and ritual practices. Landscapes are also the medium for understanding everyday life, experience, movement, memory, identity, time, and historical ecology. Ethnographic, ethnohistorical, and archaeological case studies will be investigated from both the Old and New Worlds.
Not Offered Every Year
Also Offered As: AAMW 5570, LALS 5570
1 Course Unit

ANTH 5669 Audio Ethnography
This is an intensive, graduate-level, practice-based course in which students will record, edit, and produce anthropologically informed audio works that record and interpret culture and lived experience. Projects in this class will look beyond conventional linguistic or musical codes to sounds whose semiotic or affective value may be less immediately evident. Through the process of making location recordings, analyzing those recordings, composing them into autonomous works, and critiquing every step of the way, this course will engage with questions of ethnomusicology, ethnographic cinema, sound art, sound mapping, soundscape composition, and experimental nonfiction media practices which involve location recording. Through weekly sound projections and home listening, students will also gain a familiarity with existing genres and uses of nonfiction audio in anthropology and related fields.
Not Offered Every Year
1 Course Unit

ANTH 5700 Oil to Diamonds: The Political Economy of Natural Resources in Africa
This course examines the ways in which the processes of the extraction, refining, sale and use of natural resources -- including oil and diamond -- in Africa produce complex regional and global dynamics. We explore how values are placed on resources, how such values, the regimes of valuation, commodification and the social formations that are (re)produced by these regimes lead to cooperation and conflict in the contemporary African state, including in the relationships of resource-rich African countries with global powers. Specific cases will be examined against the backdrop of theoretical insights to encourage comparative analyses beyond Africa. Some audio-visual materials will be used to enhance the understanding of the political economy and sociality of natural resources.
Fall
Also Offered As: AFRC 5700, SOCI 5700
Mutually Exclusive: AFRC 4500
1 Course Unit

ANTH 5720 Geophysical Prospection for Archaeology
Near-surface geophysical prospection methods are now widely used in archaeology as they allow archaeologists to rapidly map broad areas, minimize or avoid destructive excavation, and perceive physical dimensions of archaeological features that are outside of the range of human perception. This course will cover the theory of geophysical sensors commonly used in archaeological investigations and the methods for collecting, processing, and interpreting geophysical data from archaeological contexts. We will review the physical properties of common archaeological and paleoenvironmental targets, the processes that led to their deposition and formation, and how human activity is reflected in anomalies recorded through geophysical survey through lectures, readings, and discussion. Students will gain experience collecting data in the field with various sensors at archaeological sites in the region. A large proportion of the course will be computer-based as students work with data from geophysical sensors, focusing on the fundamentals of data processing, data fusion, and interpretation. Some familiarity with GIS is recommended.
Spring, odd numbered years only
Also Offered As: AAMW 5720, CLST 7315, NELC 5925
1 Course Unit
**ANTH 5770 Everyday States: The Anthropology of Power and Politics**

While anthropologists have long been interested in political systems, they have in recent years made the modern state a critical site of ethnographic analysis. By focusing on everyday practice of officials in the Global North and South, anthropologists have drawn attention to the creative ways in which state actors and subjects of rule make and maintain its powerful institutions. Even as bureaucracies are formalized and instituted as sites of rational order and even-handed administration, scholars of everyday state formation have drawn attention to the ways that state authority depends on and reproduces racialized, gendered and geopolitical inequality. Indeed, like many other social institutions, racialized states are constituted through differentiated relations between government workers and the governed, through everyday rituals of violence and sovereignty, discipline and improvement. The class begins with a review of some influential theorizations of the modern state. Next, we focus on how political authority and social difference are produced by the everyday work of states. We attend to the colonial, racialized and gendered workings of states- particularly through their efforts to discipline black and brown bodies through sovereign violence and differentiated plans and programs of development. Finally, we will conclude the class by attending to the political work of subordinated groups as they demand distributive justice, equity and full citizenship in 'most of the world.'

Spring, even numbered years only
1 Course Unit

**ANTH 5780 The Biology of Inequality**

What is a more important predictor of how long you will live, the genes you inherit from your parents or the zip code where you were raised? In this class, we will try to answer this question and others regarding the origins of social disparities in health in the US. The course will also consider the broader global context, and ask why the US spends so much money on health care, but lags behind many nations in key indicators of population health. We will examine how social stratification by race/ethnicity, national origin, sexual orientation, education, and neighborhood quality shapes our biology and the health status of individuals, families, and populations; and, conversely, how health itself can be a fundamental determinant of key social outcomes such as educational achievement. This class takes a biocultural perspective seeking to understand how social inequalities interact with human biology, especially nutrition, health, and physiological stress. The course begins by reviewing perspectives on various forms of inequality and the ways inequalities become embodied as biology (including a review of biological systems and processes), and introduces several overlapping biocultural models that have emerged from anthropology and public health. A series of readings and case studies follow that link some aspect of human biology (nutrition, health, reproduction, psychosocial stress) to poverty and inequalities, and try to present both quantitative and qualitative aspects of these linkages, as well as how inequalities and poor health reinforce and reproduce each other. In order to be successful, this class requires engagement, participation, and discussion.

Not Offered Every Year
1 Course Unit

**ANTH 5805 Ruins and Reconstruction**

This class examines our enduring fascination with ruins coupled with our commitments to reconstruction from theoretical, ethical, socio-political and practical perspectives. This includes analyzing international conventions and principles, to the work of heritage agencies and NGOs, to the implications for specific local communities and development trajectories. We will explore global case studies featuring archaeological and monumental sites with an attention to context and communities, as well as the construction of expertise and implications of international intervention. Issues of conservation from the material to the digital will also be examined. Throughout the course we will be asking what a future in ruins holds for a variety of fields and disciplines, as well as those who have most to win or lose in the preservation of the past.

Also Offered As: CLST 7317, HSPV 5850, NELC 5950
1 Course Unit
**ANTH 5809 It was the Law at the Time: Museums, Colonialism, and the Question of Property**

Current discussions about who owns cultural property, especially in relation to objects acquired under and during Europe’s colonial project, form their arguments, limits and possibilities around international legal instruments such as UNESCO’s conventions on cultural property. Like broader claims for reparations by formally colonized peoples, legal demands for reparations or restitution with regard to cases of colonial injustice often run up against responses such as ‘it was the law at the time’ or ‘it was a long, long time ago and therefore there are no legal venues for claimants today’. The CARICOM-claim regarding reparations for slavery submitted by a number of Caribbean states, as well as demands regarding cultural treasures looted in the late 19th century in different parts of Africa and elsewhere, are clear examples of this phenomenon. Proposed solution for these conflicts almost always circumvent questions of ownership (at the time) or other legal possibilities. They are sought in extra-legal ways. Increased attention for these and similar cases have fueled new research into the histories of slavery and colonialism, and into the provenance of colonial cultural objects in Western museums. Similarly there is an increasing number of research projects that explore, for example, the fate of colonial objects in Europe, in relation to the fate of Nazi-looted art. While the legal limits of current claims form part of the investigation of many of these studies, they often fail to pay serious attention to the relationship between the law and the colonial project itself. Importantly, they also fail to explore the relationship between the law, questions of property and the ‘creation’ of the colonized subject. This seminar will focus on these conflicts and will interrogate the role of law within the colonial era, especially with regard to the legal fashioning of hierarchies of colonial subjects and colonial objects. In what ways is the law implicated the colonial project itself, and what role did it place in the fashioning of colonial subjects and colonial objects? Moreover, what role should an attentiveness at the law play in today’s debates around reparation or restitution? These are some of the key questions that the course will explore. Bringing together readings from legal and political philosophy, material culture and critical heritage studies, this course explores some of the key debates and texts surrounding questions of law, philosophy, colonialism and questions around reparations or restitution of cultural objects. Students will be introduced to the works of some of the key thinkers on which contemporary notions of ownership, the legal subject and (cultural) property are based, probing their genealogy in relation to the racial hierarchies established under the colonial project. We will explore both the history and application of legal frameworks that governed colonial subjects and (cultural) objects alike and their basis in legal philosophy. Is there reason to rethink the role of law within debates around reparations and restitution? And, last but not least: are there reasons to rethink the idea of property itself? What other genealogies of the law can we trace to think differently about ownership of (cultural) property?

Not Offered Every Year
1 Course Unit

---

**ANTH 5830 Ethnographic Filmmaking**

This ethnographic methodology course considers filmmaking/videography as a tool in conducting ethnographic research as well as a medium for presenting academic research to scholarly and non-scholarly audiences. The course engages the methodological and theoretical implications of capturing data and crafting social scientific accounts/narratives in images and sounds. Students are required to put theory into practice by conducting ethnographic research and producing an ethnographic film as their final project. In service to that goal, students will read about ethnography (as a social scientific method and representational genre), learn and utilize ethnographic methods in fieldwork, watch non-fiction films (to be analyzed for formal properties and implicit assumptions about culture/sociality), and acquire rigorous training in the skills and craft of digital video production. This is an ABS class, and students will produce short ethnographic films with students in Philadelphia high schools as part of a partnership project with the School District of Philadelphia. Due to the time needed for ethnographic film production, this is a year-long course, which will meet periodically in both the fall and spring semesters.

Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: EDUC 5466
1 Course Unit

---

**ANTH 5840 World Heritage in Global Conflict**

Heritage is always political. Such a statement might refer to the everyday politics of local stakeholder interests on one end of the spectrum, or the volatile politics of destruction and erasure of heritage during conflict, on the other. If heritage is always political then one might expect that the workings of World Heritage might be especially fraught given the international dimension. In particular, the intergovernmental system of UNESCO World Heritage must navigate the inherent tension between state sovereignty and nationalist interests and the wider concerns of a universal regime. The World Heritage List has almost 1200 properties has many such contentious examples, including sites in Iraq, Mali, Syria, Crimea, Palestine, Armenia and Cambodia. As an organization UNESCO was born of war with an explicit mission to end global conflict and help the world rebuild materially and morally yet has found its own history increasingly entwined with that of international politics and violence.

Fall or Spring
Also Offered As: HSPV 5840
1 Course Unit

---

**ANTH 5857 Cultural Heritage and Conflict**

Intentional destruction of cultural heritage is designed to erase the presence of a people in history and has become an all too familiar feature of the devastation wrought by contemporary violence and "ethnic cleansing." Recent cases appear frequently in news headlines and include such well-known examples as the 2001 demolition of the Bamiyan Buddhas in Afghanistan, the 2012 destruction of Sufi shrines in Timbuktu, Mali, and the recent obliteration of historic sites across Syria and Iraq. This course explores this phenomenon by examining such questions as: Why is cultural heritage targeted in conflict? Under what circumstances? By whom? In so doing, we will engage with readings that discuss the historical development of the international laws and norms that aim to protect cultural heritage during conflict and examples successful and unsuccessful humanitarian interventions.

Spring
1 Course Unit
ANTH 5893 Natural and Cultural Heritage in Global Perspective
This seminar will explore the ideas surrounding the theories, discourses, and practices surrounding natural and cultural heritage. Heritage has become inscribed in the planning of urban and rural landscapes, designed as tourist destinations, and considered a universal good in global cosmopolitan society. But it would be well to ask: what kind of “nature” and “culture” has been labeled as heritage? What kind of organizations, economics, and politics are necessary to sustain it? How are these put in place? By whom? For whom? Over the course of the semester, students will engage with readings that discuss how cultural and natural heritage is communicated to the public and the relationship between academic critique and pragmatic social engagement.
Spring
1 Course Unit

ANTH 5988 The Economics of Heritage
Governmental resources for archaeological and heritage sites are declining worldwide while commercial and economic development initiatives are threatening the fabric of heritage and the larger landscape environment to ever greater degrees. As a consequence, the competition for resources to protect and preserve heritage is intensifying, as is the challenge to articulate the value of heritage resources vs. competing commercial or public projects. This is the context for understanding the issues surrounding the definition of the value of cultural heritage assets and the tools available for their measurement and management. This course explores in some depth issues relating to the economic analysis of heritage and culture. It is designed to provide students with a foundational understanding of the economics of heritage-related projects, the tools and techniques available for their analysis and the ethical and practical issues of public policy and private actions that determine the future of heritage resources. Readings and case studies will explore technical, practical and ethical issues that arise in cultural heritage economics. Relevant analytical techniques will be introduced and particular emphasis will be placed on commercial, government and community issues unique to heritage-related activities. Special emphasis will be placed upon developing pertinent strategies for the tourist industry. Students will produce one case-study project intended to integrate the technical and practical aspects of the course.
1 Course Unit

ANTH 5910 Multi-Modal Ethnography: Anthropology Beyond Text
What does the digital age mean for humanistic, social scientific, and professional inquiry and practice? How do non-text based formats - such as film, dance and other kinds of performance, creative writing, and soundscapes - transform both the processes and products of research? How do they inform and transform our disciplines, and what might this mean for the communities with which we work? This advanced undergraduate seminar will address these (and other related) questions. Taught by the invited Fellows from the Center for Experimental Ethnography, this course will take shape differently each semester according to the Fellow’s area of expertise and practice. Students will be encouraged to explore alternative formats of representation that move beyond text while still being grounded in ethnographic research, and they will develop skills in relevant media. https://www.sas.upenn.edu/anthropology/courses/topics-courses
Fall or Spring
1 Course Unit

ANTH 5940 Indigenous Theory & Decolonizing Methodologies
This course will delve into some of the innovative theoretical approaches and interpretations, rooted in long-standing Indigenous ontologies, that are emerging within the inter-disciplinary field of Native American and Indigenous Studies. Decolonial projects highlight Indigenous conceptions of materiality, kinship, and landscape, while also critically examining the impact of colonizing ideologies, and undoing antiquated and biased colonial settler interpretations. Students will learn practical methods for deploying Indigenous theory and decolonizing methodologies in diverse research settings. Course readings and interviews with Indigenous knowledge-keepers will feature innovative socio-cultural, ethnohistorical, museological, and archaeological research projects that emphasize processes of consultation and collaboration. Individual case studies will focus on: ecological knowledges; territorial sovereignty; community-based archaeological research; and the reclamation and preservation of cultural heritage. The goal is to understand how academic research can be more inclusive of, and more responsible to, Indigenous communities.
Not Offered Every Year
1 Course Unit

ANTH 5970 Contemporary Artists in Conversation: Reckoning and Repair
In this project-based learning course, students will develop skills in interviewing, oral history, and podcast production by hosting a series of conversations with visiting contemporary artists including participating artists in the transformative, multi-site exhibit, “Rising Sun-Artists and an Uncertain America” (a Spring 2022 collaboration between the Philadelphia Academy of Fine Arts and the African American Museum of Philadelphia). Following the exhibit plan, this course focuses thematically on how these contemporary artists tackle the “disquieting canonical history of the United States”, and how their diverse practices speak to the “re-appraisal, reformation, reckoning, and repair necessary to find a collective way forward” at this critical social moment. This course considers contemporary art as a complementary method of scholarship to ethnography, giving students hands-on experience in exploring how conversations between art and anthropology can open up avenues for collaborative, ethical, and engaged scholarship. This course is designed to be fruitful for students with all levels of experience, including beginners with little prior podcasting/media experience. Students will be tasked with conducting ethnographic oral histories in interviews with artists, but also attending to the specific assumptions and conventions of representation that artists use, and the way they intervene into social challenges of reckoning and repair in their practice.
Not Offered Every Year
1 Course Unit

ANTH 6000 Contemporary Archaeology in Theory
This graduate seminar addresses contemporary anthropological archaeology and considers the varied ways inferences are made about past and present human behavior from the archaeological record. It reviews such fundamental topics as the use of analogy, Middle Range theory, symbolism and meaning, social and cultural evolution, ideology and power, feminism and gender, and indigenous (non-Western) perspectives. It also foregrounds basic issues regarding heritage, looting, and ethics.
Fall
1 Course Unit
ANTH 6010 Contemporary Approaches to the Study of Culture and Society
A critical examination of recent history and theory in cultural and social anthropology. Topics include structural-functionalism, symbolic anthropology, post-modern theory. Emphasis is on major schools and trends in America, Britain, and France.
Spring
1 Course Unit

ANTH 6020 Evolutionary Anthropology
This course will explore various subfields of biological anthropology to better understand what it means to be human. Special attention will be paid to current issues and problems in these subfields, and the different ways in which researchers are attempting to understand and uncover the details of human evolution. Among the areas that are explored in this course are paleoanthropology, primatology, human biology, molecular anthropology, evolutionary medicine, epigenetics, and human life history. Specific issues to be explored include the primate roots of human behavior, brain and language evolution, new fossil hominins, the origins of anatomically modern humans, and modern human migration history.
Spring
1 Course Unit

ANTH 6030 Language in Culture and Society
First-year anthropology graduate students or Instructor Permission. Examination of properties of human language which enable social persons to interpret the cultural world and to act within it. Topics include: principles of lexical and grammatical organization; the role of language structure (grammar) and linguistic context (indexicality) in discursive activity; referential uses of language; social interaction; markers of social role, identity, and group-belonging; criteria by which models of linguistic form and function are formulated; the empirical limits within which different models have explanatory value.
Fall
1 Course Unit

ANTH 6070 Primate Behavior and Ecology
This course explores the behavior of wild primates and the ecological models that attempt to explain the evolution of these behaviors. The evolution and taxonomy of primates will be reviewed, followed by a brief history of wild primate studies. We will then explore primate behavior through theoretical frameworks ranging from socioecological theory to sexual selection. Topics discussed include, but are not limited to, socioecology, aggression, kinship, cooperation, reproductive strategies, cognition, and conservation. Those enrolled in the graduate section (ANTH 6070) will have additional responsibilities assigned.
Not Offered Every Year
Also Offered As: AAMW 6070
Mutually Exclusive: ANTH 2070
1 Course Unit

ANTH 6090 Psychoanalysis and Anthropology
This course will introduce students to the rich literature that has grown up around the encounter between psychoanalysis and anthropology, from totem and taboo, to studies of the Oedipus complex, child-rearing practices, ritual symbolism, mythology, and dreams. The class will also look to the future, endeavoring to examine as well such issues as the role of computers (are they self objects?) and the internet (including such online games as “Second Life”), dreams in space alien abduction narratives, sexuality in advertising, political psychology, and other contemporary issues. This course counts towards the Psychoanalytic Studies (PSYS) Minor.
Not Offered Every Year
1 Course Unit

ANTH 6110 Topics In Anthropology and the Modern World
This course relates anthropological models and methods to current problems in the Modern World. The overall objective is to show how the research findings and analytical concepts of anthropology may be used to illuminate and explain events as they have unfolded in the recent news and in the course of the semester. Each edition of the course will focus on a particular country or region that has been in the news.
Fall
Also Offered As: NELC 6650
1 Course Unit

ANTH 6180 Anthropology and Praxis
This course focuses on real world community problems, engaged scholarship, and the evaluation of actively-running Penn programs intended to improve social conditions in West Philadelphia. Two trends emerge in public interest social science that students will explore through research and evaluation: 1.) merging problem solving with theory and analysis in the interest of change motivated by a commitment to social justice, racial harmony, equality, and human rights; and 2.) engaging in public debate on human issues to make the research results accessible to a broad audience. As part of the course, students will learn the foundations of anthropology, social theory, and evaluation as they work with qualitative and quantitative data while conducting an evaluation based on community and partner need. Students will gain direct experience conducting evaluation research as a collaborative process and have an opportunity to engage in academically-based community service with a focus on social change.
Not Offered Every Year
Mutually Exclusive: ANTH 3180
1 Course Unit

ANTH 6200 Directed Reading and Research
To be arranged only by consultation with academic adviser and faculty member(s) to be involved; a proposed syllabus must be presented for approval, and written papers will be required without exception. On approval of these papers one copy must be presented to the Department of Anthropology office for filing.
Fall or Spring
1 Course Unit

ANTH 6220 Historical Archaeology Laboratory
Parallel graduate course to ANTH 1220. Lab class will meet in three hour sections on Fridays and Saturdays and will involve the analysis of artifacts, documentary records, oral historic sources and period illustrations collected on Southern New Jersey historic sites and Silver Reef, a ghost town in Southwestern Utah. No previous archaeological or lab experience is required. Course may be repeated for credit.
Spring
1 Course Unit
ANTH 6260 Intensity
This course examines the manner in which humans encounter the continuous and gradable features of phenomena in social life - sensory qualities of objects, people's aspirations and affect, pitch movement during voiced talk, monsoons and sea breezes, biological growth and environmental degradation, migratory flows in transnational settings - and attempt to evaluate or convert them into discrete dimensions of social life. We examine how intensities and gradients are managed in everyday life as well as in institutional settings - through government policies, scientific protocols, surveillance regimes, infrastructural agendas - and we survey the ways in which everyday and institutional practices reflect and shape each other in societies across the world. In particular, we explore the question of what an anthropology of intensity might look like, and how it may reconfigure approaches to the ethnographic study of human affairs.
1 Course Unit

ANTH 6280 Language in Culture and Society: Special Topics
The course is devoted to a single research topic of contemporary interest in linguistic anthropology. Topics vary from year to year. Readings locate current debates in relation to longstanding assumptions in the literature and new directions in contemporary research.
Not Offered Every Year
1 Course Unit

ANTH 6307 Contemporary Native Americans
This course examines the social and political lives of contemporary Native American Indians in the United States and Canada. Topics include: Indigenous identity; homelands and natural resources; popular culture and media; Indigenous arts and cultural expression; museum representations; athletics; gender relations; tribal recognition and sovereignty; and resistance movements. We will consider the origins of federal programs and legislation that have become essential to the protection of Native American freedoms. Students can expect to gain an appreciation of the complexity and cultural diversity of Native communities and tribal nations and insights into their interactions with other cultures over time.
Not Offered Every Year
1 Course Unit

ANTH 6329 Psychoanalytic and Anthropological Perspectives on Childhood
How do people become who they are, both similar to others and uniquely individual? How might these similarities and differences be shaped by childhood experiences in family, community, and societies around the world? How do children develop emotionally? Morally? What features of human development, expression of emotions, and relational patterns are universal for our species? What features are not universal? And what is and is not known about these questions? In this course, we will consider these and many other questions. We will read about and discuss complex and dynamic interactions between culture and individual psychology, and between nature and nurture from birth to adulthood. We will carefully examine various phases of human development as described by psychoanalysts and anthropologists. The course includes anthropologic and psychoanalytic readings and videotapes, as well as literature, fairy tales, and mythologies from cultures around the world. The instructors are both psychoanalysts, one a psychiatrist and one a pediatrician. The course counts towards the Psychoanalytic Studies (PSYS) Minor.
Not Offered Every Year
1 Course Unit

ANTH 6340 Feminist Ethnography
This course will investigate the relationships among women, gender, sexuality, and anthropological research. We will begin by exploring the trajectory of research interest in women and gender, drawing first from the early work on gender and sex by anthropologists like Margaret Mead and Ruth Benedict; moving through the 1970s and 1980s arguments about gender, culture, and political economy; arriving at more current concerns with gender, race, sexuality, and empire. For the rest of the semester, we will critically read contemporary ethnographies addressing pressing issues such as nationalism, militarism, neoliberalism and fundamentalism. Throughout, we will investigate what it means not only to "write women's worlds", but also to analyze broader socio-cultural, political, and economic processes through a gendered lens. We will, finally, address the various ways feminist anthropology fundamentally challenged the discipline's epistemological certainties, as well as how it continues to transform our understanding of the foundations of the modern world.
Not Offered Every Year
1 Course Unit

ANTH 6420 Ethnographies in Linguistic Anthropology
This course provides graduate students in linguistic anthropology and allied fields an opportunity for sustained, critical engagement with ethnographic monographs in linguistic and semiotic anthropology. Readings vary yearly, but run the gamut from the classical or 'canonical' to the contemporary or 'experimental.' Recurring concerns include: the nature of the ethnographic monograph as text-artifact; the presentation and exposition of ethnographic and linguistic particulars; questions of 'authorial voice'; and the registers, genres, and styles of ethnographic representation obtaining in the linguistic anthropological tradition.
Spring
1 Course Unit

ANTH 6460 Molecular Anthropology
In this course, we will explore the molecular revolution in biological anthropology. In particular, we will examine how molecular data can be used to illuminate anthropological question concerning human origins, evolution and biological variation. Some of the specific topics to be covered in this course are the phylogenetic relationships among primates, kinship in apes and monkeys, the hominoid trichotomy, modern human origins and migrations, Neanderthal and Denisovan admixture with modern humans, biogenetics of skin color, and physiological, phenotypic and disease adaptations.
Not Offered Every Year
1 Course Unit

ANTH 6530 Social Theory from Kant to Deleuze
The course examines the work of 20th century writers like Weber, Bourdieu, Foucault and Deleuze in the light of the intellectual traditions to which they belong, including the work of writers like Kant, Hegel, Marx, and Nietzsche. Particular attention is given to the philosophical roots of the models of society proposed by specific authors and the question of the applicability of such models to ethnographically based anthropological research.
Not Offered Every Year
1 Course Unit
ANTH 6550 Methods and Grantwriting for Anthropological Research
This course is designed for third- and fourth-year graduate students in anthropology who are working on their dissertation research proposals and submitting grants. Graduate students from other departments who will be submitting grant proposals that include an ethnographic component are also welcome. Students will develop their proposals throughout the course of the semester, and will meet important fall submission deadlines. They will begin by working with various databases to search funding sources relevant to the research they plan to conduct. In class sessions, they will also work with the professor and their peers to refine their research questions, their methods, the relationship of any previous research to their dissertation fieldwork, and the broader theoretical and "real-world" significance of their proposed projects. Finally, students will also have the opportunity to have live "chats" with representatives from funding agencies, thereby gaining a better sense of what particular foundations are looking for in a proposal.
Fall
1 Course Unit

ANTH 6552 The State, Civil Society, and Democracy in Africa
This course examines the nature and dynamics of the state and civil society in Africa and how these determine the career of democracy, democratization and democratic rule. It considers different accounts of the state in Africa (or the African state), civil society and democracy in elaborating an informed understanding of the political, economic and social processes in the continent. How does the nature of the state in Africa account for the nature of the civil society and vice versa? How can the career of democracy in the continent illuminate our understanding of the nature of state-society relations? How robust is the relationship between civil society and the state? How can we account for the relationships among civil society, the state and democratic institutions? What are the local, regional, and global forces that nurture and/or hinder democratic practices, including electoral democracy? These questions are confronted in light of their implications for, and complex interactions with, different social formations, institutions, groups, and social practices including gender, ethnicity, nationalism, race, religion, social protest, political institutions, economic formations, etc., etc.
Spring
Also Offered As: AFRC 6552
1 Course Unit

ANTH 6550 Methods and Grantwriting for Anthropological Research
This course is designed for third- and fourth-year graduate students in anthropology who are working on their dissertation research proposals and submitting grants. Graduate students from other departments who will be submitting grant proposals that include an ethnographic component are also welcome. Students will develop their proposals throughout the course of the semester, and will meet important fall submission deadlines. They will begin by working with various databases to search funding sources relevant to the research they plan to conduct. In class sessions, they will also work with the professor and their peers to refine their research questions, their methods, the relationship of any previous research to their dissertation fieldwork, and the broader theoretical and "real-world" significance of their proposed projects. Finally, students will also have the opportunity to have live "chats" with representatives from funding agencies, thereby gaining a better sense of what particular foundations are looking for in a proposal.
Fall
1 Course Unit

ANTH 6552 The State, Civil Society, and Democracy in Africa
This course examines the nature and dynamics of the state and civil society in Africa and how these determine the career of democracy, democratization and democratic rule. It considers different accounts of the state in Africa (or the African state), civil society and democracy in elaborating an informed understanding of the political, economic and social processes in the continent. How does the nature of the state in Africa account for the nature of the civil society and vice versa? How can the career of democracy in the continent illuminate our understanding of the nature of state-society relations? How robust is the relationship between civil society and the state? How can we account for the relationships among civil society, the state and democratic institutions and processes? What are the local, regional, and global forces that nurture and/or hinder democratic practices, including electoral democracy? These questions are confronted in light of their implications for, and complex interactions with, different social formations, institutions, groups, and social practices including gender, ethnicity, nationalism, race, religion, social protest, political institutions, economic formations, etc., etc.
Spring
Also Offered As: AFRC 6552
1 Course Unit

ANTH 6570 Research Design
This is a practical course on the challenges of designing research projects in anthropology with a special focus on the dissertation project. We will discuss how to select and refine a topic that is, ideally, important without being impossible. Interesting research can often be described or understood in multiple ways, and we will practice recasting project proposals for different kinds of audiences and formats. We will also consider issues of methodology, or the logic of method. Specific kinds of questions tend to lead to specific field and lab methods, and it is important to match your questions to your ways of answering them. This is not, however, a methods course. If you need to learn ethnography, ceramic analysis, textual analysis or some other set of methods, you should look for specific instruction in that field. Instead, we will consider how to assemble a research project that is well-structured, significant, and feasible using one or more analytical strategies. Research design is critical not only for planning research appropriate to your questions but also serves as the basis for successful proposals. Proposal-writing is a specific genre you will need to master; the final product for this course is therefore a research proposal. We will discuss the format of the proposal in detail. Not all proposals need to follow the same template, but there is a family resemblance to successful proposals; thus, although we will follow advice for writing scientific proposals, more humanistically-oriented students should not find this to be a problem.
Not Offered Every Year
1 Course Unit

ANTH 6580 Discourse Seminar
This seminar explores the interface between discourse, culture, and social processes. It is designed for graduate students in anthropology and related disciplines who (1) wish to study some aspect of culture from the perspective of discourse, including not only discourse in the form of linguistic signs but also discourse as film or other multimodal signs; and (2) themselves have or will acquire during the semester materials (texts, recordings, ethnographic data, etc.) that they wish to analyze from an anthropological point view or who are preparing dissertation proposals dealing these issues. While the course is designed with these two purposes, graduate students interested in studying literature on discourse for other purposes are also welcomed. Class sessions will include discussion of theoretical issues in the study of discourse, as well as writings by contemporary authors dealing with semiotics, discourse, and film. The seminar is designed for maximum flexibility in accommodating students interests and needs.
Fall or Spring
1 Course Unit

ANTH 6664 Documentary Ethnography for Museum of Exhibition practices
This course will investigate research modalities that center around documentary storytelling in the museum context. During the semester, we will examine research strategies that collaborate with curatorial expertise. The class will utilize cinematic techniques that investigate cultural narratives revolving around cultural heritage sites, rituals and ceremonies, artifacts, materials and living traditions. Students will engage Solomon’s process of her creation of the new digital and in-gallery content that will reframe the Metropolitan Museum’s African art galleries. e semester will culminate in students creating their own short lm content that will screen publicly in the gallery at the end of the semester.
Not Offered Every Year
Also Offered As: CIMS 6664, FNAR 6664
Mutually Exclusive: ANTH 3664
1 Course Unit
ANTH 6665 Fables from the Flesh: Black feminist movement and the embodied archive
Drawing inspiration from Harge's multiform fable project FLY | DROWN and Audre Lorde's conception of biomythography, students will trace their interiority to realize and imagine how personal histories, ancestral inheritance, and metaphysics live/move through the body. We will translate and transform stories of the flesh into a series of compositional modalities—which may include text, movement, performance, sound, and installation—to create lexicons that honor subjectivity as form. Informed by surrender, refusal, imagination, and self-sovereignty; we will situate our embodied archives as vessels for fable writing, create and correct myths through movement, and expand our relationship to memory, time, space, and illegibility. Throughout the course, we will turn to Black feminist literary and performance works employing fable, myth, and ancestral legacies including but not limited to: Toni Morrison's Beloved, Aretha Franklin's gospel music, Jaamil Olawale Kosoko's Chameleon, and a close reading of Harge's FLY | DROWN. The room will be grounded in practices of Black fellowship, moving between study group, kickback, ceremony, cypher, and incubator. We will oscillate between these formats depending on the needs of the course and the cohort.
Not Offered Every Year
Also Offered As: AFRC 6665, GSWS 6665
1 Course Unit

ANTH 6770 Black Speculative Futures
Why do black cultural producers turn to the speculative? What, in turn, is speculative about blackness? These questions frame this seminar's exploration of how black artists, theorists, and activists imagine different futures, often in the service of critiquing power asymmetries and creating radical transformation in the present. We will explore how the speculative works differently across black literature, visual culture and performance. Additionally, inspired by the multi-disciplinary work that we encounter in the course, we will experiment with crafting our own embodied speculative art in order to better understand its function as both art practice and politics. The course will be divided between discussions centered on close reading of primary and secondary material and creative writing/movement exploration (no previous movement experience necessary). Occasional guest lectures with visiting artists will provide additional fodder for our critical and creative work.
Not Offered Every Year
Also Offered As: AFRC 6770, ENGL 6770
1 Course Unit

ANTH 6804 Sighting Black Girlhood
The COVID-19 pandemic exposed the deep inequities of our social systems, and protests against police killings drew broader attention to anti-Black state violence worldwide, yet the gendered dimensions of these problems are not always fully understood. While many in the public have come to recognize the suffering of Black boys and men as acute and eventful, Black girls' suffering has remained largely invisible, a slow confluence of violence that often go unaddressed. As one way to bring the issues facing Black girls globally to public attention, and to celebrate and support Black girls, this course will provide a background for understanding the challenges faced by Black girls in Philadelphia, Jamaica, and South Africa. We will frame these challenges historically and geopolitically, drawing attention to the issues that contribute to the invisibility of the ordinary Black girl in diverse sites, as well as the resources that will begin to address them. This course also aims to equip students to understand the relationships between research and creative work, and to see artistic production as a catalyst for community-building and critical thinking and action. Toward this end, we will work with a number of partners in Philadelphia, including the Colored Girls Museum and Black Lives Matter-Philly. Because this course is part of a broader project, we will travel as a class to Jamaica during the summer of 2022 and students will participate in a range of projects there, working with partners in the arts, community engagement, and legal advocacy. The question motivating our project is: What are the personal, psychic, spiritual, and economic costs and benefits associated with Black girls fully exercising their humanity?
Also Offered As: AFRC 6804
Mutually Exclusive: ANTH 3804
1 Course Unit

ANTH 6840 Religion and Society in World History
Anthropologists have never found a society that did not have ideas, rituals and practice that falls easily into our category of "religion" (a term coined in Roman times to cover everything relating to assumptions about supernatural forces in any cultural context). So how can we define religion now, over two thousand years since the end of the "Axial Age" (800-200 BCE) that produced all the major religious ideas, that would allow us to include all the forms we know not only of Judaism, Buddhism, Christianity and Islam, but also Confucianism, Hinduism, Jainism, Shinto, Sikhism, Taoism, and Zoroastrianism, and the religions of the small isolated communities we found during the colonial period in Africa and Australia? And why has religious practice been declining in the Western world since the middle of the 20th century? Is the anthropology of religion a different subject now than what it was a hundred years ago? The religions that we know historically, because they are based on texts, especially Christianity and Islam, have obviously changed in many ways since their early days, and it is easy to see a relationship between the way they changed and what was going on in the societies that carried them: Christianity spread through the Roman Empire; Islam spread from Mesopotamia along trade routes, west to Egypt and North Africa, and east into central Asia and north China. It will be interesting to study the various constituents of religion (e.g. Faith, Law, Authority, Ritual, Sacraments, morality, spirituality) comparatively between each of the religions for which we have sufficient data, religious wars, and see the historical significance of (for example) the French Revolution, the Pope, and Ayatollah Ruhollah Khomeini.
Not Offered Every Year
1 Course Unit
ANTH 6980 Intensive Language Training in Anthropology
This course is designed to allow graduate students to obtain in-depth training in a scholarly language that will be utilized for dissertation fieldwork and satisfying the language exam for the Department of Anthropology Graduate Program. Through this intensive training in the oral and written forms of a language, students will accelerate their competency in it, while also potentially preparing themselves for advanced language training through tutorials or summer immersion programs.
Fall or Spring
1 Course Unit

ANTH 6999 Independent Study in South Asian Archaeology
This course provides a broad overview of the archaeology and early history of South Asia, a region that includes present-day India, Pakistan, Bangladesh, Sri Lanka, Nepal, Myanmar, Bhutan, and the Maldives. Beginning with a brief overview of the Paleolithic, we will discuss the multiple origins of early agriculture, the development of early states in the Indus river basin and beyond, the second urbanization, the expansion of institutionalized forms of religion, long-distance trade, social differentiation, and the rise of states as empires. No background in archaeology is required. The class will produce a collaborative spatial database of archaeological sites for selected time periods and will produce a document describing some of the major historical changes in South Asia as illustrated by the archaeological database.
Not Offered Every Year
1 Course Unit

ANTH 7000 Colloquium Seminar
This graduate seminar is a full year course open to second year anthropology graduate students. Other interested students should contact the instructors for permission before enrolling. Topic changes each year, corresponding to the Penn Anthropology Department Colloquium series.
Two Term Class, Student may enter either term; credit given for either 1 Course Unit

ANTH 7030 Readings & Research In Linguistic Anthropology
The course is designed for students and faculty interested in discussing current research and/or research topics in any area of linguistic or semiotic anthropology. The primary intent of the course is to familiarize students with the literature on selected research topics and to develop their own research agendas in the light of the literature. Students may enroll on an S/U basis for 0.5 CU per semester. The course may be repeated for credit up to 4 times.
Two Term Class, Student may enter either term; credit given for either 1 Course Unit

ANTH 7040 Culture/Power/Subjectivities
This doctoral level course will introduce students to a conceptual language and theoretical tools for analyzing and explaining the complex intersection of racialized, ethnic, gendered, sexual, and classed differences and asymmetrical social relations. The students will examine critically the interrelationships between culture, power, and subjectivity through a close reading of classical and contemporary social theory. Emphasis will be given to assessing the power of various theories for conceptualizing and explaining mechanisms of social stratification as well as the basis of social order and processes of social change.
Not Offered Every Year
Also Offered As: EDUC 8405, URB 7060
1 Course Unit

ANTH 7070 Craft of Ethnography
This course is designed to follow after Ethnographic Research Methods (ANTH 7468). In the introductory course, students learned how to use qualitative methods in conducting a brief field study. This advanced level course focuses on research design and specifically the craft of ethnographic research. Students will apply what they learn in the course in writing a proposal for a dissertation research project. Prerequisite: Must have completed ANTH 7468 or equivalent introductory qualitative methods course.
Not Offered Every Year
Also Offered As: EDUC 8466
1 Course Unit

ANTH 7307 Intellectual Histories of South Asia in Global Context: Genealogies of the Present
This graduate seminar explores intellectual histories of contemporary South Asia. Readings will trace selected literary, cultural, political, religious, and linguistic genealogies that have shaped present-day understandings, practices, alliances and categories of thought in South Asia. Particular attention will be placed on 19th and 20th century global influences and interactions, including with England, Ireland, Germany, the Soviet Union/Russia, Turkey and the Arab World, East and Southeast Asia, the United States, and Africa. Topics will include histories of mapping and census efforts, publishing projects (including those funded by the Soviet Union and the United States), international conferences (e.g., the 1893 World’s Parliament of Religions at the World’s Fair in Chicago, 1955 Bandung Conference, the 2009 Durban Conference), technological influences and exchanges, and educational institutions and practices. The course will also include discussions of methods for carrying out intellectual history projects and would therefore be of use for students conducting research in other regions of the world.
Not Offered Every Year
Also Offered As: SAST 7307
1 Course Unit
ANTH 7410 Anthropology of Affect
This course draws upon three anthropological literatures pertaining to affect. One, growing out of Darwin's observations in *The Expression of Emotions in Man and Animals*, looks at the evolutionary and neurobiological bases of affect. A second developed in connection with psychoanalysis, and centers upon insights gained through empathic and introspective processes. A third arose with cultural studies and reactions within anthropology to structuralism, including research on cross-cultural variation in the conceptualization of emotions. The course is appropriate for graduate students interested in exploring the linkages among these literatures, and who envision or are already actively undertaking research for which knowledge of them is pertinent. Students outside of the Anthropology Department should contact the instructor to request a permit.
Not Offered Every Year
1 Course Unit

ANTH 7701 Methodology Seminar: Topics
Topics vary
Fall or Spring
Also Offered As: SAST 7701
1 Course Unit

ANTH 7704 State, Society, and Culture in South Asia
This interdisciplinary course introduces graduate students to both classic and more recent theoretical frameworks used in understanding and analyzing society, culture, and the state, with particular reference to South Asia. Topics include bureaucracy and the state; power and performance; hierarchy and individualism; caste, community, and domination; money and markets; credit and debt; globalization and consumption; economic liberalization and political transformations; local and trans-local contexts of meaning; the environment, politics, and urban and rural ecologies; and culture and the changing shape of politics. Particular emphasis will be placed on the ways in which recent ethnographic and historical monographs have positioned their interventions in relation to broader debates and scholarship, both within scholarship on South Asia and more generally.
Not Offered Every Year
Also Offered As: SAST 7704
1 Course Unit

Applied Math & Computational Science (AMCS)

AMCS 5100 Complex Analysis
Complex numbers, DeMoivre's theorem, complex valued functions of a complex variable, the derivative, analytic functions, the Cauchy-Riemann equations, complex integration, Cauchy's integral theorem, residues, computation of definite integrals by residues, and elementary conformal mapping.
Mutually Exclusive: MATH 4100
1 Course Unit

AMCS 5141 Advanced Linear Algebra
Topics will include: Vector spaces, Basis and dimension, quotients; Linear maps and matrices; Determinants, Dual spaces and maps; Invariant subspaces, Canonical forms; Scalar products; Euclidean, unitary and symplectic spaces; Orthogonal and Unitary operators; Tensor products and polylinear maps; Symmetric and skew-symmetric tensors and exterior algebra.
Also Offered As: MATH 5140
Mutually Exclusive: MATH 3140
Prerequisite: MATH 2400
1 Course Unit

AMCS 5200 Ordinary Differential Equations
After a rapid review of the basic techniques for solving equations, the course will discuss one or more of the following topics: stability of linear and nonlinear systems, boundary value problems and orthogonal functions, numerical techniques, Laplace transform methods.
Fall or Spring
Mutually Exclusive: MATH 4200
Prerequisite: MATH 2400
1 Course Unit

AMCS 5250 Partial Dif Equations
Method of separation of variables will be applied to solve the wave, heat, and Laplace equations. In addition, one or more of the following topics will be covered: qualitative properties of solutions of various equations (characteristics, maximum principles, uniqueness theorems), Laplace and Fourier transform methods, and approximation techniques.
Fall
Prerequisite: MATH 2400
1 Course Unit

AMCS 5461 Advanced Applied Probability
The required background is (1) enough math background to understand proof techniques in real analysis (closed sets, uniform coverage, fourier series, etc.) and (2) some exposure to probability theory at an intuitive level (a course at the level of Ross’s probability text or some exposure to probability in a statistics class).
Fall
Also Offered As: MATH 5460
1 Course Unit

AMCS 5670 Mathematical Computation Methods for Modeling Biological Systems
This course will cover topics in systems biology at the molecular/cellular scale. The emphasis will be on quantitative aspects of molecular biology, with possible subjects including probabilistic aspects of DNA replication, transcription, translation, as well as gene regulatory networks and signaling. The class will involve analyzing and simulating models of biological behavior using MATLAB. Prerequisite: Graduate standing or permission of the instructor.
Fall or Spring
Also Offered As: BE 5670, GCB 5670
1 Course Unit
AMCS 5681 Mathematical Modeling in Physiology and Cell Biology
Mathematical modeling is increasingly becoming a standard technique in physiology and cell biology. In this class, we will cover some classical models in physiology and cell biology. Half of the course will be devoted to electrophysiology (Hodgkin-Huxley model, action potential propagation and related topics), which has arguably been the most successful area of application of mathematical techniques to biology. We will then consider models of molecular motors and muscle mechanics, of pattern formation and cell polarization. Not Offered Every Year
Also Offered As: BIOL 5568
1 Course Unit

AMCS 5840 The Mathematics of Medical Imaging and Measurement
The last several decades have seen major revolutions in both medical and non-medical and imaging technologies. Underlying all of these advances are sophisticated mathematical tools to model the measurement process and reconstruct images. This course begins with an introduction of the mathematical models and then proceeds to discuss the integral transforms that underlie these models: the Fourier transform, the Radon transform and the Laplace transform. We discuss how each of these transforms is inverted, both in theory and in practice. Along the way we study interpolation, sampling, approximation theory, filtering and noise analysis. This course assumes a thorough knowledge of linear algebra and a knowledge of analysis at the undergraduate level (MATH 3140 and MATH 3600 and MATH 3610, or MATH 5080 and MATH 5090).
Not Offered Every Year
Also Offered As: MATH 6480, STAT 9300
Prerequisite: MATH 1410 AND (MATH 3600 OR MATH 5080) AND (MATH 3610 OR MATH 5090)
1 Course Unit

AMCS 5999 Independent Study
Independent Study allows students to pursue academic interests not available in regularly offered courses. Students must consult with their academic advisor to formulate a project directly related to the student’s research interests. All independent study courses are subject to the approval of the AMCS Graduate Group Chair.
1 Course Unit

AMCS 6025 Numerical and Applied Analysis I
We turn to linear algebra and the structural properties of linear systems of equations relevant to their numerical solution. In this context we introduce eigenvalues and the spectral theory of matrices. Methods appropriate to the numerical solution of very large systems are discussed. We discuss modern techniques using randomized algorithms for fast matrix-vector multiplication, and fast direct solvers. Topics covered include the classical Fast Multipole Method, the interpolative decomposition, structured matrix algebra, randomized methods for low-rank approximation, and fast direct solvers for sparse matrices. These techniques are of central importance in applications of linear algebra to the numerical solution of PDE, and in Machine Learning. The theoretical content of this course is illustrated and supplemented throughout the year with substantial computational examples and assignments.
1 Course Unit

AMCS 6035 Numerical and Applied Analysis II
We will cover asymptotic methods, primarily for differential equations. In many problems of applied mathematics, there is a small parameter in the problem. Asymptotic analysis represents a collection of methods that takes advantage of the smallness of this parameter. After a brief discussion of non-dimensionalization, we will discuss regular perturbation methods, matched asymptotics, method of multiple scales, WKB approximation, and homogenization. Other topics will be discussed, time permitting. The prerequisite for this class is some familiarity with differential equations, but required background will be reviewed in class.
1 Course Unit

AMCS 6081 Analysis
Complex analysis: analyticity, Cauchy theory, meromorphic functions, isolated singularities, analytic continuation, Runge’s theorem, d-bar equation, Mittag-Leffler theorem, harmonic and sub-harmonic functions, Riemann mapping theorem, Fourier transform from the analytic perspective. Introduction to real analysis: Weierstrass approximation, Lebesgue measure in Euclidean spaces, Borel measures and convergence theorems, C0 and the Riesz-Markov theorem, Lp-spaces, Fubini Theorem.
Fall or Spring
Also Offered As: MATH 6080
1 Course Unit

AMCS 6091 Analysis
Fall or Spring
Also Offered As: MATH 6090
Prerequisite: MATH 6080
1 Course Unit

AMCS 6109 Analysis
Measure theoretic foundations, laws of large numbers, large deviations, distributional limit theorems, Poisson processes, random walks, stopping times.
Fall
Also Offered As: MATH 6109
Prerequisite: MATH 6480, STAT 9300
1 Course Unit

AMCS 6491 Stochastic Processes
Continuation of MATH 6480/STAT 9300, the 2nd part of Probability Theory for PhD students in the math or statistics department. The main topics include Brownian motion, martingales, Ito’s formula, and their applications to random walk and PDE.
Not Offered Every Year
Also Offered As: MATH 6490, STAT 9310
1 Course Unit

AMCS 8105 Reading Seminar
Reading Seminar
1 Course Unit

AMCS 9999 Independent Study & Research
Study under the direction of a faculty member.
0.5-4 Course Units
Applied Positive Psychology (APOP)

APOP 1000 Introduction to Positive Psychology
Positive psychology is the scientific study of what helps people live full lives. This introductory course focuses on the science of thriving, addressing questions such as what it means to be “happy” and how we can cultivate well-being as individuals, in organizations, and in communities. Explore the foundations of positive psychology, understand the components of well-being, and learn the theory, empirical research, and collective wisdom that supports this conceptual framework. This hands-on course includes experiments and small-group activities designed to help you build your own well-being and participate in an engaged learning community. The instructor recommends that you acquire two texts for this course, either by purchasing them or checking them out of your library: A Primer in Positive Psychology by Christopher Peterson and Flourish: A Visionary New Understanding of Happiness and Well-being by Martin E.P. Seligman. For those pursuing a Certificate in Applied Positive Psychology, this course is strongly recommended as a prerequisite for the other three courses.
1 Course Unit

APOP 1200 Human Flourishing: Strengths and Resilience
What does it mean to flourish? What are we like when we are at our best? What helps us bounce back from challenges and adversity? Continuing the exploration of the science of positive psychology, students delve deeply into the study of character strengths as a framework for building positive character and well-being, and explore the concept of resilience, or the ability to overcome challenging situations. In this course, we explore how we can leverage our strengths to more effectively contribute to the greater world and enhance our own well-being. We also study the physical and psychological protective factors that constitute resilience, and how they are cultivated. Students learn about these topics from a scientific and experiential perspective, both as individuals and within our learning community. This course will have required synchronous sessions and the instructor will offer a choice of times. Students will have a more robust learning experience in this course if they first complete Introduction to Positive Psychology.
Also Offered As: LEAD 3500
1 Course Unit

APOP 2000 Positive Psychology at Work
If flourishing is related to our lived daily experience, and approximately 50% of our waking hours are spent working, how do our workplaces contribute to, and diminish, our ability to thrive? Students are exposed to an array of research-informed strategies that have been applied in a variety of disciplines and workplaces, including business, education, health care, and nonprofit organizations. Exploration of case studies and salient research topics such as relationships at work, positive leadership, prosocial behavior, and our sense of meaning and purpose, guide our learning. Students gain an understanding of the variables that contribute to our ability to flourish at work and understand how we both experience and shape our work environments through our individual contributions. This course will have required synchronous sessions and the instructor will offer a choice of times.
Also Offered As: LEAD 3600
1 Course Unit

APOP 2200 Flourishing with Others: Building Thriving Relationships
Interpersonal relationships are key for happiness and well-being. Christopher Peterson, one of the pioneers of positive psychology used to say that the field could be summarized in three words: “Other people matter.” In this course, we will take a deep dive into the research on relationships that work well and foster well-being. We will study positive relationships at different levels, from the closest ones, like families and romantic partnerships, to friendships, relationships between colleagues and in teams at work, to broader communities, and our relationship with nature and our planet. For each of these domains, we will learn practical ways to nurture and improve relationships and to help people flourish through them. This class will combine academic rigor with experiential learning, and it will provide many opportunities for self-reflection, conversation in small teams and applied "experiments" in students’ lives.
1 Course Unit

APOP 2900 Understanding the Science of Positive Psychology
Information about positive psychology research has proliferated in the popular press. How can we become better critical consumers of that information, and ensure we are capable of discerning the nuances of scientific studies? In this course, students will be introduced to some of the methods and approaches used to conduct well-being research and how to interpret the results of that research responsibly. Students will explore how positive psychology concepts are operationalized and measured, learn the strengths and shortcomings of study design, and differentiate between drawing conclusions from a single study vs. a broader body of research within a field. Students will also practice reading and dissecting primary research articles, extracting important information, and distilling this information through accessible scientific communication. This is not a statistics nor a methods course—the goal is to equip students to be critical and informed consumers of research in positive psychology and of the popular articles that describe that research. This course also involves weekly synchronous recitation sessions (scheduling varies). Students will have a more robust learning experience in this course if they first complete Introduction to Positive Psychology.
1 Course Unit

APOP 3200 Morality and the Good Life
Morality pervades everyday life. Far from being confined to the ivory tower, we make moral decisions and engage in moral behavior every day, ranging from the ordinary (e.g., whether to volunteer or return a lost wallet) to the extreme (e.g., whether to donate one’s kidney to a stranger or fight and die for a cause). Morality is central to our evaluations of ourselves and others, and to the wellbeing of ourselves and the societies in which we live. In this course, you will learn about psychological research on morality. We will cover topics such as (1) How people make moral judgments, (2) How and why people have differing judgments of everything from tax rates to dietary preferences, (3) Psychological factors contributing to moral (e.g., altruistic) behavior, and (4) Intersections between moral psychology and our ideals, aspirations and well-being at the individual and societal level. This course aims to introduce you to the psychology of morality, to enable you to be more aware of and effective in navigating moral challenges in daily life.
1 Course Unit
ARAB 0120 Beginning Arabic I
This is a beginner course in Modern Standard Arabic (MSA). It will introduce you to the speaking, listening, reading, and writing skills in the standard means of communication in the Arab world. The course is proficiency-based, implying that all activities within the course are aimed at placing you, the learner, in the context of the native-speaking environment from the very beginning. Evaluation is done by the more traditional testing methods (vocabulary tests, dictations, grammar and translation exercises). We anticipate that by the end of this course, students will range in proficiency from Novice High to Intermediate Low on the ACTFL scale; in other words (using the terminology of the government’s Foreign Service Institute), from 'incipient survival' to 'full survival' in the native-speaking environment.
Fall 1 Course Unit

ARAB 0200 Elementary Arabic II
This course is a continuation of first semester Elementary Arabic, and builds on the speaking, listening, reading and writing skills in the standard means of communication in the Arab World. Evaluation is done by the more traditional testing methods (vocabulary tests, dictations, grammar and translation exercises). We anticipate that by the end of this course, students will range in proficiency from Novice High to Intermediate Low on the ACTFL scale.
Spring Prerequisite: ARAB 0100 1 Course Unit

ARAB 0250 Intensive Elementary Arabic I & II
This is a six-week intensive beginners' course in Modern Standard Arabic (MSA). It will introduce the student to speaking, listening, reading, and writing skills in the standard means of communication in the Arab world. The course is proficiency-based, implying that all activities are aimed at placing the student in the context of the native-speaking environment from the very beginning. Evaluation is done by the more traditional testing methods (vocabulary tests, dictations, grammar and translation exercises). We anticipate that by the end of this course, students will range in proficiency from Novice High to Intermediate Low on the ACTFL scale; in other words (using the terminology of the government’s Foreign Service Institute), from 'incipient survival' to 'full survival' in the native-speaking environment.
Summer Term 2 Course Units

ARAB 0300 Intermediate Arabic III
This is the continuation of the Elementary course in Modern Standard Arabic (MSA). This course is also proficiency-based, implying that all activities within the course are aimed at placing you, the learner, in the context of the native-speaking environment. Evaluation is done by the more traditional testing methods (vocabulary tests, grammar and translation exercises). We anticipate that students range from Intermediate Low to Intermediate High according to the ACTFL scale.
Fall Prerequisite: ARAB 0200 1 Course Unit

ARAB 0320 Continuing Arabic III
This is the continuation of Beginning Arabic II. It is also proficiency-based, implying that all activities within the course are aimed at placing you, the learner, in the context of the native-speaking environment from the very beginning. Evaluation is done by the more traditional testing methods (vocabulary tests, grammar and translation exercises). However, it should be emphasized that you will need a longer period of study to achieve proficiency in Arabic. We anticipate that students range from Intermediate Low to Intermediate High according to the ACTFL scale.
Fall 1 Course Unit

ARAB 0350 Intensive Intermediate Arabic III
This is an intensive college-level course in Modern Standard Arabic (MSA). The course is proficiency-based, implying that all activities are aimed at placing the student in the context of the native-speaking environment from the very beginning. Evaluation is done by the more traditional testing methods (vocabulary tests, dictations, grammar and translation exercises). We anticipate that by the end of this course, students will range in proficiency from Advanced Mid to Advanced High on the ACTFL scale; in other words (using the terminology of the government’s Foreign Service Institute), from 'incipient survival' to 'full survival' in the native-speaking environment.
Summer Term 2 Course Units
ARAB 0400 Intermediate Arabic IV
This is the continuation of the first semester Intermediate Arabic. This course is also proficiency-based, implying that all activities within the course are aimed at placing you, the learner, in the context of the native-speaking environment. Evaluation is done by the more traditional testing methods (vocabulary tests, grammar and translation exercises). We anticipate that students will achieve Intermediate High according to the ACTFL scale.
Spring
Prerequisite: ARAB 0300
1 Course Unit

ARAB 0420 Continuing Arabic IV
This is the continuation of Continuing Arabic III. It is also proficiency-based, implying that all activities within the course are aimed at placing you, the learner, in the context of the native-speaking environment from the very beginning. Evaluation is done by the more traditional testing methods (vocabulary tests, grammar and translation exercises). Completion of this course fulfills the language requirement in the College of Liberal and Professional Studies. However, it should be emphasized that you will need a longer period of study to achieve proficiency in Arabic. We anticipate that students range from Intermediate Low to Intermediate High according to the ACTFL scale.
Spring
Prerequisite: ARAB 0320
1 Course Unit

ARAB 0450 Intensive Intermediate Arabic I&II
This is a six-week intensive course offered in the summer through LPS; see Penn Summer Course Guide. This course is also proficiency-based, implying that all activities within the course are aimed at placing the student in the context of the native-speaking environment from the very beginning. As in ARAB 0100 - ARAB 0200 or ARAB 0250, evaluation is done by the more traditional testing methods (vocabulary tests, grammar and translation exercises). Completion of this course fulfills the College of Arts and Sciences language requirement in Arabic. However, it should be emphasized that the student will need a longer period of study to achieve proficiency in Arabic. We anticipate that students range from Intermediate Low to Intermediate High according to the ACTFL scale.
Summer Term
2 Course Units

ARAB 0500 Advanced Intermediate Arabic I
This is a proficiency-based course which builds on the lessons from Intermediate Arabic. Emphasis continues to be on all four language skills: Speaking, Listening, Reading, & Writing. The readings for the class are chosen from actual texts from both medieval and modern Arabic in a variety of fields and subjects. Students will be expected to give classroom presentations and to write short essays in Arabic. Evaluation will be both Achievement- and proficiency-based.
Fall
Prerequisite: ARAB 0400
1 Course Unit

ARAB 0600 Advanced Intermediate Arabic II
This course is a continuation of first semester Advanced Intermediate Arabic. Emphasis continues to be on all four language skills: Speaking, Listening, Reading, & Writing. The readings for the class are chosen from actual texts from both medieval and modern Arabic in a variety of fields and subjects. Students will be expected to give classroom presentations and to write short essays in Arabic. Evaluation will be both Achievement- and proficiency-based.
Spring
Prerequisite: ARAB 0500
1 Course Unit

ARAB 0650 Intensive Advanced Intermediate Arabic I&II
This is a six-week intensive course offered in the summer through LPS; see Penn Summer Course Guide. It continues from the first intermediate course, and emphasis continues to be on all four language skills: speaking, listening, reading, and writing. Students will be expected to give classroom presentations and to write short essays in Arabic. Evaluation will be both achievement-based and proficiency-based. There is no Oral Proficiency Interview at the end of this session, but we anticipate that by the end of this, third year students will range in proficiency from Intermediate High to Advanced Mid on the ACTFL scale.
Summer Term
2 Course Units

ARAB 0700 The Adab Tradition
This is a survey of pre-modern Arabic prose. Selections will be made from major books of Adab, compilations of akhb ar, the Qur n, the s rah, and critical treatise. Readings will be accompanied by excerpts from modern critical scholarship on the topic in Arabic. The class is taught in MSA with oral presentations and writing assignments in MSA.
Not Offered Every Year
1 Course Unit

ARAB 2198 Study Abroad: Major Credit
Study Abroad Credit
1 Course Unit

ARAB 4000 Advanced Arabic and Syntax I
Advanced syntax through the reading of Arab grammarians. This course is designed to give the student experience in reading whole works in Arabic and giving reports on them. Readings are by medieval and modern writers.
Fall
Prerequisite: ARAB 0600
1 Course Unit

ARAB 4020 Advanced Spoken Standard Arabic
The course will concentrate on the reading and speaking skills at the advanced level. Students will be assigned reading and audio-visual materials on which to prepare oral classroom presentations. Final examination in the course will be based on performance in the oral proficiency interview.
Fall or Spring
Prerequisite: ARAB 0600
1 Course Unit

ARAB 4030 Colloquial Arabic
A one-semester, introductory course to the spoken Arabic of one of the regions of the Arab world, chosen according to the dialect of instructor.
Fall or Spring
Prerequisite: ARAB 0200
1 Course Unit
ARAB 4040 Readings in the Qur’an and Tafsir
This course has two goals: to introduce undergraduate students to reading the Qur’an in Arabic, and to enhance the speaking, listening, and writing skills in MSA. Through the reading and study of selected major Qur’anic narratives and commentary (tafsir), students will become familiar with Qur’anic vocabulary, style, recitation practices, and other intricacies of the Qur’anic text. All students will also memorize a short sura of their choice and practice reciting it in an aesthetically appropriate manner (typically suras 1, 112, 113, or 114). Taught in MSA with writing assignments in MSA.
Spring, odd numbered years only
Prerequisite: ARAB 0500
1 Course Unit

ARAB 4050 Arabic Readings in Belles-Lettres
Through engaging with authentic texts, this advanced class aims to activate the language skills students have learned in previous language courses. We will read selections from Arabic poetry and prose and will respond to them in writing, discussion and translation. We will focus on close reading, relying on our knowledge of grammar. We will also work to develop writing, comprehension, and speaking skills through short critical responses and oral presentations. All class discussions will be conducted in Arabic.
Fall
Mutually Exclusive: ARAB 6750
Prerequisite: ARAB 0600 OR ARAB 6600
1 Course Unit

ARAB 4060 Arabic Readings in the Social Sciences and the Media
This course trains students to be proficient with written materials and media in MSA. This class will explore the Middle East through timely analysis of Arabic media as well as original analysis of the ideological, intellectual, social, cultural, and religious background to current events, including the Arab Spring and its aftermath. It is intended that, upon completion of this course, students will be able to work independently with a variety of media texts at different levels. Taught in MSA with writing assignments in MSA.
Spring, even numbered years only
Prerequisite: ARAB 0600 OR ARAB 6600
1 Course Unit

ARAB 4070 Readings in Arabic Literature
Through engaging with authentic texts, this advanced class aims to activate the language skills students have learned in previous language courses. We will read selections from the modern Arabic short story and will respond to them in writing, discussion and translation. We will focus on close reading, relying on our knowledge of grammar. We will also work to develop writing, comprehension, and speaking skills through short critical responses and oral presentations. All class discussions will be conducted in Arabic.
Not Offered Every Year
1 Course Unit

ARAB 4080 Introduction to Pre-Modern Arabic Texts
This course aims to provide incoming graduate students and advanced undergraduate students with an introduction to issues in Arabic grammar and syntax that commonly arise in pre-modern Arabic texts. Students will also be introduced to, and expected to consult, the standard reference works used as aids in reading such texts. Students will be expected to prepare a text or set of texts assigned by the instructor for each session. It is intended that, upon completion of this course, students will be able to work independently with a wide variety of pre-modern Arabic texts. Although the texts in this course are pre-modern, the course reinforces MSA reading skills.
Fall, even numbered years only
Prerequisite: ARAB 0600 OR ARAB 6600
1 Course Unit

ARAB 4090 History & Fiction in Arabic
This course is intended to provide a more advanced exposure to Arabic language skills beyond those offered by the standard Arabic curriculum, particularly in reading, writing, and grammar of MSA and some exposure to historical forms of Arabic like Classical Arabic and Middle Arabic, not to mention important genres like the modern academic article, memoirs, chronicles, and biography. Students will refine their reading skills and will be able to read at a quicker rate by the end of the semester, and increase their active vocabulary accordingly. Students will also practice writing and explore some of the finer points of Arabic grammar. Along the way, students will learn a good bit about the history of the Arab world, and grapple with the fuzzy border between history and memory, fact and fiction.
1 Course Unit

ARAB 5030 Arabic: Reading Historical Manuscripts
This advanced readings course provides students with the opportunity to study Arabic-language Islamic legal texts from all periods, including the Qur’an, Hadith, premodern and Ottoman-period texts, and modern positive legislation and constitutions to the extent that they are related to or invoke Islamic law.
Not Offered Every Year
1 Course Unit

ARAB 5300 Advanced Spoken Standard Arabic
The course will concentrate on the reading and speaking skills at the advanced level. Students will be assigned reading and audio-visual materials on which to prepare oral classroom presentations. Final examination in the course will be based on performance in the oral proficiency interview. Taught in MSA with writing assignments in MSA.
Fall
Prerequisite: ARAB 0600 OR ARAB 6600
1 Course Unit

ARAB 5400 Readings in Islamic Law
This advanced readings course provides students with the opportunity to study Arabic-language Islamic legal texts from all periods, including the Qur’an, Hadith, premodern and Ottoman-period texts, and modern positive legislation and constitutions to the extent that they are related to or invoke Islamic law.
Not Offered Every Year
Prerequisite: ARAB 0600 OR ARAB 6600
1 Course Unit
ARAB 6100 Elementary Arabic I
This is the beginners course in Modern Standard Arabic (MSA). It will introduce you to the speaking, listening, reading and writing skills in the standard means of communication in the Arab World. The course is proficiency-based, implying that all activities within the course are aimed at placing you, the learner, in the context of the native-speaking environment from the very beginning. Evaluation is done by the more traditional testing methods (vocabulary tests, dictations, grammar and translation exercises). We anticipate that by the end of this course, students will range in proficiency from Novice High to Intermediate Low on the ACTFL scale; in other words (using the terminology of the government’s Foreign Service Institute), from ‘incipient survival’ to ‘full’ survival in the native-speaking environment.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

ARAB 6200 Elementary Arabic II
This course is a continuation of ARAB 0100/ARAB 6100. For the second semester: completion of the first semester or permission of the instructor.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: ARAB 6100
1 Course Unit

ARAB 6300 Intermediate Arabic III
This is the continuation of the Elementary course at the graduate level. This course is also proficiency-based, implying that all activities within the course are aimed at placing you, the learner, in the context of the native-speaking environment from the very beginning. This is the continuation of ARAB 0100 and ARAB 0200, the elementary course in Modern Standard Arabic (MSA). This course is also proficiency-based, implying that all activities within the course are aimed at placing you, the learner, in the context of the native-speaking environment from the very beginning. As in ARAB 0100 - ARAB 0200, evaluation is done by the more traditional testing methods (vocabulary tests, grammar and translation exercises). We anticipate that students range from Intermediate Low to Intermediate High according to the ACTFL scale.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: ARAB 6200
1 Course Unit

ARAB 6400 Intermediate Arabic IV
This course is a continuation of Intermediate Arabic III at the graduate level.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: ARAB 6300
1 Course Unit

ARAB 6500 Advanced Intermediate Arabic I
This is a proficiency-based course which continues from the first intermediate course, ARAB 0300/ARAB 0400. Emphasis continues to be on all four language skills: Speaking, Listening, Reading, & Writing. The readings for the class are chosen from actual texts from both medieval and modern Arabic in a variety of fields and subjects. Students will be expected to give classroom presentations and to write short essays in Arabic. Evaluation will be both Achievement- and proficiency-based.
Prerequisite: ARAB 6400
1 Course Unit

ARAB 6600 Advanced Intermediate Arabic II
This course is a continuation of Advanced Intermediate Arabic I at the graduate level.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: ARAB 6500
1 Course Unit

ARAB 6720 Colloquial Arabic
A one-semester, introductory course to the spoken Arabic of one of the regions of the Arab world, chosen according to the dialect of instructor.
Not Offered Every Year
Prerequisite: ARAB 0200
1 Course Unit

ARAB 6750 Arabic Readings in Belles Lettres
Through engaging with authentic texts, this advanced class aims to activate the language skills students have learned in previous language courses. We will read selections from Arabic poetry and prose and will respond to them in writing, discussion and translation. We will focus on close reading, relying on our knowledge of grammar. We will also work to develop writing, comprehension, and speaking skills through short critical responses and oral presentations. All class discussions will be conducted in Arabic.
Spring
Mutually Exclusive: ARAB 4050
1 Course Unit

ARAB 6800 Advanced Arabic and Syntax I
Advanced syntax through the reading of Arab grammarians. Development of reading in bulk. Emphasis on classical Arabic read in works by medieval and modern writers. This course is designed to give the student experience in reading whole works in Arabic and giving reports on them.
Fall or Spring
Prerequisite: ARAB 6600
1 Course Unit

ARAB 7000 Topics in Islamic Studies
Topics vary from year to year in accordance with the interests and needs of students. Although this course typically focuses on premodern Arabic texts, the readings reinforce MSA reading skills.
Not Offered Every Year
Prerequisite: ARAB 4080
1 Course Unit

ARAB 7020 Arabic Texts in Islamic History
This is a graduate seminar course in which different genres of premodern Arabic texts are covered at the advanced graduate level. Students in this course are expected to be able to read and prepare (vowel, parse, and translate) passages from Arabic texts on a weekly basis and to be able to discuss them critically during the class itself. Topics are chosen to reflect student interest. Recent and potential topics include: Geographers and travel accounts; biographical dictionaries; chronicles; heresiography; poetry; memoir and sira. Although this course typically focuses on premodern Arabic texts, the readings reinforce MSA reading skills.
Not Offered Every Year
Prerequisite: ARAB 0600
1 Course Unit
Architecture (ARCH)

ARCH 0110 Design, Race, and Climate Justice
Through a critical and historical lens, students will examine material, spatial, and ecological practices in architecture and design that perpetuate racial injustices and exacerbate climate injustices. This course will challenge students to consider the ways in which design decisions negatively impact black, indigenous, and other people of color, while also causing harm to the environment. The extraction of raw materials for production often leads to the displacement of communities, destruction of habitats and ecosystems, and the depletion of finite natural resources. Historically, urban planning and design has been used to enforce racial segregation and deny access to services and amenities to non-whites. The siting of toxic waste facilities, highways, and industrial zones in low-income communities of color has had devastating impacts on public health and quality of life. Probing the intersectional relationships between design, race, and climate change, students will engage with a range of texts, multimedia content, case studies, and hands-on projects. By the end of the semester, they will have a deeper understanding of the ways in which design impacts communities and the environment and be equipped with knowledge to advance a more just, equitable, and resilient future.

Fall
1 Course Unit

ARCH 0111 Architecture in the Anthropocene
This course will use architecture and the built environmental as a lens to investigate the emerging field of environmental humanities. Our goal will be to analyze and understand these new intellectual frameworks in order to consider the relationship between global environmental challenges and the process of constructing the built environment. As such, we will oscillate between social and political theory, environmental history, and architectural history and theory. Issues of importance will include: theories of risk, the role of nature in political conflicts; images, design and environmental communication; and the relationship between speculative design and other narratives of the future. These conceptual frameworks will be read alongside examples of related creative projects in art, literature, and architecture, and will be amplified through presentations and discussions with studio faculty and other visitors to the course.

Fall
1 Course Unit

ARCH 0318 Topographical Stories: Architecture, Literature, and Cities
This course will argue a simple thesis: that the spaces of our lives record the stories of our lives. Architecture and literature will be studied, through built works and texts, the latter from both author-architects and fiction writers (novelists, short story writers, and poets). Urban settings throughout the world will occupy our attention, in Berlin, New York, Paris, Milan, London, Venice, Vienna, Chicago, and Shanghai. In much the same way that literacy is both cultivated and preserved in books, cultural memory obtains legible shape in buildings, persisting as long as they do. In a time when so much in life seems in flux social norms, family structures, political allegiances, and so on the power of architecture to give practical affairs orientation and stability is especially important. This course will study how architectural settings provide palpable structure for the events of our lives, particularly those events that occur in cities and their institutions, for cities have always been and remain culture’s most efficient and eloquent articulation. Unlike literature, film, or advertising, architecture performs its signifying role rather quietly and unobtrusively; but this fact does not diminish its capacity to allow us to feel “at home” in many and varied settings. This will be clear to non-architects as soon as they reflect on the role played by domestic arrangements, for even the most prosaic events cannot unfold unless the settings in which they are to occur are “in order.” Less clear perhaps, but no less important is the role that architecture plays in our understanding and experience of community, civility, and the common good. The course will be structured in two parts. The first part, much shorter than the second, will be thematic and a-historical. In the opening lectures the basic topics of the course will be introduced, as will be the questions to be asked of the writings, images, buildings, and cities taken up in part two. The second group of studies will look at a number of cities in Europe, the USA, and China. To make the volume of study materials manageable, we will concentrate on developments in the last hundred to hundred and fifty years. The writings of author architects will provide us with some insight into the ways architecture has served a “narrative” function in these cities, but we will also read stories, poems, and parts of novels that augment and enrich those architectural accounts. The idea is that stories about spaces will clarify the ways that spaces are stories.

Spring
1 Course Unit

ARCH 1010 Introduction to Design
An investigation of an object-oriented design process utilizing digital drawings, rapid prototyping, and digital fabrication techniques. This course introduces design as a creative act marking out a synthesis based on observation of a problem, interpretation of possibilities, and translation of a concept into meaningful three-dimensional objects that engage with society and social justice. The course includes a weekly lecture and studio component.

Fall
Also Offered As: DSGN 1011
1 Course Unit
**ARCH 1020 Introduction to Architecture**
An exploration of the design process utilizing drawing and model-making techniques. Skills of representation and fabrication are introduced in the context of the development of each student's capacity to observe, interpret, and translate design concepts into physical form. The course includes a weekly lecture and studio component. The primary purpose of this course is to introduce the fundamental concepts and basic skills necessary in the design of a work of architecture. Fundamental concepts include a basic understanding of description, projection, and fabrication – in both two and three dimensions. Basic skills include freehand sketching and drawing, computer-aided drawing (orthographic and axonometric) and the fabrication of scale models using hand, power, and digital tools.

Spring
1 Course Unit

**ARCH 2010 Design Fundamentals I**
This studio course develops drawing and model-making skills with emphasis on digital representation and digital fabrication. The capacity of nature-inspired design is explored as a foundation for the creative production of new forms of expression. As the second course in the five-semester cumulative sequence of required design studios, ARCH 2010 is preceded by ARCH 1020, an exploration of orthogonal geometry and orthographic and axonometric projection. ARCH 2010 focuses on the non-orthogonal geometries of animate form as the basis for the development of analogical and prototypical structures utilizing 3D digital modeling software and digital fabrication. In ARCH 2020, the design studio following ARCH 2010, students explore the movement of the body as a basis for design.

Fall
Prerequisite: ARCH 1010 AND ARCH 1020
1.5 Course Unit

**ARCH 2020 Design Fundamentals II**
A studio course exploring the relationship between two-dimensional images and three-dimensional digital and physical models. This studio course develops advanced techniques in digital representation and fabrication through an investigation of the theme of inhabitation in architecture. In the previous semester (ARCH 2010), you looked to nature to study, analyze and then translate complex geometry as it occurs in the natural world. This biomorphic study laid the foundation to learn how to describe non-Euclidean geometries through drawing techniques. Building on this knowledge, in ARCH 2020 you will learn to collect data by carefully mapping a body’s movement during a specific activity. You will analyze, document and ultimately represent this data through drawing. Through this process, you will build an understanding of how a body in motion inhabits space. The range of motion your body maps will be the frame of reference to design a site-specific architectonic enclosure. You will continue to expand your knowledge of digital drawing and fabrication tools using Rhino as your primary 3D modeling software as well as V-Ray for rendering.

Spring
Prerequisite: ARCH 2010
1.5 Course Unit

**ARCH 3010 Architecture Design I**
An introduction to the design of architecture in the city. Students explore the relationships between two-dimensional patterns and their corresponding three-dimensional interpretations through the orthographic drawings of plan, section, and elevation and three-dimensional digital and physical models. ARCH 3010 focuses on Architecture's connective role as a whole comprised of parts (a building comprised of components) a contributing part of a whole (a building within an urban, suburban, or rural environment).

Fall
Prerequisite: ARCH 2020
2 Course Units

**ARCH 3020 Architecture Design II**
An introduction to the design of architecture in the landscape. Issues of mapping, placement, scale, and construction are explored through studio design projects, site visits, and discussions. Course work focuses on the preparation and presentation of design projects emphasizing analytical skills along with the development of imaginative invention and judgment.

Spring
Prerequisite: ARCH 3010
2 Course Units

**ARCH 3030 Design Fundamentals**
The creation of a successful product requires the integration of design, engineering, and marketing. The purpose of this intensive studio course is to introduce basic concepts in the design of three-dimensional products. For purposes of the course, design is understood as a creative act of synthesis expressed through various modes of 2-dimensional and 3-dimensional representation. The course develops basic design skills ranging from hand sketching to the use of digital modeling software and rapid prototyping. Fulfills the requirement for a design background course in the interdisciplinary graduate program in Integrated Product Design (IPD).

Summer Term
1 Course Unit
ARCH 3101 Spatial Reparations: Material and Territorial Practices of Justice
This interdisciplinary seminar will look at the ways in which acts of historical repair and justice have been materially negotiated through landscapes, sites, buildings, and objects. Historic and collective trauma – from the injustices of colonialism, slavery, war, dispossession, genocide, and ecocide – often involves multiple, interconnected scales of harm, and accordingly demands responses that consider multiple forms of healing. Forms of repair might include the restoration of a local ecosystem, the establishment of an archive, the preservation of a building or street, legal acknowledgement of heirs, the transfer of property rights, or the repatriation of artworks. This course will consider these interdisciplinary approaches and strategies of redemption through both readings and case studies. Case studies will be international in scope and will focus on the ways in which an engaged approach to history can inform responses through landscape, community activism, architecture, monuments, artworks, exhibitions, or archives. Students are not required to have a background in architecture, and students from different disciplinary backgrounds and interests are encouraged to participate. One of the goals of this course is to explore how architectural, urban planning, and landscape approaches to reparations offer forms of knowledge that are productive for other fields. But we will also look at how different disciplines can contribute unique responses to addressing historical trauma and injustice. Classes will consist of weekly discussions of readings, peer feedback on final projects, and student presentations chosen from suggested case studies. As a final project, students may write a research or critical essay, or may produce a visual or graphic work that includes a written component.
Spring
1 Course Unit

ARCH 3110 Theory I: Geometry in Architecture
Following a brief historical overview of Euclidean, stereotomic, projective and descriptive geometry in pre-modern architecture and design, the course examines the writings and works of early 20th-century designers who used regulating lines and numerical harmonic scales to generate and regulate architectural form in accordance with the golden section ratio and the dynamic symmetry of root rectangles. Also examined are works of mid 20th-century architecture based on traditional geometric constructions–conic sections (circles, ellipse, hyperbola and parabola) and ruled surfaces (cylinders, cones, hyperboloids, and hyperbolic paraboloids), as well as those derived from polyhedral and geodesic structures. Following an introduction to the geometry of free-form curves characteristic of the digital turn in late 20th-century architecture–including Bezier, B-spline, NURBS (non-uniform rational B-spline), and developable surfaces–the course concludes with an overview of recent efforts to utilize curvature in contemporary architecture within a set of more definitive geometrical and disciplinary boundaries.
Fall
1 Course Unit

ARCH 4110 Theory I: Geometry in Architecture
Following a brief historical overview of Euclidean, stereotomic, projective and descriptive geometry in pre-modern architecture, the course examines the writings and works of early 20th-century modern architects who used regulating lines and numerical harmonic scales to generate and regulate architectural form in accordance with the golden section ratio and the dynamic symmetry of root rectangles. Also examined are works of mid 20th-century architecture based on traditional geometric constructions–conic sections (circles, ellipse, hyperbola and parabola) and ruled surfaces (cylinders, cones, hyperboloids, and hyperbolic paraboloids), as well as those derived from polyhedral and geodesic structures. Following an introduction to the geometry of free-form curves characteristic of the digital turn in late 20th-century architecture–including Bezier, B-spline, NURBS (non-uniform rational B-spline), and developable surfaces–the course concludes with an overview of recent efforts to utilize curvature in contemporary architecture within a set of more definitive geometrical and disciplinary boundaries.
Fall
1 Course Unit

ARCH 4120 Theory II: Architecture as Cultural Ecology
This course will study and argue a single thesis: that the architects of the early 20th century did not neglect the environmental and cultural context of their buildings because they were narrowly focused on the production of free-standing and radically new objects of design, but developed designs that combined attention to environmental issues with both imaginative approaches to social and cultural purposes and a new understanding of aesthetic content. A review of contemporary ecological mandates will begin the course. That will then be contrasted with historical and ancient conceptions. In depth studies of specific buildings will follow, viewed as cultural ecologies. The course will then turn to the materials and elements of architecture that have been used to construct cultural ecologies. With a more nuanced view of our inheritance we will ask what is not only possible but necessary for architecture in our time, in both its landscape and urban contexts.
Spring
Prerequisite: ARCH 4110
1 Course Unit

ARCH 4020 Advanced Design Seminar
ARCH 4020: Advanced Design Seminar builds on projects and student work completed in ARCH 4010: Advanced Design, refining the studio projects in consideration of real-life constraints and opportunities. It allows students to develop in-depth research and design skills in partnership with community groups and/or industry partners. Addressing questions of design feasibility that extend beyond the scope of an architecture design studio, students will learn how issues such as economics, financing, constructability, design standards, zoning, and building codes ultimately impact the evolution of a project. Students will sharpen their communication and representation skills while creatively responding to the constraints and opportunities inherent within the practice of architecture.
Spring
1 Course Unit

ARCH 4010 Advanced Design Workshop
Advanced design course that engages contemporary contexts of architecture through historical, socio-cultural, and environmental frameworks. Students develop skills for collaboration, self-evaluation, and peer critique while learning how to effectively communicate design ideas to a public audience.
Fall
Prerequisite: ARCH 3020
2 Course Units
ARCH 4310 Construction I
Lecture course exploring the basic principles of architectural technology and building construction. The course is focused on building material, methods of on-site and off-site preparation, material assemblies, and the performance of materials. Topics discussed include load bearing masonry structures of small to medium size (typical row house construction), heavy and light wood frame construction, sustainable construction practices, emerging + engineered materials, and integrated building practices. The course also introduces students to Building Information Modeling (BIM) via the production of construction documents.
Fall
Mutually Exclusive: ARCH 5310
0.5 Course Units

ARCH 4320 Construction II
A continuation of Construction I, focusing on light and heavy steel frame construction, concrete construction, light and heavyweight cladding systems and systems building. Spring
Mutually Exclusive: ARCH 5320
1 Course Unit

ARCH 4330 Building Systems Integration
What makes buildings livable and buildable. After the initial concept design and massing studies are complete the next step is detailing. This seminar will examine the detail, how they can inform and enhance a building’s design. The primary goals of a building is that it stands up to external forces, protects inhabitants from the elements and provides a healthy environment. This course will look at the individual components of structure, skin and systems. More importantly though, it will examine the connections between them. The class will begin with lectures examining the different systems and then progress into applying these ideas as a whole to individual studio projects. The final results of this course will be a 3D wall section with accompanying details. These details will be developed in a variety of software as chosen by the student. Recommended options are Revit, Rhino, AutoCAD.
Fall
0.5 Course Units

ARCH 4350 Structures I
Theory applied toward structural form. A review of one-dimensional structural elements; a study of arches, slabs and plates, curved surface structures, lateral and dynamic loads; survey of current and future structural technology. The course comprises both lectures and a weekly laboratory in which various structural elements, systems, materials and technical principles are explored.
Fall
Mutually Exclusive: ARCH 5350
0.5 Course Units

ARCH 4360 Structures II
A continuation of the equilibrium analysis of structures covered in Structures I. The study of static and hyperstatic systems and design of their elements. Flexural theory, elastic and plastic. Design for combined stresses; prestressing. The study of graphic statics and the design of trusses. The course comprises both lectures and a weekly laboratory in which various structural elements, systems, materials and technical principles are explored.
Spring
Mutually Exclusive: ARCH 5360
0.5 Course Units

ARCH 4998 Senior Thesis
The architecture senior thesis provides students with the opportunity to undertake an independent critical and speculative exploration of a chosen theme. The theme is required to connect architecture with at least one other discipline or subject in the College of Arts and Science. In addition, the questions formulated should establish a concrete link to debates that can be identified as architectural, whether belonging to the realm of individual buildings, urbanism, or product design. This means, that departing from a humanistic question, students should seek to establish clear connections to architectural discourse in the process of conducting their thesis. The thesis project initiates a set of issues and methods that students may continue to develop as they embark on their future professional and intellectual careers. Although the thesis is conceived independently, it is conducted under the supervision of faculty advisors and the thesis coordinator. For additional information, please contact the Chair of Undergraduate Architecture.
Spring
Prerequisite: ARCH 3010
1 Course Unit

ARCH 5000 Summer Preparatory Design Studio
The Summer Preparatory Studio offers an intensive drawing and design experience to candidates for admission to the Graduate Program in Architecture who have not completed the necessary design studio prerequisites or who are required to have additional design experience to qualify for matriculation into the Master of Architecture Professional Degree Program in September. Enrollment in this program does not count towards the Master of Architecture degree. The intent of the drawing component of the course is to familiarize the student with primarily black and white mediums (pencil, charcoal, ink, etc.). Exercises are designed to sharpen the student’s ability to see selectively and to transform image to paper through both line and tonal renditions in freehand sketch form. Exercises will also familiarize the student with basic drafting skills necessary for architectural communication and provide an introduction to computer-aided design through applications of the intensive Rhino and Illustrator tutorials given in the Digital Navigation course. The design part of the course presents a rhythm of basic three-dimensional design studies and simple architectural studio investigations. These are intended to build fundamental skills and acquaint the student with the architectural issues of form/space, conceptualization, transformation of scale, simple functional and constructional problems and a sensitivity to context. Course enrollment is by permit only.
Summer Term
2 Course Units

ARCH 5010 Design Studio I
An introductory architectural design studio through which students develop critical, analytical and speculative design abilities in architecture. Students develop representational techniques for the analysis of social and cultural constructs, and formulate propositions for situating built form in the arena of the urban and suburban environment. The studio initiates innovation through a sequence of projects, spatial models and rule sets that introduce each student to rule-based design processes-- in which a reversal of expectations leads to the creation of novel spaces and structures. It introduces computation, geometric techniques, and digital fabrication. Projects explore the formation of space in relation to the body, and the developments of small scale public programs.
Fall
Corequisite: ARCH 5210
2 Course Units
ARCH 5020 Design Studio II
This studio explores urban architecture as an embodiment of cultural values. Siting, enclosure of space and tectonic definition are stressed in order to challenge students to project relevant and inventive architectural situations.
Spring
Corequisite: ARCH 5220
2 Course Units

ARCH 5110 History and Theory I
The first of three required courses in the history and theory of architecture, this is a lecture course with discussion groups that meet weekly with teaching assistants. The course explores fundamental ideas and models of architecture that have emerged over the past three hundred years.
Fall
1 Course Unit

ARCH 5120 History and Theory II
How do architecture, urbanism, and the environment reflect the dominant social, economic, and political changes of the twentieth and twenty-first centuries and how did its vast geopolitical shifts such as Imperialism, Fascism, the Cold War, Neoliberalism, the "War on Terror," and Nationalism reshape architecture culture? How might architecture culture respond and help construct its resistant variants, anti-fascism, anti-imperialism, decolonization, and making "quieter places" in Donna Haraway’s sense? How do critical frameworks to rethink positivism, efficiency, standardization, and even utopian thinking become revised through the lenses of queer, postcolonial, critical race, and eco-feminist theory in postwar architectural production? And how do these frameworks allow us to conceive of more equitable ways of being in the world while thinking with a varied pasts? This course provides twelve discursive and theoretical frameworks to rethink architectural history in the twentieth and twenty-first century. Through twelve lectures the course traces critical questions confronting architectural modernity from the violence of settler colonialism to the possibilities of making kin. While we will trace instances of architecture, city planning, landscape and infrastructural developments that corresponded to dominant ways of conceiving modernity and its analog progress narratives, the course is mainly interested in considering resistant paradigms that elide attempts to speak of a unified or homogenous notion of modernity. The course will be active and interactive and will include building a collaborative dictionary of architectural terms.
Spring
1 Course Unit

ARCH 5210 Visual Studies I
The study of analysis and projection through drawing and computer visualization
Fall
Corequisite: ARCH 5010
0.5 Course Units

ARCH 5220 Visual Studies II
A continuation of the study of analysis and projection through drawing and computer visualization.
Spring
Corequisite: ARCH 5020
0.5 Course Units

ARCH 5310 Construction I
Lecture course exploring the basic principles of architectural technology and building construction. The course is focused on building material, methods of on-site and off-site preparation, material assemblies, and the performance of materials. Topics discussed include load bearing masonry structures of small to medium size (typical row house construction), heavy and light wood frame construction, sustainable construction practices, emerging + engineered materials, and integrated building practices. The course also introduces students to Building Information Modeling (BIM) via the production of construction documents.
Fall
Mutually Exclusive: ARCH 4310
0.5 Course Units

ARCH 5320 Construction II
A continuation of Construction I, focusing on light and heavy steel frame construction, concrete construction, light and heavyweight cladding systems and systems building.
Spring
Mutually Exclusive: ARCH 4320
1 Course Unit

ARCH 5350 Structures I
Theory applied toward structural form. A review of one-dimensional structural elements; a study of arches, slabs and plates, curved surface structures, lateral and dynamic loads; survey of current and future structural technology. The course comprises both lectures and a weekly laboratory in which various structural elements, systems, materials and technical principles are explored.
Fall
Mutually Exclusive: ARCH 4350
0.5 Course Units

ARCH 5360 Structures II
A continuation of the equilibrium analysis of structures covered in Structures I. The study of static and hyperstatic systems and design of their elements. Flexural theory, elastic and plastic. Design for combined stresses; prestressing. The study of graphic statics and the design of trusses. The course comprises both lectures and a weekly laboratory in which various structural elements, systems, materials and technical principles are explored.
Spring
Mutually Exclusive: ARCH 4360
0.5 Course Units

ARCH 5990 First Year Technology Lab
ARCH 5999 is a required lab/workshop that accompanies the core technology sequence in the M.Arch program in both the Fall and Spring terms. This non-graded lab section will offer additional instruction, workshops, lab time, and other support to the first year technology courses. Enrollment in ARCH 5999 is required for all undergraduate and graduate Architecture students taking ARCH 4350/5350, ARCH 4356/5356, ARCH 4310/5310, and/or ARCH 4320/5320.
0 Course Units
ARCH 6010 Design Studio III
In this studio, students engage architecture in its role as a cultural agent and examine the way buildings establish and organize dynamic relationships between site, program and material. The design of a complex building of approximately 50,000 SF provides the pedagogical focus for this research. Students extend skills in geometrical organization, site analysis and building massing/orientation to relate to program organization, circulation and egress, building systems and materials. The conceptual focus centered on the program of dwelling and how this program can be employed to develop and promote dynamic relationships and conditions through time, both within the building and between the building and the context. Through research and experimentation students integrate ecological processes into their design methodology to support design innovations in the building’s structure, its construction assemblies, environmental systems, and materials. Students work towards a high level of design resolution and visual representation, including the articulation of the building structure and its material assembly/enclosure.
Fall
Corequisite: ARCH 6210
2 Course Units

ARCH 6020 Design Studio IV
This studio enables students to develop and resolve the design of a building in terms of program, organization, construction and the integration of structures, enclosure and environmental systems as well as life safety issues. Students select from a range of individually-directed studios within this overall framework. Each instructor develops a different approach and project for their section of this studio. Studios incorporate the expertise of external consultants in advanced areas of technology, engineering and manufacturing.
Spring
2 Course Units

ARCH 6110 History and Theory III
This is the third and final required course in the history and theory of architecture. It is a lecture course that examines selected topics, figures, projects, and theories from the history of architecture and related design fields during the 20th century. The course also draws on related and parallel historical material from other disciplines and arts, placing architecture into a broader socio-cultural-political-technological context. Seminars with teaching assistants complement the lectures.
Fall
1 Course Unit

ARCH 6210 Visual Studies III
The final of the Visual Studies half-credit courses. Drawings are explored as visual repositories of data from which information can be gleaned, geometries tested, designs refined and transmitted. Salient strengths of various digital media programs are identified and developed through assignments that address the specific intentions and challenges of the design studio project.
Fall
Corequisite: ARCH 6010
0.5 Course Units

ARCH 6310 D3 Data, Design, Delivery
A study of the active integration of various building systems in exemplary architectural projects. To deepen students’ understanding of the process of building, the course compares the process of design and construction in buildings of similar type. The course brings forward the nature of the relationship between architectural design and engineering systems, and highlights the crucial communication skills required by both the architect and the engineer.
Fall
0.5 Course Units

ARCH 6330 Environmental Systems I
An introduction to the influence of thermal and luminous phenomenon in the history and practice of architecture. Issues of climate, health and environmental sustainability are explored as they relate to architecture in its natural context. The classes include lectures, site visits and field exploration.
Spring
0.5 Course Units

ARCH 6340 Environmental Systems II
Considers the environmental systems of larger, more complex buildings. Contemporary buildings are characterized by the use of systems such as ventilation, heating, cooling, dehumidification, lighting, communications, and controls that not only have their own demands, but interact dynamically with one another. Their relationship to the classic architectural questions about building size and shape are even more complex. With the introduction of sophisticated feedback and control systems, architects are faced with conditions that are virtually animate and coextensive at many scales with the natural and man-made environments in which they are placed.
Spring
.5 Course Units

ARCH 6360 Material Formations
Material Formations introduces robotic production and material dynamics as active agents in design rationalization and expression. The course investigates opportunities for designers to synthesize multiple performance criteria within architecture. Theory, Case-Studies and practical tutorials will focus on the incorporation of analytical, simulation, generative computation and robot fabrication concerns within design. While production is traditionally viewed as an explicit and final act of execution, the course explores the potential for all aspects of building production and use to participate within the creative design process, potentially producing performance and affect. Students will develop skills and experience in computer programming, physics-based simulation, and robot motion planning. A design research project will be undertaken through a number of discrete assignments that require the synthesis of structural performance along with material and robotic production constraints. The course will explore design as the outcome of materially formative processed of computation and production. Structure: the course will commence with weekly lectures and computer-based tutorials, and culminate in a series of intensive incremental learning, and prepare groups to work on a final assignment which involves the robotic fabrication of a small design prototype.
Spring
1 Course Unit
ARCH 6710 Professional Practice I
The course consists of a series of workshops that introduce students to a diverse range of practices. The course goal is to gain an understanding of the profession by using the project process as a framework. The course comprises a survey of the architectural profession - its licensing and legal requirements; its evolving types of practice, fees and compensation; its adherence to the constraints of codes and regulatory agencies, client desires and budgets; and its place among competing and allied professions and financial interests. The workshops are a critical forum for discussion to understand the forces which at times both impede and encourage innovation and leadership. Students learn how architects develop the skills necessary to effectively communicate to clients, colleagues, and user groups. Trends such as globalization, ethics, entrepreneurship, sustainability issues and technology shifts are analyzed in their capacity to affect the practice of an architect.

Spring
0.5 Course Units

ARCH 6741 Curricular Practical Training: Academic Year
Course Description This course provides international Architecture department students the opportunity for practical training in architecture in the United States (CPT). The course develops critical thinking about the organization, operation, and ethics of professional practice in city planning. This course will allow international M.Arch/MSD students to work in an internship in the United States during the academic year without shortening their limited OPT time. The course is offered for .20 course units. The employment must relate to the major and the experience must be part of the program of study. Course enrollment is by permit only.
0.2 Course Units

ARCH 6850 Environmental Readings
In this seminar, we will explore this green thread and analyze its influence on how we shape our environments through design and planning. The course has three parts. Throughout, the influence of literature on design and planning theory will be explored. The first part will focus on three most important theorists in environmental planning and landscape architecture: Frederick Law Olmstead Sr., Charles Eliot and Ian McHarg. The second part of the course will critically explore current theories in environmental planning and landscape architecture. The topics include: frameworks for cultural landscape studies, the future of the vernacular, ecological design and planning, sustainable and regenerative design, the languages of landscapes, and evolving views of landscape aesthetics and ethics. In the third part of the course, students will build on the readings to develop their own theory for ecological planning or, alternatively, landscape architecture. While literacy and critical inquiry are addressed throughout the course, critical thinking is especially important for this final section.
Fall
Also Offered As: CPLN 6850, LARP 6850
1 Course Unit

ARCH 6980 Architectural Association (AA), London
An advanced Architectural Design Studio taught by Homa Farjadi in London at the Architectural Association’s School of Architecture. Topics engage aspects of urban life and urban form in London, and vary from year to year. During the fifth term of the Master of Architecture program, up to fifteen students a year may enroll for the semester abroad program in London, England. This is coordinated by Prof. Homa Farjadi and is housed at the Architectural Association (AA), located on Bedford Square in the heart of Bloomsbury. Students enroll in a special design studio, ARCH 702, taught by Prof. Farjadi, and in two elective courses offered by the faculty at the AA.
Fall
2 Course Units

ARCH 6999 Second Year Technology Lab
ARCH 6999 is a required lab/workshop that accompanies the core technology sequence in the M.Arch program in both the Fall and Spring terms. This non-graded lab section will offer additional instruction, workshops, lab time, and other support to the second year technology courses. Enrollment in ARCH 5999 is required for all Master of Architecture students taking ARCH 6330, ARCH 6340, ARCH 6310, and/or ARCH 6360.
0 Course Units

ARCH 7010 Studio V
These advanced elective studios provide opportunities for focused exploration of particular themes in contemporary landscape architecture. Important emerging and accomplished designers, often from divergent points-of-view, interests and backgrounds, are invited to run these studios. Collaborative options (between Landscape and the Departments of Architecture or City Planning) are sometimes offered across the School. In addition to our own faculty who offer some of these studios (Fabiani Giannetto, Gouverneur, Marcinkoski, Mathur, M'Closkey, Neises, Olin, Pezvner, Sanders, Tomlin), visitors have included Paolo Burgi (Switzerland), Peter Latz (Munich), Bernard Lassus (Paris), Margie Ruddick (Philadelphia), Chris Reed (Boston), Peter Beard (London), Nicholas Quennell (New York), Ken Smith (New York), Raymond Gastil (New York), Alessandro Tagliolini (Italy), Ignacio Bunster (Philadelphia), Perry Kulper (Los Angeles), James Wines (New York), Lee Weitnraub (New York), Charles Waldheim (Chicago), Stanislaus Fung (Australia), Dennis Wedlick (New York), Sandro Marpillero (New York), Peter Connolly (Australia), and former associate professor Anna Neri. More recent visitors have been Claire Fellman (New York), Catherine Mosbach (Paris), Nanako Unemoto/Neil Cook (New York), Valerio Morabito (Italy), Carol and Colin Franklin (Philadelphia), Keith Kaseman (Philadelphia), Silvia Benedito (New York), Claudia Taborda (Lisbon), Mark Thomann (New York), Jerry Van Eyck (New York), and Martin Rein-Cano (Berlin).
Fall
2 Course Units

ARCH 7030 Advanced Architectural Design Studio
An Advanced Architectural Design Studio specifically tailored to post-professional students. Through this studio, students engage in the challenges and opportunities presented by changes in society, technology, and urban experience. Through design projects, they explore alternative modes and markets for practice, along with new directions and new tools for design.
Fall
2 Course Units
ARCH 7040 Advanced Design: Research Studio
In the final semester of the program, students select from three options:
1) an elective design studio, selected from among the advanced architectural design studios offered by the Department of Architecture; 2) a research studio, the exploration of a topic or theme established by an individual faculty member or group of faculty members; or 3) an independent thesis, the exploration of a topic or theme under the supervision of a thesis advisor.
Spring
2 Course Units

ARCH 7050 MSD-AAD Design Research Studio
Students learn from industry leaders by electing their Design research Studio. The second semester design research studio focuses on large scale detail leading to a building design.
2 Course Units

ARCH 7060 Independent Thesis
In the final semester of the program, students select from three options:
1) An elective design studio; selected from among the advanced architectural design studios offered by the Department of Architecture; 2) a research studio, the exploration of a topic or theme established by an individual faculty member or group of faculty members; or 3) an independent thesis, the exploration of a topic or theme under the supervision of a thesis advisor.
Spring
2 Course Units

ARCH 7070 AAD Fabrication Studio
The final studio course in the MSD-AAD sequence. Through this studio, students engage in the challenges and opportunities presented by changes in society, technology, and urban experience. Through design projects, they explore alternative modes and markets for practice, along with new directions and new tools for design.
Summer Term
2 Course Units

ARCH 7080 Bioclimatic Design Studio
An advanced design studio for the MSD-EBD program that synthesizes the concepts and techniques of environmental building design. Topics and materials for the studio are developed in ARCH 7520: EBD Research Seminar, and summarized in a research report at the end of studio.
Summer Term
Prerequisite: ARCH 7510 AND ARCH 7520 AND ARCH 7530
2 Course Units

ARCH 7090 Environmental Building Design Research Studio
Architecture is a process of discovery, of deciding what to work on, before it ever becomes a matter of design (disegno, drawing). For environmental building design, the process of discovery is even more profound, involving issues of resource consumption, modes of living and working, and of ecological interconnection that have to be explored before questions of performance can even be addressed. This design studio uses research at multiple scales to identify the topic of the studio, then student teams develop design for buildings of maximum (ecological) power.
Fall
Prerequisite: ARCH 7080 AND ARCH 7510 AND ARCH 7520 AND ARCH 7530
2 Course Units

ARCH 7100 Contemporary Theory 1989-Present
A chronological overview of the approaches and attitudes adopted by architects, theorists and inter-disciplinary writers from 1993- today that have helped shape the current discourse of architecture. This course will introduce and contextualize key projects, and polemics over the last 25 years. Central themes in this course include the impact of digital technologies and methods of design, production and materiality. These are explored through texts, movements, projects and buildings that help form an overview that has shaped the contemporary condition that we live in. There have been a myriad of different approaches and through a select set of readings and lectures students will be exposed to crucial texts, projects and buildings making students versatile and knowledgeable in the important concepts that shape our current discourse. A focus will be the organization, configuration and articulation of buildings and the conceptual and cultural arguments they are associated. Formal, organizational and material characteristics of this period will be explored. This class will develop students’ knowledge and provide a platform from which they can continue the discussions surrounding architectural thought and practice. The students will learn to communicate their ideas verbally and in writing. Contemporary topics in architecture theory and projects are introduced in a weekly lecture format critical to the shaping of our discipline today. A weekly recitation session allows students to engage with the readings critically in the subject matter. A mid-term and final paper are required to pass this class. (Topics to be covered: Seminal projects and buildings in the last 25 years, situating the architects work within a culture of debate and discourse identifying the important readings surrounding each building/project.)
This course is a requirement of the MSD-AAD curriculum.
Spring
1 Course Unit

ARCH 7110 Topics in Architecture Theory I
A seminar on advanced topics in architectural design and theory. Topics and instructors will vary.
Fall
1 Course Unit

ARCH 7120 Topics in Architecture Theory II
A seminar on advanced topics in architectural design and theory. Topics and instructors will vary.
Spring
1 Course Unit

ARCH 7121 Topics in Architecture Theory II
A seminar on advanced topics in architectural design and theory. Topics and instructors will vary.
1 Course Unit

ARCH 7122 Topics in Architecture Theory II
A seminar on advanced topics in architectural design and theory. Topics and instructors will vary.
1 Course Unit

ARCH 7123 Topics in Architecture Theory II
A seminar on advanced topics in architectural design and theory. Topics and instructors will vary.
1 Course Unit
ARCH 7130 Ecological Thinking in Art and Architecture
This seminar will address the diverse narratives of ecological thinking in the history of art, architecture, and urban planning during the 20th century. The course will contextualize and interrogate contemporary disciplinary discourses as well as historical assumptions related to ecological thinking in art and architectural history and environmentally-conscious practices. By mapping received trajectories of Eco Art, Ecocritical Art History, and Ecological Histories of Architecture and Urban Planning, the course will work from a subtly hidden foundation of eco-historical knowledge that connects these fields of inquiry, while also critiquing these trajectories and seeking to provide more focused and robust alternatives for knowledge production in the present. It aims to attract students from the School of Arts and Sciences and the Weitzman School of Design in a discussion on the interconnected histories of art and architecture during the 20th century.
Also Offered As: ARTH 5770
1 Course Unit

ARCH 7140 Museum as Site: Critique, Intervention and Production
In this course, we will take the museum as a site for critique, invention, and production. As architecture, cultural institution, and site of performance, the museum offers many relevant opportunities. Students will visit, analyze, and discuss a number of local exhibitions and produce their own intervention in individual or group projects. Exhibition design, design of museum, the process of curating, producing artworks ranging from paintings to installation and performance, as well as attention to conservation, installation, museum education, and the logistics and economics of exhibitions will be discussed on site and in seminar. These topics and others will be open for students to engage as part of their own creative work produced for the class and an online exhibition.
Spring
1 Course Unit

ARCH 7150 Contemporary Aesthetic Theory
This course offers a framework for a provocative history of ideas about beauty as they relate to contemporary thinking and their production of form in architecture. In a world increasingly defined by visuality, the concepts of beauty and visual sensation are not mere intellectual exercises but standards that define the very nature of design practice across disciplines, and that are essential to the worlds of objects, automobiles, furniture and architecture in the twenty-first century.
Aesthetic theory is about beauty and about form and how it affects us every day. As architecture practice changes, the tools that are used to create form change due to new technologies, new materials and new tools for fabrication and aesthetics gives us an important way in to understanding the relationship between the object created and the user. This occurs in contemporary cultural landscapes in which we exist, and aesthetics is the organizing element. Through lectures and discussions of aesthetics readings in recitations focused on the object, students will work on a term paper that brings a clear understanding of aesthetics and its role in participating in culture through the objects of the automobile, furniture and architecture industries.
1 Course Unit

ARCH 7180 History and Theory of Architecture and Climate
This seminar will explore the history of buildings as mechanisms of climate management, and the theoretical and conceptual frameworks that pertain. In particular, we will examine how visual and mediatic interventions became a crucial aspect of architectural engagement with climate systems, and how, simultaneously, architectural image-making techniques became an important interdisciplinary site for understanding the cultural effects of scientific knowledge.
Spring
1 Course Unit

ARCH 7190 Archigram and Its Legacy: London, A Technotopia
Acknowledging the ubiquitous proliferation of "Hi-Tech" architecture in contemporary London, this research seminar examines the scope of technology as it emerges and re-emerges in the work of various architects currently dominating the city. This scope includes the last strains of post-war urbanism which spawned a legacy of radical architecture directly contributing to the Hi-Tech; a particular focus of the course will be the contributing and contrasting influence provided by the counter-cultural groups of the 60's - Archigram, Superstudio, the Metabolists and others. Using the premise of Archigram's idea of infrastructure, both literal and of event, the course will attempt to discover relational networks between works of the present day (Rogers, Foster, Grimshaw, etc.). As this work practices upon and within public space, an understanding of the contribution of technology to urban theatricality will evolve which is relevant to contemporary spheres of technological design practices. Students will be required to produce and present a term research paper.
Fall
1 Course Unit
ARCH 7200 Visual Literacy and its Culture
The digital turn in the creative fields resulted in profound transformations of techniques, aesthetics and underlying concepts in the development of contemporary visual culture. The dissemination and consumption of information through images through all types of media platforms influence and re-define (for better or worse) all aspects of our culture and reality. It is vital to develop a deep knowledge of the current visual concepts and techniques in arts, photography, cinema, product design and architecture to claim a critical stance through which we can positively contribute to the evolution of contemporary culture. The discipline of architecture has been deeply influenced by the digital shift in modes of design and visualization which yielded a wide array of directions within the architectural discourse, especially with questions and problems regarding representation. One clear outcome of this transformational period is the diversity of new representational strategies to seek alternative modes of visualization. It is clear that no one representational medium can be defined as the locus of architectural thought and architecture, as a cultural practice, can no longer be defined through the output of a single medium. The reality of our discipline is that we work through collective mediums and conventions of drawings, models, images, simulations, texts, prototypes and buildings to visualize architectural concepts. These mediums all require degrees of expertise in techniques that are necessary for their execution: they all involve conceptual depth that define their disciplinary positions; they all require translations across each other to enable subjective work-flows; they all require aesthetic attitudes to influence the development of visual culture in architecture. This course will introduce the AAD majors to contemporary topics of visualization in arts, photography, cinema and architecture. They will explore multiple mediums of representation to help them gain the vital visual literacy to excel in the program. Students will be introduced to discursive background and contemporary concepts of line drawing, fabricated object and constructed image as they work through 3 distinct projects during the semester. Each exercise will be initiated by a topical lecture and be followed by weekly pin ups to advance student projects. (Topics to be covered: Discourse of Contemporary Line Drawing, Multi-part 3D Printing, Vacuform/CNC Milling, Digital/Analog Surface Articulation, Rendering, Abstraction and Realism, Montage/Collage/ Photorealism)
Spring
1 Course Unit

ARCH 7210 Designing Smart Objects for Play and Learning
Today’s children enjoy a wide array of play experiences, with stories, learning, characters and games that exist as physical stand-alone objects or toys enhanced with electronics or software. In this course, students will explore the domain of play and learning in order to develop original proposals for new product experiences that are at once tangible, immersive and dynamic. They will conduct research into education and psychology while also gaining hands-on exposure to new product manifestations in a variety of forms, both physical and digital. Students will be challenged to work in teams to explore concepts, share research and build prototypes of their experiences in the form of static objects that may have accompanying electronic devices or software. Final design proposals will consider future distribution models for product experiences such as 3D printing, virtual reality and software- hardware integration. Instruction will be part seminar and part workshop, providing research guidance and encouraging connections will subject matter experts throughout the Penn campus.
Fall
Also Offered As: IPD 5210
1 Course Unit

ARCH 7240 Technology in Design
The aim of this course is to understand the new medium of architecture within the format of a research seminar. The subject matter of new media is to be examined and placed in a disciplinary trajectory of building design and construction technology that adapts to material and digital discoveries. We will also build prototype with the new media, and establish a disciplinary knowledge for ourselves. The seminar is interested in testing the architecture-machine relationship, moving away from architecture that looks like machines into architecture that behaves like machines: An intelligence (based on the conceptual premise of a project and in the design of a system), as part of a process (related to the generative realm of architecture) and as the object itself and its embedded intelligence.
Spring
1 Course Unit

ARCH 7250 Design Thinking
Creating new product concepts was once a specialized pursuit exclusively performed by design professionals in isolation from the rest of an organization. Today’s products are developed in a holistic process involving a collaboration among many disciplines. Design thinking - incorporating processes, approaches, and working methods from traditional designers’ toolkits - has become a way of generating innovative ideas to challenging problems and refining those ideas. Rapid prototyping techniques, affordable and accessible prototyping platforms, and an iterative mindset have enabled people to more reliably translate those ideas into implementable solutions. In this course, students will be exposed to these techniques and learn how to engage in a human-centered design process.
Fall
Also Offered As: IPD 5720
1 Course Unit

ARCH 7260 Furniture Design Strategic Process
Like architecture, furniture exists at the intersection of idea and physical form. Due to the specific scale that furniture occupies, however, this physical form relates not only to the environment in which the furniture is set, but also intimately to the physical bodies that interact with and around it. Additionally, as a manufactured product, often specified in large quantities, furniture must also address not only poetic considerations, but practical and economic ones as well. Instead of being seen as one-off objects, the furniture created in this seminar focuses on furniture development as a strategic design process where the designer’s role is to understand the various responsibilities to each stakeholder (client/ manufacturer, market/customer, environment) and the additional considerations (materials, processes, manufacturability, etc.), and ultimately translate these points into a potentially successful product. In order to approach furniture in this manner, the course will be structured around specific design briefs and clustered into three distinct but continuous stages. First, through focused research into stakeholder needs and potential market opportunities, students will craft tailored design proposals and development concepts accordingly. Next, students will work toward visualizing a concept, complete with sketches, small mock-ups, scale- model prototypes, technical drawings, connections and other pertinent details in order to refine their proposals and secure a real world understanding of the manufacturing processes and the potential obstacles created by their decisions. From insights gained and feedback from these steps, students will ultimately develop a final design proposal for a piece, collection, or system of furniture that successfully leverages their understanding of a thoughtful and deliberate design strategy.
Spring
1 Course Unit
ARCH 7280 Design of Contemporary Products: Design for Equity, Inclusion and Accessibility

The power of design to shape the world we live in is increasingly obvious, as is the responsibility of designers to challenge our assumptions about who designs, who is included or marginalized by our designs, and how we can make sure that all design is inclusive design. This course will address issues around designing for equity, inclusion and accessibility and co-design. We will ask, What is inclusive design? Who does it serve? What should it look like? To answer these questions, we will engage with the current discourse around designing for equity, inclusion and accessibility, with a particular focus on accessibility. We will engage with disability justice frameworks and critical disability studies to challenge our assumptions about disability and engagement. And we will connect with members of the disability community and co-design along with them. This course is intended for anyone who considers themselves a designer of physical or digital products, places, or services who wants to prioritize inclusion in their practice.

Spring

Also Offered As: IPD 5280

1 Course Unit

ARCH 7300 Techniques, Morphology, and Detailing

The course will focus on design, morphology detailing, and the construction of a pavilion on a chosen site. The course will develop through hands-on workshops and will focus on acquiring knowledge through making, (Techné), understanding the morphological transformation of a given geometric packing, and building using readily available materials. The process consists of building and testing physical models that simulate the actual pavilion in order to ultimately realize the desired design. The second half of the semester will focus on using lightweight construction materials to fabricate the pavilion's actual components, including structural elements, molded components, and joints, which are required for the pavilion's final assembly. Additionally, students will learn to organize design and fabrication teams, control design and production schedules, and work with a set budget, which requires keeping track of construction costs and forecasting required procurements, including material quantities takeoff, ordering materials and scheduling deliveries.

Spring

1 Course Unit

ARCH 7310 Experiments in Structures

This course studies the relationships between geometric space and those structural systems that amplify tension. Experiments using the hand (touch and force) in coordination with the eye (sight and geometry) will be done during the construction and observation of physical models. Verbal, mathematical and computer models are secondary to the reality of the physical model. However these models will be used to give dimension and document the experiments. Team reports will serve as interim and final examinations. In typology, masonry structures in compression (e.g., vault and dome) correlate with "Classical" space, and steel or reinforced concrete structures in flexure (e.g., frame, slab and column) with "Modernist" space. We seek the spatial correlates to tensile systems of both textiles (woven or braided fabrics where both warp and weft are tensile), and baskets (where the warp is tensile and the weft is compressive). In addition to the experiments, we will examine Le Ricolais' structural models held by the Architectural Archives.

Fall

1 Course Unit

ARCH 7320 Technology Designated Elective

Several sections are offered from which students make a selection.

Spring

1 Course Unit

ARCH 7321 Technology Designated Elective

Technology Designated Electives enable students to deepen their understanding of architectural issues, and M.Arch students must complete 1 CU of any ARCH 732x and/or ARCH 736x course(s). But these courses are not limited to students in the department of architecture.

ARCH 7322 Technology Designated Elective

Technology Designated Electives enable students to deepen their understanding of architectural issues, and M.Arch students must complete 1 CU of any ARCH 732x and/or ARCH 736x course(s). But these courses are not limited to students in the department of architecture.

ARCH 7323 Technology Designated Elective

Technology Designated Electives enable students to deepen their understanding of architectural issues, and M.Arch students must complete 1 CU of any ARCH 732x and/or ARCH 736x course(s). But these courses are not limited to students in the department of architecture.

ARCH 7324 Technology Designated Elective

Technology Designated Electives enable students to deepen their understanding of architectural issues, and M.Arch students must complete 1 CU of any ARCH 732x and/or ARCH 736x course(s). But these courses are not limited to students in the department of architecture.

ARCH 7325 Technology Designated Elective

Technology Designated Electives enable students to deepen their understanding of architectural issues, and M.Arch students must complete 1 CU of any ARCH 732x and/or ARCH 736x course(s). But these courses are not limited to students in the department of architecture.
ARCH 7326 Technology Designated Elective
Technology Designated Electives enable students to deepen their understanding of architectural issues, and M.Arch students must complete 1 CU of any ARCH 732x and/or ARCH 736x course(s). But these courses are not limited to students in the department of architecture any graduate student at Weitzman is invited to register for a Technology Designated Elective of interest, space permitting. Topics vary between semesters, and specific details can be found in the “Section Details” area in course search.
1 Course Unit

ARCH 7330 New Materials and Methods
The primary goal of this course is to help students formulate a robust research proposal for their culminating design studio in digital large-scale fabrication and robotics manufacturing using new materials such as carbon fiber and other composites. The course provides a forum for critical discussion of contemporary design practices that is exploratory and speculative in nature. In addition to collaborative thinking and debate students will develop their own research interests to formulate contemporary positions in the making of architecture through the research of materials and their fabrication methods.
Fall
Corequisite: ARCH 7200
1 Course Unit

ARCH 7340 Ecological Architecture - Contemporary Practices
Architecture is an inherently exploitive act - we take resources from the earth to produce waste and pollution when we construct and operate buildings. As global citizens, we have an ethical responsibility to minimize these negative impacts. As creative professionals, however, we have a unique ability to go farther than simply being "less bad." We are learning to design in ways that can help heal the damage and regenerate our environment. This course explores these evolving approaches to design - from neo-indigenous to eco-tech to LEED to biomimicry to living buildings. Taught by a practicing architect with many years of experience designing green buildings, the course also features guest lecturers from complementary fields - landscape architects, hydrologists, recycling contractors and materials specialists. Coursework includes in-class discussion, short essays and longer research projects.
Spring
1 Course Unit

ARCH 7360 Technology Designated Elective
Technology Designated Electives enable students to deepen their understanding of architectural issues, and M.Arch students must complete 1 CU of any ARCH 732x and/or ARCH 736x course(s). But these courses are not limited to students in the department of architecture any graduate student at Weitzman is invited to register for a Technology Designated Elective of interest, space permitting. Topics vary between semesters, and specific details can be found in the “Section Details” area in course search.
Fall
0.5 Course Units

ARCH 7361 Technology Designated Elective
Technology Designated Electives enable students to deepen their understanding of architectural issues, and M.Arch students must complete 1 CU of any ARCH 732x and/or ARCH 736x course(s). But these courses are not limited to students in the department of architecture any graduate student at Weitzman is invited to register for a Technology Designated Elective of interest, space permitting. Topics vary between semesters, and specific details can be found in the “Section Details” area in course search.
0.5 Course Units

ARCH 7362 Technology Designated Elective
Technology Designated Electives enable students to deepen their understanding of architectural issues, and M.Arch students must complete 1 CU of any ARCH 732x and/or ARCH 736x course(s). But these courses are not limited to students in the department of architecture any graduate student at Weitzman is invited to register for a Technology Designated Elective of interest, space permitting. Topics vary between semesters, and specific details can be found in the “Section Details” area in course search.
0.5 Course Units

ARCH 7363 Technology Designated Elective
Technology Designated Electives enable students to deepen their understanding of architectural issues, and M.Arch students must complete 1 CU of any ARCH 732x and/or ARCH 736x course(s). But these courses are not limited to students in the department of architecture any graduate student at Weitzman is invited to register for a Technology Designated Elective of interest, space permitting. Topics vary between semesters, and specific details can be found in the “Section Details” area in course search.
0.5 Course Units

ARCH 7370 Semi-Fictitious Realms: A History and Future of Virtual Reality
The pursuit of immersive digital experiences has long been a goal of the computing industry. Early wearable displays designed in the 1960s depicted simple three-dimensional graphics in ways that had never been seen before. Through trial and error, digital pioneers reframed the relationship between user and machine, and over the last five decades, have made strides that advanced both the input and output mechanisms we are so comfortable with today. As a field, architecture has been reliant on these advancements to design and document buildings, but these tools still leave the architect removed from the physicality of the design, with their work depicted as 2D lines or 3D planes alone. This course will study the evolutionary advancements made that now allow us to fully inhabit digital worlds through Virtual Reality. Using the Unity Video Game Engine, students will generate immersive, photo-realistic models of unbuilt architectural works and explore digital/physical interactivity. These models will be designed to have compatibility with both 6-DOF and 3-DOF Virtual Reality equipment as well as flythrough-style experiences for keyboard and mouse using various web-hosting platforms. From the terraces of Paul Rudolph's Lower Manhattan Expressway to Boullée's Cenotaph for Newton, the goal of this course is to breathe new life into places and spaces that have, until this time, never been built or occupied.
Fall
1 Course Unit

ARCH 7371 Remixed Realities
This course will introduce students to workflows for authoring VR content in the Unity 3D Video Game Engine, teach them skills in developing custom interactions with the C# coding language, and challenge them to create speculative mixed reality scenarios. Students will explore several forms of mixed reality in a series of exercises leading up to a final narrative-based VR experience. We will speculate on the occupation of physical/digital hybrids by using a calibration routine to align digital geometry to physical spaces in VR; create volumetric documentary experiences using reality capture techniques to record existing spaces and objects; and develop rich VR experiences using remixed volumetrically captured geometry, digital geometry, and physical spaces.
1 Course Unit
ARCH 7380 The Modern House: Technology Then and Now
In the current age of new fabrication methodologies, methods are emerging for the conception and design of the contemporary house which have radical potential for enclosure, habitation and practices of daily life. This course begins by examining the canonical houses of the original avant-garde - Adolf Loos, Frank Lloyd Wright, Le Corbusier, Mies van der Rohe and Alvar Aalto - on the premise that their houses were working manifestos for rethinking space, form and indeed ideas of life itself - all of which were prompted by new concepts of construction. From this spectrum of issues, contemporary houses and contemporary methods and materials will be studied extensively to develop equally new ideas between matter and quotidian life. As the primary task of the course, students will work in teams to develop highly detailed constructional proposals for a portion of a speculative home.
Spring
1 Course Unit

ARCH 7390 New Approaches to an Architecture of Health
Health care is taking on a new role in our society - with a refocusing from episodic care for those who are ill or symptomatic to providing life-long care geared towards maintaining wellness. These changes are evident across numerous areas of design, from wearable technologies that track and analyze, to large scale building initiatives that aim to create healthier environments and improve lives through strategic planning initiatives. A concrete, physical representation of this paradigm shift can be found within the hospital building itself and in the new manner in which hospitals are looking to serve their patients and care for their clinicians. Simultaneously both public and private spaces, hospitals are complex systems in which sickness, health, hospitality, technology, emergency, and community share space and compete for resource. In order to frame our present day understanding of the role of architecture (and design) in fostering health for individuals and within communities, this seminar will begin with an exploration of the historical and contemporary perspectives on the role of the architect and built environment on health. (Parallels between design and our ever-changing understanding of the biological, social, and environmental causes of sickness and disease will also be explored.) During this conversation, students will read articles and study recently constructed projects in order to examine the ways in which the architects approached these topics through built form. Following from this foundation, students will craft arguments for a new approach to the individual, the community, health, and architecture through a written response and architecturally designed scenario that argues for their perspective on how architecture can and should shape the health of those who inhabit it. Throughout the course, students will engage in weekly readings (and discussions) of critical texts exploring ideas around the role and impact of architecture on health. Various content experts will be included in the course to provide additional insights into key areas of theory and practice in order to lend additional perspectives and ground the conversation.
Fall
1 Course Unit

ARCH 7410 Architecture Design Innovation
The mastery of techniques, whether in design, production or both, does not necessarily yield great architecture. As we all know, the most advanced techniques can still yield average designs. Architects are becoming increasingly adept at producing complexity & integrating digital design and fabrication techniques into their design process - yet there are few truly elegant projects. Only certain projects that are sophisticated at the level of technique achieve elegance. This seminar explores some of the instances in which designers are able to move beyond technique, by commanding them to such a degree as to achieve elegant aesthetics within the formal development of projects.
Fall
1 Course Unit

ARCH 7420 Function of Fashion in Architecture
The Function of Fashion in Architecture will survey the history of fashion and the architectural parallels starting from Ancient Civilization to Present. The focus will be on the relevance of garment design, methods and techniques and their potential to redefine current architectural elements such as envelope, structure, seams, tectonics and details. The functional, tectonic and structural properties of garment design will be explored as generative platforms to conceptualize very specific architectural elements. One of the challenges in the course is the re-invention of a means of assessment, the development of notations and techniques that will document the forces and the production of difference in the spatial manifestations of the generative systems.
Spring
1 Course Unit

ARCH 7430 Form and Algorithm
The critical parameter will be to develop the potential beyond finite forms of explicit and parametric modeling towards non-linear algorithmic processes. We will seek novel patterns of organization, structure, and articulation as architectural expressions within the emergent properties of feedback loops and rule-based systems. This seminar will accommodate both introductory and advanced levels. No previous scripting experience is necessary. It will consist of a series of introductory sessions, obligatory intensive workshops, lectures followed by suggested readings, and will gradually focus on individual projects. Students will be encouraged to investigate the limits of algorithmic design both theoretically and in practice through a scripting environment.
Fall
1 Course Unit

ARCH 7440 Image, Object, Architecture
As we have entered a postdigital era, the dominance of a purely technological approach as a vehicle for design innovation has waned. Questions of substance and disciplinary autonomy have found their way back into the contemporary cultural discourse, enriching the way we examine and deploy advanced technologies towards novel expressions in architecture. This seminar will investigate, through the production of estranged objects, opportunities for design that are being generated at the intersection of machinic and human minds, and speculate on possible futures in which concepts of nature and technology have been inseparably intertwined.
Spring
Also Offered As: IPD 5440
1 Course Unit
ARCH 7460 Cinema and Architecture in Translation
Cinema and Architecture in Translation is a seminar that will survey key cinematic moments and techniques within the history of film and find new intersections between architecture and narratives. The focus will be on the relevance of mise-en-scène, the background and building figures of architecture and future speculations of the city, yet in relation to narrative dynamics. One of the challenges is to consider techniques that will affect both conceptualization and the production of spatial manifestations using potent visual platforms. Current pre and post-production techniques in film making methods are converging with architectural digital representation. This is an opportunity that provides fertile ground for architects to re-examine the 'digital' in a variety of scales in relation to impactful narratives and visualizations. These tools, specifically the technique of "matte-painting" will be explored in this course. There is a rich history in constructing images, speculative worlds and scenes for the film industry. We will explore the parallels between the tools and strategies of cinematic visualization as it relates to advanced architectural image making. Students will have the opportunity to analyze filmic scene making, learn advanced representation and techniques in matte painting and zbrush. Above all this course will engage students in the conceptual as well as practical complementarities of architecture and cinema, while watching some of the best films ever made and the most provocative and insightful books to help process them. An important aspect of this course will be to explore the differences between "real" architecture and the cinematic architecture. The expansive Space and Time in which cinematic architecture is located, creates an incubator where true innovated speculation can occur. This is an advanced representation course that produces 2D images and narrative texts.
Spring
1 Course Unit

ARCH 7470 Robotic Fabrication
Automation and robotics have helped manufacturing increase productivity by 1,500% since 1945 (McKinsey 2017). In contrast, however, construction productivity has remained relatively stagnant during the same time. The construction industry is facing pressure to change. For the robotics industry, construction presents potential use cases and unique applications that can utilize a variety of evolving technologies from drones, ground robotics, teleoperation, machine vision, additive manufacturing, and assistive robotics. These technologies take advantage of the digital revolution and utilize ideas in automobile and aerospace engineering. Our interest in these technologies is that they open new opportunities for design. Robotic fabrication will explore the theory and design of a project that will form a component of the culminating design studio for the MSD AAD program. Theory will be exorloled through a series of lectures and the design component will focus on a one to one scale fabrication of a project determined by the design studio curriculum.
Summer Term
1 Course Unit

ARCH 7480 Architecture and the New Elegance
This design seminar will define and elaborate on the following topics for the digital discourse - the contemporary diagram, technique, structural thinking, systemic thinking and aesthetic projections. Technological innovations establish new status quos and updated platforms from which to operate and launch further innovations. Design research practices continually reinvent themselves and the techniques they use to stay ahead of such developments. Reinvention can come through techniques that have already been set in motion. Mastery of techniques remains important and underpins the use of digital technologies in the design and manufacturing of elegant buildings. But, ultimately, a highly sophisticated formal language propels aesthetics. The repositioning of design intent and the complex order generated by the behavioral techniques of multi-agent systems has implications for the affects which are generated as well as the nature of hierarchy within architecture. The distributed non-linear operation of swarm systems intrinsically resists the discrete articulation of hierarchies within Modern architecture and contemporary parametric component logic. The bottom-up nature of swarm systems refocuses tectonic concerns on the assemblage at the micro scale rather than the sequential subdivision of program or form. The seminar will explore strategies for high population agent models through the use of lightweight algorithmic environments, in particular the Java-based platform Processing.
Spring
1 Course Unit

ARCH 7490 Indeterminate Delineations
Architecture has always been closely entangled with modes of vision. Devices ranging from Durer’s perspective machine to the photographic eye have strongly shaped the way we think and design the built environment of our cities. A strange loop is in place here: our world-views provide the development of specific modes of representation, of engagement with the world, and in turn they begin to have an impact in that same world, becoming an active element in the way we understand it. Put more simply, it is the technologies through which we see and experience the built environment that define the way we construct it. In this class, we will focus on visual and physical points as anchors to tie modes of vision with modes of construction. Points play an important role in the history of visuality: if during Impressionism and Pointillism they were devised to delineate the contrast and alignments between what we see and how we see it in an attempt to investigate the mechanics of vision, it was during the post war period that Max Wertheimer’s work at the Berlin School of Gesalt Psychology leveraged them as graphic elements to understand part to whole relationships central to Bauhaus’ design pedagogy. Today, imaging technologies are once again placing points as central elements in the construction of our contemporary visual language, transforming ever-growing datasets of partial images in three dimensional machine readable survey models: it is with points and aggregated clouds that we are constructing the figure of our cities. As such, they become a necessary site of design investigation to move beyong monolithic views of the world. This class leverages the bi-product of scanning technologies - point clouds and image making - to explore inclusive modes of delineations: a visual sensibility to engage with the multifaceted nature of the built environment.
Fall
1 Course Unit
ARCH 7500 Parafictional Objects
This representation/design seminar explores the aesthetics of estrangement in realism through various mediums. The reality of the discipline is that architecture is a post-medium effort. Drawings, Renderings, Models, Prototypes, Computations, Simulations, Texts, and Buildings are all put forward by architects as a speculative proposal for the reality of the future. Students will explore the reconfiguration of a "found object" in multiple mediums and represent parafictional scenarios in various techniques of realism. At a time when rendering engines enable the production of hyper-realistic images within the discipline without any critical representational agenda, it has become ever more imperative to rigorously speculate on realism.

Fall
1 Course Unit

ARCH 7510 Ecology, Technology, and Design
This course will examine the ecological nature of design at a range of scales, from the most intimate aspects of product design to the largest infrastructures, from the use of water in bathroom to the flow of traffic on the highway. It is a first principle of ecological design that everything is connected, and that activities at one scale can have quite different effects at other scales, so the immediate goal of the course will be to identify useful and characteristic modes of analyzing the systematic, ecological nature of design work, from the concept of the ecological footprint to market share. The course will also draw on the history of and philosophy of technology to understand the particular intensity of contemporary society, which is now characterized by the powerful concept of the complex, self-regulating system. The system has become both the dominant mode of explanation and the first principle of design and organization. The course will also draw on the history and philosophy of technology to understand the particular intensity of contemporary society, which is now characterized by the powerful concept of the complex, self-regulating system. The system has become both the dominant mode of explanation and the first principle of design and organization.

Fall
1 Course Unit

ARCH 7520 EBD Research Seminar
Directed student research of selected topics in environmental building design. These topics will be further explored in ARCH 7080: Bioclimatic Design Studio and will provide the basis for the research documents developed with each student’s design project. Course work will include lectures, discussions, weekly readings, and in-class exercises. Each student will be required to make a presentation and submit a research report.

Fall
1 Course Unit

ARCH 7530 Building Performance Simulation
The course provides students with an understanding of building design simulation methods, hands-on experience in using computer simulation models, and exploration of the technologies, underlying principles, and potential applications of simulation tools in architecture. Classroom lecturers are given each week, with a series of analysis projects to provide students with hands-on experience using computer models. This course is required and reserved for MSD-EBD students.

Fall
1 Course Unit

ARCH 7540 Performance Design Workshop
The workshop applies simulation and diagramming techniques to a series of discrete design projects at different scales. The emphasis is on refinement and optimization of performance based building design. Performance analysis techniques can provide enormous amounts of information to support the design process, acting as feedback mechanisms for improved performance, but careful interpretation and implementation are required to achieve better buildings. Energy, lighting, and air flow are the three main domains covered in the workshop. Students will learn how to utilize domain tools at an advanced level, and utilize them as applications to examine the environmental performance of existing buildings. Using the results of analytical techniques, the students will develop high-performance design strategies in all three domains. Lectures will be given on specific topics each week. A series of analytical class exercises will be assigned to provide students with hands-on experience in using the computer models. A case-study building will be provided at the beginning of the course and students will model different components each week throughout the semester. Every week students present the progress of their work, which will be used to correct methodological and technical issues. Energy, lighting, and air flow are the three main domains covered in the workshop. Students will learn how to utilize domain tools at an advanced level, and utilize them as applications to examine the environmental performance of existing buildings. Using the results of analytical techniques, the students will develop high-performance design strategies in all three domains. Prerequisite: ARCH 7530 Lectures will be given on specific topics each week. A series of analytical class exercises will be assigned to provide students with hands-on experience in using the computer models. A case-study building will be provided at the beginning of the course and students will model different components each week throughout the semester. Every week students present the progress of their work, which will be used to correct methodological and technical issues.

Spring
Prerequisite: ARCH 7530
1 Course Unit

ARCH 7550 Environmental Innovation and Prototyping
The MSD-EBD students will develop research papers related to the work done in ARCH 7080 Bioclimatic Studio and ARCH 7540. The students will learn how to plan and conduct experiments and will develop the tools to write research papers based on these experiments. During the semester, exemplar case-studies of novel work in architectural technology will be presented to the students by the instructor and guest lecturers. The prototype developed during the course may be a digital prototype such as a simulation tool, or a physical prototype which will be tested using sensing techniques.

1 Course Unit

ARCH 7580 Resilience: Project Energos, Nevada, Japan, Taiwan
This seminar explores a broad range of topics around the subject of Resilience and Sustainability. We will use a green infrastructure property development currently under construction in real time as our focus, Project Energos, a massive green field site in Nevada by Los Angeles developer TerraScale. This research seminar will support a subsequent 700-level studio offering in Fall. Students are welcome to enroll in this seminar with or without taking the studio. The subject is relevant to all students interested in understanding how action is currently being taken in the United States through a global lens advancing a resilient agenda.

Spring
1 Course Unit
ARCH 7610 Introduction to Real Estate Development for Architects
The course introduces students to the participants and components to the development process, as well as specific development strategies and design tools for engaging them. Design in this sense is not simply a vision, or a concept utilized for obtaining approvals, it is understood as an encompassing set of procedures that both allow for and ensure that goals are being met at all stages of a project, from early conception through the approval process and building construction. Students will learn how to engage municipal land-use laws and regulations, produce strategies for geometric development based on land-use and environmental constraints, and use simulation to perform value-adding operations to a development proposal. Through lectures and exercises, students will have the opportunity to analyze a building and the redevelopment procedures surrounding it, and develop a geometric response and then parse data from that model to drive a series of documents relating to project cost, funding, and schedule. These documents will be analyzed against a variety of construction means and funding models so time- and cost-effective basis that meets design intentions can be developed. This course is primarily intended for Architecture Students who wish to enroll in the Real Estate Design and Development Certificate.
1 Course Unit

ARCH 7620 Design and Development
This course provides an overview of the real estate development business looked at in relationship to urban design, city planning, and architectural design. It provides exposure to the many real-world considerations of private sector development as well as an introduction to the language of real estate. The class focuses on various commercial building types and product offerings with examples of how planning, architectural and other design professions fit into creation of real estate value and the development process. This will cover the practical considerations and typical trade-offs of commercial business practices and real estate investment parameters and how these influence the ways developers and designers work. Industry sectors may include housing (single, multifamily and affordable), office, retail, hospitality, and industrial, with project types ranging from greenfield, adaptive reuse, downtown development, mixed-use projects, and planned communities. Through exercises, lectures and case studies, we'll address what drives the decisions designers and non-designers make in the development process, and provide insight to help designers understand what makes developers tick. Visiting lecturers (typically architects and developers) will provide real-world examples. Weekly written exercises, case studies and presentation assignments stress critical thinking, evaluating projects by how well they do their job and analyzing how that job is defined.

Spring
Also Offered As: CPLN 6430
1 Course Unit

ARCH 7650 Project Management
This course is an introduction to techniques and tools of managing the design and construction of large, and small, construction projects. Topics include project delivery systems, management tools, cost-control and budgeting systems, professional roles. Case studies serve to illustrate applications. Cost and schedule control systems are described. Case studies illustrate the application of techniques in the field.
Spring
1 Course Unit

ARCH 7680 Real Estate Development
This course evaluates "ground-up" development as well as re-hab, re-development, and acquisition investments. We examine raw and developed land and the similarities and differences of traditional real estate product types including office, R & D, retail, warehouses, single family and multi-family residential, mixed use, and land as well as "specialty" uses like golf courses, assisted living, and fractional share ownership. Emphasis is on concise analysis and decision making. We discuss the development process with topics including market analysis, site acquisition, due diligence, zoning, entitlements, approvals, site planning, building design, construction, financing, leasing, and ongoing management and disposition. Special topics like workouts and running a development company are also discussed. Course lessons apply to all markets but the class discusses U.S. markets only. Throughout the course, we focus on risk management and leadership issues. Numerous guest lecturers who are leaders in the real estate industry participate in the learning process. Format: predominately case analysis and discussion, some lectures, project visits.
Also Offered As: REAL 8210
Prerequisite: REAL 7210 OR FNCE 7210
1 Course Unit

ARCH 7710 Professional Practice II
A continuation of ARCH 6710. Further study of the organizational structures of architectural practices today, especially those beyond the architect's office. The course is designed as a series of lectures, workshops and discussions that allows students and future practitioners the opportunity to consider and develop the analytical skills required to create buildings in the world of practice.
Fall
1 Course Unit

ARCH 7820 Architecture Study Abroad Program
A four to six week program of study in various locations. For program details: www.design.upenn.edu/architecture/graduate/graduate-architecture-study-abroad
0-1 Course Unit

ARCH 7910 ARCH Summer Institute: Digiblast
This is a non-credit course for entering Master of Architecture students. The course will cover digital modeling and workflow and will prepare students for techniques used in the Architecture program's 5000 and 6000 level design studios. Course enrollment is by permit only.
Summer Term
0 Course Units
ARCH 7920 ARCH Summer Institute: Advanced Architectural Design Digital Workshop
This is a non-credit course for entering Master of Science in Design: Advanced Architectural Design students. The Digital Methods workshop provides a comprehensive introduction to four elements critical to the workflow of the graduate studios at PennDesign: 3D modeling, scripting, visualization and fabrication. Short daily lectures situating digital technologies in contemporary design practice are followed by hands-on tutorials in Maya and Rhinoceros. The first half of the workshop provides an operative knowledge of the many geometry types, modeling techniques, scripting languages and simulation tools available for studio work. Visualization techniques are also introduced, and students will learn to efficiently produce presentation-quality renderings, animations and technical line drawings from digital models. Students also learn protocols for transferring data between various design software packages and how to create data compatible with PennDesign’s digital fabrication equipment. Course fee: $750.00. Course enrollment is by permit only.
Summer Term
0 Course Units

ARCH 7930 ARCH Summer Institute: History of Architecture
This is a non-credit course for entering Master of Architecture students. The course will cover western architecture from ancient Egypt to the modern age and will satisfy the history pre-requisite condition for matriculation in the fall. Course fee: $750.00. Course enrollment is by permit only.
Summer Term
0 Course Units

ARCH 7940 ARCH Summer Institute: Physics for Architects
This is a non-credit course for entering Master of Architecture students. The course will cover the following: mechanics, heat, light, sound and electricity. The course will satisfy the physics pre-requisite condition for matriculation in the fall. Course fee: $750.00. Course enrollment is by permit only.
Summer Term
0 Course Units

ARCH 7990 Environmental Building Design Summer Preparatory Workshop
This is a required, non-credit course for entering Master of Science in Design: Environmental Building Design students. The workshop provides an introduction to digital modeling and scripting techniques for environmental performance analysis. Students also learn protocols for transferring data between various design software packages and how to create data compatible with the School of Design’s plotting and digital fabrication equipment. Course fee: $750.00. Course enrollment is by permit only.
0 Course Units

ARCH 8000 Introduction to 3D Programming
ARCH 8000 is a two week required introductory course for matriculating RAS students. This course introduces computer programming (Python, Grasshopper, etc.) within a 3D modelling/simulation environment, and introduces students to Penn’s ARI Robotics Lab.
0 Course Units

ARCH 8010 Material Agencies: Robotics & Design Lab I: Part I
Material Agencies Section 1 is the half-semester introductory studio to the Master of Science in Design:Robotics and Autonomous Systems (MSD-RAS) program at the University of Pennsylvania Stuart Weitzman School of Design. This course will introduce students to the Robotic Lab through a software / hardware routine to engage the ABB IRB4600-60 6-axes industrial robot with a hot-wire foam cutting end effector. The studio focuses exclusively on working with an industrial robotic arm and a large-scale hot-wire cutter end-effector to cut foam. This relatively simple robotic extension quickly introduces students to the robotic lab, robot interface and ultimately produces tangible results quickly, yet also highlights the designer's need to develop designs within geometrical constraints that are tightly related to specific manufacturing processes – in this case, the hot-wire cutter’s production of ruled surface geometries. Operating through ruled surface geometries enables the designer to have maximum control over the manufactured output whilst removing the need for post-design geometric rationalization or value engineering activities. The architectural project for the studio is a speculative ceilingscape re-design for one of the large galleries in Meyerson Hall that currently features a ubiquitous hung acoustical tile system.
1 Course Unit

ARCH 8011 Material Agencies: Robotics & Design Lab I: Part II
The Fall Material Agencies course consists of two half-semester long sections and is supported by two aligned Core Technical Seminars of half-semester length each. Students will typically work in pairs. Section 1: Programmed Matter: Introduces students to a generative approach to digital design and robotic manufacturing with the goal of unifying design and production within one creative process. The studio will commence with students gaining first-hand experience programming and operating Penn’s industrial robots. 3d design models will be developed in parallel to fabrication experiments and digital simulations. The design brief will focus on a small scale design prototype that is explored at a micro-scale of resolution relative to normative architectural practice. Material placement and material affect will be considered intrinsic to design expression and integral to considerations of space, form, structure and production concerns. The brief will focus on a small scale object or architectural part design with ornamental features. The course introduces material dynamics, robot programming, 3d modelling and computer programming within design. Section 2: Manipulative Matter explores both robotic fabrication and the use of sensors and actuators within responsive fabricated objects or architectural elements. Design Prototyping involving manipulation-based Manufacture. Eg. Sheet metal folding. This will complement the first studio by requiring more pre-determined design intent, fabrication rationalization and robot sensor and electrical integration. A final design prototype will demonstrate embodied material intelligence - through an integrative approach to material organization, electronic circuitry, production and design. Electronic wiring and parts will be integrated within larger material prototypes through fabrication methods such as: inlays, additive manufacturing, casting, soldering, painting, laser-cutting, or milling.
Fall
1 Course Unit
ARCH 8020 Material Agencies: Robotics & Design Lab II
This course will leverage knowledge gained by students in the Fall and set an ambitious aim for the experimentation, development and demonstration of a robotically manufactured design prototype that is intrinsically related to a bespoke production process. The end product will involve a 1:1 part or whole, physically fabricated work that will be accompanied by either a live demonstration or video production. During the first half of the semester students will engage in the development of bespoke robotic tooling, sensor and programming capabilities in order to create novel manufacturing processes that explore ideas of intelligent or autonomous manufacturing with an emphasis on responsive or manipulation based processes. Industry processes will be leveraged yet re-cast through creative engagement with manufacturing materials, tools and production operations. Participants will follow a brief that specifies a line of inquiry or scenario, whilst allowing some degree of self-direction. Projects will engage in a speculative and critical approach to architectural design, production and use while leveraging robotics platforms, methods for machine vision, sensing and learning, in addition to an engagement with material dynamics and computer programming within design research. A successful project is expected to: demonstrate a rigorously crafted design artifact; explore novel approaches to design, material fabrication and user engagement, questioning the role and nature of architecture's physical and cultural contribution; and explore novel forms of robotic production and representation. Some proposals will involve live or filmed demonstrator performances. All projects will require a computer simulation or animation that demonstrates a temporal consideration for design, manufacture or use. The course introduces robot tooling, sensor-feedback procedures, 1:1 material prototyping, and building design with tectonic considerations. Examples of potentially relevant industry processes include: sheet-metal bending, incremental metal forming, additive and subtractive manufacturing.
2 Course Units

ARCH 8030 General Overview of Algorithmic Design and Robotic Fabrication
Directly supports ARCH 8010 Material Agencies I: Section 1. This seminar will teach students computer and robot programming skills that will be utilized to deliver a complimentary and integral aspect of design-prototyping and fabrication work. Topics will vary in application to suit the studio brief. Participants will be introduced to the Robotics Lab, and will learn to set up ABB Industrial Robot tasks. Design algorithms will be developed that establish a conceptual relationship to the manufacturing process and attempt to leverage it for creative forms of design expression whilst addressing material and production performance constraints. Examples include computer programming that simulates a material placement and robotic manufacturing process such as additive manufacturing, filament winding or weaving, and utilizes these tasks in a generative design methodology, where design character, variation in material organization is evaluated relative to performance criteria such as material quantities, production time, etc. Submissions will be technical in nature and will also be implemented within ARCH 8010 prototypes. The course provides a foundation for more specialist technical development in Semester 2.
0.5 Course Units

ARCH 8040 Advanced RAS Programming
This course will support ARCH 8020 Material Agencies II with a greater level of technical competency and detail. More ambitious functionality will be developed that will enable student's greater degrees of freedom and creativity in their engagement with design and production processes. While students will not engage in science/engineering development, research and software developed in such disciplines will be applied within design, fabrication and user occupation orientated scenarios. Topics will vary in application to suit studio briefs and shifting capabilities within industry and academia. Examples include mechanical and electrical design for bespoke robot tooling, use of Computer Vision for real-time sensing and live behavior-based adaptation, machine learning in design or fabrication applications, or deeper engagement in robot communication and control (E.g. Linux ROS Robot programming framework).
1 Course Unit

ARCH 8050 Intro to Cyberphysical Systems
Directly supports ARCH 8010 Material Agencies I: Section 2. This seminar will teach participants to design and assemble electronic circuits using sensors/actuators and micro-controllers, and to program digital and analogue means of data exchange. Students will develop a closed or open loop reactive system that consists of embedded sensor systems that will operate within the Design Studio project prototype, and utilizes feedback from sensors to drive designed affects (E.g. kinetic, lighting, variations in porosity). The course will consider degrees of control, feedback, energy and force in relation to interactions of matter, space and active bodies (human and non-human). Participants will learn how to design electric circuits, solder and weld these and to integrate circuits with micro-processors, sensors and actuators. Exact equipment and methods will vary over time as these technologies evolve rapidly. At present possible micro-controllers utilized include Arduino, Raspberry Pi, Odroid, Intel Nuc, Atom and others. Sensors such as flex, pressure and proximity sensors will be utilized. Possible forms of actuation include servo and stepper motors, linear actuators, NiTinol muscle wire, pneumatic actuators. A Programming Language will be utilized to for the writing of simple control algorithms that clarify how input and output data is processed and acted upon, with a particular focus on leveraging physical world actions within a designed control loop where possible.
0.5 Course Units

ARCH 8060 Experimental Tooling
This course aims to extend knowledge into state of the art materials, material applications and fabrication methods and contribute research and experimental results towards ARCH 8020 Material Agencies II course prototypical projects. Operating predominantly through research and controlled physical experiments, students will develop a material strategy for their ARCH 8020 Material Agencies II work, investigating scientific research papers, industry publications and precedent projects in order to develop know-how in materials and material applications. A material application method will be proposed and experimented with to evaluate and develop use within a robotic fabrication process. Submissions will incorporate experimental test results, methods and precedent research documentation.
1 Course Unit
ARCH 8070 RAS Theory
This seminar provides a theoretical context to the program, relating autonomous robotics and fabrication research to architectural discourse, philosophy, science and technology. The course commences with a historical overview of scientific topics including cybernetics, complexity theory, emergence/self-organization, evolution/developmental biology, behaviour-based robotics. The course also critically assesses present and future societal trajectories in relation to technology, exploring socio-political, ethical and philosophical arguments that concern a broader technological shift that has occurred during the last decade which has given rise to our unquestioned reliance on algorithms within our everyday lives (social media, shopping, navigation), and similar impact from Urban OS’s, Industry 4 and driverless car technologies. Readings cover philosophy, computer science, cybernetics, robotics, sociology, psychology, and will be discussed in relation to their consideration within the domain of architectural design and building technology. Examples include: Blaise Aguera y Arcas, Maurice Conti, Norbert Weiner, Kevin Kelly, Ray Kurzweil, Ed Finn, Donna Haraway, Andre Gorz, Bruce Sterling, Daniel Kahneman, Timothy Morton, Levi Bryant. A theoretical written statement related to ARCH 801 Material Agencies I Section 1 or 2 will be produced by participants within this core seminar.
1 Course Unit

ARCH 8080 Scientific Research and Writing
Following a framing of architectural design-research and theory in Semester 1, this course aims to provide students with knowledge of state of the art robotics and design taking place in the research community and to introduce methods to evaluate and demonstrate academic research that encompasses both creative and technical work. Submissions will include a technical written statement related ARCH 8020 Material Agencies II work, which will be produced by participants under direction within this core seminar. This will train students for additional technical career opportunities and raise the level of discourse and prospects for further research from the program and its participants to a level suitable for continuation within PhD studies.
1 Course Unit

ARCH 8110 Theories of Architecture: Environments, Techniques, and Expressive Means
This theory seminar provides an in-depth review and discussion of key architectural texts on the topics of space, place, climate, networks, form, tectonics, surface, materiality, craft, technology, and digital landscapes. It unfolds the ways in which ideas condition and inspire the practice of architecture, and how architectural creation contributes to the way one thinks discursively about the world. The seminar equips those embarking on careers in teaching, scholarship, and research in architecture with the practices and methods of scholarly inquiry that are typical in the field. Students will read various texts on each topic, respond to the readings, present them, lead discussions, and write a research paper. The seminar is a core requirement for students in the PhD and Master of Science in Architecture programs, who come from both technology and history and theory backgrounds. The seminar is open for registration to all graduate level students. The assignments for non-PhD / MS students are adapted to their level of study.
Fall
1 Course Unit

ARCH 8120 Methods In Architectural Research
Methods in Architectural Research is a seminar aimed at first year, second semester PhD and MS students in Architecture who aim to develop their field definition (biblio + statement) and/or research proposal in pursuit of their advanced research degree. The course is also of interest to M.Arch students interested in advanced forms of academic research. The course will cover the full context of research methods in both the humanities and sciences attendant to architecture. Students will be tasked with identifying and naming a field of study, an initial research question to investigate, a methodology they will employ, and a value proposition for their work.
Spring
1 Course Unit

ARCH 8130 Qualifying Research
This is an independent study course for first year Ph.D. and M.S. students, supervised by a member of the Graduate Group in Architecture. A course of readings and advisor sessions throughout the semester will result in an independent study paper, which will also be used as the student’s qualifying paper for the Qualifying Examination. This research paper will be prepared as if for scholarly publication.
Spring
1 Course Unit

ARCH 8140 The Concept of an Avant-Garde
No historian of architecture has written as intensely about the contradictions of architecture in late-modern society or reflected as deeply on the resulting problems and tasks of architectural historiography as Manfredo Tafuri (1935-1994). For many, the Italian historian’s dismissal of “hopes in design” under conditions of advanced capitalism produced a disciplinary impasse. This in turn led to call to obliter Tafuri - to move beyond his pessimistic and lacerating stance. The seminar will undertake a close reading of one of Tafuri’s most complexly conceived and richly elaborated books, The Sphere and the Labyrinth: Avant-Gardes and Architecture form Piranesi to the 1970s. Initially published in Italian in 1980 and translated into English in 1987, the book represents the first effort to define and historicize the concept of an avant-garde specifically in architecture. Its content centers on the radical formal and urban experiments of the first three decades of the twentieth century. Yet Tafuri surprisingly begins his account with the eighteenth-century inventions of Piranesi, and he concludes with an examination of the “neo-avant-garde” of his own day. In addition to traversing The Sphere and the Labyrinth chapter by chapter - starting with the extraordinary methodological introduction, "The Historical "Project"" - we shall also read a number of primary and secondary sources on the historical contexts under discussion and consider a number of important intertexts that shed light on Tafuri’s position. The objectives of the course are at once historical and historiographic: we shall we shall be concerned both with actual events and with how they have been written into history. Finally, we shall reassess the role of an avant-garde in architecture and compare Tafuri’s conception to that advanced in other disciplines. Is the concept of an avant-garde still viable today? Or should it be consigned to the dustbin of twentieth-century ideas? Assignment for first class: read the introduction to The Sphere and the Labyrinth, pp. 1-21, "The Historical "Project."” A copy of the book is on reserve at the library. Note: the book is out of print. For future classes please make every effort to purchase a used copy or obtain one via interlibrary loan. Copies of individual chapters will also be made available on our class website.
Spring
1 Course Unit
ARCH 8150 Research Report
The candidate for the M.S. in Architecture degree shall prepare a research report in his or her subject of study. The topic of this report must be approved by an advisor. This report will be developed in the independent study courses, undertaken after the eight units of course work has been completed, normally in the summer semester. The purpose of these courses is to give the student an opportunity to synthesize their previous coursework at Penn. Course enrollment is by permit only. Please contact Sarah Lam (ARCH Dept.) at sarahlam@design.upenn.edu.
Fall
2 Course Units

ARCH 8160 Advanced Topics in Architecture Culture from World War II through 2001
This seminar will be taught as an advanced section of ARCH 5120. It is primarily for students who are in their first year of the PhD program in Architecture but it is open to other upper-level students with instructor permission. In addition to the weekly discussion-format seminar on Tuesday afternoons (1.5 hours), students are also expected to attend the lectures associated with ARCH 5120 on Tuesday mornings (10:30-12). Assigned readings will go beyond those on the ARCH 5120 syllabus to include more complex and sophisticated source material. The subject of both ARCH 5120 and ARCH 8120 is the evolution of the culture of architecture from World War II to the turn of the twenty-first century. Starting with the period of wartime planning and postwar reconstruction in the 1940s, we will move decade by decade up to the present century, considering the transformations of modernist culture under the impact of social, political, technological, and urban changes. We will address the challenges posed to architecture from inside as well as outside the discipline and from around the world, attending to material and ideological developments and to relations between individual protagonists and larger historical and institutional forces. Among the wide range of issues at stake are the impact of research and technology coming out of the world war; the intensifying critique of interwar functionalism and debates over monumental humanism, regionalism, history, aesthetics; the effects of suburbanization, expanded mobility, changing demographics, and environmental factors; the phenomena of consumer culture and mass media; the impact of the Cold War and decolonization; the emergence of a "global village" and its intensifying cultural exchanges; the rise of a new architectural avant-garde in the 1960s and the advent of postmodernism; plus more recent ramifications. At the level of theory and methodology, the seminar will be especially concerned with issues of periodization and documentation. We will discuss and debate the question of how "architecture culture" is produced and reproduced at particular moments in history. Seminar discussions will be focused around specific case studies, some to be determined by the instructor, the rest based on in-depth individual research products to be carried out by the members of the class. Each student will work on his or her case-study project over the course of the semester, leading to an in-class presentation and a term paper of 25 pages.
Spring
1 Course Unit

ARCH 8510 Field Bibliography
This course is essentially an independent study, undertaken by doctoral students in preparation for the Candidacy Examination. This course should be taken in conjunction with ARCH 8520 after all other courses have been completed. Normally a member of the student's Dissertation Committee supervises this course.
Two Term Class, Student may enter either term; credit given for either
1 Course Unit

ARCH 8520 Dissertation Proposal
This course is essentially an independent study, undertaken by doctoral students in order to write the Proposal for the Dissertation. The Proposal is prepared before and defended during the Candidacy Examination. This course should be taken in conjunction with ARCH 8510 after all other courses have been completed. Normally a member of the student's Dissertation Committee supervises this course.
Two Term Class, Student may enter either term; credit given for either
1 Course Unit

ARCH 9950 Dissertation
Writing and submitting a dissertation are among the final steps leading to the award of the PhD degree. At the University of Pennsylvania, a student presents and defends the dissertation publicly, and then, with the approval of the dissertation committee and graduate group chair, submits the final manuscript for publication. Finally, the PhD degree is awarded to the candidate upon the recommendation of the Graduate Council of the Faculties.
Two Term Class, Student may enter either term; credit given for either
0 Course Units

ARCH 9980 Independent Thesis Study
Independent Thesis Study
1 Course Unit

ARCH 9999 Independent Study
This course enables students to undertake self-directed study on a topic in Architecture, under the supervision of a faculty member. Students are required to make a proposal for the study to the Department Chair, outlining the subject and method of investigation, and confirming the course supervisor at least two weeks prior to the beginning of the semester.
Fall or Spring
0.5-2 Course Units

Art & Archaeology of Mediterranean World (AAMW)

AAMW 5020 Mesopotamia 2200-1600 BCE
This seminar style class will focus on two canonical periods of Mesopotamian history from 2100-1600 BCE. It is structured to examine fundamental institutions of kingship, religion, economy, law and literature. Practices well established in Sumer by the end of the third millennium evolved during the first half of the second millennium BCE when Amorite speaking peoples assume central roles in Mesopotamian institutions. The class will be structured around case studies engaging key monuments of art, architecture and literature. It will be team-taught by Prof. Pittman, focusing on material remains and visual arts and by Prof. Steve Tinney who brings expertise to the rich cuneiform textual traditions. Also offered as: ANTH 5024, ARTH 5240, NELC 5020
1 Course Unit
AAMW 5120 Petrography of Cultural Materials
Introduction to thin-section petrography of stone and ceramic archaeological materials. Using polarized light microscopy, the first half of this course will cover the basics of mineralogy and the petrography of igneous, metamorphic and sedimentary rocks. The second half will focus on the petrographic description of ceramic materials, mainly pottery, with emphasis on the interpretation of provenance and technology. As part of this course, students will characterize and analyze archaeological samples from various collections. Prior knowledge of geology is not required.
Not Offered Every Year
Also Offered As: ANTH 5211, CLST 7311
1 Course Unit

AAMW 5190 Ancient Greek Colonies
This seminar examines the archaeology of Greek colonization from the Late Bronze Age to ca. 500 B.C. These colonies were highly diverse in their motivations, physical settings, and political and social structures, as well as in their relationships with mother cities and the new worlds they inhabited. Emphasis is placed on the colonial experience as a cross-cultural and negotiated process; several streams of the changing theoretical and conceptual approaches to Greek colonization are explored. In addition to archaeological and epigraphic evidence, literary and historical traditions are examined. Colonies from the southern Balkan peninsula, Black Sea, Ionia, northern Africa, and Magna Graecia will be the focus of reading and reports. Seminar meetings will consist of oral reports and discussion of these reports and other topics. Depending on the number of participants, each person will be responsible for two or three reports of approximately 30-45 minutes length. Accompanying the oral report will be a PowerPoint document (in most cases), a synopsis/summary of one to two pages, and a bibliography. These will all be posted on the course Canvas site. No later than one week before an oral presentation, the presenter will identify one or two key readings for all to read, in consultation with the instructor. These will be posted, in PDF format, on the Canvas site. One or more visits to the Penn Museum may be built into the course.
Not Offered Every Year
Also Offered As: ANCH 7310, CLST 7310
1 Course Unit

AAMW 5200 Aegean Bronze Age Art Seminar
In this class, we will explore the art and cultures of the Aegean Bronze Age in Greece, a period from roughly 3,300-1,100 BCE. From this time, we have the first evidence of complex society in Greece with three geographically and materialistically distinct groups of people located on the Greek Mainland, the Cycladic islands, and the island of Crete. Topics will vary from semester to semester, but may include and not be limited to the examination of the architecture, pottery, wall paintings, stone carvings, jewelry, seals, weapons and other metalwork, and the iconography of these prehistoric arts. We will also delve into issues of the organization of society and the distribution of power, the role of women and men, trade and the unique position of the (rather small) Aegean world as it existed between two huge powerhouses of the ancient Mediterranean: the Ancient Near East and Egypt.
Not Offered Every Year
Also Offered As: ARTH 5200
1 Course Unit

AAMW 5220 Ancient Iranian Art Seminar
This seminar will focus on the environmental, archaeological and textual record for settlement in the Persian/Arabian Gulf region from the Neolithic to the pre-Islamic Late Antique. Emphasis will be on the settlement history and material culture. Special attention will be paid to the close interaction of the local communities on the Arabian side of the Gulf with those on the Iranian/Indus valley side. The patterns of sea faring trade and interaction from Mesopotamia, Iran, Indus Valley and beyond will be considered. It is possible that this class will take a site trip to the UAE during the spring break, if the logistics can be arranged.
Not Offered Every Year
Also Offered As: ARTH 5220, NELC 5050
1 Course Unit

AAMW 5230 Narrative in Ancient Art
Art history, and its cousins in religious, social, political and literary studies, have long been fascinated with the question of narrative: how do images engage time, tell stories? These are fundamental questions for ancient Near Eastern, Egyptian and Mediterranean art history and archaeology, whose rich corpus of narrative images is rarely considered in the context of "Western" art. Relations between words and things, texts and images, were as fundamental to the ancient cultures we examine as they are to modern studies. As we weigh classic modern descriptions of narrative and narratology, we will bring to bear recent debates about how (ancient) images, things, monuments, and designed spaces engage with time, space, and event, and interact with cultural memory. We will ask "who is the story for, and why?" for public and private narratives ranging from political histories to mythological encounters. Our case studies will be drawn from the instructors' expertise in Mesopotamian visual culture, and in the visual cultures of the larger Mediterranean world from early Greek antiquity to the Hellenistic, Roman, and Late Antique periods. One central and comparative question, for instance, is the nature of recording history in pictures and texts in the imperial projects of Assyria, Achaemenid Persia, the Hellenistic kingdoms, and Rome.
Also Offered As: ARTH 5230, CLST 5412
1 Course Unit

AAMW 5231 Archaeological Field Methods
This seminar will prepare students for participation in the excavations at the site of ancient Lagash, modern Tell al-Hiba, in southern Iraq that are scheduled to take place in the fall semester. The topics to be considered are introduction to the recording methods, use of equipment, review of the ceramic sequence, methods of recording, drawing, photography. Permission of the instructor required for participation in the class.
Also Offered As: ARTH 5231
1 Course Unit
AAMW 5239 Surface Archaeology
Non-invasive and non-destructive methods make up an ever-greater proportion of archaeological investigations, for both intellectual and practical reasons. These methods comprise collection of data from the surface (pedestrian surface survey, geophysical prospection, geoarchaeology) and from above-ground platforms (drones, aircraft, balloons, kites, satellites), using a variety of sensors from human perception to multispectral scanning devices. The data acquired from these methods complement the contextual information drawn from traditional excavation, but also allow the archaeologist to address diverse research questions at a scale much greater than the excavated site. Aspiring archaeologists should have a good working knowledge of surface archaeological methods. In this course, we will delve deeply into these methods, and read and analyze case studies to expose strengths and weaknesses and to identify best practices. Students will have the opportunity for hands-on training in the Philadelphia area or elsewhere. 
Not Offered Every Year
Also Offered As: ANTH 5231, CLST 5321
1 Course Unit

AAMW 5241 Courtly Life in Mesopotamia, Persia, and the Mediterranean
Who could approach and speak with the Sumerian Queen? What rules governed a banquet with the Persian king? What was the most elegant way to drink wine? Where were the women in the Assyrian court? With hundreds of people crammed into a palace, was hygiene important? How were court guests treated? What games were played at court? Is the stereotypical image of the “Oriental” court characterized by lust, backstairs intrigue, flatteries, and secrets sustainable in the light of new evidence and theoretical approaches? The court at the same time is considered as a large amorphous body in a physical location or an institution, or a group of people, or even to particular events. This seminar style course considers Middle Eastern courts from the Sumerians through the Assyrian and Persian empires articulating shared and diverse features. Textual, visual, material and archaeological sources are considered through sociological and anthropological theories and core concepts such as groups, individuals, ultrasociality, proxemics, sociopetal, sociofrugal and purity to name a few. Comparisons with later courts in the Middle East are welcome. 
Also Offered As: ARTH 5241, NELC 5054
1 Course Unit

AAMW 5250 Borderlines: Art and Artifact in the Roman Empire
What made art and artifacts ‘Roman’, or not, in a Roman world? ‘Roman provincial art’ is an active scholarly category. This seminar reframes it, to test productive models to understand visual culture outside the empire’s Italian heartland from the Late Republic into Late Antiquity, in the Roman polity’s interactions with many peoples in situations of diaspora, colonization, hegemony, conflict, economic exchange, and religious interaction. As ‘Rome’ expanded, cultural relations across many borderlines – social, ethnic, territorial - potentially became cultural politics. A traditional topic for that has been Roman interaction with Greek culture. This seminar extends that range, while tackling ‘Hellenization’, as we reflect on models of ‘Romanization’, globalism and identity formation within the imperium’s boundaries in its provinces and client kingdoms, and also at its frontier zones. Various disciplines apply: art history, archaeology, history, and more. Case studies, evolved with students, may range from Britain to Iran, northern Africa to the Black Sea in space and, in time, from interactions with the Hellenistic East and West and with Iron Age Europe, to the age of Germanic, Sasanian and Ummayad conquests of Roman terrain, ca 3rd c. BCE-7th c. CE. The market in art and artifact, the nature and status of makers, and conditions of patronage and viewing are key considerations. Private and public objects, images, architecture and urbanism, and landscapes can all concern us, as we try out disciplinary approaches that take in eg cultural appropriation, translation and hybridity, creolization, discrepant experience, object agency, and communities of taste and style. ‘Ethnicity’ is a loaded concept in ancient Mediterranean studies, as is ‘race;’ our course must engage those, and the ways in which things and styles have been made to serve those terms. And who owns, is heir to, the cultural legacies we look at, and how to name them, are problems that tangle with current national identity formation, and academic and museum practice. Our own Museum’s holdings can make topics. Students are welcome to bring in interests in language and text cultures, in disciplines outside art history and archaeology, and in other world cultures and epochs. 
Not Offered Every Year
Also Offered As: ANCH 7403, ARTH 5250, CLST 7403
1 Course Unit

AAMW 5251 Roman Political Art Seminar
This seminar looks at how Roman things, images and the designed environment so often spoke to political and sociological realities. The material world was not just a document of history: it was history. Open to graduate and undergraduate students. 
Not Offered Every Year
Also Offered As: ARTH 5251, CLST 7404
1 Course Unit
AAMW 5252 Late Antique Art and Artifact Seminar
What is 'Late Antiquity'? In 312 when Roman emperor Constantine inaugurated a Christian empire, 'Roman' culture was centuries old. The period ca. 200-650 CE saw profound transformations that launched Medieval, Byzantine and Islamic traditions. In this epoch of upheaval destruction was frequent but partial: Rome long survived, Constantine's 'new Rome,' Constantinople flourished, and around the Empire both protoglobal visual culture and local forms prospered. Roman cultural models authorized both innovation and passion for tradition: we critique art-historical models for Late Antique 'decline,' analyse habits of material reuse and curation, and look at new Christian and Jewish roles for Roman things as well as polytheist visual survival. Foreign allies and enemies interacted with Greco-Roman Late Antiquity; we visit them too, as in the early Islamic palaces. Media discussed include not just 'monumental' painting, mosaic, sculpture, but also silver, ceramic, ivory, figured textile, glass, painted books, jewelry, coins and more. We look too at Late Antique texts on art, objects, space and viewership. This seminar is open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: ARTH 5252, CLST 7405
1 Course Unit

AAMW 5253 Violence in Ancient Mediterranean Art Seminar
Violence, physical and emotional, pervades the images of the ancient Mediterranean. This seminar asks why, how and to what end that occurred; in these and any cultures, why do people look at such images? Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: ARTH 5253, CLST 7406
1 Course Unit

AAMW 5254 Myth Through Time and in Time Seminar
The textual and physical remains of Greek and Roman culture and belief as 'myth' entrenched the post-antique European world and its neighbors. Makers, patrons and viewers manipulated those survivals to challenge and speak to a contemporary world. This course focuses on how and why artists and their patrons engaged the mythic and examines the various areas of political and religious life that sought animation through an evocation of narratives from the past. Readings and case studies will examine very late antique through medieval and early modern art. This seminar is open to graduate and undergraduate students. 
Not Offered Every Year
Also Offered As: ARTH 5254, CLST 7407, ITAL 5254
1 Course Unit

AAMW 5260 Material & Methods in Mediterranean Archaeology
This course is intended to provide an introduction to archaeological methods and theory in a Mediterranean context, focusing on the contemporary landscape. The class will cover work with museum collections (focusing on the holdings of the Penn Museum), field work and laboratory analysis in order to give students a diverse toolkit that they can later employ in their own original research. Each week, invited lecturers will address the class on different aspects of archaeological methodology in their own research, emphasizing specific themes that will be highlighted in readings and subsequent discussion. The course is divided into three sections: Method and Theory in Mediterranean Archaeology; Museum collections; and Decolonizing Mediterranean Archaeology. The course is designed for new AAMW graduate students, though other graduate students or advanced undergraduate students may participate with the permission of the instructor.
Fall
Also Offered As: ANTH 5026, CLST 6300
1 Course Unit

AAMW 5290 The Roman Idea of Landscape
Landscape was one of the most prominent themes in ancient Roman culture. The Roman visual and literary representations of natural scenery were adopted and expanded upon many Hellenistic themes. In the Roman period, however, for the first time in Western culture landscape was singled out as a theme in its own right; it was accurately described, its qualities were praised in the pastoral poetry of Virgil, and its idealized and symbolic representations permeated the public and private spheres: the garden paintings from the underground dining room of the Villa of the Livia at Prima Porta and the Odyssey Landscapes from the Esquiline are but two of many examples. This Roman sensitivity of landscape, attested in contemporary literary and visual sources, found an architectural expression in Roman luxury villas. In the realm of villa designs, gardens and landscapes could be represented in wall painting and realized in design at the same time. The villas provided literally a drawing board for Roman lovers of landscape. Late Republican and early Imperial poems, letters, and agricultural treatises read like expositions of architectural design exercises, vis-à-vis natural, cultivated and designed landscape, and how they delineated blueprints of villas – villa rustica, urbana, suburbana and the like. This course will examine literary and visual representations of natural scenery in the Greek and Roman cultures as well as Roman luxury villa architecture in order to address the ways in which Greek and Roman ideas and idealization of landscape contributed to the creation of a novel language of architecture and landscape architecture. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: ARTH 5290
1 Course Unit

AAMW 5291 Greek and Roman Wall Painting
Painting and pictorial realism, as we know them, were invented in the fourth century BCE. Their effects have survived in the Hellenistic tomb paintings at Vergina, and elsewhere in Macedonia and Thrace, and their ideas have been described by ancient authors. This course examines the surviving Greek and Roman paintings together with ancient sources in order to shed light on the deployment of the pictorial repertoire of classical antiquity.
Not Offered Every Year
Also Offered As: ARTH 5291
1 Course Unit
**AAMW 5292 Delos in Context**
Delos was an important cult centre since the archaic period whose activity was inextricably linked to its economic role. Due to its advantageous geographical position in the centre of the Aegean world, Delos commanded a huge cult network that intertwined religious with economic and political activities from the archaic period onwards. Communities competing for political power and leadership exploited the cult network of Delos over time; Ionians, Athenians, the successors of Alexander and finally Romans. This course will focus on three key moments of the island's history – the first Athenian dominion, the period of independence and the second Athenian dominion – in order to highlight the ways in which the competing powers used art and architecture in order to establish their presence on the sacred island. By studying the presence of the Athenians in the sanctuary of Apollo since the sixth century BCE, which culminated in their administration of the sanctuary during the fifth and fourth centuries (the first Athenian dominion), the course will tackle the cultural mannerisms of the period. By examining the architectural development of the sanctuary and the city of Delos during the period of the independence (314-167 BCE) the course will address the monumentalization of the sanctuary and the extension of the city through the euergetism of the successors of Alexander and the emergence of a new form of urban life in the Hellenistic period. The course will finally examine Delos during the period of the second Athenian dominion (167-69 BCE), when the Roman senate decided to make it a "duty free" port under Athenian suzerainty. By addressing the economic and urban developments of the late Hellenistic Delos the course will look at the contemporary trends in art and architecture, which in effect shaped those of the emerging Roman Empire. Open to graduate and undergraduate students. Not Offered Every Year
Also Offered As: ARTH 5292
1 Course Unit

**AAMW 5293 Topos, Myth, and the Contemporary: Art Pracitices in Archaeological Sites and Mythological Places**
The seminar will map the intellectual agenda of contemporary art practices that engage with archaeological sites and important mythological places in Italy and Greece. Over the past two decades there has been an increasing interest of artists in archaeology and the classical past in Italy and Greece resulting in in situ art installations and performances, as well as reflective presentations of their interactions with the sites in a gallery space. These projects / installations / performances present a range of approaches: from investigations of cultural traditions, national norms and stereotypes that seek to tackle learned preconceptions and received histories of the classical, to the use of the archaeological site, mythologically poignant topos and myth as a backdrop for the contemporary – the Documenta 14 in Athens in 2017 may serve as a representative example of this range. The course will assess the intellectual and cultural landscapes of as well as the political strategies behind these contemporary art practices. Open to graduate and undergraduate students. Not Offered Every Year
Also Offered As: ARTH 5293
1 Course Unit

**AAMW 5305 Topography and Monuments of Ancient Rome**
An intensive exploration of Rome's urban topography during the Republican and Imperial periods (6th c. B.C. through 4th c. A.D.) Using archaeological and textual sources, including the Etruscan and Roman collections of the Penn Museum, the goal will be to reconstruct the built environment and decoration of Rome over the course of a millennium. Of interest to students of classics, archaeology, art history, and architecture. Some familiarity with Rome will be a plus, but is not required. Also Offered As: ARTH 5305, CLST 5305
Mutually Exclusive: CLST 5305
1 Course Unit

**AAMW 5320 The Icon**
This seminar explores the Byzantine icon and its legacy. Spanning nearly two millennia, from the emergence of Christian sacred portraiture to the reception of icon painting by the early twentieth-century Russian avant-garde, the seminar will introduce you to the history, historiography, and theories of the icon. While our focus will be on Byzantium and the wider world of Orthodox Christianity, especially in the Slavic Balkans and Eastern Europe, the seminar will also engage with fundamental questions concerning the nature, status, and agency of images across cultures. Topics to be addressed include iconoclasm and the problem of idolatry; the social and ritual lives of icons; authorship, originality, and replication; viewer response and the cultural construction of vision; the frontier between art and the sacred image; and the afterlife of the icon in modernity. Open to graduate and undergraduate students. Not Offered Every Year
Also Offered As: ARTH 5320, RELS 5022
1 Course Unit

**AAMW 5321 Art and Text in Byzantine Culture**
In Byzantine culture, images and material objects, on one hand, and texts —whether read, spoken, remembered, or inscribed—on the other, were closely interwoven on multiple levels. Debates concerning the role of images in religious devotion during the period known as Iconoclasm generated a huge body of theological writings about art. Descriptions of works of art, either independent or inserted into larger literary compositions, proliferated. In manuscripts, pictures were variously mobilized to complement, illustrate, interpret, or comment on the verbal message. Icons of sacred personages were commonly inscribed not only with identifying labels, but also with special epithets. Moreover, from monumental architecture to personal seals and pieces of jewelry, a vast array of objects bore inscriptions, often in the form of poetic texts, or epigrams. Script, sometimes illegible and nonsensical, also featured as ornament and visual sign. The written word was a source of power and authority as much as a means of communication. The aim of this seminar is to interrogate the interface between art and text in Byzantium. No knowledge of Medieval Greek is required for the course. All the inscriptions and primary sources to be discussed will be available in translation. Open to graduate and undergraduate students. Not Offered Every Year
Also Offered As: ARTH 5321
1 Course Unit
AAMW 5322 On the Wall: Mosaics and Frescoes
This seminar examines the economy, technology, and aesthetics of monumental paintings and mosaics decorating church spaces in Byzantium and the larger Mediterranean world of the Middle Ages. We will explore these site-specific, wall-bound images in the context of their making and reception by attending to the issues of artistic labor and patronage, materiality and pictorial medium, visual communication and ideological programming, and viewership and ritual action. Special consideration will be given to methodology. We will critically assess the traditional and current approaches to the study of monumental pictorial art and, more importantly, seek to formulate new perspectives and methods. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: ARTH 5322
1 Course Unit

AAMW 5323 The Chora Monastery and the World of Late Byzantium
This seminar is envisioned as a wide-ranging exploration of the art and culture of the Late Byzantine period (thirteenth through fifteenth century), with focus upon a key monument, the church of the former Chora monastery (Kariye Camii) in Istanbul. With its superb and highly original architecture, this church preserves an outstanding ensemble of monumental mosaics, frescoes, stone carvings, funerary monuments, colored marbles and glass, and inscriptions. Additionally, we possess a substantial body of texts illuminating various aspects of the monastery's history and, in particular, its restoration in the early fourteenth century by the statesman and scholar Theodore Metochites. The seminar will take this rich material and textual record as a point of entry into the world of Late Byzantium. Topics to be addressed include patronage and politics; artistic practice, visual aesthetics, and materiality; monasticism; death, time, and history; the interplay between art and literary culture; and Byzantium's interactions with the wider Mediterranean world, especially Muslim-ruled Anatolia, the Slavic Balkans, and Italy. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: ARTH 5323
1 Course Unit

AAMW 5360 Archaeology of Anatolia
This class is devoted to the archaeology and history of Anatolia (ancient Turkey) from the beginning of the Bronze Age (3000 BC) to the end of the Byzantine period (1453 AD). Emphasis will be placed on the great empires in Anatolia (Hittite, Phrygian, Lydian, Urartian, Persian, Roman, and Byzantine), and on the great cities (Troy, Sardis, Ephesus, Constantinople). The course is intended to complement the major exhibit on Gordion, the Phrygians, and Anatolian archaeology that will open at the Penn Museum in February of 2016 and run for 10 months.
Not Offered Every Year
1 Course Unit

AAMW 5390 Archaeobotany Seminar
In this course we will approach the relationship between plants and people from archaeological and anthropological perspectives in order to investigate diverse plant consumption, use, and management strategies. Topics will include: archaeological formation processes, archaeobotanical sampling and recovery, lab sorting and identification, quantification methods, and archaeobotany as a means of preserving cultural heritage. Students will learn both field procedures and laboratory methods of archaeobotany through a series of hands-on activities and lab-based experiments. The final research project will involve an original in-depth analysis and interpretation of archaeobotanical specimens. By the end of the course, students will feel comfortable reading and evaluating archaeobotanical literature and will have a solid understanding of how archaeobotanists interpret human activities of the past.
Not Offered Every Year
Also Offered As: ANTH 5230, CLST 7313, NELC 6930
1 Course Unit

AAMW 5400 Medieval Art Seminar
Topic varies from semester to semester. For the Spring 2022 semester, the topic will be: Facing Fragments. So many traces of the medieval past come to us in fragmentary form, either literally broken, partial and incomplete, or figuratively, having been ripped from its program or findsite and shipped across the world. This course focuses on the strategies art historians and curators adopt to confront the realities of decontextualized museum collections - of how to face fragments. Considering approaches that range from research methodologies, conservation, installation, and preservation, we will also touch upon questions of restitution and ethics. Co-taught between Penn and the PMA, this course will constitute much hands-on learning.
Not Offered Every Year
Also Offered As: ARTH 5400
1 Course Unit

AAMW 5420 Seafaring in the Ancient Greek World
This course explores ships, seafaring, and seafarers of the ancient Greek world from the Bronze Age (Minoans and Mycenaeans) to the Age of Alexander (Hellenistic period). Sources include shipwrecks and related artifacts, artistic representations, and ancient literature. The emphasis is not so much on the technical aspects of shipbuilding and navigation as on the ways that seafaring shaped Greek history and connected the Greeks to a wider world through trade, warfare, colonization, and adventure.
Not Offered Every Year
1 Course Unit

AAMW 5460 Museum Internship
The Museum Internship in the spring consists of a research project with Penn Museum collections based on a proposal designed and approved during the fall AAMW Proseminar. It is offered to, and is a requirement for, first-year AAMW graduate students only.
Spring
Prerequisite: CLST 6300
1 Course Unit
AAMW 5500 Archaeologies of Subalternity
This course addresses the various areas and approaches to "otherness" in ancient Mediterranean archaeology, and the power dynamics of oppression. We'll not only examine disempowerment around cultural identity, class, gender and sexuality, and race/ethnicity, but we'll spend equal time pondering how those subjects have been studied - or ignored - by classical archaeologists. The power relationships both inherent in the subjugation of various kinds of people in the ancient world, and in the academic discourses around them, are the themes of the course. While this course will be focused on the Bronze Age through late antique Mediterranean, those with other period/interests are most welcome. Students will be asked to bring their own interests to the course, which help shape the course. Upper-level courses in archaeology, anthropology, or ancient history are recommended prior to enrollment.
Not Offered Every Year
Also Offered As: CLST 5317
1 Course Unit

AAMW 5570 Archaeology of Landscapes
Traditionally, archaeological research has focused on the "site" or "sites." Regional investigation tends to stress settlement pattern and settlement system determined through archaeological site survey. This seminar will stress the space between the sites or "points" on the landscape. Most previous attempts at "landscape archaeology" tended to focus on the relationship of sites and the natural environment. This course will highlight the cultural, "anthropogenic," or "built environment"--in this case human modification and transformation of the natural landscape in the form of pathways, roads, causeways, monuments, walls, agricultural fields and their boundaries, gardens, astronomical and calendrical alignments, and water distribution networks. Features will be examined in terms of the "social logic" or formal patterning of cultural space. These can provide insights into indigenous structures such as measurement systems, land tenure, social organization, engineering, cosmology, calendars, astronomy, cognition, and ritual practices. Landscapes are also the medium for understanding everyday life, experience, movement, memory, identity, time, and historical ecology. Ethnographic, ethnohistorical, and archaeological case studies will be investigated from both the Old and New Worlds.
Not Offered Every Year
Also Offered As: ANTH 5570, LALS 5570
1 Course Unit

AAMW 5590 Myth Through Time and In Time
The textual and physical remains of Greek and Roman culture and belief as 'myth' entranced the post-antique European world and its neighbors. Makers, patrons and viewers manipulated these survivals to challenge and speak to a contemporary world. This course focuses on how and why artists and their patrons engaged the mythic and examines the various areas of political and religious life that sought animation through an evocation of narratives from the past. Readings and case studies will engage with very late antique, medieval, and early modern art, turning to the modern and contemporary as well. Moving to the modern lets us examine, among other things, how artists address the exclusionary histories of the past, to enable critiques of myths of supremacy by one gender, race, or culture over others.
Also Offered As: ARTH 5590, CLST 7400, COML 5590, GRMN 5590
1 Course Unit

AAMW 5620 Intro to Digital Archaeology
Students in this course will be exposed to the broad spectrum of digital approaches in archaeology with an emphasis on fieldwork, through a survey of current literature and applied learning opportunities that focus on African American mortuary landscapes of greater Philadelphia. As an Academically Based Community Service (ABCS) course, we will work with stakeholders from cemetery companies, historic preservation advocacy groups, and members of the African Methodist Episcopal Church to collect data from three field sites. We will then use these data to reconstruct the original plans, untangle site taphonomy, and assess our results for each site. Our results will be examined within the broader constellation of threatened and lost African American burial grounds and our interpretations will be shared with community stakeholders using digital storytelling techniques. This course can count toward the minor in Digital Humanities, minor in Archaeological Science and the Graduate Certificate in Archaeological Science.
Also Offered As: ANTH 5220, CLST 5620
Mutually Exclusive: CLST 3307
1 Course Unit

AAMW 5630 Penn Museum Curatorial Seminar: Reconfiguring the Classical World Galleries
The Greek galleries in the Penn Museum were opened in 1994, and the Etruscan and Roman galleries in 2003. The world was very different then, and many of the themes used to frame the artifacts in the galleries are not especially relevant to contemporary students, scholars, and visitors. In this course we will completely reorganize and reinstall the galleries digitally, creating a series of websites that will highlight the new layout and themes. We will work extensively with the Greek Etruscan, and Roman artifacts themselves to reconfigure the galleries, which will highlight the connections between antiquity and the contemporary world, focusing on themes such as armed conflict, trauma, migration, xenophobia, and wealth and poverty.
Also Offered As: CLST 5311
1 Course Unit

AAMW 5720 Geophysical Prospection for Archaeology
Near-surface geophysical prospection methods are now widely used in archaeology as they allow archaeologists to rapidly map broad areas, minimize or avoid destructive excavation, and perceive physical dimensions of archaeological features that are outside of the range of human perception. This course will cover the theory of geophysical sensors commonly used in archaeological investigations and the methods for collecting, processing, and interpreting geophysical data from archaeological contexts. We will review the physical properties of common archaeological and paleoenvironmental targets, the processes that led to their deposition and formation, and how human activity is reflected in anomalies recorded through geophysical survey through lectures, readings, and discussion. Students will gain experience collecting data in the field with various sensors at archaeological sites in the region. A large proportion of the course will be computer-based as students work with data from geophysical sensors, focusing on the fundamentals of data processing, data fusion, and interpretation. Some familiarity with GIS is recommended.
Spring, odd numbered years only
Also Offered As: ANTH 5720, CLST 7315, NELC 5925
1 Course Unit
AAMW 6130 Landscapes and Seascapes of the Ancient Mediterranean

The Mediterranean environment is both diverse and unique, and nurtured numerous complex societies along its shores in antiquity. This seminar offers a primer on theoretical and methodological approaches to studying landscapes and seascapes of the Mediterranean from the Bronze Age to the early modern era, at scales from local to international and on land and underwater. Concepts from processual, post-processual, and current archaeologies will be considered, and field techniques including excavation and surface survey, remote sensing and geophysics, GIS modeling, and ethnography/ethnoarchaeology are examined. Course content and discussion focus on case studies that illustrate how these tools are used to reconstruct the appearance and resources of the natural environment; overland and maritime routes; settlement location, size, function, and demography; social and economic networks; and agricultural, pastoral, and nomadic lifeways. Seminar participants will develop case studies of their own geographical and chronological interest.

Not Offered Every Year
Also Offered As: CLST 5318
Mutually Exclusive: CLST 3318
1 Course Unit

AAMW 6141 Tutankhamun’s Tomb: Its Treasures and Significance

This course examines the short life of the young boy king and what the discovery of his tomb and its contents mean in terms of Egypt’s long history and accomplishments.

Not Offered Every Year
Also Offered As: AFRC 6140, NELC 6140
Mutually Exclusive: NELC 2140
1 Course Unit

AAMW 6180 Art and Architecture in Ancient Egypt

This course will be an introduction to the art, architecture and minor arts that were produced during the three thousand years of ancient Egyptian history. This material will be presented in its cultural and historical contexts through illustrated lectures and will include visits to the collection of the University Museum.

Also Offered As: ARTH 6180, NELC 6105
1 Course Unit

AAMW 6190 Digital Exploration of the Past: Archives, Databases, Maps, and Museums

This course exposes students to digital methods for investigating past environments and societies, including digitization of analog records, the construction and querying of databases, and the creation of digital maps. The ultimate goal of the course will be to carry out a final project that benefits the Penn Museum and the public. In fall 2018, our exploration of digital methods will center around the archaeological site of Ur (Tell el-Muqayyar), located in southern Iraq. Ur was one of the earliest cities in the world, and, thanks to campaigns partly funded by Penn in the 1920s and 1930s, is one of the best-excavated sites in southern Mesopotamia. Here at Penn, we have unparalleled access to archival documentation and artifacts from the site. We will draw upon this access to contribute to an on-going digital humanities project in the Penn Museum (the public "Ur Online" database). In the process, students will re-assess data that has the potential to change anthropological ideas about issues such as the environmental setting of the earliest cities and archaeological ideas about demographic and urban structure within the city of Ur itself. There are no prerequisites, but students must bring an interest in Mesopotamian archaeology and/or the origins of urbanism and be motivated to carry out individual and group research guided by the instructor & classmates.

Also Offered As: NELC 6910
1 Course Unit

AAMW 6220 Art of Ancient Iran

This lecture course offers a survey of ancient Iranian art and culture from the painted pottery cultures of the Neolithic era to the monuments of the Persian Empire.

Not Offered Every Year
Also Offered As: ARTH 6220, NELC 6050
1 Course Unit

AAMW 6221 The Early Bronze Age

This lecture course offers a survey of ancient Iranian art and culture from the painted pottery cultures of the Neolithic era to the monuments of the Persian Empire. Particular emphasis is placed on the Early Bronze Age.

Not Offered Every Year
Also Offered As: ARTH 6221
1 Course Unit

AAMW 6240 Art of Mesopotamia

Visual expression was first developed in Mesopotamia in the same environment as the invention of writing. This lecture class will introduce the arts of the major periods of Mesopotamian History ending with the “cinematic” effects achieved by the Assyrian artists on the walls of the royal palaces. The strong connection between verbal and visual expression will be traced over the three millennia course of Mesopotamian civilization from the earliest periods through the imperial art of the Assyrians and Babylonians of the first millennium BCE. The class and the assignments will regularly engage with objects in the collections and on display in the galleries of the Penn Museum.

Not Offered Every Year
Also Offered As: ARTH 6240, NELC 6060
Mutually Exclusive: ARTH 2240, NELC 0060
1 Course Unit
AAMW 6250 Greek Art and Artifact
This lecture course surveys Greek art and artifacts from Sicily to the Black Sea from the 10th century BCE to the 2nd century BCE, including the age of Alexander and the Hellenistic Kingdoms. Public sculpture and painting on and around grand buildings and gardens, domestic luxury arts of jewelry, cups and vases, mosaic floors, and cult artefacts are discussed. Also considered are the ways in which heroic epic, religious and political themes are used to engaged viewers’ emotions and served both domestic and the public aims. We discuss the relationships of images and things to space and structure, along with ideas of invention and progress, and the role of monuments, makers and patrons in Greek society.
Not Offered Every Year
Also Offered As: ARTH 6250, CLST 5401
1 Course Unit

AAMW 6260 Hellenistic and Roman Art and Artifact
This lecture course surveys the political, religious and domestic arts, patronage and display in Rome’s Mediterranean, from the 2nd c. BCE to Constantine’s 4th-c. Christianized empire. Our subjects are images and decorated objects in their cultural, political and socio-economic contexts (painting, mosaic, sculpture, luxury and mass-produced arts in many media). We start with the Hellenistic cosmopolitan culture of the Greek kingdoms and their neighbors, and late Etruscan and Republican Italy; next we map Imperial Roman art as developed around the capital city Rome, as well as in the provinces of the vast empire.
Not Offered Every Year
Also Offered As: ARTH 6260, CLST 5402
1 Course Unit

AAMW 6269 Classical Myth and the Image
The peoples of the ancient Greek and Roman worlds shared a vast body of stories about human and not-human beings set in a legendary deep past or supernatural present - "Classical myth." Even their neighbor cultures took up those stories (or, sometimes, gave them). The stories as spoken, read, or performed turn up in surviving ancient literature. But from the very point when Greek myth began to be written down, those stories were told with images also. Many arts of the Mediterranean world explored myth at temples and sanctuaries, in civic spaces, theaters, parks, houses and palaces, for tombs and trophies - and even on the body upon weapons, clothes and jewelry. Love and desire and hate, hope and fear, war and peace, pleasure and excitement, power and salvation, the nature of this world and the cosmos, justice and duty and heroism, fate and freewill, suffering and crime: mythological images probed the many domains of being human in order to move the emotions and minds of people (and of gods). Our class samples this story art to ask about its makers and viewers and contexts. What, also, were relations between images and texts and language? What about religious belief vs invention, truth vs fiction? What might it mean to look at this ancient art today, and to represent the old stories in post-ancient cultures? The class introduces ways of thinking about what images and things do; we will read in some relevant literature (drama, epic, novels, etc); and our Penn Museum will be a resource. No prerequisites—no prior knowledge of art history, archaeology, myth or Mediterranean antiquity is assumed.
Also Offered As: ARTH 6269, CLST 5416
Mutually Exclusive: ARTH 2269, CLST 3416
1 Course Unit

AAMW 6280 Greek Architecture and Urbanism
As the locus of classical architecture and urbanism, the Greek world occupies
Not Offered Every Year
Also Offered As: ARTH 6280
1 Course Unit

AAMW 6290 Roman Architecture and Urbanism
Architecture is the most striking legacy of Rome and the well-preserved
Not Offered Every Year
Also Offered As: ARTH 6290
1 Course Unit

AAMW 6300 Etruscan Art & Archaeology in the Penn Museum
The Etruscans, who spoke a language unlike any others known, were cast by their Greek and Roman rivals as outsiders and enemies: pirates, lovers of luxury, loose women. Today we must rely on the archaeological evidence of painted tombs, decorated Tuscan temples and massive engineering works to correct the picture. The course will survey a millennium (1st millennium BCE) of Etruscan culture through archaeological sites, works of art and everyday material culture, especially illustrated with objects in the collection of the Penn Museum. An additional insight into Italic culture comes from tomb groups excavated for the Museum at the Faliscan settlement of Narce. Students will gain familiarity with the societies of pre-Roman Italy through close study of their vases, jewels, arms, armor, textiles and tools, and even their very bones, and discover a surprising amount of Etruscan heritage surviving today.
Not Offered Every Year
Also Offered As: CLST 5105
1 Course Unit

AAMW 6320 Byzantine Art and Architecture
This lecture course offers a wide-ranging introduction to the art, architecture, and material culture of Byzantium—a Christian, predominantly Greek-speaking civilization that flourished in the Eastern Mediterranean for over a thousand years. Positioned between the Muslim East and the Latin West, Antiquity and the Early Modern era, Byzantium nurtured a vibrant and highly sophisticated artistic culture. With emphasis placed upon paradigmatic objects and monuments, we will examine an array of artistic media, from mosaics and panel painting to metalwork, ivory carving, book illumination, and embroidery. We will consider the making, consumption, and reception of Byzantine art in a variety of contexts—political, devotional, ritual, and domestic. Topics include the idea of empire and its visual articulation; court culture; the veneration of images and relics; patronage, piety, and self-representation; authorship and artistic agency; materiality and the sensory experience of art; the reception of the “pagan” Greco-Roman past; and the changing nature of Byzantium’s interactions with neighboring cultures.
Fall or Spring
Also Offered As: ARTH 6320
1 Course Unit
AAMW 6330 Eastern Medieval Art and Architecture
This lecture course examines art and architecture in the Mediterranean, Eastern and Southeastern Europe, and the Christian Near East between the seventh and the fifteenth century. The focus is upon the Byzantine Empire and neighboring polities, including Bulgaria, Serbia, early Russia, Armenia, Georgia, and the Crusader states. The course introduces students to this immensely rich and multifaceted world through an exploration of key artworks and monuments, addressing in particular issues related to cross-cultural exchange, conflict, and appropriation.
Not Offered Every Year
Also Offered As: ARTH 6330
1 Course Unit

AAMW 6350 Introduction to Visual Culture of the Islamic World
A one-semester survey of Islamic art and architecture which examines visual culture as it functions within the larger sphere of Islamic culture in general. Particular attention will be given to relationships between visual culture and literature, using specific case studies, sites or objects which may be related to various branches of Islamic literature, including historical, didactic, philosophical writings, poetry and religious texts. All primary sources are available in English translation.
Not Offered Every Year
Also Offered As: ARTH 6350
1 Course Unit

AAMW 6400 Medieval Art
An introductory survey, this lecture course investigates architecture, painting, sculpture, and the "minor arts" of the Middle Ages. Students become familiar with selected major monuments of the Romanesque and Gothic periods, primarily in Western Europe as well as relevant sites around the Mediterranean. Analysis of works emphasizes the cultural context, the thematic content, and the function of objects and monuments. Discussions focus especially on several key themes: the role of luxury in the medieval west; the theological role of images; the revival of classical models and visual modes; social rituals such as pilgrimage and crusading; the cult of the Virgin and the status of women in art; and, more generally, the ideology of visual culture across the political and urban landscapes.
Not Offered Every Year
Also Offered As: ARTH 6400
Mutually Exclusive: ARTH 2400
1 Course Unit

AAMW 6425 Late Antique Arts
What is 'Late Antiquity'? In 312 when Roman emperor Constantine inaugurated a Christian empire, 'Roman' culture was centuries old. The period ca. 200-650 CE saw profound transformations that launched Medieval, Byzantine and Islamic traditions. In this epoch of upheaval destruction was frequent but partial: Rome long survived, Constantine's 'new Rome,' Constantinople flourished, and around the Empire both proto-global visual culture and local forms prospered. Roman cultural models authorized both innovation and passion for tradition: we critique art-historical models for Late Antique 'decline,' analyse habits of material reuse and curation, and look at new Christian and Jewish roles for Roman things as well as polytheist visual survival. Foreign allies and enemies interacted with Greco-Roman Late Antiquity; we visit them too, as in the early Islamic palaces. Media discussed include not just 'monumental' painting, mosaic, sculpture, but also silver, ceramic, ivory, figural textile, glass, painted books, jewelry, coins and more. We look too at Late Antique texts on art, objects, space and viewership. This is an advanced undergraduate lecture course.
Not Offered Every Year
Also Offered As: ARTH 6425, CLST 5406
1 Course Unit

AAMW 6426 Narrative in Ancient Art
Cultures of the ancient Middle East and Mediterranean world were fascinated to make images and things tell stories and engage with time. Sometimes that implied a text - and sometimes, not. With case studies from the deep past, this interdisciplinary advanced undergraduate lecture course explores the capacity of visual language to narrate.
Not Offered Every Year
Also Offered As: ARTH 6426, CLST 7408
1 Course Unit

AAMW 6427 Roman Sculpture
Survey of the Republican origins and Imperial development of Roman sculpture - free-standing, relief, and architectural - from ca. 150 BC to 350 AD. We concentrate on sculpture in the capital city and on court and state arts, emphasizing commemorative public sculpture and Roman habits of decorative display; genres examined include relief, portraits, sarcophagi, luxury and minor arts(gems, metalwork, coinage). We evaluate the choice and evolution of styles with reference to the functions of sculptural representation in Roman culture and society.
Not Offered Every Year
Also Offered As: ARTH 6427, CLST 5405
1 Course Unit
AAMW 6428 Hellenistic Art and Spectacle
Hellenistic usually names art in the age of Mediterranean culture from the 4th century BCE and the rise of Alexander the Great’s Macedon, and the Greco-Macedonian conquest of the Persian Empire, to Cleopatra of Egypt’s defeat by Rome at the end of the Republic. Our course looks also at the age of Augustus and his successors, 1st century CE. While Greek and Macedonian practice in city-states and kingdoms is our launching point, this course also looks at international culture and cultural interaction among peoples from North Africa and Etrusco-Roman Italy, Egypt, Anatolia, the Mideast and Central Asia. We probe art, artifacts, and visual display from a range of settings, from sanctuary to house, palace and parade, and in all media, from marble monuments to pottery and jewelry. Our archaeology of Hellenistic visual culture also looks at the rich body of Hellenistic and Roman texts of art history, art criticism, and the description of objects and image, to better understand the Hellenistic maker, patron, and viewer. No prerequisites.
Not Offered Every Year
Also Offered As: ARTH 6428, CLST 5413
1 Course Unit

AAMW 6470 Archaeological Fieldwork in Southern Iraq
After several decades of closure to foreign researchers, the heartland of the world’s earliest cities (southern Iraq) has reopened for archaeological expeditions. This course is a seminar for graduate students who will conduct fieldwork in Spring 2019 at two major Mesopotamian cities, Ur (Tell al-Muqayyar) and Lagash (Tell al-Hiba), as part of Penn-led teams. Leading up to fieldwork, we will conduct a critical review of past investigations at these and other contemporary Mesopotamian sites of the fifth-second millennium BC. We will discuss how recent work in northern Mesopotamia (Syria, SE Turkey, Kurdistan), Anatolia, and South Caucasus provides new archaeological approaches to be applied, new questions to be answered, and new models to be tested in southern Iraq. In the field, students will work alongside the instructor and other archaeological project staff to learn and hone excavation and survey techniques. During and following fieldwork, each student will conduct an independent project on material excavated and surveyed in the field at Ur and/or Lagash. This project should align with the student’s interests and will further the research program of the archaeological teams at Ur and Lagash.
Spring, even numbered years only
Also Offered As: NELC 6350
1 Course Unit

AAMW 7050 Ethnoarchaeology Greece
Ethnoarchaeology involves distinctive theoretical and methodological approaches to the study of living societies for the explicit purpose of shedding light on archaeological questions. In this seminar, we will review the intellectual history of ethnoarchaeology in North America and Europe, and explore case studies from Greece, the wider Mediterranean, and beyond. Among the topics will be analogy, cross-cultural comparison, experimental archaeology, oral history research, and archaeologically oriented ethnographic fieldwork. Students will create a proposal for ethnoarchaeological fieldwork in their area of interest in NSF or Wenner-Gren format, to be critiqued by the instructor and their peers.
Not Offered Every Year
Also Offered As: CLST 7307
1 Course Unit

AAMW 7200 Aegean Bronze Age Seminar
This graduate seminar will focus on the art and archaeology of the Aegean Bronze Age, circa 3,300-1,100 BCE. Topics vary from semester to semester and may include: issues of trade, manufacture, and iconography including the development of iconography and pictorial motifs, the nature of Minoan and Mycenaean society, the structure of Aegean Society, and how our interpretation of the Aegean Bronze Age has changed since the early work in the field in the late 1800s and 1900s by prominent scholars.
Not Offered Every Year
Also Offered As: ARTH 7200
1 Course Unit

AAMW 7220 Art of Ancient Iran Seminar
This graduate seminar will address various topics in the visual and architectural arts of ancient Iran from the Early Bronze through the Sasanians. Topics may include: Elamite Art and Architecture, Hasanlu and its neighbors, and The Bronze Age of Exchange. This course is only open to graduate students.
Not Offered Every Year
Also Offered As: ARTH 7220
1 Course Unit

AAMW 7230 Topics in the Art of the Ancient Near East
Topic varies. Fall 2019: During the short period of the Neo Sumerian Empire at the end of the third millennium BCE, Mesopotamian concepts of kingship were crystallized through images, buildings, and textual creations. This seminar will examine this central institution from many points of view that invite cross historical and cross-cultural consideration.
Not Offered Every Year
Also Offered As: ARTH 7230
1 Course Unit

AAMW 7240 Ancient Art of Mesopotamia Seminar
This graduate seminar will address various topics in the visual and architectural arts of ancient Mesopotamia. Topics include: Assyrian Reliefs, Art and Architecture of the Old Akkadian period, Early Dynastic art and architecture, and The Rise of first cities in Mesopotamia and Iran. This course is only open to graduate students.
Not Offered Every Year
Also Offered As: ARTH 7240, NELC 7060
1 Course Unit

AAMW 7259 Troy and Homer
An interdisciplinary seminar focusing on the city of Troy both as an archaeological site and as the setting of the legendary Trojan War. We will consider Homer’s Iliad (with selected sections read in Greek) together with the topography and archaeology of the site of Troy in order to address a series of interrelated questions: What are the points of continuity and discontinuity between the stories told by the literary tradition and the material record? How do both types of evidence contribute to our understanding of political relations and cultural interactions between Greece and Anatolia in the Bronze Age? How do Hittite sources bear on our reconstruction of the events behind the Troy legend? How have the site and the poem contributed to each other’s interpretation in the context of scholarly discovery and debate? We will give some attention to modern receptions of the Troy legend that deliberately combine material and textual elements, such as Cy Twombly’s “Fifty Days at Iliam” and Alice Oswald’s “Memorial: An Excavation of Homer’s Iliad.” The seminar will include a visit to the site of Troy during the Spring Break.
Also Offered As: GREEK 7201
1 Course Unit
AAMW 7260 The Archaeology of Greece and Asia Minor in the Archaic and Classical Periods
An examination of new discoveries and conflicting interpretations in the archaeology of Greece and Asia Minor between the seventh and fourth centuries B.C.E. Both sides of the Aegean will receive equal attention, and emphasis will be placed on sanctuaries, settlements, and cemeteries. Also Offered As: CLST 7304
1 Course Unit

AAMW 7320 Medieval Art History and Theories of the Object
The recent turn to the object across the humanities and social sciences has brought to the fore concerns with the nature of material things, their operation in the world, and their entanglement with humans. This seminar will introduce you to some of the key theoretical writings on the object and material culture and will ask you to interrogate their relevance for the discipline of art history. Our focus will be on the Mediterranean and Western European Middle Ages, but depending on the specific interests of the seminar's participants, we may venture into other historical periods and cultural domains. Topics to be addressed include the social life of things; agency; materiality; the relic; the gift; the miniature; and the question of the human/nonhuman divide. This course is only open to graduate students. Not Offered Every Year Also Offered As: ARTH 7320
1 Course Unit

AAMW 7350 Islamic Art Seminar
This course focuses on art of the Islamic world. Open to graduate students only. Not Offered Every Year Also Offered As: ARTH 7350, NELC 7560
1 Course Unit

AAMW 7370 Islamic Architecture Seminar
This seminar will address the problems of studying architecture in the Islamic world. Considered will be issues of architectural design, regional and trans-regional constructional traditions, structural know-how and innovation, patronage and use. The examples discussed will be mainly religious and social service complexes. Attention will be paid to the manner of transmission of architectural design knowledge and constructional skill. Open to graduate students only. Not Offered Every Year Also Offered As: ARTH 7370, NELC 7561
1 Course Unit

AAMW 7400 Medieval Art Seminar
Alternating specific topic from year to year, this advanced graduate seminar surveys methodological issues concerning the art of the European Middle Ages, broadly conceived. Seminars take advantage of the rich resources of the Philadelphia area. This course is open to graduate students only. Not Offered Every Year Also Offered As: ARTH 7400
1 Course Unit

AAMW 7401 Medieval Art Now Seminar
Where is the study of medieval art today? This advanced graduate seminar surveys the questions and issues relevant to the study of artistic production, both East and West, from 300 to 1500. New methodologies will be placed in their historiographic contexts, and students will read deeply into the problems with which medieval art historians are wrestling with today. The seminar will take advantage of excellent local collections to animate discussions, and focus research papers. Not Offered Every Year Also Offered As: ARTH 7401
1 Course Unit

AAMW 7510 Participation in Archaeological Excavations
Opportunities for qualified students to join in current expeditions. Credit allowed will depend on the length of time spent in the field. Summer Term 1 Course Unit

AAMW 8000 Pedagogy
Pedagogy
1 Course Unit

AAMW 9999 Independent Study
Independent Study
Fall or Spring 1 Course Unit

Art History (ARTH)

ARTH 0127 The Material Past in a Digital World
The material remains of the human past -objects and spaces- provide tangible evidence of past people's lives. Today's information technologies improve our ability to document, study, and present these materials. But what does it mean to deal with material evidence in a virtual context? In this class, students will learn basic digital methods for studying the past while working with objects, including those in the collections of the Penn Museum. This class will teach relational database design and 3D object modeling. As we learn about acquiring and managing data, we will gain valuable experience in the evaluation and use of digital tools. The digital humanities are a platform both for learning the basic digital literacy students need to succeed in today's world and for discussing the human consequences of these new technologies and data. We will discuss information technology's impact on the study and presentation of the past, including topics such as public participation in archaeological projects, educational technologies in museum galleries, and the issues raised by digitizing and disseminating historic texts and objects. Finally, we will touch on technology's role in the preservation of the past in today's turbulent world. No prior technical experience is required, but we hope students will share an enthusiasm for the past. Also Offered As: ANTH 1303, CLST 1303, HIST 0871
1 Course Unit
ARTH 0141 Museums, Monuments, and Social Justice
Monuments, museums, and heritage are all critical parts of the world that we have created and are shaped by. These institutions and sites often claim to represent our past, who we imagine ourselves to be today, and how we might define our futures. We often rely on museums and monuments to frame history and history’s relationship to our current social and cultural systems. However, in recent years, social, racial, and economic justice movements have pushed us to rethink the function of monuments, museums, and heritage. In particular, these social movements have helped us understand how racism, sexism, and colonialism are responsible for the creation of monuments and museums. This course examines the echoes and continuities of colonial representations in museums and monuments. In addition, we will examine how new ways of commemorating and representing the past can result in a new vision for our future. By visiting a variety of local monuments and sites and by engaging in conversations about accountability and social justice, this course will challenge us to rethink the tangible and intangible ways that we weave the past into the present for the creation of the future.
Fall
Also Offered As: ANTH 1410
1 Course Unit

ARTH 0143 The Past Preserved: Conservation In Archaeology
This course explores the scientific conservation of cultural materials from archaeological contexts. It is intended to familiarize students with the basics of artifact conservation but is not intended to train them as conservators. The course will cover how various materials interact with their deposit environments; general techniques for on-site conservation triage and retrieval of delicate materials; what factors need to be considered in planning for artifact conservation; and related topics. Students should expect to gain a thorough understanding of the role of conservation in archaeology and how the two fields interact.
Also Offered As: ANTH 3235, CLST 3315, NELC 4955
Mutually Exclusive: ANTH 5235
1 Course Unit

ARTH 0221 Material World in Archaeological Science
By focusing on the scientific analysis of inorganic archaeological materials, this course will explore processes of creation in the past. Class will take place in the Center for the Analysis of Archaeological Materials (CAAM) and will be team taught in three modules: analysis of lithics, analysis of ceramics and analysis of metals. Each module will combine laboratory and classroom exercises to give students hands-on experience with archaeological materials. We will examine how the transformation of materials into objects provides key information about past human behaviors and the socio-economic contexts of production, distribution, exchange and use. Discussion topics will include invention and adoption of new technologies, change and innovation, use of fire, and craft specialization.
Not Offered Every Year
Also Offered As: ANTH 2221, CLST 3302, NELC 2960
1 Course Unit

ARTH 0339 Sacred Stuff: Religious Bodies, Places, and Objects
Does religion start with what’s in our heads? Or are religious commitments made, shaped and strengthened by the people, places, and things around us? This course will explore how religion happens in the material world. We’ll start with classical and contemporary theories on the relationship of religion to stuff. We’ll then consider examples of how religion is animated not just by texts, but through interactions with objects, spaces, bodies, monuments, color, design, architecture, and film. We’ll ask how these material expressions of religion move beyond private faith and connect religion to politics and identity.
Fall or Spring
Also Offered As: ANTH 1120, RELS 1020
1 Course Unit

ARTH 0500 First-Year Seminar
The primary goal of the first-year seminar program is to provide every first-year student the opportunity for a direct personal encounter with a faculty member in a small setting devoted to a significant intellectual endeavor. Specific topics are posted at the beginning of each academic year.
Fall or Spring
Also Offered As: ENGL 0365
1 Course Unit

ARTH 0501 Spiegel-Wilks First-Year Seminar
The primary goal of the first-year seminar program is to provide every first-year student the opportunity for a direct personal encounter with a faculty member in a small setting devoted to a significant intellectual endeavor. Specific topics are posted at the beginning of each academic year. This Spiegel-Wilks seminar focuses exclusively on contemporary art.
Fall or Spring
Also Offered As: ENGL 0365
1 Course Unit

ARTH 1010 World Art before 1400
This course serves as a double introduction to art history. First, it surveys the visual arts in a global context from prehistory to the dawn of the modern era. Focusing on multiple premodern cultures and traditions, the course examines a wide variety of art forms, from public monuments and architecture to paintings, textiles, and illustrated books. We will consider this rich material in its historical context and ask how art was made, used, seen, and valued by people in the past. Special emphasis will be placed on cross-cultural connections, interactions, and analogies. Second, the course will introduce you to the practice of art history. You will develop the skills of visual analysis and critical reading and learn the basic methods that scholars employ to interpret works of art and architecture. In the process, you will gain a deeper understanding of the intersection of art, society, and human experience at large. Lectures and group discussions will be complemented by visits to museums and other collections on campus and beyond.
Fall
1 Course Unit
ARTH 1020 The Artist in History, 1400-Now
This course is an introduction to the history of art in a global context from the early 1400s to the present. Lectures will introduce students to significant moments in artistic production in both the Western and Eastern hemispheres through focused studies on crucial aspects of exchange between cultures and continents. Covering an era of increasing economic transactions, imperial conquests, and industrialization, this course will build recursively through themes such as: the emergence of authorial identity and models of artistic collaboration, the traffic of artistic materials and techniques and their adaptation in different cultural settings, and the foregrounding of art to both document and initiate political change. Developing vocabularies to discuss painting, sculpture, architecture, and prints, as well as photography and film, students will learn to analyze art’s decisive role during times of social transformation, including modernization, colonization, and technological advances. We will also examine the role of broad-reaching media and the advent of art criticism in forming public opinion. Assignments will encourage students to think widely across geographies and study intimately local examples in the Philadelphia museums. This course fulfills Sector III: Arts and Letters and counts towards the History of Art major and minor requirements.
Spring
Also Offered As: VLST 2320
1 Course Unit

ARTH 1030 Art and Civilization in East Asia
Introduction to the major artistic traditions of China and Japan and the practices of art history. We will also consider aspects of Korean and Indian artistic traditions as they relate to those of China and Japan. Our approaches will be methodological in addressing how we understand these objects through careful looking; chronological in considering how the arts developed in and through history; and thematic in studying how art and architecture were used for philosophical, religious and material ends. Special attention will be given to the relationship between artistic production and the afterlife; to the impact of Buddhism and its purposes; to painting traditions and their patronages; and to modernist transformations of traditions.
Not Offered Every Year
Also Offered As: EALC 0100, VLST 2330
1 Course Unit

ARTH 1040 Art of Global Asia
This course surveys flows of ideas, images, and objects across, within, and beyond Asia. It considers how the art of Asia is and has been global from antiquity through the present, and introduces ‘Asia’, ‘globality’, and ‘art’ as key terms and concepts that shift over time and place. Artistic traditions are presented within broader historical, cultural, social, and economic frameworks, with attention to their local and regional significance. Trade, exchange, and interaction between cultures and groups, including but not limited to artists, pilgrims, merchants, warriors, and rulers, and the transmission of concepts through languages, religions, and philosophies, will be highlighted throughout. We shall address problems of iconophilia and iconoclasm, narrative and temporality, archeology and historiography, ritual and religion, sovereignty and kingship, gender and sexuality, colonialism and nationalism, diasporas and migration as they pertain to the images, objects, and sites of our study. We shall make use of local resources at the Penn Museum and Penn Libraries, as well as other sites, to show how objects retain and inflect these ideas. The course builds out from a central focus on the arts of South Asia or the arts of East Asia, depending upon the specialty of the faculty member teaching the course, with additional faculty offering guest lectures as available. Students with a background in art history, studio art, architecture, history, religion, literature, anthropology, and/or South or East Asian Studies are especially welcome.
Not Offered Every Year
Also Offered As: SAST 1040, VLST 2340
1 Course Unit

ARTH 1060 Architect and History
The built environment shapes our lives and this course tackles its underpinning design principles and qualities as well as social and cultural contexts. It is an interpretative look at the built environment or, more precisely, at the ways in which monuments and cities are designed, represented, perceived and construed over time. It introduces students to the interrelated fields of architecture, art history, and urbanism and explores great architectural monuments and cities from the modern to the ancient period, from the US across Europe and from the Mediterranean to Asia. We will assess the built environment as culturally meaningful form and examine a body of historical and cultural material relevant to its interpretation. In doing so, the course seeks to foster a critical understanding of the cultural and artistic processes that have influenced architectural and urban design. The focus will be on understanding these works as results of skilled workmanship as well as social and cultural products. We will tackle ancient and modern perceptions of these monuments and cities by analyzing form, design, structure and by addressing their perceptual qualities through 3D reconstructions and virtual environments, as well as sketchbook assignments. This course fulfills Sector IV, Humanities and Social Sciences.
Fall
1 Course Unit
ARTH 1070 Television and New Media
How and when do media become digital? What does digitization afford and what is lost as television and cinema become digitized? As lots of things around us turn digital, have we started telling stories, sharing experiences, and replaying memories differently? What has happened to television and life after New Media? How have television audiences been transformed by algorithmic cultures of Netflix and Hulu? How have (social) media transformed socialities as ephemeral snaps and swiped intimacies become part of the "new" digital/phone cultures? This is an introductory survey course and we discuss a wide variety of media technologies and phenomena that include: cloud computing, Internet of Things, trolls, distribution platforms, optical fiber cables, surveillance tactics, social media, and race in cyberspace. We also examine emerging mobile phone cultures in the Global South and the environmental impact of digitization. Course activities include Tumblr blog posts and Instagram curations. The final project could take the form of either a critical essay (of 2000 words) or a media project.
Spring
Also Offered As: CIMS 1030, COML 1031, ENGL 1950
1 Course Unit

ARTH 1080 World Film History to 1945
This course surveys the history of world film from cinema's precursors to 1945. We will develop methods for analyzing film while examining the growth of film as an art, an industry, a technology, and a political instrument. Topics include the emergence of film technology and early film audiences, the rise of narrative film and birth of Hollywood, national film industries and movements, African-American independent film, the emergence of the genre film (the western, film noir, and romantic comedies), ethnographic and documentary film, animated films, censorship, the MPPDA and Hays Code, and the introduction of sound. We will conclude with the transformation of several film industries into propaganda tools during World War II (including the Nazi, Soviet, and US film industries). In addition to contemporary theories that investigate the development of cinema and visual culture during the first half of the 20th century, we will read key texts that contributed to the emergence of film theory. There are no prerequisites. Students are required to attend screenings or watch films on their own.
Fall or Spring
Also Offered As: CIMS 1020, COML 1022, ENGL 1901
1 Course Unit

ARTH 1090 World Film History 1945-Present
Focusing on movies made after 1945, this course allows students to learn and to sharpen methods, terminologies, and tools needed for the critical analysis of film. Beginning with the cinematic revolution signaled by the Italian Neo-Realism (of Rossellini and De Sica), we will follow the evolution of postwar cinema through the French New Wave (of Godard, Resnais, and Varda), American movies of the 1950s and 1960s (including the New Hollywood cinema of Coppola and Scorsese), and the various other new wave movements of the 1960s, 1970s and 1980s (such as the New German Cinema). We will then selectively examine some of the most important films of the last two decades, including those of U.S. independent film movement and movies from Iran, China, and elsewhere in an expanding global cinema culture. There will be precise attention paid to formal and stylistic techniques in editing, mise-en-scene, and sound, as well as to the narrative, non-narrative, and generic organizations of film. At the same time, those formal features will be closely linked to historical and cultural distinctions and changes, ranging from the Paramount Decision of 1948 to the digital convergences that are defining screen culture today. There are no perquisites. Requirements will include readings in film history and film analysis, an analytical essay, a research paper, a final exam, and active participation.
Fall or Spring
Also Offered As: CIMS 1020, COML 1022, ENGL 1901
1 Course Unit

ARTH 1100 What is Modern Art?
Modernism is not easily defined. For some, the word simply identifies Western art of the last two hundred-odd years. For others, modernism refers to forms of "advanced" visual art, whether the cubist distortions of Pablo Picasso or the alover abstractions of Jackson Pollock, that break with established representational conventions. For still others, the term singles out modes of artistic opposition to the ravages of capitalism, colonialism, industrialization, imperialism, and war that continue to define our world. Among its manifold practices, we find the rise of abstraction, paintings that pretend to show nothing but an instant, dreams and erotic desires set free for everyone to see, and everyday objects elevated to the status of sculpture. At key moments, "Art" itself was declared dead, then resurrected as the solution to the social problems of the era, forming a highly ambivalent relationship to the spheres of politics and history. We will cover the development of Modernism broadly, from the 1860s to the 1960s, introducing many of the best-known figures (like Monet, Van Gogh, Duchamp, and Picasso) and movements (like Impressionism, Cubism, Dada, and Surrealism). Europe and North America will be the focus, but we will frequently look to global developments as well and analyze art made in colonial and diasporic conditions. The standard narratives of Modernism will be questioned at every turn, and artists of color, diverse gender and sexual orientations, as well as national and economic backgrounds studied in depth as well. We will proceed more or less chronologically, doubling back or projecting forward when necessary to understand the determinative historical influences that have shaped the development of modernist idioms in particular times and places. In every instance, we will study works of art that have confronted our culture's visual means—of life, death, consumption, and display—and attempted to work them over into critical form.
1 Course Unit
ARTH 1500 Eye, Mind, and Image
Visual Studies 101 provides an introduction to the collaboration of eye, mind, and image that produces our experience of a visual world. How and what do we see? How do we perceive color, space, and motion? What is an image? Does seeing vary across cultures and time? What can art tell us about vision? Is there a 21st-century form of seeing? This course combines different approaches to the study of vision, drawing from psychology, cognitive science, philosophy, history of art, and fine art. Professors representing two or three disciplines present lectures that demonstrate the methods of their disciplines and draw connections across fields. This course combines different approaches to the study of vision, drawing from psychology, cognitive science, philosophy, history of art, and fine art. Professors representing two or three disciplines present lectures that demonstrate the methods of their disciplines and draw connections across fields.
Fall or Spring
Also Offered As: VLST 1010
1 Course Unit

ARTH 1800 Introduction to Queer Art
It’s no exaggeration to note that queers have long been at the forefront of innovation in the arts, and that the arts, generally, have been a comfortable home for queers, even at moments when society at large was distinctly hostile. In fact the concepts of modern art and homosexuality that we use today are twins, for they were both founded in the third quarter of the 19th century and grew up together. Introduction to Queer Art thus begins with the coining of the word “homosexual” in 1869, and surveys how a range of mediums including painting, sculpture, poetry, music, and film shifted in response to new definitions of sexuality. Along the way, we will work towards answering two related questions: 1) Why were queer creators largely responsible for the introduction of modernity in the arts, and 2) why do we find so often that queer social and political dissent found form in, and as, aesthetic dissent as well? In creating new forms for art that often seem far removed from any traditional definition of sexuality, including non-objective and abstract art, queer artists pushed the boundaries of normativity, leading to new ways of seeing, hearing, feeling and thinking that often dared to encode queer meanings as part of their formal innovation. We will look into the politics of queer art, and how and why in the US, even amidst often dangerous homophobia, it was queer artists who represented America to itself. Thus, we will cover such key cultural figures such as Walt Whitman, Gertrude Stein, Georgia O’Keeffe, Frank O’Hara, Jasper Johns, Andy Warhol, and Agnes Martin. Throughout, new methods informed by queer, gender, and critical race theory will be utilized.
Fall
Also Offered As: GSWS 1800
1 Course Unit

ARTH 2094 Dress and Fashion in Africa
Throughout Africa, social and cultural identities of ethnicity, gender, generation, rank and status were conveyed in a range of personal ornamentation that reflects the variation of African cultures. The meaning of one particular item of clothing can transform completely when moved across time and space. As one of many forms of expressive culture, dress shape and give forms to social bodies. In the study of dress and fashion, we could note two distinct broad approaches, the historical and the anthropological. While the former focuses on fashion as a western system that shifted across time and space, and linked with capitalism and western modernity; the latter approach defines dress as an assemblage of modification the body. The Africanist proponents of this anthropological approach insisted that fashion is not a dress system specific to the west and not tied with the rise of capitalism. This course will focus on studying the history of African dress by discussing the forces that have impacted and influenced it overtime, such as socioeconomic, colonialism, religion, aesthetics, politics, globalization, and popular culture. The course will also discuss the significance of the different contexts that impacted the choices of what constitute an appropriate attire for distinct situations. African dress in this context is not a fixed relic from the past, but a live cultural item that is influenced by the surrounding forces.
Spring
Also Offered As: AFRC 2324, ANTH 2024
1 Course Unit

ARTH 2120 Cities and Temples in Ancient India
The wooden architecture of ancient India’s cities is represented in relief carvings from Buddhist religious monuments of the early centuries A.D. and replicated in remarkable excavated cave cathedrals. This lecture course will trace that architectural tradition, its transformation into a symbolic vocabulary for a new structure, the Hindu temple, and the development of the temple in India from ca. 500-1500 A.D.
Not Offered Every Year
Also Offered As: SAST 2120
1 Course Unit

ARTH 2130 Arts of Japan
This lecture course introduces the major artistic traditions of Japan, from the Neolithic period to the present, and teaches the fundamental methods of the discipline of art history. Special attention will be given to the places of Shinto, the impact of Buddhism, and their related architectures and sculptures; the principles of narrative illustration; the changing roles of aristocratic, monastic, shogunal and merchant patronage; the formation of the concept of the artist over time; and the transformation of tradition in the modern age.
Not Offered Every Year
Also Offered As: EALC 0140
1 Course Unit

ARTH 2140 Arts of China
A broad survey of Chinese architecture, sculpture, and painting from the Neolithic age through the nineteenth century. Topics include excavated material from China’s Bronze Age, Chinese funerary arts, Buddhist caves and sculpture (including works in the University Museum), the Chinese city, the Chinese garden, and major masterpieces of Chinese painting.
Fall or Spring
Also Offered As: EALC 0120
1 Course Unit
ARTH 2145 Reading Maya Culture: Decipherment and a New Window into the Ancient Americas
The past three decades have seen a revolution in the study of the Ancient Americas, one with far-reaching implications for how we understand indigenous society and culture on this continent. This course will take us on a journey of academic discovery—encompassing language, art, and materiality—that explains how the decipherment of a major writing system has revealed a previously hidden world. The Maya are one of the most distinctive and best-known of Mesoamerican peoples, who live today, as they did in ancient times, in the Yucatan Peninsula and a region that spans modern southern Mexico, the whole of Guatemala and Belize, and the westernmost fringes of Honduras and El Salvador. From as early as 1000 BCE they were erecting major architecture and flourishing for twenty-five more centuries before the invasion of Europeans brought their independence to an end in the sixteenth century CE. Within their elaborate urban spaces, the Maya erected large stone monuments inscribed with imagery and hieroglyphic texts—most of them commissioned in the Classic Period that reaches from 150-900 CE—although the script is also found on many smaller and more intimate objects. For the first century of research these texts proved all but unintelligible, as faulty assumptions and lack of adequate sources left a deep pessimism that they could ever be understood. But beginning in the 1980s major progress in “cracking the code” took place and today we can read almost all inscriptions to some extent, a decent number in their entirety. This course will teach practical skills that allow students with no previous background to read Maya inscriptions and gain access to the history, politics, religious beliefs, and practical material culture they describe. The fabulous design of the hieroglyphs, that at first seem so impenetrable, will be broken-down to reveal not only language but an iconographic system that reveals much about the ancient Maya aesthetics and visual culture.
Not Offered Every Year
Also Offered As: ANTH 2145, LALS 2145
1 Course Unit

ARTH 2170 Chinese Painting
Study of Chinese painting and practice from the earliest pictorial representation through the late twentieth century. Painting styles are analyzed, but themes such as landscape and narrative are considered with regard to larger social, cultural, and historical issues. The class will pay particular attention to the construction of the concepts of the "artist" and "art criticism" and their impact on the field into the present. Visits to study paintings at the University of Pennsylvania Museum and Philadelphia Museum of Art.
Fall or Spring
Also Offered As: EALC 1127
1 Course Unit

ARTH 2180 Art and Architecture in Ancient Egypt
This course will be an introduction to the art, architecture and minor arts that were produced during the three thousand years of ancient Egyptian history. This material will be presented in its cultural and historical contexts through illustrated lectures and will include visits to the collection of the University Museum.
Not Offered Every Year
Also Offered As: ANCH 1305, NELC 0210
1 Course Unit

ARTH 2200 The Ancient Maya: Integrating Material, Text, and Image
Ancient Maya studies is one of the most dynamic and innovative fields in world archaeology today. Emerging as a true historical archaeology only in the past three decades, the decipherment of Maya script now provides a powerful complement and counterpoint to both traditional excavation data and new remote sensing technologies. Equally, the reading of images, and their interaction with texts and artifacts, forms a vital part of our interest in the broader humanistic concerns of worldview and the transcendent—where our primary interest lies in gaining access to past mentalities. This course will provide a comprehensive introduction into current knowledge of the Ancient Maya, with a recurring methodological focus on how different types of evidence are integrated to assemble a persuasive "portrait of the past." This scope of this process is unique in the ancient Americas, since only the Maya offer us the opportunity to read their own descriptions of the world two millennia or more in the past. Geographically, we will be looking at the greater Yucatan Peninsula, which today covers parts of southeastern Mexico, the whole of Guatemala and Belize, and the western extremities of Honduras and El Salvador. Since archaic times (before 1200 BCE) this has been occupied by speakers of the Mayan language group, and millions of people identified as Maya by that means continue to do so today (despite popular notions to the contrary, they have never "disappeared"). No prior knowledge of archaeology or art history is necessary. The course structure is one 3-hour session per week, consisting of a lecture followed by group discussion in seminar-style. Additionally, in Week 6 there will be a virtual tour of the new Mexico and Central American Gallery at Penn Museum. This will introduce the class to the issues of disseminating scholarship and building narratives that are accessible to the wider public.
Not Offered Every Year
Also Offered As: ANTH 2150, LALS 2150
1 Course Unit

ARTH 2220 Art of Ancient Iran
This lecture course offers a survey of ancient Iranian art and culture from the painted pottery cultures of the Neolithic era to the monuments of the Persian Empire.
Not Offered Every Year
Also Offered As: NELC 2050
1 Course Unit

ARTH 2221 The Early Bronze Age
This lecture course offers a survey of ancient Iranian art and culture from the painted pottery cultures of the Neolithic era to the monuments of the Persian Empire. Particular emphasis is placed on the Early Bronze Age.
Not Offered Every Year
Also Offered As: NELC 2055
1 Course Unit

ARTH 2240 Art of Mesopotamia
Visual expression was first developed in Mesopotamia in the same environment as the invention of writing. This lecture class will introduce the arts of the major periods of Mesopotamian History ending with the "cinematic" effects achieved by the Assyrian artists on the walls of the royal palaces. The strong connection between verbal and visual expression will be traced over the three millennia course of Mesopotamian civilization from the earliest periods through the imperial art of the Assyrians and Babylonians of the first millennium BCE. The class and the assignments will regularly engage with objects in the collections and on display in the galleries of the Penn Museum.
Not Offered Every Year
Also Offered As: NELC 0060
Mutually Exclusive: AAMW 6240, ARTH 6240, NELC 6060
1 Course Unit
**ARTH 2250 Greek Art and Artifact**
This lecture course surveys Greek art and artifacts from Sicily to the Black Sea from the 10th century BCE to the 2nd century BCE, including the age of Alexander and the Hellenistic Kingdoms. Public sculpture and painting on and around grand buildings and gardens, domestic luxury arts of jewelry, cups and vases, mosaic floors, and cult artefacts are discussed. Also considered are the ways in which heroic epic, religious and political themes are used to engaged viewers' emotions and served both domestic and the public aims. We discuss the relationships of images and things to space and structure, along with ideas of invention and progress, and the role of monuments, makers and patrons in Greek society.
Not Offered Every Year
Also Offered As: CLST 3401
1 Course Unit

**ARTH 2260 Hellenistic and Roman Art and Artifact**
This lecture course surveys the political, religious and domestic arts, patronage and display in Rome's Mediterranean, from the 2nd c. BCE to Constantine's 4th-c. Christianized empire. Our subjects are images and decorated objects in their cultural, political and socio-economic contexts (painting, mosaic, sculpture, luxury and mass-produced arts in many media). We start with the Hellenistic cosmopolitan culture of the Greek kingdoms and their neighbors, and late Etruscan and Republican Italy; next we map Imperial Roman art as developed around the capital city Rome, as well as in the provinces of the vast empire.
Not Offered Every Year
Also Offered As: CLST 3402
1 Course Unit

**ARTH 2269 Classical Myth and the Image**
The peoples of the ancient Greek and Roman worlds shared a vast body of stories about human and not-human beings set in a legendary deep past or supernatural present - "Classical myth." Even their neighbor cultures took up those stories (or, sometimes, gave them). The stories as spoken, read, or performed turn up in surviving ancient literature. But from the very point when Greek myth began to be written down, those stories were told with images also. Many arts of the Mediterranean world explored myth at temples and sanctuaries, in civic spaces, theaters, parks, houses and palaces, for tombs and trophies - and even on the body. We will examine an array of artistic media, from mosaic and panel painting to metalwork, ivory carving, book illumination, and embroidery. We will consider the making, consumption, and reception of Byzantine art in a variety of contexts—political, devotional, ritual, and domestic. Topics include the idea of empire and its visual articulation; court culture; the veneration of images and relics; patronage, piety, and self-representation; authorship and artistic agency; materiality and the sensory experience of art; the reception of the "pagan" Greco-Roman past; and the changing nature of Byzantium's interactions with neighboring cultures.
Fall or Spring
1 Course Unit

**ARTH 2290 Roman Architecture and Urbanism**
Architecture is the most striking legacy of Rome and the well-preserved remains of Roman buildings dominate our vision of the empire. Although Roman architecture has been studied since the Renaissance, it is only since the middle of the 20th century that it has come to be appreciated for the developments in concrete construction, which led to a revolution in the treatment of interior space and landscape architecture. Indeed, Rome's architectural revolution radically changed both cities and countryside. Romans developed a wide range of new architectural forms and technological innovations in order to meet the increasingly sophisticated and diverse needs of their society. The purpose of the course is to shed light on Roman architectural and urban projects within their social, political, religious, and physical contexts. Throughout, the emphasis will be on concepts of organizing space, issues of structure, materials, decoration and proportion, the role of architecture in Roman society, and on the varied ways that architecture was employed by individuals and communities to express and enhance their status.
Not Offered Every Year
Also Offered As: CLST 3415
1 Course Unit

**ARTH 2320 Byzantine Art and Architecture**
This lecture course offers a wide-ranging introduction to the art, architecture, and material culture of Byzantium—a Christian, predominantly Greek-speaking civilization that flourished in the Eastern Mediterranean for over a thousand years. Positioned between the Muslim East and the Latin West, Antiquity and the Early Modern era, Byzantium nurtured a vibrant and highly sophisticated artistic culture. With emphasis placed upon paradigmatic objects and monuments, we will examine an array of artistic media, from mosaic and panel painting to metalwork, ivory carving, book illumination, and embroidery. We will consider the making, consumption, and reception of Byzantine art in a variety of contexts—political, devotional, ritual, and domestic. Topics include the idea of empire and its visual articulation; court culture; the veneration of images and relics; patronage, piety, and self-representation; authorship and artistic agency; materiality and the sensory experience of art; the reception of the "pagan" Greco-Roman past; and the changing nature of Byzantium's interactions with neighboring cultures.
Fall or Spring
1 Course Unit

**ARTH 2330 Eastern Medieval Art and Architecture**
This lecture course examines art and architecture in the Mediterranean, Eastern and Southeastern Europe, and the Christian Near East between the seventh and the fifteenth century. The focus is upon the Byzantine Empire and neighboring polities, including Bulgaria, Serbia, early Russia, Armenia, Georgia, and the Crusader states. The course introduces students to this immensely rich and multifaceted world through an exploration of key artworks and monuments, addressing in particular issues related to cross-cultural exchange, conflict, and appropriation.
Not Offered Every Year
1 Course Unit
ARTH 2350 Introduction to Visual Culture of the Islamic World
A one-semester survey of Islamic art and architecture which examines visual culture as it functions within the larger sphere of Islamic culture in general. Particular attention will be given to relationships between visual culture and literature, using specific case studies, sites or objects which may be related to various branches of Islamic literature, including historical, didactic, philosophical writings, poetry and religious texts. All sources available are in English translation.
Not Offered Every Year
Also Offered As: VLST 2350
1 Course Unit

ARTH 2370 Berlin: History, Politics, Culture
What do you know about Berlin’s history, architecture, culture, and political life? The present course will offer a survey of the history of Prussia, beginning with the seventeenth century, and the unification of the small towns of Berlin and Koelln to establish a new capital for this country. It will tell the story of Berlin’s rising political prominence in the eighteenth century, and its position as a center of the German and Jewish Enlightenment. It will follow Berlin’s transformation into an industrial city in the nineteenth century, its rise to metropolis in the early twentieth century, its history during the Third Reich, and the post-war cold war period. The course will conclude its historical survey with a consideration of Berlin’s position as a capital in reunified Germany.
The historical survey will be supplemented by a study of Berlin’s urban structure, its significant architecture from the eighteenth century (i.e. Schinkel) to the nineteenth (new worker’s housing, garden suburbs) and twentieth centuries (Bauhaus, Speer designs, postwar rebuilding, GDR housing projects, post-unification building boom). In addition, we will read literary texts about the city, and consider the visual art and music created in and about Berlin, and focus on Berlin’s Jewish history. The course will be interdisciplinary with the fields of German Studies, history, history of art, urban studies, and German-Jewish studies. It is also designed as a preparation for undergraduate students who are considering spending a junior semester with the Penn Abroad Program in Berlin.
Not Offered Every Year
Also Offered As: COML 1040, GRMN 1040, HIST 0821, URBS 1070
1 Course Unit

ARTH 2400 Medieval Art
An introductory survey; this lecture course investigates architecture, painting, sculpture, and the “minor arts” of the Middle Ages. Students become familiar with major monuments of the Romanesque and Gothic periods, primarily in Western Europe as well as relevant sites around the Mediterranean basin. Analyses of works emphasize cultural contexts, thematic content, and the function of objects and monuments. Discussions focus such themes as: the circulation of artists, materials and techniques; the relationships between art and power; anthropogenic impact of art making on the environment; the theological role of images; the explosion of secular visual culture; and the role of art in an interconnected world.
Not Offered Every Year
Mutually Exclusive: ARTH 6400
1 Course Unit

ARTH 2450 Gothic Architecture: Gold and Stone
Key monuments of the Middle Ages, the Gothic cathedrals of Western Europe present a synthesis of the theological, economic, and social developments of the twelfth through fourteenth centuries. A harmonious marriage between technology and aesthetics, of political power and imagination, these immense and ingenious structures are as famous for their sculptural programs as they are for the liturgies that animated their spaces. Students will also be introduced to local uses of Gothic in Philadelphia architecture to better understand the lived experiences of these built manifestations of transcendence.
Not Offered Every Year
1 Course Unit

ARTH 2451 Bones to Stones: Medieval Pilgrimage Culture
Dry bones, rotted flesh and discarded teeth — these were the heart of medieval pilgrimage culture. The bodily remains of the holy dead, saints and martyrs, spurred thousands of devout believers throughout the Middle Ages to travel to far off lands to venerate these abject traces. This lecture course, while anchored in Western Europe, will consider pilgrimage as a cross-cultural phenomenon, focusing on the resplendent arts, notably reliquaries, and architecture that developed to accommodate the desire to venerate bodily remains of the sacred.
Not Offered Every Year
1 Course Unit

ARTH 2500 Michelangelo and the Art of the Italian Renaissance
An introduction to the work of the Renaissance artist Michelangelo (1475-1564); his sculptures, paintings, architecture, poetry, and artistic theory-in relation to his patrons, predecessors, and contemporaries, above all Leonardo and Raphael. Topics include artistic creativity and license, religious devotion, the revival of antiquity, observation of nature, art as problem-solving, the public reception and function of artworks, debates about style, artistic rivalry, and traveling artists. Rather than taking the form of a survey, this course selects works as paradigmatic case studies, and will analyze contemporary attitudes toward art of this period through study of primary sources.
Not Offered Every Year
Also Offered As: ITAL 2550
Mutually Exclusive: ARTH 6500, ITAL 6500
1 Course Unit

ARTH 2540 Titian and Venetian Painting
This lecture course examines the art and architecture of the Venetian Republic, with emphasis on the work of the renowned painter, Titian.
Not Offered Every Year
Also Offered As: ITAL 2540
1 Course Unit

ARTH 2541 Caravaggio
This lecture course explores the artistic culture of Baroque Rome, with focus on the life and career of Caravaggio.
Not Offered Every Year
Also Offered As: ENGL 2541, ITAL 2541
1 Course Unit

ARTH 2542 Brazilian Baroque
This lecture course explores the art, architecture, and visual culture of the Portuguese Empire with emphasis on Brazil and its relations with Africa and Asia.
Not Offered Every Year
Also Offered As: AFRC 2542, ENGL 2542, LALS 2542
1 Course Unit
ARTH 2580 Early Modern Japanese Art and the City of Edo
Study of the major art forms and architecture of Tokugawa (or Edo) period (1603-1868). In this lecture course, we will consider how the arts of this era occur within an increasingly urban and modern culture, particularly with regard to the city of Edo. Issues of the articulation of authority in the built environment, the reinvention of classical styles, and patronage will be raised. May include some visits to PMA, Penn Museum, or other local collections.
Not Offered Every Year
Also Offered As: EALC 1141
1 Course Unit

ARTH 2610 Northern Renaissance Art
This course critically examines concepts traditionally associated with the Renaissance by focusing on the exchange of artistic ideas throughout the Holy Roman Empire and across different media, such as the altarpieces of Jan van Eyck, the expressive drawings of Albrecht Durer and Hans Baldung Grien, the peasant studies of Pieter Bruegel and the prints of satirists who wished to remain anonymous. The material is organized thematically around four topics: religious art as piety and politics; antiquity as a source of tradition and imagination; the formulation of a public discourse that exposed social threats; and the distinctiveness of artistic claims of individual achievement. A motif throughout the course is the question of how the survival of fragments may be presented in museum contexts as parts standing in for an absent whole. We will also consider how historians approach designs for works of art now lost or never completed. Encouraging encounters with art and artifacts around the city, assignments focus on objects in Philadelphia collections.
Not Offered Every Year
Also Offered As: GRMN 1301
Mutually Exclusive: ARTH 6610
1 Course Unit

ARTH 2620 Early Netherlands Painting: Angels, Demons, Nudes
Over the course of the fifteenth and sixteenth centuries, painting in the Netherlands experienced dramatic technological advancements: the application of oil on panel allowed for an unprecedented richness of color; experiments with optics led to improved illusions of space; artists rendered light and reflections as never before. Did these advancements in depicting the natural world conflict with or enhance the portrayal of spiritual visions? Did realism pave the way for secular art? In this course, we will look critically at the relationship of science and art, tradition and innovation, the imagined and the experienced. The delicate preciousness of Jan van Eyck, the strange spaces of Petrus Christus, the bizarre hellscapes of Hieronymus Bosch, and the peasant festivals of Peter Bruegel will guide us through these themes.
Not Offered Every Year
Also Offered As: DTCH 2610
1 Course Unit

ARTH 2670 Latin American Art
The numerous traditions of Latin American art have been formed from the historical confluence of Indigenous, European, African, and Asian cultural traditions, each one impacting the others. This lecture course serves as an introduction to these hybrid New World art forms and movements by both providing a large chronological sweep (1492-present) and focusing on several specific countries, including Brazil, Mexico, Cuba, Peru, and Argentina.
Not Offered Every Year
Also Offered As: AFRC 2670, LALS 2670
Mutually Exclusive: ARTH 6670
1 Course Unit

ARTH 2679 Latinx Literature and Culture
This course offers a broad introduction to the study of Latinx culture. We will examine literature, theater, visual art, and popular cultural forms, including murals, poster art, graffiti, guerrilla urban interventions, novels, poetry, short stories, and film. In each instance, we will study this work within its historical context and with close attention to the ways it illuminates class formation, racialization, and ideologies of gender and sexuality as they shape Latinx experience in the U.S. Topics addressed in the course will include immigration and border policy, revolutionary nationalism and its critique, anti-imperialist thought, Latinx feminisms, queer latinidades, ideology, identity formation, and social movements. While we will address key texts, historical events, and intellectual currents from the late 19th century and early 20th century, the course will focus primarily on literature and art from the 1960s to the present. All texts will be in English.
Not Offered Every Year
Also Offered As: COML 1260, ENGL 1260, GSWS 1260, LALS 1260
1 Course Unit

ARTH 2680 Art and Empire in India, 1750-1900
This course surveys transformations in visual culture between the Mughal and British empires in India from the mid-eighteenth through the nineteenth centuries. We shall consider changes in artistic production, patronage, publics, and viewing protocols in the contexts of the court and bazaar. We shall examine the emergence of new technologies and its impact on visual forms, media, and genres, focusing on the interplay of photography, print, and painting. We shall explore the role of institutions -the art school, the museum, and the archeological survey- and the professions and practices they engendered. We shall analyze how architecture and urban planning created new built environments and social relationships in colonial India. We shall view objects first-hand in the Penn Museum, Penn Libraries, and Philadelphia Museum of Art. This is a reading- and writing-intensive course. Students with a background in related disciplines such as literature, history, religion, anthropology, and South Asian Studies are welcome.
Also Offered As: SAST 2680
Mutually Exclusive: ARTH 6660, SAST 6680
1 Course Unit

ARTH 2699 Wolf Humanities Seminar Lecture
The Wolf Humanities Center is Penn’s interdisciplinary humanities research center based in the School of Arts & Sciences. Each year the Wolf Humanities Center hosts postdoctoral scholars as they conduct research and teach one course on the center’s annual theme.
Mutually Exclusive: ARTH 6699
1 Course Unit

ARTH 2700 The Modern City
A study of the European and American city in the eighteenth, nineteenth, and twentieth centuries. Emphasis is placed on the history of architecture and urban design; political, sociological, and economic factors also receive attention. The class considers the development of London, St. Petersburg, Washington, Boston, Paris, Vienna and Philadelphia.
Not Offered Every Year
Also Offered As: URBS 2760
1 Course Unit
**ARTH 2710 Modern Architecture, 1700-1900**
The history of western architecture, ca. 1700-1900, when architecture was transformed to serve a world that had been reshaped by political and industrial revolutions. Topics to be considered include the Rococo, the English Garden, Palladianism, Romanticism, neo-classicism, the picturesque, the Greek and Gothic Revivals, and the search for a new style.
Fall or Spring
1 Course Unit

**ARTH 2730 History of Photography**
A history of world photography from 1839 to the present and its relation to cultural contexts as well as to various theories of the functions of images. Topics discussed in considering the nineteenth century will be the relationship between photography and painting, the effect of photography on portraiture, photography in the service of exploration, and photography as practiced by anthropologists; and in considering the twentieth century, photography and abstraction, photography as "fine art", photography and the critique of art history, and photography and censorship.
Not Offered Every Year
1 Course Unit

**ARTH 2740 Facing America**
This course explores the visual history of race in the United States as both self-fashioning and cultural mythology by examining the ways that conceptions of Native American, Latino, and Asian identity, alongside ideas of Blackness and Whiteness, have combined to create the various cultural ideologies of class, gender, and sexuality that remain evident in historical visual and material culture. We also investigate the ways that these creations have subsequently helped to launch new visual entertainments, including museum spectacles, blackface minstrelsy, and early film, from the colonial period through the 1940s.
Not Offered Every Year
Also Offered As: AFRC 2740, CIMS 2740, LALS 2740
Mutually Exclusive: ARTH 6740
1 Course Unit

**ARTH 2750 Revolution to Realism: European Art, 1770-1870**
This course surveys the major trends in the arts of Europe and its colonies in the tumultuous decades stretching from the French and Haitian revolutions in the late-eighteenth century to the rise of realism in the mid-nineteenth. Starting with Jacques-Louis David's revolutionary history paintings, we study Napoleonic representations of empire, Goya's imagery of violence, romantic representations of madness and desire, the origins of both nationalist and ecocritical landscape painting, the aesthetics of the industrial revolution, as well as the politicized realism of Gustave Courbet. Some of the themes that will be addressed include: the revolutionary hero, the birth of the public museum, the specters of slavery and colonialism in modern representation, the anxious masculinity of romanticism, the rise of industry and bourgeois culture, the beginnings of photography and caricature, the quest for national identity and, not least, the origins of modernist painting. Throughout, we will strive to recover the original radicalism of art's formal and conceptual innovations at times of profound political and social crisis.
Not Offered Every Year
Mutually Exclusive: ARTH 6750
1 Course Unit

**ARTH 2760 Impressionism**
Impressionism opened the pictorial field to light, perception, science, modernity, bourgeoisie leisure and famously the material qualities of paint itself. This course will survey the movement's major contexts and proponents--Manet, Monet, Morisot, Cezanne, Gauguin, Van Gogh, Rodin--from its origins in the 1860's to its demise in the 1890's, as well as its subsequent adaptions throughout the world until World War I. Particular attention is paid to the artists' critical reception and the historical conditions which allowed one nation, France, to claim the emergence of early Modernism so firmly for itself. The course also analyzes the effects of the rapidly changing social and cultural fabric of Paris, and its affects on artistic developments. We also look outside of France's borders to Germany and Britain.
Fall or Spring
1 Course Unit

**ARTH 2770 The Rise of Modernity: Arts of the 19th Century**
The nineteenth century is often considered as fast-paced, politically volatile and new-media obsessed as our own age. This course explores the nineteenth century's claim to have produced the first truly modern culture, focusing on the visual arts and metropolitan spaces of Europe and North America in their intellectual and social contexts. Stretching from the American and French Revolutions to the eve of World War I, topics to be covered include: the rise of capitalist and industrialist culture, art and revolutionary upheaval, global travel and empire, the origins of modernist art and architecture, and new media such as stereoscopes, iron and glass construction, and photography. Major artistic personalities of the age, from Jacques-Louis David and Gustave Courbet to Claude Monet and Vincent Van Gogh, and from Friedrich Schinkel and, Baron Haussmann to Frank Furness and Frank Lloyd Wright, are discussed. Each lecture will be followed by a brief period of discussion, and regular field trips take students to examine art and architecture first hand, in the museums and on the streets of Philadelphia.
Not Offered Every Year
1 Course Unit

**ARTH 2780 American Art**
This lecture course surveys the most important and interesting art produced in the United States (or by American artists living abroad) up through the 1950s. This period encompasses the history of both early and modern art in the U.S., from its first appearances to its rise to prominence and institutionalization. While tracking this history, the course examines art's relation to historical processes of modernization (industrialization, the development of transportation and communications, the spread of corporate organization in business, urbanization, technological development, the rise of mass media and mass markets, etc.) and to the economic polarization, social fragmentation, political conflict, and the cultural changes these developments entailed. In these circumstances, art is drawn simultaneously toward truth and fraud, realism and artifice, science and spirituality, commodification and ephemeralization, nationalism and cosmopolitanism, individualism and collectivity, the past and the future, professionalization and popularity, celebrating modern life and criticizing it.
Fall or Spring
1 Course Unit
ARTH 2781 African American Art
This lecture course focuses on art, architecture, and visual culture made by peoples of African descent in the United States.
Fall or Spring
Also Offered As: AFRC 2781
1 Course Unit

ARTH 2810 Modern Architecture, 1900-Present
The architecture of Europe and America from the late nineteenth century until the present is the central subject of this course, but some time is also devoted to Latin American and Asian architecture and to the important issues of modern city planning. Topics discussed include the Arts and Crafts movement, Art Nouveau, Expressionism, Art Deco, the International Style, and Post-modernism. The debate over the role of technology in modern life and art, the search for a universal language of architectural communication, and the insistent demand that architecture serve human society are themes that are traced throughout the course. Among the important figures to be considered are Frank Lloyd Wright, Walter Gropius, Le Corbusier, Louis Kahn, Robert Venturi, and Denise Scott Brown. The course includes weekly discussion sessions and several excursions to view architecture in Philadelphia.
Fall or Spring
Mutually Exclusive: ARTH 6810
1 Course Unit

ARTH 2850 Modern Art in Africa and Europe
The history of modern art is closely tied to and largely unfolds from the history of Western Imperialism. While the technologies made possible by colonial resource extraction produced new ways of looking, modern conceptions of the nation and how to represent it, developed in dialogue with racialized notions of the other. This course focuses on encounters between the cultures of Africa and Europe, from 1880 to 1960, and on the artistic practices that emerged on both continents as a result. Topics of special interest will include racial difference and the ramifications of colonialism, colonial masquerade, post-colonial monuments and memorials, the African influence on Dada and surrealism, Negritude and interwar Paris, colonial arts education, and the South African built environment under and after Apartheid.
Not Offered Every Year
Also Offered As: AFRC 2850
1 Course Unit

ARTH 2860 Modern Art: Picasso to Pollock
Early twentieth-century art in Europe is marked by a number of exciting transformations. This period witnessed the rise of abstraction in painting and sculpture, as well as the inventions of collage, photomontage, constructed sculpture, the ready made and found object, and performance art. Encounters with the arts of Africa, Oceania and other traditions unfamiliar in the West spurred innovations in media, technique, and subject matter. Artists began to respond to the challenge of photography, to organize themselves into movements, and in some cases, to challenge the norms of art through "anti-art." A new gallery system replaced traditional forms of exhibiting and selling art, and artists took on new roles as publicists, manifesto writers, and exhibition organizers. This course examines these developments, with attention to formal innovations as well as cultural and political contexts.
Fall or Spring
Also Offered As: AFRC 2860
1 Course Unit

ARTH 2870 Postwar Art
At a time of seismic shifts in the American polity, postwar art has too often seemed above the fray. Even as New York came to replace Paris as the epicenter of art world in the post war period, the rapid succession of styles and movements from Abstract Expressionism to Neo-Dada, Pop Art, Minimalism, Conceptual Art and Happenings can seem to have their own internal logic, severed from the historical backdrop of the time. Some of the artists we'll consider include Pollock, Krasner, Rauschenberg, Johns, Warhol, Kusama, Martin, Lichtenstein, Bearden, Oldenburg, LeWitt, Chicago and Judd. In this course, we'll reexamine American art and art criticism in the postwar period alive to everything from the Cold War's virulent anti-communism to the rise of progressive liberation movements around race, ethnicity, sexuality, and gender. In the process, we will repeatedly underscore how art both served, and bit, the hand that fed it.
Also Offered As: GSWS 2870
1 Course Unit

ARTH 2879 Eastern and Central European Art, 1917 to the Present
This is a survey course examining the prolific and significant artistic production of the region in four parts: the rise and fall of the Avant-Garde (1917-1934), the development of Socialist Realism (1934-1953), the embrace of post-war Nonconformism (1953-1989); and the proliferation of contemporary art (1989 - 2023). The course will include Russian artists, where applicable; however, it will intentionally recenter the narrative around artists from the satellite states (Poland, Hungary, Romania) and republics of the Soviet Union (Latvia, Lithuania, Estonia, and Ukraine). In light of the war in Ukraine, additional emphasis on Ukrainian art will be provided. Subtopics will include architecture and graphic design; monuments and memory; colonialism and postcolonialism; feminism and LGBTQAI+; the environment; protest. All readings and lectures will be in English
Not Offered Every Year
Also Offered As: REES 0230
Prerequisite: n/a
1 Course Unit

ARTH 2889 Fashion and Modernity
In this class we will study the emergence of the Modernist concept of the "new" as a term also understood as "new fashion." We will move back and forth in time so as to analyze today's changing scene with a view to identify contemporary accounts of the "new" in the context of the fashion industry. Our texts will include poetry, novels, and films. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 1072, ENGL 1071, FREN 1071, GRMN 1065
1 Course Unit

ARTH 2900 Post War Japanese Cinema
Mizoguchi Kenji, Ozu Yasujiro, and Kurosawa Akira are recognized today as three of the most important and influential directors in Japanese cinema. In their films of the late 1940s and 1950s, these directors focused upon issues surrounding the human condition and the perception of truth, history, beauty, death, and other issues of the postwar period. This lecture course places their films in period context, and pays particular attention to the connections to other visual media, and to how "art" and "history" are being defined in the cinematic context. How other directors also took up these issues, and referred to the "big three" is also be discussed.
Not Offered Every Year
Also Offered As: CIMS 2900, EALC 1340
1 Course Unit
ARTH 2910 East Asian Cinema
This survey course introduces students to major trends, genres, directors, and issues in the cinemas of East Asian countries/regions, including Japan, Korea, China, Hong Kong, and Taiwan. Charting key developments over more than a hundred years from the early twentieth century to the present, this course examines films as aesthetic objects, asking questions about film form, narrative, and style. It also pays attention to the evolution of cinema as an institution (e.g. modes of production, circulation, and exhibition) in different cultural and political contexts. Weekly course materials will include both films (primary sources) and analytical readings (secondary sources). By the end of the course, students are expected to gain broad knowledge of East Asian cinema, develop skills of film analysis, and apply these skills to perform historically informed and culturally sensitive analysis of cinema. Prior knowledge of East Asian languages is NOT required.
Also Offered As: CIMS 2910, EALC 1116
1 Course Unit

ARTH 2920 Digital and New Media Seminar
This course explores a particular topic in the study of digital and new media in an intensive and in-depth manner. See the English Department’s website at: www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 2951, COML 2960, ENGL 2950
1 Course Unit

ARTH 2930 Cultural Studies Seminar
This course explores an aspect of cultural studies intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 2420, COML 2420, ENGL 2420
1 Course Unit

ARTH 2940 Art Now
One of the most striking features of today’s art world is the conspicuous place occupied in it by the photographic image. Large-scale color photographs and time-based installations in projections are everywhere. Looking back, we can see that much of the art making of the past 60 years has also been defined by this medium, regardless of the form it takes. Photographic images have inspired countless paintings, appeared in combines and installations, morphed into sculptures, drawings and performances, and served both as the object and the vehicle of institutional critique. They are also an increasingly important exhibition site: where most of us go to see earthworks, happenings and body-art. This course is a three-part exploration of our photographic present.
Spring
Also Offered As: ENGL 2639, GSWS 2940, VLST 2360
1 Course Unit

ARTH 2950 Global Film Theory
This course will provide an introduction to some of the most important film theory debates and allow us to explore how writers and filmmakers from different countries and historical periods have attempted to make sense of the changing phenomenon known as “cinema,” to think cinematically. Topics under consideration may include: spectatorship, authorship, the apparatus, sound, editing, realism, race, gender and sexuality, stardom, the culture industry, the nation and decolonization, what counts as film theory and what counts as cinema, and the challenges of considering film theory in a global context, including the challenge of working across languages. There will be an asynchronous weekly film screening for this course. No knowledge of film theory is presumed.
Not Offered Every Year
Also Offered As: CIMS 2950, COML 2950, ENGL 2900, GSWS 2950
Mutually Exclusive: ARTH 6950
1 Course Unit

ARTH 2960 Contemporary Art
Many people experience the art of our time as bewildering, shocking, too ordinary (my kid could do that), too intellectual (elitist), or simply not as art. Yet what makes this art engaging is that it raises the question of what art is or can be, employs a range of new materials and technologies, and addresses previously excluded audiences. It invades non-art spaces, blurs the boundaries between text and image, document and performance, asks questions about institutional frames (the museum, gallery, and art journal), and generates new forms of criticism. Much of the “canon” of what counts as important is still in flux, especially for the last twenty years. And the stage is no longer centered only on the United States and Europe, but is becoming increasingly global. The course will introduce students to the major movements and artists since 1980, with emphasis on social and historical context, critical debates, new media, and the changing role of the spectator/participant.
Not Offered Every Year
Mutually Exclusive: ARTH 6960
1 Course Unit

ARTH 3000 Undergraduate Methods Seminar
Topic varies from semester to semester. This course, required for history of art majors, acquaints students with a wide variety of historical and contemporary approaches to studying art, architecture, material culture, and visual culture.
1 Course Unit

ARTH 3020 Methods of Object Study
This immersive hands-on seminar introduces students to methods of analyzing the material, physical, and visual aspects of objects in a museum, gallery, or library context. Students will receive training in curatorial practices, close observational skills, and precise descriptive terminology for materials and techniques. They also will learn about essential tools of conservation and technical analysis.
Not Offered Every Year
1 Course Unit
ARTH 3030 Introduction to Museums
This course introduces students to the history, theory and modern practices of museums. Using the resources of the Penn Museum and other Philadelphia museums, students will study curatorial practice, education, exhibition design and conservation, while exploring the theoretical and ethical issues confronted by museums. Particularly relevant for those interested in archaeology, anthropology, art history, cultural heritage and public education.
Fall or Spring
Also Offered As: CLST 3309
1 Course Unit

ARTH 3060 Venice Biennale Spiegel-Wilks Seminar
Founded in 1895, the Venice Biennale (La Biennale di Venezia) is one of the art world’s most prestigious venues for contemporary art. In this seminar, we will consider the history of the Venice Biennale, its curatorial process for group shows, the role of national pavilions, and related topics, within the larger frame of the international art world. How contemporary artists cross boundaries, challenge expectations, and respond to the site itself are also key issues. The seminar focus will be adapted in each iteration according to the expertise of the instructor, and students will be funded to travel with the instructor to Venice over fall break as part of this site seminar. This course is open to History of Art Juniors and Seniors, admission by permission only.
1 Course Unit

ARTH 3070 The Rise of Image Culture: History and Theories
Today images are everywhere; two centuries ago, they were rare. This seminar considers key historical and theoretical contexts for this change and its social consequences. With the help of some of the strongest critics and theorists of image culture, we will consider five interrelated aspects of the rise of image culture. - First, we will explore how new media and mechanical reproduction has changed the idea of the image over in the free market. - Second, we will explore how images operate through the psyche and gaze and how that operation is tied to social and political power. - Third, we will examine how representations make meaning and form identity in coded systems. - Fourth, we will consider the relationship between visual space and concepts of reality. And finally, we will interrogate how the physical and digital material that images are made from affects their meaning.
Spring
Also Offered As: VLST 3030
1 Course Unit

ARTH 3071 What is an Image?
The course explores various concepts of images. It considers natural images (as in optics), images as artifacts, virtual images, images as representations, and works of art as images. Themes to include: the image controversy in cognitive science, which asks whether some cognitive representations are irreducibly imagistic; the question of whether some images resemble what they represent; the development of the concept of the virtual image and of three-dimensional images; the notions of pictorial representation and non-representational images in art. Readings from C. S. Peirce, Nelson Goodman, Robert Hopkins, Dominic Lopes, W. J. T. Mitchell, John Kulvicki, and Mark Rollins, among others.
Fall
Also Offered As: VLST 3050
1 Course Unit

ARTH 3100 Cinema and Socialism
Films from socialist countries are often labeled and dismissed as "propaganda" in Western democratic societies. This course complicates this simplistic view, arguing for the value in understanding the ties between socialist governments, the cinematic arts, and everything in between. We will examine films from past and present socialist countries such as the Soviet Union, China, North Korea, and Cuba, as well as films made with socialist aspirations. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 3100, EALC 2314, ENGL 2934, REES 3770
1 Course Unit

ARTH 3120 Indian Art Seminar
This seminar addresses topics in the art of India from antiquity to the present emphasizing global connections and comparisons. Topics vary from year to year and might include the arts of the book in South Asia; Indian painting, 1100-now; history and theory of museums in the colony, 1750-1950; photography, cinema, and performance art in South Asia; and art, ecology, and environment in South Asia. We shall explore objects in area collections and incorporate special excursions and programs when possible. A background in South Asian studies or languages is not required. Students from related disciplines such history, anthropology, literary studies, religious studies, feminist studies, cinema and media studies, and architecture are welcome.
Fall
Also Offered As: SAST 3120
1 Course Unit

ARTH 3130 East Asian Art Seminar
Undergraduate seminar in East Asian art history. Topics vary from semester to semester.
Not Offered Every Year
Also Offered As: EALC 2100
1 Course Unit

ARTH 3131 Contemporary Art in East Asia and the World: Venice Biennale
This undergraduate seminar focuses on issues confronting artists from East Asia working in today’s contemporary art world. We will begin by considering the terms that constitute the definition of the "modern" and the "contemporary," asking how, by whom, and for whom these terms have been configured. By gaining a familiarity with the major styles, media, institutions, artists, and concepts over the twentieth century in East Asia, we will develop tools to analyze how contemporary artists are crossing boundaries, challenging the limits of nationalism, and dealing with shifting political and social grounds. We will take our analysis on site at the Venice Biennale, looking closely at how East Asian artists are participating in, as well as contesting, this influential international exposition. Students will make close studies of national pavilions as well as the international exhibition, generating analyses of these display spaces, and will produce a group website in response to the Biennale as an alternative virtual exhibition. By permission only.
Not Offered Every Year
1 Course Unit

ARTH 3150 Japanese Art Seminar
Undergraduate seminar in early modern, modern, or contemporary Japanese art. Topics vary from semester to semester.
Not Offered Every Year
Also Offered As: EALC 2140
1 Course Unit
ARTH 3170 CU in India - Topics Course
C.U. in India is a hybrid, domestic/overseas course series which provides students with the opportunity to have an applied learning and cultural experience in India or South East Asia where students participate in 1) 28 classroom hours in the Fall term 2) a 12-day trip to India or South East Asia with the instructor during the winter break visiting key sites and conducting original research (sites vary) 3) 28 classroom hours at Penn in the Spring term and 4) a research paper, due at the end of the Spring term. Course enrollment is limited to students admitted to the program. For more information and the program application go to http://sites.sas.upenn.edu/cuinindia This is a 2-CU yearlong course DEADLINE TO REGISTER IS MARCH 31st
Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: COML 2217, GSWS 2217, SAST 2217
1 Course Unit

ARTH 3180 African Art Seminar
This seminar focuses on art of the African continent. It is open to undergraduates only.
Not Offered Every Year
Also Offered As: AFRC 3180
1 Course Unit

ARTH 3200 Aegean Bronze Age Art Seminar
In this class, we will explore the art and cultures of the Aegean Bronze Age in Greece, a period from roughly 3,300-1,100 BCE. The geographic regions of the Greek Mainland, the Cycladic islands, and the island of Crete were home to complex cultural groups that formed a unique Bronze Age society. Topics will vary from semester to semester, and may include and not be limited to the examination of the architecture, pottery, wall paintings, stone carvings, jewelry, seals, weapons and other metalwork, and the iconography of these prehistoric arts. We will also delve into issues of the organization of society and the distribution of power, the role of women and men, trade and the unique position of the (rather small) Aegean world as it existed between two huge powerhouses of the ancient Mediterranean: the Ancient Near East and Egypt.
Not Offered Every Year
1 Course Unit

ARTH 3230 Origins of Art / Origins of Writing
Each of the earliest systems of writing had intimate and enduring ties to pictorial traditions. This seminar addresses the fundamental relationship between texts and visual imagery in the Mesopotamian, Egyptian, Chinese, and Maya traditions. The class will take a comparative approach to examine the parallel development of scripts and images, extending from their earliest beginnings to their on-going lives as mature systems. As the individual scripts became more capable of representing speech, the subject matter, composition, and function of images changed, and one goal of this class is to identify these processes. Emphasis will be put on seeing text and image as collaborative and interactive constructions, in which parts of a single message can be encoded and presented in different ways. The class will make extensive use of the collections and the curatorial expertise of the Penn Museum.
Not Offered Every Year
Also Offered As: ANTH 2330, NELC 3070
1 Course Unit

ARTH 3250 Classical Mythology in the Western Tradition
How and why have artists and viewers, from the Middle Ages to the global present, so often confronted ancient Greek and Roman stories? This undergraduate seminar makes use of local museum collections.
Not Offered Every Year
Also Offered As: CLST 3409
1 Course Unit

ARTH 3251 Arts of the Roman House, Villa, and Palace Seminar
Private and public met in the elite Roman dwelling; this undergraduate seminar looks at the rich record of things and images, in multiple media, and in their spatial contexts, among which Romans chose to live.
Not Offered Every Year
Also Offered As: CLST 3410
1 Course Unit

ARTH 3252 Violence in Ancient Mediterranean Art Seminar
Violence, physical and emotional, pervades the images of the ancient Mediterranean. This undergraduate seminar asks why, how and to what end that occurred; in these and any cultures, why do people look at such images?
Not Offered Every Year
Also Offered As: CLST 3411
1 Course Unit

ARTH 3259 Luxury in the Greco-Roman World: Self-Identity and Self-Indulgence
This undergraduate seminar examines the physical contexts, artifacts and visual narratives of the Greek and Roman cultures that attest the idea of luxury. The topics of the course look at the ways in which Greeks and Romans, on the one hand, defined their personhood through the representations of the self and the other in the arts, and, on the other hand, indulged in their personal manifestations and social interactions. The course is organized in two thematic sections: self-identity (the self, the other, sexuality, death) and self-indulgence (dressing and accessorizing, dining, exercising and bathing, having fun: entertainment and educated leisure lifestyles).
Fall or Spring
1 Course Unit

ARTH 3251 Greek Art, Architecture, and Urbanism
This undergraduate seminar explores key themes in Greek Art, Architecture and Urbanism. Topics vary from semester to semester and may include: “The Greek city,” “The architecture and sculpture of Greek temples,” “The architecture and landscape of Greek sanctuaries.”
Fall or Spring
1 Course Unit

ARTH 3259 Roman Art, Architecture, and Urbanism
This undergraduate seminar explores key themes in Roman Art, Architecture and Urbanism. Topics vary from semester to semester and may include: “Houses and Society,” “The Roman city,” “Pompeii and Herculaneum,” “Designing for luxury: Roman villas and houses,” “The architecture and landscape of Roman sanctuaries.”
Fall or Spring
1 Course Unit
ARTh 3305 Topography and Monuments of Ancient Rome
An intensive exploration of Rome's urban topography during the Republican and Imperial periods (6th c. B.C. through 4th c. A.D.) Using architectural and textual sources, including the Etruscan and Roman collections of the Penn Museum, the goal will be to reconstruct the built environment and decoration of Rome over the course of a millennium. Of interest to students of classics, archaeology, art history, and architecture. Some familiarity with Rome will be a plus, but is not required. Not Offered Every Year
Also Offered As: CLST 3305
Mutually Exclusive: ARTH 5330
1 Course Unit

ARTh 3320 The Byzantine Art of Devotion Seminar
Far from being exclusively a matter of belief and inner feeling, religion in the Byzantine world was intensely material. Icons, reliquaries, illustrated books, and other objects that we now consider under the rubric of "Byzantine art" played a crucial role in shaping one's relationship and interaction with the realm of the sacred. This undergraduate seminar offers an in-depth exploration of the material culture of personal piety in Byzantium. Larger topics to be addressed include icon veneration, the cult of saints and relics, pilgrimage, monasticism, and mysticism. Special consideration is given to the ways in which personal devotion objects functioned as instrument of self-formation. Not Offered Every Year
1 Course Unit

ARTh 3321 Portraiture Seminar
What does it mean to depict a person? And how might culturally specific notions of personal identity and subjectivity inform such an endeavor? This undergraduate seminar takes a broad view of the forms, functions, and meanings of portraiture in the Western tradition. Images across a wide gamut of media, from monumental sculptures to portrait miniatures, will be examined alongside other signs of identity, including seals, heraldic devices, inscriptions, and insignia. Not Offered Every Year
1 Course Unit

ARTh 3330 Material Christianities
What can objects tell us about Christianity? How might a lavish mosaic, a withered body part, a dark crypt, or a pilgrim's oil lamp challenge and complicate visions of the past extracted from texts? This course investigates the first thousand years of Christianity through the lens of material culture. The history of Christianity - from its nebulous beginnings in Palestine to its recognition as the official religion of the Roman Empire and subsequent expansion - is often narrated from a perspective that privileges the writings of elite men. To capture the rich diversity in Christian experience and expression, we will turn to the material practices of religion and explore how things, places, and bodily acts shaped what it meant to be Christian. Building on insights drawn from archaeology, art history, anthropology, and religious studies, we will seek to recover the experiences of diverse and often marginalized subjects and communities, and in the process, will problematize the categories of religion, authority, and identity. Regular visits to the Penn Museum and other collections in Philadelphia will complement lectures and group discussions.
Also Offered As: RELS 3330
Mutually Exclusive: ARTH 5330, RELS 5330
1 Course Unit

ARTh 3400 Medieval Art Seminar
This undergraduate seminar explores through the lens of more focused topics the arts produced in the European Middle Ages, and in adjacent territories, from 800 to 1400. Close readings of primary and secondary sources drive class time, and the rich resources of the Philadelphia area are brought to bear, including the Penn Museum, the Free Library of Philadelphia, the Philadelphia Museum of Art, Glencarn Museum, Bryn Athyn, etc. Students will work on skills relating to research, oral presentations, and academic writing.
1 Course Unit

ARTh 3401 Topics in Medieval Art
Topics vary from semester to semester. For the Spring 2021 semester, the topic will be: Art in the Time of Dante. 2021 marks the 700th anniversary of the death of Dante Alighieri (1265-1321). While his Divine Comedy is the pinnacle of medieval literary arts, Dante was himself interested in the masterpieces of visual arts of his own time – in Italy and abroad. Prominent artists like Cimabue and Giotto are mentioned in his texts, as well as such notorious figures linked to artistic production as the usurer Reginaldo degli Scrovegni or the mercenary Castruccio Castracani. Dante witnessed some of the most dramatic events of the Middle Ages, from the transfer of the papacy to Avignon to the salacious affair of the Tour de Nesle in France – together we will examine the visual culture of this tumultuous time.
1 Course Unit

ARTh 3430 Late Medieval and Renaissance France: Art, Politics, and Power
This undergraduate seminar will examine the commission, production, and display of art at the Valois courts from the start of the Hundred Years War with England in the 1330s to the death of Francis I in 1547. During these two centuries, conflict and conquest shaped the making of artwork in profound and sometimes unexpected ways: precarious dynastic claims could be substantiated through carefully crafted images, while foreign artists (including Rosso Fiorentino, Francesco Primaticcio, and Leonardo da Vinci) could be called upon to boost the monarch's prestige. Investigating the role played by objects in cultural diplomacy and propaganda, this course will examine works in a wide variety of techniques including easel painting, manuscript illumination, tapestry, armor, and metalwork, without neglecting less tangible art forms such as feasting, chivalric tournaments, and royal processions. Topics will include the art of the gift, female patronage, the interaction between text and image, and the role of artists in shaping a royal visual identity. The course will include a visit to the Philadelphia Museum of Art and an illuminated manuscript handling session at the Free Library of Philadelphia.
1 Course Unit

ARTh 3500 Topics in Southern Renaissance Art
Topic varies from semester to semester. For the Spring 2021 semester, the topic will be: Chiaroscuro. In this seminar we will explore the artistic technique known as "chiaroscuro," the contrast between light and shadow so as to produce effects of volume and relief. While we will grapple with chiaroscuro as deployed in architecture, drawings, and prints, our focus will be all the tenebret paintings of Caravaggio. If the lit bodies in Caravaggio's paintings project out boldly in relief, does anything remain and speak in the surrounding darkness?
1 Course Unit
ARTH 3510 Writing About Art Seminar
What does it mean to write about art? What are the historical origins of this undertaking? How does language mediate the intellectual, somatic, and cultural rapport between the viewing self and the physical object? As an initial response to these questions we will examine the writings of the Tuscan artist and critic Giorgio Vasari (1511-1574), the biographer of such renowned artists as Leonardo, Raphael, Donatello, and Michelangelo. We will also read the letters of famous artists from the early modern period, and examine the theoretical forays of artists such as Albrecht Dürer, who attempted to sketch the relationship between the memory and the imagination. Finally, we will look to examples of works of art for how we might read visual images as expressive of theories about what are is and what it can do.
Not Offered Every Year
Also Offered As: ENGL 0549, GRMN 1302, ITAL 3610
1 Course Unit

ARTH 3511 Brazilian Baroque Seminar
This undergraduate lecture explores the art, architecture, and visual culture of the Portuguese Empire with emphasis on Brazil and its relations with Africa and Asia.
Not Offered Every Year
Also Offered As: AFRC 3511, LALS 3511
1 Course Unit

ARTH 3512 Caravaggio Seminar
This seminar explores the artistic culture of Baroque Rome, with focus on the life and career of Caravaggio. This course is open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: ITAL 3612
1 Course Unit

ARTH 3560 Freud's Objects
How do we look at objects? And which stories can objects tell? These are questions that have been asked quite regularly by Art Historians or Museum Curators, but they take a central place within the context of psychoanalytic studies as well. The seminar "Freud's Objects" will offer an introduction to Sigmund Freud’s life and times, as well as to psychoanalytic studies. We will focus on objects owned by Freud that he imbued with special significance, and on Freud’s writings that focus on specific objects. Finally, we will deal with a re-interpretation of the "object" in psychoanalytic theory, via a discussion of texts by British psychoanalysts such as Melanie Klein and Donald Winnicott.
Not Offered Every Year
Also Offered As: CLST 3509, COML 2052, ENGL 1425, GRMN 1015
1 Course Unit

ARTH 3562 The Invention of Communication
This undergraduate seminar covers a history of print from Gutenberg to the twenty-first century.
Not Offered Every Year
1 Course Unit

ARTH 3621 Prints and Politics: From the Early Modern Era to Our Times
By the late fifteenth century, mechanically reproducible images were reshaping the social world. Connecting new audiences across geographies through access to the same visual information, prints launched propagandistic missions, fomented rebellion against authorities, and built networks of progressive thinkers who could envision alternative futures. Prints played a key role in developing what constituted news. Mass-distributed images delivered the mistreatment of the “Indians” by the Spanish and portrayed the packing of Africans on a slave ship. Goya’s etchings protested the repression of the Second of May uprising, while the silkscreens of Andy Warhol repeated the image of police dogs attacking civil rights activists in Birmingham. Covering a five-hundred-year history, this course will focus on how printed images created communities and acted as exclusionary devices. We will train our eyes on examples from local collections.
Also Offered As: ENGL 2621
1 Course Unit

ARTH 3630 Early Modern Art Seminar
This seminar takes a thematic approach to the study of European art produced between 1400-1800. Topics, which change annually, include such offerings as “Art and Law;” “Spectacle, Punishment, and Surveillance;” “Prints and Politics” and “The Subject of Nature.” In a given year, we will approach a corpus of objects, images, and performances through a study of three kinds of text: primary sources, secondary art-historical scholarship, and critical theory. Discussions will convene around local museum and library collections.
1 Course Unit

ARTH 3730 American Art Seminar
This undergraduate seminar focuses on the art of the United States, the European American colonies that preceded it, and the increasingly diverse and complicated communities that have come to characterize the modern era. Topics may explore representational, material, and aesthetic aspects of painting, sculpture, and photography; the social and political roles of mass visual and material culture; and histories of exhibitions and museums. The history of artistic genres (portraiture, history, and landscape painting, still life); representational structures (common themes and types); and reproduction technologies (photography, sculpture casting, and printmaking) throughout the history of this nation may also be featured. The class is reading- and discussion-based. It is recommended for art history and other humanities majors and minors.
Not Offered Every Year
1 Course Unit

ARTH 3749 In/Visible: Asian American Cultural Critique
This interdisciplinary seminar examines how popular cultural representations frame Asian Americans as either invisible or hypervisible —our explorations will move across race and national origin, language and class, gender and sexuality. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ASAM 2272, ENGL 2272, GSWS 2272
1 Course Unit
ARTH 3750 Topics in 19th-Century Art
Topic varies from semester to semester. For the Spring 2022 semester, the topic will be: World's Fairs. This seminar will study the manifold novelties first displayed at the nineteenth and early-twentieth century World's Fairs, stretching from 1851 to 1915. Such events-first held in cities like London and Paris, but eventually all over the world-chronicled the period's innovations in art, technology, ethnography, and science. Many of the most crucial inventions were first shown to the public at World's Fairs: electricity, the telephone, and the bicycle, among other innovative artistic techniques and everyday objects. The fairs brought a community of millions of tourists from all over the world together, thereby encoding complex structures of empire and international relations within a pretense to entertainment. The "global" ambitions of universal expositions, and the image of the "world" they helped construct, will come under close scrutiny for its frequent imperial overreach, not least in the controversial practice of human displays. We will also test the thesis that the universal expositions engendered new ways of seeing and engaging with the material world. Finally, we will study the period definitions of "innovation" in industrial production promoted by such large-scale events.

1 Course Unit

ARTH 3790 Performing History
This seminar concentrates on the ways that various peoples in the world make their history by means other than relying on written texts alone. Over the course of the semester, we therefore may be examining such different public events and civic rituals as parades, political and religious processions, local historical pageants, carnivals, historic preservation, museums, military reenactments, and history theme parks. The emphasis in each of these forms, places, and semiotic processes will be on their identity and function as key performances that transform consciousness, shift individuals alternately into both actors and spectators, reframe the everyday as the metaphysical, and intensify the status of cultural values in the histories they present to view. Course requirements: a seminar paper, the topic of which you will discuss with me no later than week five of the course; and a working annotated bibliography and statement of your paper's main thesis. I will say more about these assignments as they approach.

Not Offered Every Year
Also Offered As: ANTH 2154, HIST 3154
1 Course Unit

ARTH 3820 Film Exhibition and Moviemaking
Cinema has always had an audience. From its first appearances in cafes, tea houses, and variety shows to today's fragmented, digital consumption, cinema continues to exist in relation to different ways of looking and experiencing. This course examines how films have been shown and how audiences have watched films in diverse historical and cultural contexts. We will explore how the ways in which film screenings were organized shape both the films being shown and audiences' moviemaking experiences. Based on historical and site-specific investigations, we will also reflect on how our modes of engaging with cinema impact conceptions of what cinema is, what it will be, and what it can be. Unlike most film courses, this course does not focus on analyzing films, but look into the operations of cinema as an institution. There will be field trips to local movie theaters and a final collective project that asks students to curate a special film screening (in-person or online) using innovative formats.

Also Offered As: CIMS 3810
1 Course Unit

ARTH 3830 Queer Modernisms
This course tracks the development of Modernism in America, Western Europe, and specific other locations around the globe, with particular emphasis as to how and why dissident sexualities so often found expression in and as aesthetic dissent. Creating new expressive forms and theories that often seem far removed from any traditional definition of sexuality, queer modernist artists often replaced dangerous forms of social dissent with more prudent forms of formal dissidence. In pursuing these questions, we will place art in its broader social context, seeking to answer such significant problems as how and why forms of artistic representation that were once transparent, eminently legible to all strata of society, increasingly became, under the avant garde, designed to speak only to an elect, to a select few in our culture. We will ask what happens when art deliberately narrows its audience, and how that narrowing is related to questions of sexual difference. What is the relationship between queerness and cultural elitism, a connection generally presumed in popular culture, but rarely examined academically? And finally we will ask about the utility of forms of queer political dissent if those forms remain illegible as queer to a wider audience. Throughout, new methods informed by queer, gender, and critical race theory will be utilized.

Also Offered As: GSWS 3150
1 Course Unit

ARTH 3831 Queer Art Seminar
This course explores art and art history from a Queer Studies perspective, in a global and cross-cultural context. Topics vary from semester to semester and stretch widely in terms of geography and chronology.

Also Offered As: GSWS 3831
1 Course Unit

ARTH 3840 Cuban Visual Culture
This course will focus on the urban history and cultural politics of contemporary Cuba with an emphasis on contemporary art and contemporary developments in the city of Havana. Students will learn about the Spanish influence on early colonial art, the development of formal academic art training and the changes to art instruction and the form and content of art created since the Revolution.

Not Offered Every Year
Also Offered As: AFRC 3840, LALS 3840
1 Course Unit

ARTH 3850 Global Modernism Seminar
This course explores literary modernism as a global and cross-cultural phenomenon. See the English Department's website at www.english.upenn.edu for a description of the current offerings.

Not Offered Every Year
Also Offered As: COML 2071, ENGL 2071, GRMN 1304
1 Course Unit

ARTH 3860 20th Century Art in Europe Seminar
Topic varies from semester to semester. For the Fall 2023 semester, the topic will be: Modern Design. This course examines modern design from the turn of the 20th century through the present, including furniture, metalwork, ceramics, glass, plastics, lighting, electronics, and design environments. Our study focuses on design objects in museum collections as well as period journals and criticism. Topics include influential designers and movements of Europe and North America as well as counterparts in Asia, Africa, and South America. We will use design exhibitions at galleries and museums as resource for discussion and writing throughout the term.

Not Offered Every Year
1 Course Unit
ARTH 3870 The History of American Animation
This course will look at American animation as an art form, a technology and an industry. We will explore the ways in which artistic, technical, historical, and cultural conditions shape the development of animation and in turn, how animation impacts viewers. Topics will include trends in animation and their relation to contemporary popular culture, issues of art versus commerce in the creation of cartoons, the intersection of animation and politics, and shifts in style and technique throughout the years. We will look at the personalities in animation who have shaped the art form and continue to influence it, the rise in animation’s popularity, and current-day applications of animated imagery. Case studies will include Pixar, Walt Disney, UPA, television cartoons, stop motion animation, and the movie, Who Framed Roger Rabbit.
Not Offered Every Year
Also Offered As: CIMS 3200, FNAR 3181
1 Course Unit

ARTH 3871 The History Computer Animation
This course will look at computer animation as an art form, a series of technological innovations and an industry. We will explore the way in which artistic, technical, historical, and cultural conditions have shaped the development of computer animation. Topics will include the impact of early motion graphics experiments in the sixties, the contributions of university- and corporation-funded research, commercial production, and the rise of Pixar. We will consider the companies and personalities in computer animation who have shaped the art form and continue to influence it, the contributions to computer animation from visionaries around the world, and current day applications of animated imagery. Throughout the course, we will screen important works from the canon of computer animation, including the earliest computer-animated shorts, scenes from Beauty and the Beast, the first Pixar shorts, Toy Story, Final Fantasy and works done internationally to forward the art and the industry.
Not Offered Every Year
Also Offered As: CIMS 3201, ENGL 0591, FNAR 3182
1 Course Unit

ARTH 3873 The Animation Of Disney
No organization has exerted as much influence on popular culture and the art form of animation as The Walt Disney Company. For decades, Disney films were the standard by which all other animated films were measured. This course will examine the biography and philosophy of founder Walt Disney, as well as The Walt Disney Company’s impact on animation art, storytelling and technology, the entertainment industry, and American popular culture. We will consider Disney’s most influential early films, look at the 1960s when Disney’s importance in popular culture began to erode, and analyze the films that led to the Disney renaissance of the late 1980s/early 1990s. We will also assess the subsequent purchase of Pixar Animation Studios and the overall impact Pixar has had on Disney. The class will also look at recent trends and innovations, including live-action remakes and Disney+. Not Offered Every Year
Also Offered As: CIMS 3203, ENGL 0593, FNAR 3184
1 Course Unit

ARTH 3874 History Children’s TV
This course will survey the history of children’s television from the invention of television through the present, with an emphasis on series development and production, artistry, and the colorful personalities who built this industry. We’ll consider important figures including Fred Rogers, Bill Hanna and Joe Barbera, Joan Ganz Cooney, Jim Henson and Walt Disney. We will discuss the history of animated cartoons that were made specifically for television, Saturday morning production, the rise of Japanese cartoons from the 1960s through Pokemon, and the growth of children’s cable channels in the 90s, as well as other landmark moments. We’ll also assess the impact of streaming platforms on television and the future of children’s media.
Not Offered Every Year
Also Offered As: CIMS 3204, ENGL 0594, FNAR 3185
1 Course Unit

ARTH 3880 Modern and Contemporary Theory Seminar
Topic varies from semester to semester. For the Fall 2021 semester, the topic will be: Modern Design. This course examines modern design from the turn of the 20th century through the present, including furniture, metalwork, ceramics, glass, plastics, lighting, electronics, and design environments. Our study focuses on design objects in museum collections as well as period journals and criticism. Topics include influential designers and movements of Europe and North America as well as counterparts in Asia, Africa, and South America. We will use design exhibitions at galleries and museums as resource for discussion and writing throughout the term.
Not Offered Every Year
1 Course Unit

ARTH 3900 Historical Films
This topic course explores aspects of Film Practice intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 2020, ENGL 2941
1 Course Unit

ARTH 3901 Romantic Comedy
This topic course explores aspects of Film Practice intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 2021, ENGL 2942
1 Course Unit

ARTH 3902 World Cinema
This topic course explores aspects of Film Practice intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 2022, COML 2931, ENGL 2931
1 Course Unit
ARTH 3910 Film Festivals
This course is an exploration of multiple forces that explain the growth, global spread and institutionalization of international film festivals. The global boom in film industry has resulted in an incredible proliferation of film festivals taking place all around the world, and festivals have become one of the biggest growth industries. A dizzying convergence site of cinephilia, media spectacle, business agendas and geopolitical purposes, film festivals offer a fruitful ground on which to investigate the contemporary global cinema network. Film festivals will be approached as a site where numerous lines of the world cinema map come together, from culture and commerce, experimentation and entertainment, political interests and global business patterns. To analyze the network of film festivals, we will address a wide range of issues, including historical and geopolitical forces that shape the development of festivals, festivals as an alternative marketplace, festivals as a media event, programming and agenda setting, prizes, cinephilia, and city marketing. Individual case studies of international film festivals—Cannes, Berlin, Venice, Rotterdam, Karlovy Vary, Toronto, Sundance among others—will enable us to address all these diverse issues but also to establish a theoretical framework with which to approach the study of film festival. For students planning to attend the Penn-in-Cannes program, this course provides an excellent foundation that will prepare you for the on-site experience of the King of all festivals.
Not Offered Every Year
Also Offered As: CIMS 2010, ENGL 2901
1 Course Unit

ARTH 3911 American Independents
This topic course explores aspects of Film History intensively. Specific coursetopics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 2011, ENGL 2911
1 Course Unit

ARTH 3912 Transnational Cinema
This topic course explores aspects of Film History intensively. Specific coursetopics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current This offerings.
Not Offered Every Year
Also Offered As: CIMS 2012, COML 2012, ENGL 2930
1 Course Unit

ARTH 3913 Documentary Cinema
This topic course explores aspects of Film History intensively. Specific coursetopics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current This offerings.
Not Offered Every Year
Also Offered As: CIMS 2013, ENGL 2940
1 Course Unit

ARTH 3914 Contemporary American Cinema
This topic course explores aspects of Film History intensively. Specific coursetopics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current This offerings.
Not Offered Every Year
Also Offered As: CIMS 2014, ENGL 2970
1 Course Unit

ARTH 3915 Contemporary European Cinema
This topic course explores aspects of Film History intensively. Specific coursetopics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current This offerings.
Not Offered Every Year
Also Offered As: CIMS 2015, COML 2920, ENGL 2920
1 Course Unit

ARTH 3916 Bollywood and Beyond
This topic course explores aspects of Film History intensively. Specific coursetopics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current This offerings.
Not Offered Every Year
Also Offered As: CIMS 2016, COML 2932, ENGL 2932
1 Course Unit

ARTH 3930 Cinema and Civil Rights
This undergraduate seminar will examine key moments in the history of civil rights through a cinematic lens. Over the course of the semester, we will explore how filmmakers have depicted the lives, aspirations, and strategies of those who have struggled for equal rights; how different struggles have intersected with each other; what aesthetic strategies have been adopted to represent freedom and the denial of it; and how effective cinematic efforts to contribute to increased freedom have been as well as what criteria we use to evaluate success or failure in the first place. Each week, we will watch a film and read a series of texts that will be drawn from a variety of arenas, including histories of civil rights; civil rights pamphlets and speeches; filmmaker interviews; film and media theory; memoirs; and theories of race, gender and sexuality.
Course requirements: mutual respect; completion of all readings and screenings; participation in class discussion; weekly online responses; a final project that can be a research paper, film, art project, or community-based initiative.
Not Offered Every Year
Also Offered As: AFRC 3930, CIMS 3930, ENGL 0599, GSWS 3930
1 Course Unit
ARTH 3931 Participatory Community Media, 1970-Present
What would it mean to understand the history of American cinema through the lens of participatory community media, collectively-made films made by and for specific communities to address personal, social and political needs using a range of affordable technologies and platforms, including 16mm film, Portapak, video, cable access television, satellite, digital video, mobile phones, social media, and drones? What methodologies do participatory community media makers employ, and how might those methods challenge and transform the methods used for cinema and media scholarship? How would such an approach to filmmaking challenge our understanding of terms like "authorship," "amateur," "exhibition," "distribution," "venue," "completion," "criticism," "documentary," "performance," "narrative," "community," and "success"? How might we understand these U.S.-based works within a more expansive set of transnational conversations about the transformational capacities of collective media practices? This course will address these and other questions through a deep engagement with the films that make up the national traveling exhibition curated by Louis Massiah and Patricia R. Zimmerman, We Tell: Fifty Years of Participatory Community Media, which foregrounds six major themes: Body Publics (public health and sexualities); Collaborative Knowledges (intergenerational dialogue); Environments of Race and Place (immigration, migration, and racial identities unique to specific environments); States of Violence (war and the American criminal justice system); Turf (gentrification, homelessness, housing, and urban space); and Wages of Work (job opportunities, occupations, wages, unemployment, and underemployment). As part of that engagement, we will study the history of a series of Community Media Centers from around the U.S., including Philadelphia's own Scribe Video Center, founded in 1982 by Louis Massiah, this course's co-instructor. This is an undergraduate seminar, but it also available to graduate students in the form of group-guided independent studies. The course requirements include: weekly screenings, readings, and seminar discussions with class members and visiting practitioners, and completing both short assignments and a longer research paper. Also Offered As: AFRC 3932, CIMS 3931, COML 3931, ENGL 2970, GWS 3931
Mutually Exclusive: ARTH 6931
1 Course Unit

ARTH 3940 Chinese and Sinophone Cinemas
This course is a survey of Chinese and Sinophone cinemas from the silent era to the present. The Sinophone refers to Sinitic film cultures both inside and outside the People's Republic of China that have been in relatively marginalized positions against the Han-Chinese mainstream, such as Taiwanese, Hong Kong, Tibetan, and transpacific cinemas. One major goal of the course is to interrogate the national cinema framework and to show how the meaning of "Chineseness" has been problematized by filmmakers and critics throughout modern history. Students will learn about important film movements and trends such as leftist cinema from the 1930s, socialist cinema, Taiwanese and Hong Kong New Waves, the Fifth and Sixth Generation filmmakers, and contemporary transnational productions. Attention will be paid to both films known for awards and artistic achievements and popular genres including thrillers, horror, and wuxia (martial art).
Also Offered As: CIMS 3940, EALC 1331
1 Course Unit

ARTH 3970 Spiegel-Wilks Seminar
Topic varies from semester to semester. While not having any specific pre-requisites, this seminar in contemporary art is designed for junior and senior majors in art history with some knowledge in the field. When appropriate, it may feature special guests from the art world, international travel, and/or curatorial opportunities.
Not Offered Every Year
Also Offered As: ENGL 2663
1 Course Unit

ARTH 3999 Independent Study
Independent Study with a standing faculty member or instructor.
Fall or Spring
1 Course Unit

ARTH 4250 Late Antique Arts
What is 'Late Antiquity'? In 312 when Roman emperor Constantine inaugurated a Christian empire, 'Roman' culture was centuries old. The period ca. 200-650 CE saw profound transformations that launched Medieval, Byzantine and Islamic traditions. In this epoch of upheaval destruction was frequent but partial: Rome long survived, Constantine's 'new Rome', Constantinople flourished, and around the Empire both proto-global visual culture and local forms prospered. Roman cultural models authorized both innovation and passion for tradition: we critique art-historical models for Late Antique 'decline', analyse habits of material reuse and curation, and look at new Christian and Jewish roles for Roman things as well as polytheist visual survival. Foreign allies and enemies interacted with Greco-Roman Late Antiquity; we visit them too, as in the early Islamic palaces. Media discussed include not just 'monumental' painting, mosaic, sculpture, but also silver, ceramic, ivory, figural textile, glass, painted books, jewelry, coins and more. We look too at Late Antique texts on art, objects, space and viewership. This is an advanced undergraduate lecture course.
Not Offered Every Year
Also Offered As: CLST 3406
1 Course Unit

ARTH 4260 Narrative in Ancient Art
Cultures of the ancient Middle East and Mediterranean world were fascinated to make images and things tell stories and engage with time. Sometimes that implied a text - and sometimes, not. With case studies from the deep past, this interdisciplinary advanced undergraduate lecture course explores the capacity of visual language to narrate.
Not Offered Every Year
Also Offered As: CLST 3412, NECL 4055
1 Course Unit

ARTH 4270 Roman Sculpture
Survey of the Republican origins and Imperial development of Roman sculpture - free-standing, relief, and architectural - from ca. 150 BC to 350 AD. We concentrate on sculpture in the capital city and on court and state arts, emphasizing commemorative public sculpture and Roman habits of decorative display; genres examined include relief, portraits, sarcophagi, luxury and minor arts(gems, metalwork, coinage). We evaluate the choice and evolution of styles with reference to the functions of sculptural representation in Roman culture and society.
Not Offered Every Year
Also Offered As: CLST 3405
1 Course Unit
ARTH 4280 Hellenistic Art and Spectacle
Hellenistic usually names art in the age of Mediteranean culture from the 4th century BCE and the rise of Alexander the Great's Macedon, and the Greco-Macedonian conquest of the Persian Empire, to Cleopatra of Egypt's defeat by Rome at the end of the Republic. Our course looks also at the age of Augustus and his successors, 1st century CE. While Greek and Macedonian practice in city-states and kingdoms is our launching point, this course also looks at international culture and cultural interaction among peoples from North Africa and Etrusco-Roman Italy, Egypt, Anatolia, the Mideast and Central Asia. We probe art, artifacts, and visual display from a range of settings, from sanctuary to house, palace and parade, and in all media, from marble monuments to pottery and jewelry. Our archaeology of Hellenistic visual culture also looks at the rich body of Hellenistic and Roman texts of art history, art criticism, and the description of objects and image, to better understand the Hellenistic maker, patron, and viewer. No prerequisites.
Not Offered Every Year
Also Offered As: CLST 3413
1 Course Unit

ARTH 4350 Islamic Art and Architecture
This advanced undergraduate lecture introduces the major architectural monuments and trends, as well as to the best-known objects of the Islamic world. Istanbul, Samarkand, Isfahan, Cairo and Delhi as major centers of art production in the fourteenth to seventeenth centuries. Attention is paid to such themes as the continuity of late antique themes; architecture as symbol of community and power; the importance of textiles; primacy of writing; urban and architectural achievement; and key monuments of painting and metalwork.
Not Offered Every Year
Also Offered As: NELC 4550
1 Course Unit

ARTH 4400 African Art, 600-1400
This course examines the flourishing civilizations of the African continent between the Fall of the Roman Empire and the dawn of the "Age of Discovery." Although material remains of the complex cultures that created exceptional works of art are rare, current archaeology is bringing much new information to the fore, allowing for the first time a preliminary survey of the burgeoning artistic production of the African continent while Europe was building its cathedrals. Bronze casting, gold work, terracotta and wood sculpture, and monumental architecture - the course takes a multi-media approach to understanding the rich foundations of African cultures and their deep interconnection with the rest of the world before the disruptive interventions of colonialism.
Not Offered Every Year
Also Offered As: AFRC 4400
1 Course Unit

ARTH 4980 Senior Thesis
Students with a minimum GPA of 3.5 in the major at the end of the junior year are encouraged to write an honors thesis. Students who choose to write a thesis must meet with the Undergraduate Chair in spring of their junior year to discuss their topic. Research will begin in summer and continue into fall of their senior year, concluding with a paper in the spring term. Students will be registered for ARTH 398 in the Fall and Spring semesters of their senior year. All thesis writers are encouraged to apply for research and travel grants through the Center for Undergraduate Research and Fellowships to support their work. Departmental honors are awarded to students whose thesis receives a grade of A- or higher. Students may also submit their theses in the annual competition for the College Alumni Society David M. Robb Prize in the History of Art. For more information, visit: https://www.sas.upenn.edu/arthistory/undergraduate/honors
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

ARTH 5010 Curatorial Seminar
Curatorial seminars expose students to the complexity of studying and working with objects in the context of public display. With the guidance of faculty and museum professionals, students learn what it means to curate an exhibition, create catalogues and gallery text, and/or develop programming for exhibitions of art and visual/material culture.
Not Offered Every Year
1 Course Unit

ARTH 5050 Masters in Liberal Arts Seminar
This seminar satisfies a requirement in the Master of Liberal Arts Degree program through the College of Liberal and Professional Studies. Not Offered Every Year
1 Course Unit

ARTH 5070 MLA Proseminar
This MLA Proseminar course in the history of art explores an aspect of Art History and Theory; specific course topics vary. Proseminars are taught by Penn Standing Faculty and fulfill a core MLA Program requirement. Please see the College of Liberal and Professional Studies Course Guide for a description of current offerings.
1 Course Unit

ARTH 5090 African Art Seminar
This seminar covers aspects of the arts and visual/material cultures in Africa, including the global African diaspora, throughout the continent's history. Topics will vary from semester to semester.
Also Offered As: AFRC 5091
1 Course Unit

ARTH 5110 Topics in South Asian Art
This seminar engages topics in the history and theory of South Asian art from antiquity to the present emphasizing global connections and comparisons. Topics vary from year to year and might include the arts of the book in South Asia; Indian Ocean art worlds; and fragments, ruins, and traces in the art of South Asia. We shall explore objects in area collections and incorporate special excursions and programs when possible. A background in South Asian studies or languages is not required. Students from related disciplines such history, anthropology, literary studies, religious studies, feminist studies, cinema and media studies, and architecture are welcome.
Not Offered Every Year
Also Offered As: SAST 5110
1 Course Unit
ARTH 5120 Advanced Topics in Buddhism
This is an advanced course for upper level undergraduates and graduate students on various issues in the study of Buddhist texts, art, and history. Each semester the theme of the course changes. In recent years themes have included: Magic and Ritual, Art and Material Culture, Texts and Contexts, Manuscript Studies. Fall 2013 Topic: Buddhist repertoires (idiosyncratic and personal assemblages of beliefs, reflections, wonderings, possessions, and practices) for a large part, material and sensual. Buddhists are often sustained by their collection, production, and trading of stuff amulets, images, posters, protective drawings, CDs, calendars, films, comic books, and even Buddhist-themed pillow cases, umbrellas, and coffee mugs. Aspirations are interconnected with objects. Beliefs are articulated through objects. Objects are not empty signifiers onto which meaning is placed. The followers and the objects, the collectors and their stuff, are overlooked in the study of religion, even in many studies in the growing field of material culture and religion. What is striking is that these objects of everyday religiosity are often overlooked by art historians as well. Art historians often remove (through photography or physical movement to museums or shops) images and ritual implements from their ritual context and are seen as objets d’art. While art historians influenced by Alfred Gell, Arjun Appadurai, and Daniel Miller have brought the study of ritual objects into the forefront of art historical studies, in terms of methodologies of studying Buddhist art, art historians have generally relegated themselves to the study of either the old and valuable or the static and the curated. This course aims to bring a discussion of art into the study of living Buddhism. Art historians have primarily concentrated on the study of images, stupas, manuscripts, and murals produced by the elite, and primarily made before the twentieth century; 2) study art as it exists and operates in dynamic ritual activities and highly complex synchronic and diachronic relationships; 3) focus on the historical and material turn in the study of images, amulets, and murals in Buddhist monasteries and shrines.
Not Offered Every Year
Also Offered As: EALC 5501, RELS 5710
1 Course Unit

ARTH 5130 Ukiyo-e: Beyond the Great Wave
In this seminar we will take a closer look at the prints, paintings, and illustrated books produced in the genre known as "ukiyo-e," the "pictures of the floating world." We'll begin by asking how the "Great Wave" became a global icon and we'll bust the myth of prints being used as wrapping paper. As we learn the history of the genre, from 1600 to ca. 1850, we'll also make critical interventions into that narrative, asking how "ukiyo-e" became a genre within a larger artistic sphere; how publishers collaborated with designers to construct artistic personae; how illustrated books contributed to knowledge formations; and how concepts of authenticity and authorship remain critical to its understanding. This course will also consider how internet resources affect our understanding of the work of art. Students need not have any Japanese language skills, but should have taken related courses in art history or East Asian Studies. Advanced undergraduates and graduate students preferred.
Not Offered Every Year
Also Offered As: EALC 7141
1 Course Unit

ARTH 5140 Utamaro and his Contemporaries
In this seminar we will take a closer look at the prints, paintings, and illustrated books produced by one of ukiyo-e's most famous artists, Kitagawa Utamaro (1753?-1806), with special focus upon works to be included in an upcoming exhibition. We will begin by surveying the larger history of the "pictures of the floating world" (ukiyo-e) and pay close attention to Utamaro's teacher and his contemporaries. The status of the artist, the role of the publisher, networks of possible patrons, and Utamaro's legacy are among the key issues the seminar will address. Our analysis will further attend to the ways in which works by Utamaro and other ukiyo-e artists were evaluated and appreciated in late 19th-century France by such figures as Edmond de Goncourt, Hayashi Tadamashi, and Siegfried Bing, among others. Students will have the opportunity to study works in local and regional collections, including the Kislak Center, the Philadelphia Museum of Art, and the Freer/Sackler Galleries. Undergraduate students admitted by permission only.
Fall or Spring
Also Offered As: EALC 7142
1 Course Unit

ARTH 5150 Japanese Art Seminar
Seminar in early modern, modern, or contemporary Japanese art. Topics vary from semester to semester.
Not Offered Every Year
Also Offered As: EALC 7140
1 Course Unit

ARTH 5170 History of the Book in East Asia
From handscrolls to manga, books play a vital role in East Asian societies. In this seminar we will introduce the spread of book cultures across East Asia and reconsider the role and impact of material texts on societies in China, Korea, and Japan. Among the questions we'll engage are: What is a book, an author, or an edition? How do readers affect books? How do publishers decide when to use illustrations, woodblock printing, or movable type? How has the history of books differed in China, Japan, and Korea from the history of the book in the West? We will consider various media (bamboo, paper, silk, and the digital), formats (scrolls, folded books, bound books, small to oversize), and the tensions between handwritten manuscript and printed pages. Hands-on sessions may include paper-making, bookbinding, and printing. This is an Objects-Based Learning course, using materials from the Kislak Center for Special Collections, Rare Books and Manuscripts, and the Penn Museum, with visits to the Philadelphia Museum of Art and the Free Library of Philadelphia. Requires no knowledge of any Asian language.
Not Offered Every Year
Also Offered As: EALC 8301
1 Course Unit
ARTH 5190 Archiving Jazz: Visuality And Materiality In The Phila Jazz Community 1945-2019
This seminar will be organized around three distinct pathways. First, it will serve as an introduction to Jazz Studies and thus be attentive to the ways that jazz music has sparked an interdisciplinary conversation that is wide-ranging and ongoing. Second, we will be partnering with the African American Museum of Philadelphia to consider jazz within the realm of visual art. In light of efforts to map the “black interior,” how have visual artists (e.g. painters, sculptors, filmmakers, and photographers) sought to represent jazz? Third, we will endeavor to develop partnerships with the Philadelphia (and beyond) jazz community, especially as it pertains to creating and sustaining an archive that serves as way to understand jazz as an instrument of placemaking and also as a vehicle for jazz musicians to take ownership of their narratives. The seminar will meet at the African American Museum of Philadelphia and be team taught with members of the Museum staff. The course will culminate with a virtual exhibit of visual works and archival materials centering on Philadelphia’s jazz community and (if funding is available) a free concert to be held at AAMP. Undergraduates are welcome to register for the course with permission of the instructor.
Not Offered Every Year
Also Offered As: AFRC 5420, URBS 5420
1 Course Unit

ARTH 5220 Aegean Bronze Age Art Seminar
In this class, we will explore the art and cultures of the Aegean Bronze Age in Greece, a period from roughly 3,300-1,100 BCE. From this time, we have the first evidence of complex society in Greece with three geographically and materially distinct groups of people located on the Greek Mainland, the Cycladic islands, and the island of Crete. Topics will vary from semester to semester, but may include and not be limited to the examination of the architecture, pottery, wall paintings, stone carvings, jewelry, seals, weapons and other metalwork, and the iconography of these prehistoric arts. We will also delve into issues of the organization of society and the distribution of power, the role of women and men, trade and the unique position of the (rather small) Aegean world as it existed between two huge powerhouses of the ancient Mediterranean: the Ancient Near East and Egypt.
Not Offered Every Year
Also Offered As: AAMW 5200
1 Course Unit

ARTH 5220 Ancient Iranian Art Seminar
This seminar will focus on the environmental, archaeological and textual record for settlement in the Persian/Arabian Gulf region from the Neolithic to the pre-Islamic Late Antique. Emphasis will be on the settlement history and material culture. Special attention will be paid to the close interaction of the local communities on the Arabian side of the Gulf with those on the Iranian/Indus valley side. The patterns of sea faring trade and interaction from Mesopotamia, Iran, Indus Valley and beyond will be considered. It is possible that this class will take a site trip to the UAE during the spring break, if the logistics can be arranged.
Not Offered Every Year
Also Offered As: AAMW 5220, NELC 5050
1 Course Unit

ARTH 5230 Narrative in Ancient Art
Art history, and its cousins in religious, social, political and literary studies, have long been fascinated with the question of narrative: how do images engage time, tell stories? These are fundamental questions for ancient Near Eastern, Egyptian and Mediterranean art history and archaeology, whose rich corpus of narrative images is rarely considered in the context of “Western” art. Relations between words and things, texts and images, were as fundamental to the ancient cultures we examine as they are to modern studies. As we weigh classic modern descriptions of narrative and narratology, we will bring to bear recent debates about how (ancient) images, things, monuments, and designed spaces engage with time, space, and event, and interact with cultural memory. We will ask “who is the story for, and why?” for public and private narratives ranging from political histories to mythological encounters. Our case studies will be drawn from the instructors’ expertise in Mesopotamian visual culture, and in the visual cultures of the larger Mediterranean world from early Greek antiquity to the Hellenistic, Roman, and Late Antique periods. One central and comparative question, for instance, is the nature of recording history in pictures and texts in the imperial projects of Assyria, Achaemenid Persia, the Hellenistic kingdoms, and Rome.
Also Offered As: AAMW 5230, CLST 5412
1 Course Unit

ARTH 5231 Archaeological Field Methods
This seminar will prepare students for participation in the excavations at the site of ancient Lagash, modern Tell al-Hiba, in southern Iraq that are scheduled to take place in the fall semester. The topics to be considered are introduction to the recording methods, use of equipment, review of the ceramic sequence, methods of recording, drawing, photography. Permission of the instructor required for participation in the class.
Also Offered As: AAMW 5231
1 Course Unit

ARTH 5240 Mesopotamia 2200-1600 BCE
This seminar style class will focus on two canonical periods of Mesopotamian history from 2100-1600 BCE. It is structured to examine fundamental institutions of kingship, religion, economy, law and literature. Practices well established in Sumer by the end of the third millennium evolved during the first half of the second millennium BCE when Amorite speaking peoples assume central roles in Mesopotamian institutions. The class will be structured around case studies engaging key monuments of art, architecture and literature. It will be team-taught by Prof. Pittman, focusing on material remains and visual arts and by Prof. Steve Tinney who brings expertise to the rich cuneiform textual traditions.
Also Offered As: AAMW 5020, ANTH 5024, NELC 5020
1 Course Unit
ARTh 5241 Courtly Life in Mesopotamia, Persia, and the Mediterranean
Who could approach and speak with the Sumerian Queen? What rules governed a banquet with the Persian king? What was the most elegant way to drink wine? Where were the women in the Assyrian court? With hundreds of people crammed into a palace, was hygiene important? How were court guests treated? What games were played at court? Is the stereotypical image of the “Oriental” court characterized by lust, backstairs intrigue, flatteries, and secrets sustainable in the light of new evidence and theoretical approaches? The court at the same time is considered as a large amorphous body in a physical location or an institution, or a group of people, or even to particular events. This seminar style course considers Middle Eastern courts from the Sumerians through the Assyrian and Persian empires articulating shared and diverse features. Textual, visual, material and archaeological sources are considered through sociological and anthropological theories and core concepts such as groups, individuals, ultrasciality, proxemics, sociopetal, sociofrugal and purity to name a few. Comparisons with later courts in the Middle East are welcome. Also Offered As: AAMW 5241, NELC 5054
1 Course Unit

ARTh 5250 Borderlines: Art and Artifact in the Roman Empire
What made art and artifacts 'Roman', or not, in a Roman world? 'Roman provincial art' is an active scholarly category. This seminar reframes it, to test productive models to understand visual culture outside the empire's Italian heartland from the Late Republic into Late Antiquity, in the Roman polity's interactions with many peoples in situations of diaspora, colonization, hegemony, conflict, economic exchange, and religious interaction. As 'Rome' expanded, cultural relations across many borderlines - social, ethnic, territorial - potentially became cultural politics. A traditional topic for that has been Roman interaction with Greek culture. This seminar extends that range, while tackling 'Hellenization', as we reflect on models of 'Romanization', globalization and identity formation within the imperium's boundaries in its provinces and client kingdoms, and also at its frontier zones. Various disciplines apply: art history, archaeology, history, and more. Case studies, evolved with students, may range from Britain to Iran, northern Africa to the Black Sea in space and, in time, from interactions with the Hellenistic East and West and with Iron Age Europe, to the age of Germanic, Sasanian and Ummayad conquests of Roman terrain, ca 3rd c. BCE-7th c. CE. The market in art and artifact, the nature and status of makers, and conditions of patronage and viewing are key considerations. Private and public objects, images, architecture and urbanism, and landscapes can all concern us, as we try out disciplinary approaches that take in eg cultural appropriation, translation and hybrity, creolization, discrepant experience, object agency, and communities of taste and style. 'Ethnicity' is a loaded concept in ancient Mediterranean studies, as is 'race'; our course must engage those, and the ways in which things and styles have been made to serve those terms. And who owns, is heir to, the cultural legacies we look at, and how to name them, are problems that tangle with current national identity formation, and academic and museum practice. Our own Museum's holdings can make topics. Students are welcome to bring in interests in language and text cultures, in disciplines outside art history and archaeology, and in other world cultures and epochs. Not Offered Every Year Also Offered As: AAMW 5250, ANCH 7403, CLST 7403
1 Course Unit

ARTh 5251 Roman Political Art Seminar
This seminar looks at how Roman things, images and the designed environment so often spoke to political and sociological realities. The material world was not just a document of history: it was history. Open to graduate and undergraduate students. Not Offered Every Year Also Offered As: AAMW 5251, CLST 7404
1 Course Unit

ARTh 5252 Late Antique Art and Artifact Seminar
What is 'Late Antiquity'? In 312 when Roman emperor Constantine inaugurated a Christian empire, 'Roman' culture was centuries old. The period ca. 200-650 CE saw profound transformations that launched Medieval, Byzantine and Islamic traditions. In this epoch of upheaval destruction was frequent but partial: Rome long survived, Constantine's 'new Rome,' Constantinople flourished, and around the Empire both proto-global visual culture and local forms prospered. Roman cultural models authorized both innovation and passion for tradition: we critique art-historical models for Late Antique 'decline', analyse habits of material reuse and curation, and look at new Christian and Jewish roles for Roman things as well as polytheist visual survival. Foreign allies and enemies interacted with Greco-Roman Late Antiquity; we visit them too, as in the early Islamic palaces. Media discussed include not just 'monumental' painting, mosaic, sculpture, but also silver, ceramic, ivory, figural textile, glass, painted books, jewelry, coins and more. We look too at Late Antique texts on art, objects, space and viewership. This seminar is open to graduate and undergraduate students. Not Offered Every Year Also Offered As: AAMW 5252, CLST 7405
1 Course Unit

ARTh 5253 Violence in Ancient Mediterranean Art Seminar
Violence, physical and emotional, pervades the images of the ancient Mediterranean. This seminar asks why, how and to what end that occurred; in these and any cultures, why do people look at such images? Open to graduate and undergraduate students. Not Offered Every Year Also Offered As: AAMW 5253, CLST 7406
1 Course Unit

ARTh 5254 Myth Through Time and in Time Seminar
The textual and physical remains of Greek and Roman culture and belief as 'myth' entranced the post-antique European world and its neighbors. Makers, patrons and viewers manipulated those survivals to challenge and speak to a contemporary world. This course focuses on how and why artists and their patrons engaged the mythic and examines the various areas of political and religious life that sought animation through an evocative narrative. This seminar is open to graduate and undergraduate students. Not Offered Every Year Also Offered As: AAMW 5254, CLST 7407, ITAL 5254
1 Course Unit
ARITH S290 The Roman Idea of Landscape
Landscape was one of the most prominent themes in ancient Roman culture. The Roman visual and literary representations of natural scenery were adopted and expanded upon many Hellenistic themes. In the Roman period, however, for the first time in Western culture landscape was singled out as a theme in its own right; it was accurately described, its qualities were praised in the pastoral poetry of Virgil, and its idealized and symbolic representations permeated the public and private spheres: the garden paintings from the underground dining room of the Villa of the Livia at Prima Porta and the Odyssey landscapes from the Esquiline are but two of many examples. This Roman sensitivity of landscape, attested in contemporary literary and visual sources, found an architectural expression in Roman luxury villas. In the realm of villa designs, gardens and landscapes could be represented in wall painting and realized in design at the same time. The villas provided literally a drawing board for Roman lovers of landscape. Late Republican and early Imperial poems, letters, and agricultural treatises read like exposés of architectural design exercises, vis-à-vis natural, cultivated and designed landscape, and how they delineated blueprints of villas — villa rustica, urbana, suburbana and the like. This course will examine literary and visual representations of natural scenery in the Greek and Roman cultures as well as Roman luxury villa architecture in order to address the ways in which Greek and Roman ideas and idealization of landscape contributed to the creation of a novel language of architecture and landscape architecture. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5290
1 Course Unit

ARITH S291 Greek and Roman Wall Painting
Painting and pictorial realism, as we know them, were invented in the fourth century BCE. Their effects have survived in the Hellenistic tomb paintings at Vergina, and elsewhere in Macedonia and Thrace, and their ideas have been described by ancient authors. This course examines the surviving Greek and Roman paintings together with ancient sources in order to shed light on the deployment of the pictorial repertoire of classical antiquity.
Not Offered Every Year
Also Offered As: AAMW 5291
1 Course Unit

ARITH S292 Delos in Context
Delos was an important cult centre since the archaic period whose activity was inextricably linked to its economic role. Due to its advantageous geographical position in the centre of the Aegean world, Delos commanded a huge cult network that intertwined religious with economic and political activities from the archaic period onwards. Communities competing for political power and leadership exploited the cult network of Delos over time; Ionians, Athenians, the successors of Alexander and finally Romans. This course will focus on three key moments of the island's history — the first Athenian dominion, the period of independence and the second Athenian dominion — in order to highlight the ways in which the competing powers used art and architecture to define their presence on the sacred island. By studying the presence of the Athenians in the sanctuary of Apollo since the sixth century BCE, which culminated in their administration of the sanctuary during the fifth and fourth centuries (the first Athenian dominion), the course will examine the cultural mannerisms of the period. By examining the architectural development of the sanctuary and the city of Delos during the period of the independence (314-167 BCE) the course will address the monumentalization of the sanctuary and the extension of the city through the euergetism of the successors of Alexander and the emergence of a new form of urban life in the Hellenistic period. The course will finally examine Delos during the period of the second Athenian dominion (167-69 BCE), when the Roman senate decided to make it a "duty free" port under Athenian suzerainty. By addressing the economic and urban developments of the late Hellenistic Delos the course will look at the contemporary trends in art and architecture, which in effect shaped those of the emerging Roman Empire. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5292
1 Course Unit

ARITH S293 Topos, Myth, and the Contemporary: Art Practices in Archaeological Sites and Mythological Places
The seminar will map the intellectual agenda of contemporary art practices that engage with archaeological sites and important mythological places in Italy and Greece. Over the past two decades there has been an increasing interest of artists in archaeology and the classical past in Italy and Greece resulting in in situ art installations and performances, as well as reflective presentations of their interactions with the sites in a gallery space. These projects / installations / performances present a range of approaches: from investigations of cultural traditions, national norms and stereotypes that seek to tackle learned preconceptions and received histories of the classical, to the use of the archaeological site, mythologically poignant topos and myth as a backdrop for the contemporary — the Documenta 14 in Athens in 2017 may serve as a representative example of this range. The course will assess the intellectual and cultural landscapes of as well as the political strategies behind these contemporary art practices. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5293
1 Course Unit
ARTH 5305 Topography and Monuments of Ancient Rome
An intensive exploration of Rome's urban topography during the Republican and Imperial periods (6th c. B.C. through 4th c. A.D.) Using archaeological and textual sources, including the Etruscan and Roman collections of the Penn Museum, the goal will be to reconstruct the built environment and decoration of Rome over the course of a millennium. Of interest to students of classics, archaeology, art history, and architecture. Some familiarity with Rome will be a plus, but is not required.
Also Offered As: AAMW 5305, CLST 5305
Not Offered Every Year
1 Course Unit

ARTH 5320 The Icon
This seminar explores the Byzantine icon and its legacy. Spanning nearly two millennia, from the emergence of Christian sacred portraiture to the reception of icon painting by the early twentieth-century Russian avant-garde, the seminar will introduce you to the history, historiography, and theories of the icon. While our focus will be on Byzantium and the wider world of Orthodox Christianity, especially in the Slavic Balkans and Eastern Europe, the seminar will also engage with fundamental questions concerning the nature, status, and agency of images across cultures. Topics to be addressed include iconoclasm and the problem of idolatry; the social and ritual lives of icons; authorship, originality, and replication; viewer response and the cultural construction of vision; the frontier between art and the sacred image; and the afterlife of the icon in modernity. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5320, RELS 5022
1 Course Unit

ARTH 5321 Art and Text in Byzantine Culture
In Byzantine culture, images and material objects, on one hand, and texts —whether read, spoken, remembered, or inscribed—on the other, were closely intertwined on multiple levels. Debates concerning the role of images in religious devotion during the period known as Iconoclasm generated a huge body of theological writings about art. Descriptions of works of art, either independent or inserted into larger literary compositions, proliferated. In manuscripts, pictures were variously mobilized to complement, illustrate, interpret, or comment on the verbal message. Icons of sacred personages were commonly inscribed not only with identifying labels, but also with special epithets. Moreover, from monumental architecture to personal seals and pieces of jewelry, a vast array of objects bore inscriptions, often in the form of poetical texts, or epigrams. Script, sometimes illegible and nonsensical, also featured as ornament and visual sign. The written word was a source of power and authority as much as a means of communication. The aim of this seminar is to interrogate the interface between art and text in Byzantium. No knowledge of Medieval Greek is required for the course. All the inscriptions and primary sources to be discussed will be available in translation. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5321
1 Course Unit

ARTH 5322 On the Wall: Mosaics and Frescoes
This seminar examines the economy, technology, and aesthetics of monumental paintings and mosaics decorating church spaces in Byzantium and the larger Mediterranean world of the Middle Ages. We will explore these site-specific, wall-bound images in the context of their making and reception by attending to the issues of artistic labor and patronage, materiality and pictorial medium, visual communication and ideological programming, and viewership and ritual action. Special consideration will be given to methodology. We will critically assess the traditional and current approaches to the study of monumental pictorial art and, more importantly, seek to formulate new perspectives and methods. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5322
1 Course Unit

ARTH 5323 The Chora Monastery and the World of Late Byzantium
This seminar is envisioned as a wide-ranging exploration of the art and culture of the Late Byzantine period (thirteenth through fifteenth century), with focus upon a key monument, the church of the former Chora monastery (Kariye Camii) in Istanbul. With its superb and highly original architecture, this church preserves an outstanding ensemble of monumental mosaics, frescoes, stone carvings, funerary monuments, colored marbles and glass, and inscriptions. Additionally, we possess a substantial body of texts illuminating various aspects of the monastery's history and, in particular, its restoration in the early fourteenth century by the statesman and scholar Theodore Metochites. The seminar will take this rich material and textual record as a point of entry into the world of Late Byzantium. Topics to be addressed include patronage and politics; artistic practice, visual aesthetics, and materiality; monasticism; death, time, and history; the interplay between art and literary culture; and Byzantium's interactions with the wider Mediterranean world, especially Muslim-ruled Anatolia, the Slavic Balkans, and Italy. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5323
1 Course Unit

ARTH 5330 Material Christianities
What can objects tell us about Christianity? How might a lavish mosaic, a withered body part, a dark crypt, or a pilgrim's oil lamp challenge and complicate visions of the past extracted from texts? This course investigates the first thousand years of Christianity through the lens of material culture. The history of Christianity - from its nebulous beginnings in Palestine to its recognition as the official religion of the Roman Empire and subsequent expansion - is often narrated from a perspective that privileges the writings of elite men. To capture the rich diversity in Christian experience and expression, we will turn to the material practices of religion and explore how things, places, and bodily acts shaped what it meant to be Christian. Building on insights drawn from archaeology, art history, anthropology, and religious studies, we will seek to recover the experiences of diverse and often marginalized subjects and communities, and in the process, will problematize the categories of religion, authority, and identity. Regular visits to the Penn Museum and other collections in Philadelphia will complement lectures and group discussions.
Also Offered As: RELS 5330
Mutually Exclusive: ARTH 3330, RELS 3330
1 Course Unit
ARTH 5360 Manuscript Arts in the Islamic World
This hands-on seminar will explore the long tradition of manuscript-making and manuscript-makers in the Islamic world, using the extensive collections of Arab, Persian, Turkish and Indian volumes at the University of Pennsylvania and the Free Library of Philadelphia. These include copies of the Qur'an (Islam’s holy text) and other religious, scientific, historical and literary texts. Emphasis will be placed on traditional materials and artistic techniques, specifically calligraphy, binding, illumination and illustration, as well as on production methods and the historical, social, and economic contexts in which manuscripts were made, used and collected from early Islamic times to the early modern period. Also at issue will be the ways that Islamic manuscripts were transformed over the centuries as they journeyed from their diverse places of origin (Egypt, Morocco, Syria, Iran, India, etc.) to Philadelphia. The goal is the art historical skills involved in the study of Islamic codices, through close examination, discussion and presentation, and to recognize that every manuscript has a story. Most of the class sessions will be held either at the Kislak Center in Van Pelt Library or at the Free Library on the Parkway. Also Offered As: NELC 5405
1 Course Unit

ARTH 5400 Medieval Art Seminar
Topic varies from semester to semester. For the Spring 2022 semester, the topic will be: Facing Fragments. So many traces of the medieval past come to us in fragmentary form, either literally broken, partial and incomplete, or figuratively, having been ripped from its program or findsite and shipped across the world. This course focuses on the strategies art historians and curators adopt to confront the realities of decontextualized museum collections - of how to face fragments. Considering approaches that range from research methodologies, conservation, installation, and preservation, we will also touch upon questions of restitution and ethics. Co-taught between Penn and the PMA, this course will constitute much hands-on learning. Not Offered Every Year Also Offered As: AAMW 5400
1 Course Unit

ARTH 5430 Topics in Medieval and Renaissance Art
Topic varies from semester to semester. For the Spring 2022 semester, the topic will be: Manuscript Illumination. This course will provide an overview of the history, materials, and techniques of manuscript illumination through the lens of Philadelphia’s rich and varied holdings. The course will also chart the sometimes surprising means by which such objects arrived in North American collections from the nineteenth century through to the present. Handling sessions will form a key part of the course. We will begin by examining items at the Kislak Center before venturing to other local institutions including the Free Library and the Philadelphia Museum of Art, with possible study-day excursions to New York and Baltimore. Student research assignments will involve the close individual study of a single illuminated manuscript.
1 Course Unit

ARTH 5431 Visualizing Science
This seminar focuses on the intersection of visuality and natural knowledge in the pre-modern world. It is open to graduate students and undergraduate students with permission of the instructor. Also Offered As: HSSC 5431
1 Course Unit

ARTH 5500 Pictorial Composition Seminar
This seminar explores the art of composition in two respects: first, composition as the arrangement of words and sentences into prose; second, composition as the organization of visual elements into a painting. Through the writings of key Renaissance writers, we will explore such issues as the mythical origins of the portrait, the role of precious materials in art, the relationship between figure and ground, and the mechanics of describing a painting into words. Open to undergraduate and graduate students. Not Offered Every Year
1 Course Unit

ARTH 5501 Caravaggio Seminar
This seminar explores the artistic culture of Baroque Rome, with focus on the life and career of Caravaggio. This course is open to graduate and undergraduate students. Not Offered Every Year
1 Course Unit

ARTH 5502 What is Painting Seminar
What is painting? Is it art or mere craft? In this seminar we will explore how artists and critics responded to these questions in the Italian Renaissance, specifically through looking at the work of Andrea Mantegna, Giovanni Bellini, Titian, and Tintoretto. In addition to reading some of the most recent scholarship on these artists, we will also visit select paintings in PMA as well as local ateliers and galleries where we will gain insight into the enduring practice of such crafts as goldwork, textiles, and glasswork. Open to graduate and undergraduate students. Not Offered Every Year
1 Course Unit

ARTH 5503 Earthquakes and the Art of Disaster
What makes up a world? How do works of art exist in, conceive, and represent a place? How might the theory and practice of art shed light on our notions of the earth, ground, landscape, soil, and the environment? This seminar will ask the above questions with respect to works of art and art literature from the fourteenth to eighteenth centuries. Topics to be explored may include: theories of stone in the Renaissance, the environmental implications of excavation, the materials and materiality of earth and soil, stoneworking and mining, the aesthetic problem of weight, architecture on bodies of water, and the Lisbon Earthquake of 1755 and other geological disasters. Guests to the seminar from the University of Paris-IV and the University of Zurich will offer opportunities for students to discuss and present their ideas to extramural audiences. Open to graduate and undergraduate students. Not Offered Every Year
1 Course Unit

ARTH 5504 The Language of Art History
What does it mean to write about art? What are the historical origins of this undertaking? How does language mediate the intellectual, somatic, and cultural rapport between the viewing self and the physical object? As an initial response to these questions we will examine the writings of the Tuscan artist and critic Giorgio Vasari (1511-1574), the biographer of such renowned artists as Leonardo, Raphael, Donatello, and Michelangelo. We will also read the letters of famous artists from the early modern period, and examine the theoretical forays of artists such as Albrecht Dürer, who attempted to sketch the relationship between the memory and the imagination. Finally, we will look to examples of works of art for how we might read visual images as expressive of theories about what are is and what it can do. Not Offered Every Year
1 Course Unit
ARTH 5520 High Renaissance Seminar
One Italian poet called his garden "the blending of art and nature." In a garden, he claimed, "one cannot discern whether a thing is the work of one or the other; whether it is a piece of natural artifice or artificial nature." Around the same time, the Italian humanist Jacopo Bonfadio invented the term, terza natura, for gardens seemed to be a "third nature" somehow in between wild first nature and the second built or manipulated world of human endeavor. The history of landscape architecture is a history of man's sometimes misguided efforts to "improve" his surroundings in the search for a beauty that harnessed natural forms through the application of human reason. This seminar will address changing tastes in garden design in Early Modern Europe but will also extend our study further into the past, beyond Europe and forward to the present day. The seminar will introduce themes in garden design and examples from garden history and, in the process, the course will ask the participants to consider different cultural visions of the "beautiful" or "appropriate" landscape and ultimately better understand the history of the gardener's art. Open to undergraduate and graduate students.
1 Course Unit

ARTH 5590 Myth Through Time and In Time
The textual and physical remains of Greek and Roman culture and belief as 'myth' entrenched the post-antique European world and its neighbors. Makers, patrons and viewers manipulated those survivals to challenge and speak to a contemporary world. This course focuses on how and why artists and their patrons engaged the mythic and examines the various areas of political and religious life that sought animation through an evocation of narratives from the past. Readings and case studies will engage with very late antique, medieval, and early modern art, turning to the modern and contemporary as well. Moving to the modern lets us examine, among other things, how artists address the exclusionary histories of the past, to enable critiques of myths of supremacy by one gender, race, or culture over others.
Also Offered As: AAMW 5590, CLST 7400, COML 5590, GRMN 5590
1 Course Unit

ARTH 5610 Privacy and Society in Seventeenth-Century Dutch Art Seminar
How do paintings offer occasions for personal reflection, and how do they construct social bonds? The aim of this seminar is to develop a set of critical skills for analyzing the different ways in which seventeenth-century Dutch paintings drew upon shared social values, national identity and economic pride, how they appealed to individual buyer tastes, and how they have engaged and continue to engage poetic minds. We will address these matters by paying particular attention to the representation of space, considering domestic interiors, urban settings, church architecture, imperial arenas, and landscapes both real and imagined. Our discussions of how paintings reflect and shape privacy and society will be informed by visits to the Philadelphia Museum of Art, by readings from methodologically diverse essays, and by writing frequently, which will provide us with occasions to test our ideas in response to what we see and read. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: DTCH 5780, GRMN 5781
1 Course Unit

ARTH 5611 German Art Seminar
This seminar surveys German art from the early-modern period (Schongauer, Dürer, Grunewald, Holbein) through the twenty-first century (Gerhard Richter, Isa Genzken, Rosemarie Trockel). Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: GRMN 5791
1 Course Unit

ARTH 5612 History of the Line
This seminar offers a way of expanding our notion of "graphic art," from concentrated studies of drawings and print to encounters with dance, design, video art, and urban planning. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: URBS 5610
1 Course Unit

ARTH 5650 Southern Baroque Art Seminar
This seminar focuses on the art of Southern Europe between 1500 and 1800 CE. It is open to graduate students and undergraduate students with permission of the instructor.
Not Offered Every Year
1 Course Unit

ARTH 5680 18th-century Visual Cultures of Race & Empire
This course approaches the Western history of race and racial classification (1600-1800) with a focus on visual and material culture, natural history, and science that connected Atlantic and Pacific worlds. Across the long eighteenth century, new knowledges about human diversity and species distinctions emerged alongside intensifications of global trade with Asia. The course will include case studies of chinoiserie textiles, portraits of consuming individuals, natural history prints and maps, Chinese export porcelain and furnishings, and "blackamoor" sculpture. Objects of visual and material culture will be studied alongside readings on regional and world histories that asserted universal freedoms as well as hierarchies of human, animal, and plant-kind. Keeping in mind that the idea of race continues to be a distributed phenomenon - across color, gender, class, religion, speech, culture - we will explore changing vocabularies of difference, particularly concerning skin color, across a range of texts and images. Knowledge often does not take written or literary form, and for this reason, we will study examples of visual and material culture as well as forms of technology that were critical to defining human varieties, to use the eighteenth-century term. Although we will be reading texts in English, some in translation, we will also account for European and non-European knowledge traditions - vernacular, indigenous - that informed scientific and imaginative writings about the globe. Topics may include cultural and species distinction, global circulations of commodities between the East and West Indies, the transatlantic slave trade, the casta system of racial classification in the Americas, religious and scientific explanations of blackness and whiteness, and visual representations of non-European people.
Spring
Also Offered As: COML 5041, ENGL 5440
1 Course Unit

ARTH 5710 Modern Architectural Theory Seminar
A survey of architectural theory from the mid-eighteenth century to the present. The discussion of original writings will be emphasized. Open to undergraduate and graduate students.
Not Offered Every Year
Also Offered As: CPLN 5720
1 Course Unit
ARTh 5730 Topics in Criticism & Theory: Object Theory  
Topics vary annually  
Not Offered Every Year  
Also Offered As: CIMS 5730, COML 5730, ENGL 5730, GRMN 5730, REES 6683  
1 Course Unit  

ARTh 5760 The Panorama Experience  
Painted panoramas were one of the nineteenth century’s signature popular entertainments. Since its invention in 1787, audiences from cities and towns around the world have admired these circular landscape representations of nature, cities, and battles, which provide an opportunity to escape everyday life by witnessing scenes from the past and far-away places from an unfamiliar perspective. In this seminar, we will consider the phenomenon of the panorama, above all, as a political art form. We will examine the ways in which European and American artists since the nineteenth century have turned to panoramic forms to tell and call into question stories about empire and colonialism, enslavement and freedom struggles, the mastery of natural environments, as well as military victory and loss. As we debate the politics of panoramic forms, we will gain familiarity with a set of related topics from visual and material culture, including vedute, transparencies, magic lantern projections, panoramic wallpaper, dioramas, cartographic representation, history painting, illustrated print culture and pictorial journalism, travel literature and guidebooks, accordion folds and gatefolds, stereoscopes, panoramic photography, panoramic shots in cinema, and immersive environments. In addition to enriching your knowledge of nineteenth-century media history and how to conduct media archaeological research in libraries, archives, and museums, this seminar will offer an overview of approaches to visual culture from social history, gender, race, colonialism, museum studies, print history, sound studies, transnational history, and digital art history, which will be of use for work in a number of interdisciplinary fields. Students with a background in disciplines, such as architecture, literature, history, cinema studies, gender and sexuality studies, Africana Studies, and material texts, are welcome.  
Also Offered As: GRMN 5760  
1 Course Unit  

ARTh 5770 Ecological Thinking in Art and Architecture  
This seminar will address the diverse narratives of ecological thinking in the history of art, architecture, and urban planning during the 20th century. The course will contextualize and interrogate contemporary disciplinary discourses as well as historical assumptions related to ecological thinking in art and architectural history and environmentally-conscious practices. By mapping received trajectories of Eco Art, Ecocritical Art History, and Ecological Histories of Architecture and Urban Planning, the course will work from a subtly hidden foundation of eco-historical knowledge that connects these fields of inquiry, while also critiquing these trajectories and seeking to provide more focused and robust alternatives for knowledge production in the present. It aims to attract students from the School of Arts and Sciences and the Weitzman School of Design in a discussion on the interconnected histories of art and architecture during the 20th century.  
Also Offered As: ARCH 7130  
1 Course Unit  

ARTh 5780 American Art Seminar  
This seminar focuses on special topics in the art of the United States. Recent examples have included: portraiture in the US, Philadelphia as an art center, early mass visual culture, and Abstract Expressionism. It is open to all graduate students and undergraduate students with permission of the instructor.  
Not Offered Every Year  
1 Course Unit  

ARTh 5790 Mass Visual Culture in the U.S.  
This seminar will treat the United States as a case study for in-depth examination of the conditions and operations from which a mass visual culture emerged. Our focus will be on the period from 1830 to 1860, when the infrastructure, labor force, institutions, and audiences took shape and when paradigmatic examples of exceptionally successful works were developed. We will compare our empirical findings with some of the influential theories of mass culture developed by Walter Benjamin, Theodor Adorno, Janice Radway, Lauren Berlant, Stuart Hall, and others. Our investigations will excavate the foundations of the image-saturated culture we experience in the 21st century. The development of a mass visual culture was among the epochal changes in the 19th century that made the United States a modernized nation. This involved the industrialization of picture production and the formation of markets large enough to consume print editions in the tens or hundreds of thousands. Despite the fragmentation of the population and the initial absence of an artistic infrastructure, the U. S. proved a fertile ground for mass art. The country rapidly became an innovative locus for advances in the commodification of pictures and in their instrumentalization for purposes of marketing, political persuasion, the circulation of information, education, and entertainment. This course is open to graduate and undergraduate students.  
Not Offered Every Year  
1 Course Unit  

ARTh 5791 Globalism and National Identity in the Americas  
This course examines the way that issues of universal, global, and national identity have been negotiated and challenged in art and visual culture of the Americas. It also aims to give students an introduction to the various theories and methodological practices that have been used to critique and explain these images and objects since the end of WWII. This course is open to graduate students and undergraduate students with permission of the instructor.  
Not Offered Every Year  
Also Offered As: AFRC 5791, GSWS 5791, LALS 5791  
1 Course Unit  

ARTh 5792 Biography and Art History  
Beginning with the ancient Greeks, people have created specific biographical structures as a way to understand and explain the artistic process. Artists have often been labeled as natural prodigies possessing creative powers on par with the divine. This seminar will examine the role that biography plays in the assessment of visual art and the creative process over time and across European and American culture. During the semester we will read art historical texts, watch biographical films, and debate the historical and post-structuralist critical theory that has helped to shape the current cultural construction of the artist. Throughout the seminar we will discuss the underlying debates around these various approaches to biography. This course is open to graduate students and undergraduate students with permission of the instructor.  
Not Offered Every Year  
Also Offered As: AFRC 5792, CIMS 5792, GSWS 5792, LALS 5792  
1 Course Unit
ARTH 5793 Fake!
This seminar explores issues of fakery, forgery, reproduction, magic, and authenticity in history, art, literature, and film. Students will gain an understanding of these issues within both a historical and contemporary context by reading works of criticism, non-fiction, and fiction; watching both avant grade and popular film; and examining works of art and visual culture. This course is open to graduate students and undergraduate students with permission of the instructor.
Not Offered Every Year
Also Offered As: CIMS 5793
1 Course Unit

ARTH 5800 Sexuality of Postmodernism
This course is fundamentally concerned with why so many of the defining artists of the postwar generation were queer, indeed such that one could plausibly claim that postmodernism in American art was a queer innovation. Centrally, most of these artists raise the problem of authoriality and its discontents. Deploying a combination of social-historical and theoretical texts, we will approach the problem of the disclaiming of authoriality in post war American art, focusing on the works of John Cage, Robert Rauschenberg, Jasper Johns, Cy Twombly, Robert Indiana, Louise Nevelson, Ellsworth Kelly, Agnes Martin, Leon Polk Smith and not least Andy Warhol. Central to this course will be the continuing salience of the “death of the author” discourse, pioneered in literature by Barthes and Foucault, and in art by every one of the artists we will be examining. What, in short, is the relationship between the rise of an anti-biographical, anti-authorial theoretical framework, and the lived histories of so many queer authors? In asking this question, we are of course self-consciously violating the very premise of one key strand of postmodernist critique—and in so doing attempting to historicize a theoretical frame that is strikingly resistant to historical analysis. (Undergraduates interested in the course should contact Professor Katz.)
Not Offered Every Year
Also Offered As: GSWS 5780
1 Course Unit

ARTH 5820 Modern and Contemporary Design Seminar
This seminar will provide a brief overview of the history of modern and contemporary design, from the beginning of the Industrial Revolution to today, and engage students in the hands-on analysis of objects through the collections of the Philadelphia Museum of Art, the consideration of the presentation of objects in museums, and the discussion of several important contemporary topics in the study of material culture. Open to graduate and undergraduate students.
Not Offered Every Year
1 Course Unit

ARTH 5830 Art, Sex and the Sixties
With a distinct emphasis on performance, film, installation art, video and painting, this course explores the explosion of body-based, nude and erotic work from the 1950 to the 1970s, with particular focus on the 1960s. And it seeks to explore this dynamic not only within the familiar confines of North America and Europe but within Latin America and Asia, too, in what was a nearly simultaneous international emergence of the erotic as a political force in the art world. Reading a range of key voices from Frankfurt School philosopher Herbert Marcuse, to performance artists Carolee Schneemann and Yoko Ono, Neo-Freudian theorist Norman O. Brown and Brazilian theorist and poet Oswald de Andrade, we will examine how and why sexuality became a privileged form of politics at this historical juncture in a range of different contexts across the globe. We will pay particular attention to how and why an art about sex became a camouflaged form of political dissidence in the confines of repressive political dictatorships, as were then rising in Brazil, Argentina, and ultimately Chile. Students interested in feminist, gender or queer theory, Latin American Studies, social revolution, performance studies, post war art and Frankfurt School thought should find the course particularly appealing, but it assumes no background in any of these fields.
Fall or Spring
Also Offered As: CIMS 5830, GSWS 5200, LALS 5830
1 Course Unit

ARTH 5850 19th Century Art in Europe Seminar
This seminar covers aspects of the arts, visual and material cultures of the long nineteenth century (c. 1789-1914) in Europe in a global context. Open to graduate and undergraduate students. Topics will vary from semester to semester.
Not Offered Every Year
1 Course Unit

ARTH 5860 20th Century Art in Europe Seminar
This seminar covers aspects of the arts, visual and material cultures of the twentieth century in Europe in a global context. Open to graduate and undergraduate students. Topics will vary from semester to semester.
Not Offered Every Year
1 Course Unit

ARTH 5870 Topics in Cultural History
Topic for Fall 2021: Making and Marking Time.
Not Offered Every Year
Also Offered As: COML 5410, ENGL 5410, GRMN 5410
1 Course Unit

ARTH 5871 Topics In Aesthetics
Topic title for Spring 2018: Walter Benjamin. Walter Benjamin (1892-1940) is a philosopher whose writings on art, literature, and politics have had tremendous influence on many disciplines in the Humanities and Social Studies. He has been variously described as one of the leading German-Jewish thinkers, and a secular Marxist theorist. With the publication of a four-volume collection of this works in English, many more of his writings have been made accessible to a wider public. Our seminar will undertake a survey of his work that begins with his studies on language and allegory; and continues with his autobiographical work, his writings on art and literature, and on the imaginary urban spaces of the nineteenth-century.
Not Offered Every Year
Also Offered As: COML 5800, GRMN 5800, JWST 5800, PHIL 5389
1 Course Unit
ARTH 5910 Cinema and the Museum
Cinema and the museum are both important modern cultural institutions that have global relevance. How do cinema and the museum interact with each other conceptually, artistically, and spatially? In this graduate seminar, we will cross the disciplinary boundaries between film and media studies, museum studies, visual studies, and art history. A wide range of phenomena at the intersection of cinema and the museum will be considered, including the museum in films, the museum as an institution of cinema, video arts and moving images in museums, museum exhibitions that interrogate the cinematic medium, and film museums. Examples will be drawn from diverse historical periods and cultural contexts. This course is supported by Spiegel-Wilks funding and will include at least one class field trip.
Also Offered As: CIMS 5910
1 Course Unit

ARTH 5930 Classical Film Theory
At a moment when contemporary film and media theory has become increasingly interested in how earlier film theories can help us understand our moment of transition, this course will give students the opportunity to read closely some of those key early texts that are preoccupied with questions and problems that include: the ontology of film, the psychology of perception, the transition to sound, the politics of mass culture, realism, and ethnography. Course requirements: ; completion of all readings and screenings; participation in class discussion; weekly online responses; 20-25 page paper.
Not Offered Every Year
Also Offered As: CIMS 5930, COML 5930, ENGL 5930, GSWS 5930
1 Course Unit

ARTH 5931 Contemporary Film Theory
In this course, we will dig in to a variety of contemporary film theory debates in the context of earlier texts with which they engage or against which they define themselves. We will also watch films weekly and consider the relationship between theory and practice.Course requirements: ; completion of all readings and screenings; participation in class discussion; weekly online responses; 20-25 page paper.
Not Offered Every Year
Also Offered As: CIMS 5931, ENGL 5931, GSWS 5931
1 Course Unit

ARTH 5932 The Place of Film and Media Theory
Taking its title from a recent special issue in the journal Framework, this seminar will engage the where of film and media theory. At a moment when this discourse, often presumed to have roots in Anglo and Western European traditions, is purportedly undergoing a global turn, we will consider how some of film and media theory’s key terms and preoccupations including realism, documentary, genre, identity, sound, spectatorship, nation, auteur, and screens are being inflected by expanded geographic, linguistic, aesthetic and cultural frames. We will grapple with some of the logistical challenges, motivations, resistances, and questions that scholars encounter as they attempt to shift film and media theory’s borders; compare contemporary efforts to broaden the discourse’s geographic horizon with earlier efforts to do the same; and consider what happens to the viewer’s sense of space and place in different media environments. Course requirements: full participation in readings, screenings, discussion, and class presentations; 20-25 page research paper + annotated bibliography.
Not Offered Every Year
Also Offered As: CIMS 5932, ENGL 5932, GSWS 5932
1 Course Unit

ARTH 5933 Cinema and Media Studies Methods
This proseminar will introduce a range of methodological approaches (and some debates about them) informing the somewhat sprawling interdisciplinary field of Cinema and Media Studies. It aims to equip students with a diverse—though not comprehensive—toolbox with which to begin conducting research in this field; an historical framework for understanding current methods in context; and a space for reflecting on both how to develop rigorous methodologies for emerging questions and how methods interact with disciplines, ideologies, and theories. Students in this class will also engage scholars participating in the Cinema and Media Studies colloquium series in practical discussions about their methodological choices. The course's assignments will provide students with opportunities to explore a particular methodology in some depth through a variety of lenses that might include pedagogy, the conference presentation, grant applications, the written essay, or an essay in an alternative format, such as the graphic or video essay. Throughout, we will be trying to develop practical skills for the academic profession. Although our readings engage a variety of cinema and media objects, this course will be textually based. No prior experience needed. The course is open to upper-level undergraduates with relevant coursework in the field by permission of instructor only. Course Requirements: Complete assigned readings and actively participate in class discussion: 20%; Reading responses: 10%; Annotated bibliography or course syllabus on a particular methodology: 20%; SCMS methodology-focused conference paper proposal according to SCMS format: 10%; Research paper, grant proposal, or essay in an alternative format using the methodology explored in the syllabus or bibliography: 40%.
Fall
Also Offered As: CIMS 5933, COML 5940, ENGL 5933, GSWS 5933
1 Course Unit

ARTH 5940 Media, Platform, Experience
This graduate seminar explores processes and sites of production, distribution, and consumption of audio-visual contents in the contemporary media environment with a focus on both platform logics and user interaction experiences. While “new” media, such as social media, cellphone apps, streaming platforms, video games, and drones increasingly dominate everyday life, “old” media including film, television, and books do not disappear but continue to be consumed and transformed in a new media ecology. Crossing the old/new divide, this course seeks to delineate a fuller picture of the choices, constraints, and experiences available for contemporary media users situated in both the Global North and South. We will attend to both the infrastructures and platforms shaping the circulatory dynamics of the current global media landscape as well as the phenomenological dimensions of media consumption by combining broad discussions of interface, algorithms, temporality, screen, and post-cinema, etc., with case studies that examine specific platforms (e.g. Netflix, Bilibili) and media forms (e.g. GIFs, reaction videos, etc.).
Not Offered Every Year
Also Offered As: CIMS 5940, ENGL 5991
1 Course Unit

ARTH 5960 Contemporary Art Seminar
This course focuses on contemporary art. Open to graduate students and undergraduate students with permission of the instructor.
Not Offered Every Year
Also Offered As: FNAR 6050
1 Course Unit
ARTH 5970 The Future of Arts Audiences
Demographic, political, social and generational changes in the U.S. have given rise to new and often unprecedented changes in the expectations audiences have for the role cultural organizations should play in society. Extending beyond traditional definitions of purpose rooted in the type of art or experience offered, cultural organizations are increasingly being held accountable to new or different standards of behavior, beliefs and engagement with the world in order to gain the support of the very audiences necessary for their survival. Adding to this complex combination of factors are the ongoing effects of recent health and social justice crises, including changes in technological usage and shifting patterns of social interaction. Using the latest audience research, and highlighted with first-person accounts from cultural leaders who will be guest speakers for this course, The Future of Arts Audiences will pose a series of challenging yet essential questions necessary for navigating the road ahead for arts participation.
1 Course Unit

Not Offered Every Year
Also Offered As: SAST 6120
1 Course Unit

ARTH 6260 Art of Mesopotamia
Visual expression was first developed in Mesopotamia in the same environment as the invention of writing. This lecture class will introduce the arts of the major periods of Mesopotamian History ending with the "cinematic" effects achieved by the Assyrian artists on the walls of the royal palaces. The strong connection between verbal and visual expression will be traced over the three millennia course of Mesopotamian civilization from the earliest periods through the imperial art of the Assyrians and Babylonians of the first millennium BCE. The class and the assignments will regularly engage with objects in the collections and on display in the galleries of the Penn Museum.
Not Offered Every Year
Also Offered As: AAMW 6240, NELC 6060
Mutually Exclusive: ARTH 2240, NELC 0060
1 Course Unit

ARTH 6250 Greek Art and Artifact
This lecture course surveys Greek art and artifacts from Sicily to the Black Sea from the 10th century BCE to the 2nd century BCE, including the age of Alexander and the Hellenistic Kingdoms. Public sculpture and painting on and around grand buildings and gardens, domestic luxury arts of jewelry, cups and vases, mosaic floors, and cult artefacts are discussed. Also considered are the ways in which heroic epic, religious and political themes are used to engaged viewers’ emotions and served both domestic and the public aims. We discuss the relationships of images and things to space and structure, along with ideas of invention and progress, and the role of monuments, makers and patrons in Greek society.
Not Offered Every Year
Also Offered As: AAMW 6250, CLST 5401
1 Course Unit

ARTH 6260 Hellenistic and Roman Art and Artifact
This lecture course surveys the political, religious and domestic arts, patronage and display in Rome’s Mediterranean, from the 2nd c. BCE to Constantine’s 4th-c. Christianized empire. Our subjects are images and decorated objects in their cultural, political and socio-economic contexts (painting, mosaic, sculpture, luxury and mass-produced arts in many media). We start with the Hellenistic cosmopolitan culture of the Greek kingdoms and their neighbors, and late Etruscan and Republican Italy; next we map Imperial Roman art as developed around the capital city Rome, as well as in the provinces of the vast empire.
Not Offered Every Year
Also Offered As: AAMW 6260, CLST 5402
1 Course Unit

ARTH 6221 The Early Bronze Age
This lecture course offers a survey of ancient Iranian art and culture from the painted pottery cultures of the Neolithic era to the monuments of the Persian Empire. Particular emphasis is placed on the Early Bronze Age.
Not Offered Every Year
Also Offered As: AAMW 6221
1 Course Unit

ARTH 6130 Arts of Japan
This lecture course introduces the major artistic traditions of Japan, from the Neolithic period to the present, and teaches the fundamental methods of the discipline of art history. Special attention will be given to the places of Shinto, the impact of Buddhism, and their related architectures and sculptures; the principles of narrative illustration; the changing roles of aristocratic, monastic, shogunal and merchant patronage; the formation of the concept of the artist over time; and the transformation of tradition in the modern age.
Not Offered Every Year
Also Offered As: EALC 5140
1 Course Unit

ARTH 6120 Cities and Temples in Ancient India
The wooden architecture of ancient India’s cities is represented in relief carvings from Buddhist religious monuments of the early centuries A.D. and replicated in remarkable excavated cave cathedrals. This lecture course will trace that architectural tradition, its transformation into a symbolic vocabulary for a new structure, the Hindu temple, and the development of the temple in India from ca. 500-1500 A.D.
Not Offered Every Year
Also Offered As: SAST 6120
1 Course Unit

ARTH 6180 Art and Architecture in Ancient Egypt
This course will be an introduction to the art, architecture and minor arts that were produced during the three thousand years of ancient Egyptian history. This material will be presented in its cultural and historical contexts through illustrated lectures and will include visits to the collection of the University Museum.
Also Offered As: AAMW 6180, NELC 6105
1 Course Unit

ARTH 6220 Art of Ancient Iran
This lecture course offers a survey of ancient Iranian art and culture from the painted pottery cultures of the Neolithic era to the monuments of the Persian Empire.
Not Offered Every Year
Also Offered As: AAMW 6220, NELC 6050
1 Course Unit
ARTH 6269 Classical Myth and the Image
The peoples of the ancient Greek and Roman worlds shared a vast body of stories about human and not-human beings set in a legendary deep past or supernatural present - "Classical myth." Even their neighbor cultures took up those stories (or, sometimes, gave them). The stories as spoken, read, or performed turn up in surviving ancient literature. But from the very point when Greek myth began to be written down, those stories were told with images also. Many arts of the Mediterranean world explored myth at temples and sanctuaries, in civic spaces, theaters, parks, houses and palaces, for tombs and trophies - and even on the body upon weapons, clothes and jewelry. Love and desire and hate, hope and fear and consolation, war and peace, pleasure and excitement, power and salvation, the nature of this world and the cosmos, justice and duty and heroism, fate and free will, suffering and crime: mythological images probed the many domains of being human in order to move the emotions and minds of people (and of gods). Our class samples this story art to ask about its makers and viewers and contexts. What, also, were relations between images and texts and language? What about religious belief vs invention, truth vs fiction? What might it mean to look at this ancient art today, and to represent the old stories in post-ancient cultures? The class introduces ways of thinking about what images and things do; we will read in some relevant literature (drama, epic, novels, etc); and our Penn Museum will be a resource. No prerequisites--no prior knowledge of art history, archaeology, myth or Mediterranean antiquity is assumed.
Also Offered As: AAMW 6269, CLST 5416
1 Course Unit
Mutually Exclusive: ARTH 2269, CLST 3416

ARTH 6280 Greek Architecture and Urbanism
As the locus of classical architecture and urbanism, the Greek world occupies
Not Offered Every Year
Also Offered As: AAMW 6280
1 Course Unit

ARTH 6290 Roman Architecture and Urbanism
Architecture is the most striking legacy of Rome and the well-preserved
Not Offered Every Year
Also Offered As: AAMW 6290
1 Course Unit

ARTH 6320 Byzantine Art and Architecture
This lecture course offers a wide-ranging introduction to the art, architecture, and material culture of Byzantium—a Christian, predominantly Greek-speaking civilization that flourished in the Eastern Mediterranean for over a thousand years. Positioned between the Muslim East and the Latin West, Antiquity and the Early Modern era, Byzantium nurtured a vibrant and highly sophisticated artistic culture. With emphasis placed upon paradigmatic objects and monuments, we will examine an array of artistic media, from mosaic and panel painting to metalwork, ivory carving, book illumination, and embroidery. We will consider the making, consumption, and reception of Byzantine art in a variety of contexts—political, devotional, ritual, and domestic. Topics include the idea of empire and its visual articulation; court culture; the veneration of images and relics; patronage, piety, and self-representation; authorship and artistic agency; materiality and the sensory experience of art; the reception of the "pagan" Greco-Roman past; and the changing nature of Byzantium's interactions with neighboring cultures.
Fall or Spring
Also Offered As: AAMW 6320
1 Course Unit

ARTH 6330 Eastern Medieval Art and Architecture
This lecture course examines art and architecture in the Mediterranean, Eastern and Southeastern Europe, and the Christian Near East between the seventh and the fifteenth century. The focus is upon the Byzantine Empire and neighboring polities, including Bulgaria, Serbia, early Russia, Armenia, Georgia, and the Crusader states. The course introduces students to this immensely rich and multifaceted world through an exploration of key artworks and monuments, addressing in particular issues related to cross-cultural exchange, conflict, and appropriation.
Not Offered Every Year
Also Offered As: AAMW 6330
1 Course Unit

ARTH 6350 Introduction to Visual Culture of the Islamic World
A one-semester survey of Islamic art and architecture which examines visual culture as it functions within the larger sphere of Islamic culture in general. Particular attention will be given to relationships between visual culture and literature, using specific case studies, sites or objects which may be related to various branches of Islamic literature, including historical, didactic, philosophical writings, poetry and religious texts. All primary sources are available in English translation.
Not Offered Every Year
Also Offered As: AAMW 6350
1 Course Unit

ARTH 6400 Medieval Art
An introductory survey, this lecture course investigates architecture, painting, sculpture, and the "minor arts" of the Middle Ages. Students become familiar with selected major monuments of the Romanesque and Gothic periods, primarily in Western Europe as well as relevant sites around the Mediterranean. Analysis of works emphasizes the cultural context, the thematic content, and the function of objects and monuments. Discussions focus especially on several key themes: the role of luxury in the medieval west; the theological role of images; the revival of classical models and visual modes; social rituals such as pilgrimage and crusading; the cult of the Virgin and the status of women in art; and, more generally, the ideology of visual culture across the political and urban landscapes.
Not Offered Every Year
Also Offered As: AAMW 6400
1 Course Unit

Mutually Exclusive: ARTH 2400

ARTH 6425 Late Antique Arts
What is ‘Late Antiquity’? In 312 when Roman emperor Constantine inaugurated a Christian empire, ‘Roman’ culture was centuries old. The period ca. 200-650 CE saw profound transformations that launched Medieval, Byzantine and Islamic traditions. In this epoch of upheaval destruction was frequent but partial: Rome long survived, Constantine’s ‘new Rome’, Constantinople flourished, and around the Empire both proto-global visual culture and local forms prospered. Roman cultural models authorized both innovation and passion for tradition: we critique art-historical models for Late Antique ‘decline’, analyse habits of material reuse and curation, and look at new Christian and Jewish roles for Roman things as well as polytheist visual survival. Foreign allies and enemies interacted with Greco-Roman Late Antiquity; we visit them too, as in the early Islamic palaces. Media discussed include not just ‘monumental’ painting, mosaic, sculpture, but also silver, ceramic, ivory, figural textile, glass, painted books, jewelry, coins and more. We look too at Late Antique texts on art, objects, space and viewership. This is an advanced undergraduate lecture course.
Not Offered Every Year
Also Offered As: AAMW 6425, CLST 5406
1 Course Unit

ARTH 6426 Narrative in Ancient Art
Cultures of the ancient Middle East and Mediterranean world were fascinated to make images and things tell stories and engage with time. Sometimes that implied a text - and sometimes, not. With case studies from the deep past, this interdisciplinary advanced undergraduate lecture course explores the capacity of visual language to narrate.
Not Offered Every Year
Also Offered As: AAMW 6426, CLST 7408
1 Course Unit

ARTH 6427 Roman Sculpture
Survey of the Republican origins and Imperial development of Roman sculpture - free-standing, relief, and architectural - from ca. 150 BC to 350 AD. We concentrate on sculpture in the capital city and on court and state arts, emphasizing commemorative public sculpture and Roman habits of decorative display: genres examined include relief, portraits, sarcophagi, luxury and minor arts(gems, metalwork, coinage). We evaluate the choice and evolution of styles with reference to the functions of sculptural representation in Roman culture and society.
Not Offered Every Year
Also Offered As: AAMW 6427, CLST 5405
1 Course Unit

ARTH 6428 Hellenistic Art and Spectacle
Hellenistic usually names art in the age of Mediterranean culture from the 4th century BCE and the rise of Alexander the Great’s Macedon, and the Greco-Macedonian conquest of the Persian Empire, to Cleopatra of Egypt’s defeat by Rome at the end of the Republic. Our course looks also at the age of Augustus and his successors, 1st century CE. While Greek and Macedonian practice in city-states and kingdoms is our launching point, this course also looks at international culture and cultural interaction among peoples from North Africa and Etrusco-Roman Italy, Egypt, Anatolia, the Mideast and Central Asia. We probe art, artifacts, and visual display from a range of settings, from sanctuary to house, palace and parade, and in all media, from marble monuments to pottery and jewelry. Our archaeology of Hellenistic visual culture also looks at the rich body of Hellenistic and Roman texts of art history, art criticism, and the description of objects and image, to better understand the Hellenistic maker, patron, and viewer. No prerequisites.
Not Offered Every Year
Also Offered As: AAMW 6428, CLST 5413
1 Course Unit

ARTH 6435 Islamic Art and Architecture
This advanced undergraduate lecture introduces the major architectural monuments and trends, as well as to the best-known objects of the Islamic world. Istanbul, Samarkand, Isfahan, Cairo and Delhi as major centers of art production in the fourteenth to seventeenth centuries. Attention is paid to such themes as the continuity of late antique themes; architecture as symbol of community and power; the importance of textiles; primacy of writing; urban and architectural achievement; and key monuments of painting and metalwork.
Not Offered Every Year
1 Course Unit

ARTH 6500 Michelangelo and the Art of the Italian Renaissance
An introduction to the work of the Renaissance artist Michelangelo (1475-1564)-his sculptures, paintings, architecture, poetry, and artistic theory-in relation to his patrons, predecessors, and contemporaries, above all Leonardo and Raphael. Topics include artistic creativity and license, religious devotion, the revival of antiquity, observation of nature, art as problem-solving, the public reception and function of artworks, debates about style, artistic rivalry, and traveling artists. Rather than taking the form of a survey, this course selects works as paradigmatic case studies, and will analyze contemporary attitudes toward art of this period through study of primary sources.
Not Offered Every Year
Also Offered As: ITAL 6500
Mutually Exclusive: ARTH 2500, ITAL 2550
1 Course Unit

ARTH 6540 Titian and Venetian Painting
This lecture course examines the art and architecture of the Venetian Republic, with emphasis on the work of the renowned painter, Titian.
Not Offered Every Year
Also Offered As: ITAL 6540
1 Course Unit

ARTH 6541 Caravaggio
This lecture course explores the artistic culture of Baroque Rome, with focus on the life and career of Caravaggio.
Not Offered Every Year
Also Offered As: ITAL 6541
1 Course Unit
ARTH 6542 Brazilian Baroque
This lecture course explores the art, architecture, and visual culture of the
Portuguese Empire with emphasis on Brazil and its relations with Africa
and Asia.
Not Offered Every Year
Also Offered As: AFRC 6542
1 Course Unit

ARTH 6580 Early Modern Japanese Art and the City of Edo
Study of the major art forms and architecture of Tokugawa (or Edo)
period (1603-1868). In this lecture course, we will consider how the
arts of this era occur within an increasingly urban and modern culture,
particularly with regard to the city of Edo. Issues of the articulation of
authority in the built environment, the reinvention of classical styles, and
patronage will be raised. May include some visits to PMA, Penn Museum,
or other local collections.
Not Offered Every Year
Also Offered As: EALC 5141
1 Course Unit

ARTH 6610 Northern Renaissance Art
This course critically examines concepts traditionally associated with the
Renaissance by focusing on the exchange of artistic ideas throughout the
Holy Roman Empire and across different media, such as the altarpieces
of Jan van Eyck, the expressive drawings of Albrecht Durer and Hans
Baldung Grien, the peasant studies of Pieter Bruegel and the prints of
satirists who wished to remain anonymous. The material is organized
thematically around four topics: religious art as piety and politics;
antiquity as a source of tradition and imagination; the formulation of a
public discourse that exposed social threats; and the distinctiveness of
artistic claims of individual achievement. A motif throughout the course
is the question of how the survival of fragments may be presented in
museum contexts as parts standing in for an absent whole. We will also
consider how historians approach designs for works of art now lost or
never completed. Encouraging encounters with art and artifacts around
the city, assignments focus on objects in Philadelphia collections.
Not Offered Every Year
Also Offered As: GRMN 5780
Mutually Exclusive: ARTH 2610, GRMN 1301
1 Course Unit

ARTH 6620 Early Netherlandish Painting: Angels, Demons, Nudes
Over the course of the fifteenth and sixteenth centuries, painting in the
Netherlands experienced dramatic technological advancements: the
application of oil on panel allowed for an unprecedented richness of
color; experiments with optics led to improved illusions of space; artists
rendered light and reflections as never before. Did these advancements
in depicting the natural world conflict with or enhance the portrayal of
spiritual visions? Did realism pave the way for secular art? In this course,
we will look critically at the relationship of science and art, tradition and
innovation, the imagined and the experienced. The delicate preciousness
of Jan van Eyck, the strange spaces of Petrus Christus, the bizarre
hellscape of Hieronymus Bosch, and the peasant festivals of Peter
Bruegel will guide us through these themes.
Not Offered Every Year
1 Course Unit

ARTH 6670 Latin American Art
The numerous traditions of Latin American art have been formed from the
historical confluence of Indigenous, European, African, and Asian cultural
traditions, each one impacting the others. This lecture course serves as
an introduction to these hybrid New World art forms and movements by
both providing a large chronological sweep (1492-present) and focusing
on several specific countries, including Brazil, Mexico, Cuba, Peru, and
Argentina.
Not Offered Every Year
Also Offered As: LALS 6670
Mutually Exclusive: ARTH 2670
1 Course Unit

ARTH 6680 Art and Empire in India, 1750-1900
This course surveys transformations in visual culture between the
Mughal and British empires in India from the mid-eighteenth through the
nineteenth centuries. We shall consider changes in artistic production,
patronage, publics, and viewing protocols in the contexts of the court
and bazaar. We shall examine the emergence of new technologies and its
impact on visual forms, media, and genres, focusing on the interplay of
photography, print, and painting. We shall explore the role of institutions
-the art school, the museum, and the archaeological survey-and the
professions and practices they engendered. We shall analyze how
architecture and urban planning created new built environments and
social relationships in colonial India. We shall view objects first-hand in the
Penn Museum, Penn Libraries, and Philadelphia Museum of Art. This
is a reading- and writing-intensive course. Students with a background in
related disciplines such as literature, history, religion, anthropology, and
South Asian Studies are welcome.
Also Offered As: SAST 6680
Mutually Exclusive: ARTH 2680, SAST 2680
1 Course Unit

ARTH 6699 Wolf Humanities Seminar Lecture
The Wolf Humanities Center is Penn's interdisciplinary humanities
research center based in the School of Arts & Sciences. Each year the
Wolf Humanities Center hosts postdoctoral scholars as they conduct
research and teach one course on the center's annual theme.
Mutually Exclusive: ARTH 2699
1 Course Unit

ARTH 6700 The Modern City
A study of the European and American city in the eighteenth, nineteenth,
and twentieth centuries. Emphasis is placed on the history of architecture
and urban design; political, sociological, and economic factors also
receive attention. The class considers the development of London, St.
Not Offered Every Year
1 Course Unit

ARTH 6710 Modern Architecture, 1700-1900
The history of western architecture, ca. 1700-1900, when architecture
was transformed to serve a world that had been reshaped by political
and industrial revolutions. Topics to be considered include the Rococo,
the English Garden, Palladianism, Romanticism, neo-classicism, the
picturesque, the Greek and Gothic Revivals, and the search for a new
style.
Fall or Spring
1 Course Unit
ARTH 6730 History of Photography
A history of world photography from 1839 to the present and its relation to cultural contexts as well as to various theories of the functions of images. Topics discussed in considering the nineteenth century will be the relationship between photography and painting, the effect of photography on portraiture, photography in the service of exploration, and photography as practiced by anthropologists; and in considering the twentieth century, photography and abstraction, photography as "fine art", photography and the critique of art history, and photography and censorship.
Not Offered Every Year
1 Course Unit

ARTH 6740 Facing America
This course explores the visual history of race in the United States as both self-fashioning and cultural mythology by examining the ways that conceptions of Native American, Latino, and Asian identity, alongside ideas of Blackness and Whiteness, have combined to create the various cultural ideologies of class, gender, and sexuality that remain evident in historical visual and material culture. We also investigate the ways that these creations have subsequently helped to launch new visual entertainments, including museum spectacles, blackface minstrelsy, and early film, from the colonial period through the 1940s.
Not Offered Every Year
Also Offered As: AFRC 6740
Mutually Exclusive: ARTH 2740
1 Course Unit

ARTH 6750 Revolution to Realism: European Art, 1770-1870
This course surveys the major trends in the arts of Europe and its colonies in the tumultuous decades stretching from the French and Haitian revolutions in the late-eighteenth century to the rise of realism in the mid-nineteenth. Starting with Jacques-Louis David's revolutionary history paintings, we study Napoleonic representations of empire, Goya's imagery of violence, romantic representations of madness and desire, the origins of both nationalist and ecocritical landscape painting, the aesthetics of the industrial revolution, as well as the politicized realism of Gustave Courbet. Some of the themes that will be addressed include: the revolutionary hero, the birth of the public museum, the specters of slavery and colonialism in modern representation, the anxious masculinity of romanticism, the rise of industry and bourgeois culture, the beginnings of photography and caricature, the quest for national identity and, not least, the origins of modernist painting. Throughout, we will strive to recover the original radicalism of art's formal and conceptual innovations at times of profound political and social crisis.
Not Offered Every Year
Mutually Exclusive: ARTH 2750
1 Course Unit

ARTH 6760 Impressionism
Impressionism opened the pictorial field to light, perception, science, modernity, bourgeois leisure and famously the material qualities of paint itself. This course will survey the movement's major contexts and proponents—Manet, Monet, Morisot, Cezanne, Gauguin, Van Gogh, Rodin—from its origins in the 1860's to its demise in the 1890's, as well as its subsequent adaptations throughout the world until World War I. Particular attention is paid to the artists' critical reception and the historical conditions which allowed one nation, France, to claim the emergence of early Modernism so firmly for itself. The course also analyzes the effects of the rapidly changing social and cultural fabric of Paris, and its affects on artistic developments. We also look outside of France's borders to Germany and Britain.
Fall or Spring
1 Course Unit

ARTH 6770 The Rise of Modernity: Arts of the 19th Century
The nineteenth century is often considered as fast-paced, politically volatile and new-media obsessed as our own age. This course explores the nineteenth century's claim to have produced the first truly modern culture, focusing on the visual arts and metropolitan spaces of Europe and North America in their intellectual and social contexts. Stretching from the American and French Revolutions to the eve of World War I, topics to be covered include: the rise of capitalist and industrialist culture, art and revolutionary upheaval, global travel and empire, the origins of modernist art and architecture, and new media such as stereoscopes, iron and glass construction, and photography. Major artistic personalities of the age, from Jacques-Louis David and Gustave Courbet to Claude Monet and Vincent Van Gogh, and from Friedrich Schinkel and, Baron Haussmann to Frank Furness and Frank Lloyd Wright, are discussed. Each lecture will be followed by a brief period of discussion, and regular field trips take students to examine art and architecture first hand, in the museums and on the streets of Philadelphia.
Not Offered Every Year
1 Course Unit

ARTH 6780 American Art
This lecture course surveys the most important and interesting art produced in the United States (or by American artists living abroad) up through the 1950s. This period encompasses the history of both early and modern art in the U.S., from its first appearances to its rise to prominence and institutionalization. While tracking this history, the course examines art's relation to historical processes of modernization (industrialization, the development of transportation and communications, the spread of corporate organization in business, urbanization, technological development, the rise of mass media and mass markets, etc.) and to the economic polarization, social fragmentation, political conflict, and the cultural changes these developments entailed. In these circumstances, art is drawn simultaneously toward truth and fraud, realism and artifice, science and spirituality, commodification and ephemerality, nationalism and cosmopolitanism, individualism and collectivity, the past and the future, professionalization and popularity, celebrating modern life and criticizing it.
Fall or Spring
Mutually Exclusive: ARTH 2780
1 Course Unit
ARTh 6781 African American Art
This course surveys the most important and interesting art produced in the United States (or by American artists living abroad) up through the 1950s. This period encompasses the history of both early and modern art in the U.S., from its first appearances to its rise to prominence and institutionalization. While tracking this history, the course examines art's relation to historical processes of modernization (industrialization, the development of transportation and communications, the spread of corporate organization in business, urbanization, technological development, the rise of mass media and mass markets, etc.) and to the economic polarization, social fragmentation, political conflict, and the cultural changes these developments entailed. In these circumstances, art is drawn simultaneously toward truth and fraud, realism and artifice, science and spirituality, commodification and ephemeralism, nationalism and cosmopolitanism, individualism and collectivity, the past and the future, professionalization and popularity, celebrating modern life and criticizing it.
Fall or Spring
Also Offered As: AFRC 6781
1 Course Unit

ARTh 6810 Modern Architecture, 1900-Present
The architecture of Europe and America from the late nineteenth century until the present is the central subject of this course, but some time is also devoted to Latin American and Asian architecture and to the important issues of modern city planning. Topics discussed include the Arts and Crafts movement, Art Nouveau, Expressionism, Art Deco, the International Style, and Post-modernism. The debate over the role of technology in modern life and art, the search for a universal language of architectural communication, and the insistent demand that architecture serve human society are themes that are traced throughout the course. Among the important figures to be considered are Frank Lloyd Wright, Walter Gropius, Le Corbusier, Louis Kahn, Robert Venturi, and Denise Scott Brown. The course includes weekly discussion sessions and several excursions to view architecture in Philadelphia.
Fall or Spring
Mutually Exclusive: ARTH 2810
1 Course Unit

ARTh 6850 Modern Art in Africa and Europe
The history of modern art is closely tied to and largely unfolds from the history of Western Imperialism. While the technologies made possible by colonial resource extraction produced new ways of looking, modern conceptions of the self and how to represent it developed in dialogue with racialized notions of the other. This course focuses on encounters between the cultures of Africa and Europe, from 1880 to 1960, and on the visual practices that emerged on both continents as a result. Topics of special interest will include racial difference and the birth of photography, colonial masquerade, impressionism, symbols of power in royal arts, cubism, mass marketing and colonial self-fashioning, West African studio photography, world's fairs and the Musee de l'Homme, Dada and surrealism, Negritude and interwar Paris, anti-aesthetics, colonial arts education, National art schools in the age of African independence, humanism and South African photography under Apartheid.
Not Offered Every Year
Also Offered As: AFRC 6850
1 Course Unit

ARTh 6860 Modern Art: Picasso to Pollock
Early twentieth-century art in Europe is marked by a number of exciting transformations. This period witnessed the rise of abstraction in painting and sculpture, as well as the inventions of collage, photomontage, constructed sculpture, the ready made and found object, and performance art. Encounters with the arts of Africa, Oceania and other traditions unfamiliar in the West spurred innovations in media, technique, and subject matter. Artists began to respond to the challenge of photography, to organize themselves into movements, and in some cases, to challenge the norms of art through "anti-art." A new gallery system replaced traditional forms of exhibiting and selling art, and artists took on new roles as publicists, manifesto writers, and exhibition organizers. This course examines these developments, with attention to formal innovations as well as cultural and political contexts. This course requires permission from the instructor.
Fall or Spring
1 Course Unit

ARTh 6870 Postwar Art
At a time of seismic shifts in the American polity, postwar art has too often seemed above the fray. Even as New York came to replace Paris as the epicenter of art world in the post war period, the rapid succession of styles and movements from Abstract Expressionism to Neo-Dada, Pop Art, Minimalism, Conceptual Art and Happenings can seem to have their own internal logic, severed from the historical backdrop of the time. Some of the artists we'll consider include Pollock, Krasner, Rauschenberg, Johns, Warhol, Kusama, Martin, Lichtenstein, Bearden, Oldenburg, LeWitt, Chicago and Judd. In this course, we'll reexamine American art and art criticism in the postwar period alive to everything from the Cold War's virulent anti-communism to the rise of progressive liberation movements around race, ethnicity, sexuality, and gender. In the process, we will repeatedly underscore how art both served, and bit, the hand that fed it.
Also Offered As: GSWS 6870
1 Course Unit

ARTh 6900 Post War Japanese Cinema
Mizoguchi Kenji, Ozu Yasujiro, and Kurosawa Akira are recognized today as three of the most important and influential directors in Japanese cinema. In their films of the late 1940s and 1950s, these directors focused upon issues surrounding the human condition and the perception of truth, history, beauty, death, and other issues of the postwar period. This lecture course places their films in period context, and pays particular attention to the connections to other visual media, and to how "art" and "history" are being defined in the cinematic context. How other directors also took up these issues, and referred to the "big three" is also be discussed.
Not Offered Every Year
Also Offered As: EALC 5340
1 Course Unit

ARTh 6900 Post War Japanese Cinema
Mizoguchi Kenji, Ozu Yasujiro, and Kurosawa Akira are recognized today as three of the most important and influential directors in Japanese cinema. In their films of the late 1940s and 1950s, these directors focused upon issues surrounding the human condition and the perception of truth, history, beauty, death, and other issues of the postwar period. This lecture course places their films in period context, and pays particular attention to the connections to other visual media, and to how "art" and "history" are being defined in the cinematic context. How other directors also took up these issues, and referred to the "big three" is also be discussed.
Not Offered Every Year
Also Offered As: EALC 5340
1 Course Unit
**ARTH 6910 East Asian Cinema**

This survey course introduces students to major trends, genres, directors, and issues in the cinemas of East Asian countries/regions, including Japan, Korea, China, Hong Kong, and Taiwan. Charting key developments over more than a hundred years from the early twentieth century to the present, this course examines films as aesthetic objects, asking questions about film form, narrative, and style. It also pays attention to the evolution of cinema as an institution (e.g., modes of production, circulation, and exhibition) in different cultural and political contexts. Weekly course materials will include both films (primary sources) and analytical readings (secondary sources). By the end of the course, students are expected to gain broad knowledge of East Asian cinema, develop skills of film analysis, and apply these skills to perform historically informed and culturally sensitive analysis of cinema. Prior knowledge of East Asian languages is NOT required.

Also Offered As: EALC 5116

Mutually Exclusive: ARTH 2910, CIMS 2910, EALC 1116

1 Course Unit

---

**ARTH 6931 Participatory Community Media, 1970-Present**

What would it mean to understand the history of American cinema through the lens of participatory community media, collectively-made films made by and for specific communities to address personal, social and political needs using a range of affordable technologies and platforms, including 16mm film, Portapak video, cable access television, satellite, digital video, mobile phones, social media, and drones? What methodologies do participatory community media makers employ, and how might those methods challenge and transform the methods used for cinema and media scholarship? How would such an approach to filmmaking challenge our understanding of terms like "authorship," "amateur," "exhibition," "distribution," "venue," "completion," "criticism," "documentary," "performance," "narrative," "community," and "success"?

How might we understand these U.S.-based works within a more expansive set of transnational conversations about the transformational capacities of collective media practices? This course will address these and other questions through a deep engagement with the films that make up the national traveling exhibition curated by Louis Massiah and Patricia R. Zimmerman, *We Tell: Fifty Years of Participatory Community Media*, which foregrounds six major themes: Body Publics (public health and sexualities); Collaborative Knowledges (intergenerational dialogue); Environments of Race and Place (immigration, migration, and racial identities unique to specific environments); States of Violence (war and the American criminal justice system); Turf (gentrification, homelessness, housing, and urban space); and Wages of Work (job opportunities, occupations, wages, unemployment, and underemployment). As part of that engagement, we will study the history of a series of Community Media Centers from around the U.S., including Philadelphia's own Scribe Video Center, founded in 1982 by Louis Massiah, this course's co-instructor. This is an undergraduate seminar, but it also available to graduate students in the form of group-guided independent studies.

The course requirements include: weekly screenings, readings, and seminar discussions with class members and visiting practitioners, and completing both short assignments and a longer research paper.

Mutually Exclusive: AFRC 3932, ARTH 3931, CIMS 3931, ENGL 2970, GSWS 3931

1 Course Unit

---

**ARTH 6940 Art Now**

One of the most striking features of today's art world is the conspicuous place occupied in it by the photographic image. Large-scale color photographs and time-based installations in projections are everywhere. Looking back, we can see that much of the art making of the past 60 years has also been defined by this medium, regardless of the form it takes. Photographic images have inspired countless paintings, appeared in combines and installations, morphed into sculptures, drawings and performances, and served both as the object and the vehicle of institutional critique. They are also an increasingly important exhibition site: where most of us go to see earthworks, happenings and body-art. This course is a three-part exploration of our photographic present.

Spring

1 Course Unit

**ARTH 6950 Global Film Theory**

This course will provide an introduction to some of the most important film theory debates and allow us to explore how writers and filmmakers from different countries and historical periods have attempted to make sense of the changing phenomenon known as "cinema," to think cinematically. Topics under consideration may include: spectatorship, authorship, the apparatus, sound, editing, realism, race, gender and sexuality, stardom, the culture industry, the nation and decolonization, what counts as film theory and what counts as cinema, and the challenges of considering film theory in a global context, including the challenge of working across languages. There will be an asynchronous weekly film screening for this course. No knowledge of film theory is presumed.

Not Offered Every Year

Mutually Exclusive: ARTH 2950, CIMS 2950, COML 2950, GSWS 2950

1 Course Unit

**ARTH 6960 Contemporary Art**

Many people experience the art of our time as bewildering, shocking, too ordinary (my kid could do that), too intellectual (elitist), or simply not as art. Yet what makes this art engaging is that it raises the question of what art is or can be, employs a range of new materials and technologies, and addresses previously excluded audiences. It invades non-art spaces, blurs the boundaries between text and image, document and performance, asks questions about institutional frames (the museum, gallery, and art journal), and generates new forms of criticism. Much of the "canon" of what counts as art is still in flux, especially for the last twenty years. The stage is no longer centered only on the United States and Europe, but is becoming increasingly global. The course will introduce students to the major movements and artists since 1980, with emphasis on social and historical context, critical debates, new media, and the changing role of the spectator/participant.

Not Offered Every Year

Mutually Exclusive: ARTH 2960

1 Course Unit
ARTh 7010 Methods Seminar
This course is designed to build skills of analysis and argumentation essential to the conduct of creative and responsible work in History of Art. Its goals include presenting the history of the field in a manner attentive to the complexities of its institutional and professional formations, purposes, and effects; encouraging appreciation of historiography, specifically the time, place, and political and social circumstances in which a given text was composed; promoting awareness of the ethics of scholarship (inclusive and expansive in every sense); familiarizing students with the strengths and weaknesses of distinct methodological traditions that have shaped the field; considering the audiences served by art historical scholarship (the academy, the museum, local and global publics) and the forms scholarship might take to effectively reach those audiences. The course is required for first-year graduate students in History of Art and open to others with permission of the instructor.
Not Offered Every Year
1 Course Unit

ARTh 7110 Indian Art Seminar
This course focuses on art in India. Open to graduate students only.
Not Offered Every Year
Also Offered As: SAST 7110
1 Course Unit

ARTh 7140 East Asian Art Seminar
Graduate seminar in East Asian art. Topics vary from semester to semester.
Not Offered Every Year
Also Offered As: EALC 8100
1 Course Unit

ARTh 7141 Twentieth-Century Art in East Asia: Modernity and Confrontation
This seminar considers modern and contemporary art in China, Japan and Korea over the course of the twentieth century. What does it mean to make modern art and whom should it serve were essential questions in this century in East Asia. In this course the confrontations between modernity and tradition, state and self, the colonizer and the colonized, and collecting and the market are all issues under consideration. We begin with a study of the way “modern art” was defined at the turn of the century, its place in the nation state, the promotion of oil painting in Academic styles, and the call to preserve “national” styles. We also consider how the avant-garde pursuit of individuality constituted a confrontation over state-sponsored “modernism,” and how these confrontations played out in world’s fairs and expositions (and continue today). We will further engage how Japan’s imperialist actions against its neighbors had an impact on artistic development in territories it controlled, and the place of the work of art as propaganda in Japan’s war effort. Turning to the postwar era, we will study how China's Communist Revolution, the Korean War, and the Occupation in Japan likewise established new paradigms for the production and reception of art, as well as more recent confrontations between art and politics in recent decades and the place of Chinese, Korean and Japanese art in the contemporary market.
Not Offered Every Year
Also Offered As: EALC 8102
1 Course Unit

ARTh 7150 Japanese Art Seminar
This seminar engages specific topics in Japanese art history from 1600 to the present, with the specific focus varying from year to year. Previous topics have included: the concept of the artist; gender and its representation; the visualization of place from the early modern to the present; collecting, the market, modernity, and the construction of the field; print cultures; among others. Sessions will be conducted on site, in museums, galleries, and libraries, as available. Assignments vary depending upon the focus of the seminar. Japanese language ability useful but not necessary; curiosity and engagement required.
Not Offered Every Year
Also Offered As: EALC 8140
1 Course Unit

ARTh 7200 Aegean Bronze Age Seminar
This graduate seminar will focus on the art and archaeology of the Aegean Bronze Age, circa 3,300-1,100 BCE. Topics vary from semester to semester and may include: issues of trade, manufacture, and iconography including the development of iconography and pictorial motifs, the nature of Minoan and Mycenaean society, the structure of Aegean Society, and how our interpretation of the Aegean Bronze Age has changed since the early work in the field in the late 1800s and 1900s by prominent scholars.
Not Offered Every Year
Also Offered As: AAMW 7200
1 Course Unit

ARTh 7220 Art of Ancient Iran Seminar
This graduate seminar will address various topics in the visual and architectural arts of ancient Iran from the Early Bronze through the Sasanians. Topics may include: Elamite Art and Architecture, Hasanlu and its neighbors, and The Bronze Age of Exchange. This course is only open to graduate students.
Not Offered Every Year
Also Offered As: AAMW 7220
1 Course Unit

ARTh 7230 Topics in the Art of the Ancient Near East
Topic varies. Fall 2019: During the short period of the Neo Sumerian Empire at the end of the third millennium BCE, Mesopotamian concepts of kingship were crystallized through images, buildings, and textual creations. This seminar will examine this central institution from many points of view that invite cross historical and cross-cultural consideration.
Not Offered Every Year
Also Offered As: AAMW 7230
1 Course Unit

ARTh 7240 Ancient Art of Mesopotamia Seminar
This graduate seminar will address various topics in the visual and architectural arts of ancient Mesopotamia. Topics include: Assyrian Reliefs, Art and Architecture of the Old Akkadian period, Early Dynastic art and architecture, and The Rise of first cities in Mesopotamia and Iran. This course is only open to graduate students.
Not Offered Every Year
Also Offered As: AAMW 7240, NELC 7060
1 Course Unit
ARTH 7320 Medieval Art History and Theories of the Object
The recent turn to the object across the humanities and social sciences has brought to the fore concerns with the nature of material things, their operation in the world, and their entanglement with humans. This seminar will introduce you to some of the key theoretical writings on the object and material culture and will ask you to interrogate their relevance for the discipline of art history. Our focus will be on the Mediterranean and Western European Middle Ages, but depending on the specific interests of the seminar's participants, we may venture into other historical periods and cultural domains. Topics to be addressed include the social life of things; agency; materiality; the relic; the gift; the miniature; and the question of the human/nonhuman divide. This course is only open to graduate students.
Not Offered Every Year
Also Offered As: AAMW 7320
1 Course Unit

ARTH 7370 Islamic Architecture Seminar
This seminar will address the problems of studying architecture in the Islamic world. Considered will be issues of architectural design, regional and trans-regional constructional traditions, structural know-how and innovation, patronage and use. The examples discussed will be mainly religious and social service complexes. Attention will be paid to the manner of transmission of architectural design knowledge and constructional skill. Open to graduate students only.
Not Offered Every Year
Also Offered As: AAMW 7370, NELC 7561
1 Course Unit

ARTH 7380 Islamic Archaeology Seminar
This seminar will address the problems of studying architecture in the Islamic world. Considered will be issues of architectural design, regional and trans-regional constructional traditions, structural know-how and innovation, patronage and use. The examples discussed will be mainly religious and social service complexes. Attention will be paid to the manner of transmission of architectural design knowledge and constructional skill. Open to graduate students only.
Not Offered Every Year
Also Offered As: NELC 6550
1 Course Unit

ARTH 7390 Medieval Art Seminar
Alternating specific topic from year to year, this advanced graduate seminar surveys methodological issues concerning the art of the European Middle Ages, broadly conceived. Seminars take advantage of the rich resources of the Philadelphia area. This course is open to graduate students only.
Not Offered Every Year
Also Offered As: AAMW 7400
1 Course Unit

ARTH 7401 Medieval Art Now Seminar
Where is the study of medieval art today? This advanced graduate seminar surveys the questions and issues relevant to the study of artistic production, both East and West, from 300 to 1500. New methodologies will be placed in their historiographic contexts, and students will read deeply into the problems with which medieval art historians are wrestling with today. The seminar will take advantage of excellent local collections to animate discussions, and focus research papers.
Not Offered Every Year
Also Offered As: AAMW 7401
1 Course Unit

ARTH 7430 Illuminations: Manuscript / Medium / Message
This seminar will explore the cross-fertilization between manuscript illumination and other media such as wall-painting, panel painting, architecture, sculpture, and stained glass across the early modern world, 1300-1600. We will consider such topics as: intermediality, artistic transfer, miniature vs. monumental, workshop practice, patronage, and the nascent art market. Students will have the rare opportunity to see and handle manuscripts held in area collections such as the Kislak Center and the Free Library of Philadelphia. This course is open to all students who are interested in artistic practice, the historical dimensions of media, and the social function of art. This course is only open to graduate students.
Not Offered Every Year
1 Course Unit

ARTH 7600 Early Modern Art Seminar
This seminar takes a thematic approach to the study of European art produced between 1400-1800. Topics, which change annually, include such offerings as “Art and Law;” “Spectacle, Punishment, and Surveillance;” “Prints and Politics” and “The Subject of Nature.” In a given year, we will approach a corpus of objects, images, and performances through a study of three kinds of text: primary sources, secondary art-historical scholarship, and critical theory. Discussions will convene around local museum and library collections. Assignments will develop skills in writing abstracts, preparing conference papers, and developing strong and publishable written work.
1 Course Unit

ARTH 7610 Nature and Labor in Early Modern Art Seminar
In the sixteenth century, the notion of nature as fecund spawned not only images of lushness but also analogies to the artist's mind as a fertile place. The idea of "natural law" was also appealed to as a presumably primal condition, one that established how the earth's resources were to be distributed among its people. Yet the taste for artistic objects in gold, silver, wax, and wood—materials that could be worked into shapes attesting to the owner's dominium over land—led to harvesting processes which met the awareness that nature's resources could run low or even run out. Untappable nature was a functional metaphor, but scarcity was a reality. As a collective effort to write the other side of the story of Renaissance abundance, this seminar will proceed by addressing the question of how the history of art might be told as a description of materials and their potential for the expenditure of natural and human resources. We will address this question by focusing on primary texts, theoretical interventions, and a selection of objects, images, and early books from collections near at hand. Open to graduate students only.
Not Offered Every Year
Also Offered As: DTCH 6610, GRMN 6850
1 Course Unit
ARTH 7620 Baroque Art Seminar
This seminar critically examines a style that emerged between 1600 and 1800 and has often been associated with luxury and excess to investigate both the motivations behind the formal developments and the darker political histories that underpinned them. Open to graduate students only.
Not Offered Every Year
1 Course Unit

ARTH 7650 Northern Baroque Art Seminar
This seminar will consider major themes in Northern art of the 16th and 17th centuries, essentially from Bruegel to Vermeer. The premise is that the Reformation altered certainties in knowledge and even in perception, especially in the wake of wars, newly discovered lands, changing science and collecting of Wonders. Among new imagery topics would include: melancholy, vanitas, witchcraft, travel images, and the status of the emblem as well as allegory. Students will select a topic for semester-long investigation and co-present a class with the instructor. Open to graduate students only.
Not Offered Every Year
Also Offered As: DTCH 6650
1 Course Unit

ARTH 7710 19th Century Architecture Seminar
This seminar will explore the exhilarating architectural environment of the period ca. 1750-1900, when a ferocious appetite for artistic invention was let loose in kitchen filled with new knowledge about the entire history of human architecture. Focusing on French, German, and English architecture, the seminar will examine major texts and study important monuments, all considered in their cultural and political contexts. Open to graduate students only.
Not Offered Every Year
1 Course Unit

ARTH 7750 19th Century Art in Europe Seminar
Topic varies from semester to semester. For Fall 2021, the topic will be: The Paris Commune - A Revolution Recorded. The year 2021 marks the 150th anniversary of the Paris Commune, the revolutionary, radically socialist government that ruled the city of Paris briefly, from March to May 1871. Not the first, but in fact the last of the French revolutions of the 18th and 19th centuries, the Commune is arguably the best recorded, most mediated, and most modern one among them. Photography became a tool in revolutionary action, and a mass press reported and illustrated events, receiving global attention. A new tourist economy traded on access and proximity to revolutionary spectacle and trafficked in political souvenirs. An avant-garde art scene developed that responded to the upheaval in novel ways, including artists and writers like Courbet, Manet, Rimbaud, among others. The Communards themselves often saw their political actions as performance and conceived of their acts in aesthetic terms - a fact that continued, for those that survived, into their exile in New Caledonia after the revolution ended abruptly in the aptly-named Bloody Week. The Paris Commune, this is to say, was one of the more performative and artistic revolutions in history and is therefore worth analyzing art historically. Along the way, this seminar will engage the broader question as to how we best study the import of discrete political events through the lens of art history more generally.
Not Offered Every Year
1 Course Unit

ARTH 7770 The Long Nineteenth Century: Literature, Philosophy, Culture
The present course will discuss German literature and thought from the period of the French Revolution to the turn of the twentieth century, and put it into a European context. In regard to German literature, this is the period that leads from the Storm and Stress and Romanticism to the political period of the Vormärz, Realism, and finally Expressionism; in philosophy, it moves from German Idealism to the philosophy of Schopenhauer, Nietzsche, and neo-Kantian thought. It is also the period that saw the rise of the novel, and new forms of dramatic works. Painting moved out of the studio into plein air; the invention of photography made an imprint on all arts, and the rise of the newspaper led to new literary genres such as the feuilleton. Economically, Germany experienced the industrial revolution; politically, it was striving for a unification that was finally achieved in 1871. The nineteenth century saw the establishment of the bourgeoisie, the emergence of the German working class, and the idea of the nation state; it also saw Jewish emancipation, and the call for women's rights. Readings will focus on a variety of literary, political, and philosophical texts; and consider a selection of art works.
Not Offered Every Year
Also Offered As: COML 5660, GRMN 5580
1 Course Unit

ARTH 7810 20th and 21st Century Architecture Seminar
This course focuses on architecture of the 20th and 21st centuries. Open to graduate students only.
Not Offered Every Year
1 Course Unit

ARTH 7860 20th Century Art in Europe Seminar
This graduate seminar covers aspects of the arts, visual and material cultures of the twentieth century (c. 1900-1989) in Europe in a global context. Open to graduate students only.
Not Offered Every Year
1 Course Unit

ARTH 7880 20th Century American Art Seminar
This seminar examines the history of art, artists, and artistic movements that emerged in the United States during the twentieth century. It may also engage with histories of visual culture, criticism, and the theory of art. Specific topics vary from semester to semester.
Not Offered Every Year
1 Course Unit

ARTH 7881 19th Century American Art Seminar
This seminar examines the history of art, artists, and artistic movements that emerged in the United States during the long nineteenth century. It may also engage with histories of visual culture, criticism, and the theory of art. Specific topics vary from semester to semester.
Not Offered Every Year
1 Course Unit
ARTH 7910 African Film and Media Pedagogy
This graduate seminar offers an intensive, critical, and collaborative study of contemporary African film and media production. The past three decades have seen an unprecedented shift in the African media landscape. Not only has the wide availability of satellite media across the continent made international film and television programming part of African popular culture, but moreover the growing film industries within the continent, most notably Nollywood, have altered how Africans are carving an image of themselves on the big and small screens. In partnership with local, regional, and international film and media centers, we will study a range of films—features, shorts, documentaries, and television shows—paying close attention to the means and sites of production as well as the formal qualities that distinguish these works. Many of the films we will analyze stand out both for their exceptional aesthetic quality as well as their remarkable ability to confront pressing political and social themes. But we will also think about trash: what counts as trashy media, and for whom? Who watches it, where, and why? Other questions we will ask include: What particular indigenous modes of storytelling do African films employ? What categories begin to emerge under the umbrella category of “African film and media,” and where do diasporan film and media practitioners and critics fit in this landscape? How are these films tackling some of the urgent questions of our times, including migration and globalization; ethnic, political, and economic polarization; gender and sexuality; and massive urbanization and industrialization sweeping Africa and other parts of the Global South? What role do festivals in various countries play in shaping media production and distribution? How important is the concept of authorship in this context? And how do these films challenge the dominant western trope of Africa as a spectacle, instead offering novel ways of picturing everyday African experiences that we rarely glimpse in western media? To explore these questions, we will visit multiple sites of film production, distribution, exhibition, and education, including Scribe Video Center in Philadelphia, Sankofa Films in Washington, D.C., and the College of Performing and Visual Art at Addis Ababa University in Ethiopia. Location and knowledge production are inextricably connected, and by considering African media production from these multiple sites, and collaborating with multiple stakeholders, this course offers a directly engaged pedagogy of the complex artistic, cultural, social, and political dynamics of African audiovisual creation. The travel component of this course entails a day trip to Washington, D.C. during the semester (tentative date: April 2, 2020) and a week-long trip to Addis Ababa at the end of the spring term (students applying for this course should be prepared to travel to Addis Ababa May 30, 2020-June 7, 2020). All expenses for travel, accommodation, and food will be covered, but students will need to hold a passport. Ultimately, this course aims to use film and media production to intervene in a larger discourse on how Africa is figured in the global humanities, not as an absent or passive actor but one actively engaged in producing art and humanistic knowledge that has much to teach us and the world. Admission to the course will be by permission only and students are required to submit a short statement of interest (max. 250 words) to dagw@english.upenn.edu and redkaren@sas.upenn.edu. Students must be prepared to travel to Addis Ababa and Washington D.C. as described in the syllabus, and must hold a passport.
Not Offered Every Year
Also Offered As: AFRC 7910
1 Course Unit

ARTH 7920 Reading Against Racism
This course takes as its starting point Audre Lorde's 1981 keynote presentation at the National Women's Studies Association Conference, "The Uses of Anger: Women Responding to Racism." Lorde, critiquing white feminists, states, "I cannot hide my anger to spare you guilt, nor hurt feelings, nor answering anger; for to do so insults and trivializes all our efforts. Guilt is not a response to anger; it is a response to one's own actions or lack of action. If it leads to change then it can be useful, since it is then no longer guilt but the beginning of knowledge. Yet all too often, guilt is just another name for impotence, for defensiveness destructive of communication; it becomes a device to protect ignorance and the continuation of things the way they are, the ultimate protection for changelessness." Eschewing defensiveness, ignorance, and innocence, and opening to meaningful change by engaging the writings of anti-racist and anti-imperialist thinkers, including those focused on the transformation of higher education, this course examines the responsibilities scholars take on when we affirm that "Black Lives Matter," and acknowledges that higher education, including the humanities, is actively implicated in the structures and operations of white privilege Eschewing defensiveness, ignorance, and innocence, and opening to meaningful change by engaging the writings of anti-racist and anti-imperialist thinkers, including those focused on the transformation of higher education, this course examines the responsibilities scholars take on when we affirm that "Black Lives Matter," and acknowledges that higher education, including the humanities, is actively implicated in the structures and operations of white privilege and anti-black racism as well as in other intersectional modes of exclusion, including all forms of discrimination based on race, ethnicity, national origin, ability, class, sexuality, gender, and beliefs. The course aims to approach these urgent but longstanding issues in ways that help us to understand some of the complexities, practicalities, and temporalities of the work of change; to grapple with what Rosalyn Deutsche in Hiroshima After Iraq (2011) describes as "the inseparability of the social and the psychic"; and to seek out effective alternatives to the tendency of politicized academic writing in time of conflict to regress to what Deutsche calls "heroic masculinism." "Reading Against Racism" is imagined as a way of catalyzing active, collective, and long-term anti-racist, anti-imperialist intellectual work. It seeks to participate in the development of more just and inclusive academic modes and spaces by fostering time and structure for thought and self-reflection, by generating ideas for implementation, and by learning from our readings as well as from each other. All students, white and BIPOC, are welcome to participate, but we will begin this course by working together to establish a community agreement that takes account of the different ways in which such a course is likely to be experienced by white and BIPOC people. For example, recognizing that discussions about race and racism require immense emotional labor from BIPOC people in particular, BIPOC students should not be asked to use their personal experiences to frame questions under discussion or to represent any group. We will establish together other guidelines to create as safe and supportive a space (or spaces) for reading, thinking, and acting against racism as we can muster, including deciding how we would like to include in our process tools like trigger warnings, opt-out mechanisms, smaller subgroups, etc. Requirements: Weekly reading; weekly journal for self-reflection (required, but not for submission); participation in discussion; design a syllabus for an introductory course in your field. Thanks to all the students who have generously participated in developing this course and to the scholars who have written the materials we will read.
Also Offered As: CIMS 7920
1 Course Unit
ARTH 7940 Contemporary Art Seminar
Topic varies from semester to semester. For the Spring 2021 semester, the topic will be: Portraiture Now. This graduate seminar examines approaches to portraiture by contemporary artists in the United States and beyond, with a focus on artists of color. We will consider painting, sculpture, photography, prints, drawings, time based media, and conceptual portraiture.
Not Offered Every Year
1 Course Unit

ARTH 7941 Contemporary Art and Theory Seminar
This seminar focuses on special topics in the history and theorization of art and visual culture made (mostly) after the 1960s in, and about, a range of places around the world. Topics might include but are not limited to “The Aesthetics of Solidarity”; “What is Contemporary Form?”; “Decolonization and Decoloniality in History and Practice;” “Temporality and Timeliness in Recent Art”; “What is a Photograph?”; and, “Writing Art Writing Now.” When they are not focused on problematics or theoretical frames of this sort, courses might also be dedicated to the study of individual artists, movements, exhibitions, or territories. When possible, classes will align with local/regional art exhibitions, and it is also possible we may travel to conduct on-site research as the situation allows. Open to all graduate students.
1 Course Unit

Asian American Studies (ASAM)

ASAM 0010 Freshman Seminar on Asian American Lit
An introduction to writing about Literature, with emphasis on Asian American literature and culture.
Also Offered As: ENGL 0322
1 Course Unit

ASAM 0100 Introduction to Asian American Studies
According to the U.S. Census, there are approximately 21 million Asian residents in the U.S. that comprise almost 6 percent of the total population. This relatively small number disguises the critical experiences Asian American communities face in both the local and transnational context. Yet, Asian Americans constitute one of the most heterogeneous racial groups within the U.S. Over the course of this semester we will read about and actively discuss the history of Asian immigration to the U.S., the social construction and experience of race in the U.S., and the political, economic, and cultural contributions of Asian Americans. We will also examine how Asian Americans negotiate/deploy their culture and ethnicity to achieve recognition in multicultural America and how the construction of Asian American identity intersects with class, gender, and sexuality.
Fall
1 Course Unit

ASAM 0101 Asian American Communities
Who is Asian American and how and where do we recognize Asian America? This interdisciplinary course explores the multiple factors that define Asian American identity and community. In order to provide a sketch of the multifaceted experience of this growing minority group, we will discuss a wide variety of texts from scholarly, artistic, and popular (film, cinematic) sources that mark key moments in the cultural history of Asia America. The course will address major themes of community life including migration history, Asian American as model minority, race, class, and transnational scope of Asian America. In combination with the readings, this class will foster and promote independent research based on site visits to various Asian American communities in Philadelphia and will host community leaders as guest lecturers.
Fall or Spring
Also Offered As: URBS 0101
1 Course Unit

ASAM 0102 Introduction to Asian American History
This course will provide an introduction to the history of Asian Pacific Americans, focusing on the wide diversity of migrant experiences, as well as the continuing legacies of Orientalism on American-born APA’s. Issues of race, class, gender, and sexuality will also be examined.
Spring
Also Offered As: HIST 1155
1 Course Unit

ASAM 0103 Asian American Literature
An overview of Asian American literature from its beginnings at the turn of the twentieth century to the present. This course covers a wide range of Asian American novels, plays, and poems, situating them in the contexts of American history and minority communities and considering the variety of formal strategies these different texts take. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 1270
1 Course Unit
ASAM 0115 American Race: A Philadelphia Story (SNF Paideia Program Course)
This course proposes an examination of race with a two-pronged approach: one that broadly links the study of race in the United States with a multi-disciplinary approach and also simultaneously situates specific conversations within the immediate location of Philadelphia, home to the University. The broad historical examination advances key concepts of race and racialization, explores key theoretical methodologies, and highlights major scholarly works. For example, students will engage with the study of race through Africana Studies, Asian American Studies, Urban Studies and through Latin American & Latinx Studies. Readings and methodologies will introduce students to critical issues in education, in literature, in sociology, and with methods in oral history, archival work, and ethnography. Most importantly, this extensive approach highlights the impact of race across multiple communities including Black Americans, immigrant populations, and communities that are marginalized to emphasize connections, relationships, and shared solidarity. Students are intellectually pushed to see the linkages and the impacts of racism across and among all Americans historically and presently. As each theme is introduced a direct example from Philadelphia will be discussed. The combination of the national discourse on race, with an intimate perspective from the City of Philadelphia, engages students both intellectually and civically. The course will be led by Fariha Khan and Fernando Chang-Muy but guest instructors with varied disciplinary backgrounds and guest speakers from local community organizations. Each instructor not only brings specific disciplinary expertise, but also varied community engagement experience.

Spring
Also Offered As: AFRC 1115, ANTH 1150, LALS 0115, SAST 1115, SOCI 2976, URBS 1150
1 Course Unit

ASAM 1000 South Asians in the United States
This course investigates the everyday practices and customs of South Asians in America. Every immigrant group has its own history, customs, beliefs and values, making each unique while simultaneously a part of the "melting pot" or salad bowl" of American society. Yet how do people define themselves and their ethnicities living in a diasporic context? By taking into account the burgeoning South Asian American population as our model, this course will explore the basic themes surrounding the lives that immigrants are living in America, and more specifically the identity which the second generation, born and/or raised in American, is developing. South Asians in the U.S. will be divided thematically covering the topics of ethnicity, marriage, gender, religion, and pop culture. Reading and assignments will discuss a variety of issues and viewpoints that are a part of the fabric of South Asia, but will focus on the interpretation of such expressive culture in the United States.

Fall
Also Offered As: SAST 1000
1 Course Unit

ASAM 1010 Asian American Race Relations: Comparative Case Studies and Theories
This course provides an introduction to comparative racial frameworks and case studies in Asian American Studies. In line with an emergent body of work that considers the relational nature of racializations, we will examine how Asian American racial constructions are not only formed in relation to whiteness but also to other groups of color. Starting from the premise that the US is dynamically multiracial, we will consider how Asian Americans have been both "lumped together" with and "counterpointed" to other racially marginalized communities across historical time. Moreover, we will explore how Asian Americans themselves have articulated racial positions both in solidarity with and opposition to other people of color. Lastly, we will survey the different comparative racial frameworks Asian American Studies scholars have developed to understand the shifting terrain of race relations. The course places a particular emphasis on Asian-Black relations and Afro Asian political theory, given the unique juxtaposition of these groups in US racial discourse, the significance of "Blackness" to Asian American political and cultural identities, and the seminal place of these discussions in Comparative Ethnic Studies. Course materials include primary and scholarly readings, media, and material collaboratively gathered by members of the class. We will focus on developing diverse research methods for understanding the relational nature of Asian American racialization and community formation, culminating in individual research projects on case studies chosen by students in consultation with the instructor.

Spring
1 Course Unit

ASAM 1020 The Asian American Entrepreneur
From shopkeepers to motel owners, the Asian American entrepreneur is frequently celebrated and offered as proof that the American Dream is achievable and that the United States is a meritocracy. This seminar challenges this view. Through interdisciplinary texts, qualitative research assignments, and speakers, we will explore the transnational forces and structural limitations within the United States that produce Asian ethnic niches and the bamboo ceiling which limits the success of Asian Americans.

Fall
1 Course Unit

ASAM 1200 Introduction to Creative Writing: Writing Asian American Lives
What does it mean to be Asian American? How do religion, ethnicity, gender, class, nationality, and immigration status define this group? This course will explore these questions through an introductory fiction, nonfiction, and poetry creative writing workshop. In addition to critiquing each other's short stories, essays, and poems, we will read works by a number of authors as springboards to examine representations of identity, inclusion, and exclusion. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.

Fall
Also Offered As: ENGL 3025
1 Course Unit

ASAM 1210 Topics in Asian American Literature and Culture
This seminar explores Asian American literature and culture intensively; specific course topics will vary from year to year. See the English Department's website at www/english.upenn.edu for a description of the current offerings.

Also Offered As: ENGL 1272
1 Course Unit
ASAM 1211 Narrating Survival
This course critically examines the way in which "survival" has been/continues to be defined as individual triumph in the 20th and 21st century. The intent here is to dig deeper into current buzzwords like "resilience," "wellness," "grit," and "care" to ask how such concepts have been constructed in different socio-historical moments, by and for whom, and towards what (social, cultural, political, economic) ends. We will pay special attention to the central role that the child plays in these discourses as an icon of both ultimate vulnerability and idealized resilience, and we'll consider the burdens and privileges that such centering might confer upon real-life children. We engage with a generically diverse body of contemporary multiethnic and transnational literature featuring children and young people in crisis, including texts from Black, Latine, Native, Asian and White U.S. writers as well as Dutch, Argentine, Iranian, Malaysian, and Afghan authors. All non-English texts will be read in English translation, with the option for students to read in the original language if they wish and are able. Learning to dialogue across cultures and learning from such interactions with these texts and one other will be an essential part of our approach to exploring these complex questions.
Also Offered As: COML 2192, ENGL 2192
1 Course Unit

ASAM 1226 Introduction to Creative Writing: Writing Real Science
Most if not all fiction and nonfiction requires some kind of research. Our readings will explore how writers incorporate scientific knowledge into their prose without compromising craft. This course will explore ways to bring real science into our pieces and make them fun, exciting and fresh. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Also Offered As: ENGL 3026
1 Course Unit

ASAM 1300 Asian American Cinema Movement: Fighting For Representation
Providing a broad introduction to the history of persons of Asian descent living in the United States, this course will specifically examine the Asian American & Pacific Islander American experience as told through the cinematic lens. Equal parts socio-political history and media studies, this course will comprehensively assess factors contributing to the historical under representation of AAPIs in mainstream American media. By contrast, the media texts that we will study reveal a cinematic history that runs parallel to the mainstream, consisting of independently produced films created by and/or starring AAPIs that feature authentic portrayals of the community they represent. Topics will include economics of film production, broadcast television ratings, film festivals as a mechanism of distribution, negative stereotyping, Hollywood whitewashing, cultural appropriation, and media activism. The course will take place once a week and will consist of a brief discussion of the previous week's readings, followed by a lecture, and ending with a full or partial film screening relating to the current week's topic. Additional out of class assignments will be given that involve attending the Philadelphia Asian American Film Festival, tentatively scheduled November 8-18, 2018. Students will have the opportunity to engage with and learn from AAPI filmmakers in attendance at the festival, with additional volunteer opportunities available for extra credit.
Fall
Also Offered As: CIMS 1302
1 Course Unit

ASAM 1400 Asian American Gender and Sexualities
This course explores the intersection of gender, sexuality, and race in Asian America. Through interdisciplinary and cultural texts, students will consider how Asian American gender and sexualities are constructed in relation to racism while learning theories on and methods to study gender, sex, and race. We will discuss masculinities, femininities, race-conscious feminisms, LGBTQ+ identities, interracial and intraracial relationships, and kinship structures.
Spring
Also Offered As: GSWS 1400, SAST 1400
1 Course Unit

ASAM 1410 Asian American Women: Nation, Self and Identity
This course examines the literary constructions of Asian American Womens’ identity in relation to the U.S. nation state. How have the figures of the tiger mother, the Asian nerd, the trafficked woman, the geisha, the war bride, emerged to represent Asian American women, and how have Asian American feminists responded to these problematic racial stereotypes? How does the scholarship on such racialized representations illuminate historical and contemporary configurations of gender, sexuality, race, class, nation, citizenship, migration, empire, war, neoliberalism and globalization as they relate to the lives of Asian American women? In exploring these questions, this course examines Asian American histories, bodies, identities, diasporic communities, representations, and politics through multi- and interdisciplinary approaches, including social science research, literature, popular representations, film, poetry and art.
Spring
Also Offered As: GSWS 1410, SAST 1410
1 Course Unit

ASAM 1500 Asian Americans In Contemporary Society
This course will explore Asian America through sociological frameworks and research. At the outset, we will establish a strong theoretical foundation by studying key sociological theories related to race and ethnicity, assimilation, and racial stratification. Additionally, we will briefly review key turning points in Asian American history. Throughout the semester, we will explore a broad range of contemporary topics, such as racial and ethnic identities (including multiracial identities); racialized desire and interracial relationships; controlling media images and subversive representations; transracial adoption; affirmative action; anti-Asian racism; and the role of the "model minority" myth in contemporary U.S. politics. Above all, this class will critically evaluate the viability of an Asian American panethnic identity while also exploring important axes of heterogeneity (e.g., class, gender, and sexuality) within the broader Asian American category.
Not Offered Every Year
Also Offered As: SOCI 1140
1 Course Unit

ASAM 1510 Race and Ethnic Relations
The course will focus on race and ethnicity in the United States. We begin with a brief history of racial categorization and immigration to the U.S. The course continues by examining a number of topics including racial and ethnic identity, interracial and interethnic friendships and marriage, racial attitudes, mass media images, residential segregation, educational stratification, and labor market outcomes. The course will include discussions of African Americans, Whites, Hispanics, Asian Americans and multiracials.
Fall or Spring
Also Offered As: AFRC 1060, LALS 1060, SOCI 1060, URBS 1060
1 Course Unit
ASAM 1520 Asian American Activism
Providing a broad introduction to the history of activism in the United States, this course
Fall or Spring
1 Course Unit

ASAM 1530 Asian American Popular Culture
This course will examine the ways in which Asian Americans have constituted and positioned their identities through various mediums of popular culture, community building and activism. First, students will become familiar with major concepts relating to Popular Culture, Cultural Studies, and Asian American Cultural Studies. Second, students will have a deeper understanding of the Asian American Movement. Third, students will make connections between representations and dominant images of Asian Americans within various mediums.
Spring
1 Course Unit

ASAM 1610 Sonic Reverberations of Asia America
This is a course about music as sonic cultural practices of intercultural communication and as lived experience in which racial, ethnic, diasporic, religious, gendered, sexual, national identities are formed and transformed. This course specifically examines how various ideas and meanings of Asia America are enacted and embodied through music performances and other sonic practices. The course also considers how the production and consumption of Asian American as cultural difference through music and sound impacts the making and unmaking of multiculturalism and the American self. Topics will include questions about how music and sound is mobilized within the history and stories of Asian immigration and migration to the U.S.; the impact of the transnational circulation of Asian and Asian American music; representations of AAPs in popular culture; the potentials and limits of music to mitigate social and political problems encountered by Asian American communities; and community building through sonic encounters of Afro-Asian, Asian-Latinx and Caribbean, East Asian/South Asian American solidarities. Critical and reflexive theoretical approaches from ethnomusicology, anthropology, and performance studies, among other related disciplines, will be used to examine a range of styles and genres through close listening to assigned sound recordings and music ethnographies. No previous musical training is required for this course.
Spring
1 Course Unit

ASAM 1620 Madness and Mental Health in East Asian Worlds
Madness, however conceived, can trouble the limits of our worlds. Since COVID-19, questions of mental health have resurfaced with a sense of urgency, as many faced unprecedented changes in collective and intimate life. This course explores madness and mental health in East Asian worlds, across geographies, histories, social-political transformations, and racialized imaginations. How do East Asian therapeutics approach madness, through and beyond the concepts of psychiatry, neuroscience, or even ‘mental health’? What happens when Euro-American diagnostic categories and treatments travel to East Asia as part of missionary and empire-building projects? Bringing together readings in medical and psychological anthropology, as well as history, literature, psychoanalysis, and transcultural psychiatry, we will explore themes such as: shifting concepts of madness in Chinese, Korean, and Japanese medical and spiritual cures, colonial legacies of ‘culture-bound syndromes,’ and race as a site of psychic struggle in Asian American diasporas.
Also Offered As: ANTH 1151, ASAM 1610
1 Course Unit

ASAM 1700 Asian Am Religions
This course examines the changing religious landscape of the United States through a focus on the religious life of Asian Americans. Through interdisciplinary texts and ethnographic field assignments, students will consider how religion and race intersect to inform notions of cultural and political citizenship, community, and culture. Topics to be explored include the impact of 9/11, religious political activism, and the appropriation and commodification of “Asian” religious practices.
Fall
1 Course Unit

ASAM 1800 Psychology of Asian Americans
Using a cultural perspective, this course is intended to provide knowledge of Asian American personality, identity, and its relationship to mental well being; analyze psycho-social research pertinent to Asian Americans; and develop critical thinking skills on Asian American issues through experiential learning/discussions.
Spring
Also Offered As: SAST 1800
1 Course Unit

ASAM 1810 Asian Americans and Higher Education
Course will explore issues in higher education with an Asian American focus.
Spring
1 Course Unit

ASAM 2010 Migration and the Middle East
This reading-and discussion-intensive seminar examines the phenomenon of migration into, out of, within, and across the Middle East and North Africa. We will focus on the period from the late nineteenth century to the present, and will emphasize the cultural (rather than economic) consequences of migration. Along the way we will trace connections between the Middle East and other regions— notably the Americas, sub-Saharan Africa, South Asia, the Caucasus, and Western Europe. Readings are interdisciplinary and include works of history, anthropology, sociology, medical research, literature, political science, geography, and human rights advocacy. As students develop final projects on topics of their choice, we will spend time throughout the semester discussing tactics for research and writing.
Not Offered Every Year
Also Offered As: NELC 1615, SAST 1615
1 Course Unit

ASAM 2100 The Wartime Incarceration of Japanese Americans
This research seminar will consist of a review of representative studies on the Japanese American internment, and a discussion of how social scientists and historians have attempted to explain its complex backgrounds and causes. Through the careful reading of academic works, primary source materials, and visualized narratives (film productions), students will learn the basic historiography of internment studies, research methodologies, and the politics of interpretation pertaining to this particular historical subject. Students will also examine how Japanese Americans and others have attempted to reclaim a history of the wartime incarceration from the realm of “detached” academia in the interest of their lives in the “real” world, and for a goal of “social justice” in general. The class will critically probe the political use of history and memories of selected pasts in both Asian American community and contemporary American society through the controversial issue of the Japanese American internment.
Fall or Spring
Also Offered As: HIST 3150
1 Course Unit
**ASAM 2159 The History of Family Separation**
This course examines the socio-legal history of family separation in the United States. From the period of slavery to the present-day, the United States has a long history of separating and remaking families. Black, Indigenous, poor, disabled, and immigrant communities have navigated the precarious nature of family separation and the legal regime of local, state, and federal law that substantiated it. In this course, we will trace how families have navigated domains of family separation and the reasoning that compelled such separation in the first place. Through an intersectional focus that embraces race, class, disability, and gender, we will underline who has endured family separation and how such separation has remade the very definition of family in the United States. Also Offered As: GSWS 2159, HIST 2159
1 Course Unit

**ASAM 2200 Asian American Literature Seminar**
This course is an advanced-level seminar on Asian American culture and politics. See the English Department's website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year
Also Offered As: ENGL 2270
1 Course Unit

**ASAM 2272 In/Visible: Asian American Cultural Critique**
This interdisciplinary seminar examines how popular cultural representations frame Asian Americans as either invisible or hypervisible — our explorations will move across race and national origin, language and class, gender and sexuality. See the English Department's website at www.english.upenn.edu for a description of the current offerings. Also Offered As: ARTH 3749, ENGL 2272, GSWS 2272
1 Course Unit

**ASAM 2310 18th-Century Seminar: China in the English Imagination**
This course explores the material culture of china-mania that spread across England and Europe in the eighteenth century, from chinoiserie vogues in fashion, tea, porcelain, and luxury goods, to the idealization of Confucius by Enlightenment philosophers. The course texts include travel writing, poetry, essays, and plays, and is designed to provide historical background to contemporary problems of Orientalism, Sinophilia, and Sinophobia. See the English Department's website at www.english.upenn.edu for a description of the current offerings. Also Offered As: COML 2031, EALC 1321, ENGL 2031
1 Course Unit

**ASAM 2500 Topics in Asian American Sociology**
Topics vary. Please see our website for more current information: asam.sas.upenn.edu
Fall or Spring
1 Course Unit

**ASAM 2600 Asian American Food**
You are what you eat. Asian American Food explores the history, politics, and ethnic identity of food through a cultural lens. Growing food, eating, and sharing meals serve as intimate expressions of self and community. By examining the production and consumption of food, the course investigates the ways that Asian Americans navigate traditions, gender norms, religious dietary laws, food habits, and employment as they create lives in the United States. The course overviews the history of Asian American foodways, but has a particular focus on Philadelphia's Asian American communities.
Spring
Also Offered As: SAST 2600, URBS 2600
1 Course Unit

**ASAM 2610 The Asian Caribbean**
Although Asians have lived in the Americas for centuries, the Asian American community and experience tends to be defined by the post-1965 wave of immigration to the United States. In an effort to correct this narrative this course will explore the histories, experiences, and contributions of some of the forgotten Asians of the Americas. In particular, we will focus on the earlier labor migrations of Chinese and South Asian individuals to the Caribbean and the United States. The experiences of these individuals, who built railroads, cut sugarcane, and replaced African slave labor, complicate our understandings of race today. By examining the legal and social debates surrounding their labor in the 19th century and exploring how their experiences are forgotten and their descendants are rendered invisible today, we will complicate what is Asian America and consider how this history shapes immigration policies today.
Spring
Also Offered As: GSWS 2610, LALS 2601, SAST 2610
1 Course Unit

**ASAM 2620 Global Chinas and Chinese Diasporas**
This seminar delves into the global imprint of contemporary Chinese diasporic communities, examining their significant influence from the lens of multiple sectors and regions—from Wenzhou migrants shaping the fashion industry in Italy to copper mining enterprises in Zambia to Chinese-owned nail salons and massage parlors dotting New York City. This exploration situates Chinese communities within the context of an interconnected world. As China has ascended to become the world's second-largest economy, its impact is not confined within its borders but extends into international politics, culture, commerce, technology, and beyond. This class endeavors to unpack the complexities of China's global engagement and deepen students' understanding of Chinese communities worldwide. The course is divided into two main sections. The first section provides an overview of the historical journey of China on the global stage and an introduction to research methods specific to studying this phenomenon. In the second half, the course adopts a more granular approach, delving into critical topics such as race and ethnicity, gender and family dynamics, transnational identity, educational achievement, labor, entrepreneurship, and soft power.
Also Offered As: SOCI 2933
1 Course Unit
ASAM 2910 Asian Human Rights / Asian American Civil Rights
The last few decades have seen mass migration and movement of people from one place to another: from South, East, and Southeast Asia in the 1970s and 1980s, from Central America in the 1990s, from Africa in 2000s, and in this decade from the Middle East. In Asia, as a result of human rights violations, North Koreans have fled to China, Tibetans to India, and over 3 million individuals fled Southeast Asia in the 1980s. More than one million refugees from Cambodia, Laos, and Vietnam, fled temporarily to Hong Kong, China, the Philippines, Thailand, Malaysia, before resettling in the United States. Philadelphia is host to all of these communities. Some of our own students at Penn are 1st or 2nd generation South and Southeast Asian Americans. This course provides a comparative overview of the history, ethnicity, religion, and cultures of Southeast Asia (and the deep connections with South Asia and East Asia), and their human rights, temporary settlement, and treatment in host countries in the region. The first part of the course will use an international human rights framework to explore the human rights issues that forced people to flee from their countries of origin. The course will challenge and expand students’ understandings of international human rights in the past and in the present with a focus on human rights violations such as: A. Vietnamese fleeing the war in Southeast Asia. B. North Koreans seeking refuge in China and in South Korea. C. Tibetans hoping for protection by crossing the border into India. Given the deep diplomatic and economic relations between Vietnam and India, this international portion of the course will highlight how the two countries in the region, an Asian communist country, and the other, an Asian democratic country handle human rights in similar and different ways. The second part of the course will pivot to the US and explore the civil rights of Asian Americans in the US such as the right to migrate, seek and enjoy asylum, education, housing, employment and health. The course will feature Penn professors as guest speakers so as to expose students to our own in-house experts, their fields and their departments. In addition, As part of a Asian American Studies, South Asia Center, Netter Center ABCS course, students will visit neighborhoods where Asian Americans live, work and play: South Asian neighborhoods in Jersey City, New Jersey; Korean neighborhoods in Olney; Vietnamese and Cambodian neighborhoods in South and West Philly. Students will also intern in host organizations to learn about community needs and strengths.
1 Course Unit

ASAM 3100 American Expansion in the Pacific
This course examines America’s expansion into the Pacific with a focus on the colonization of Hawai‘i and the Philippines. The class deals with various issues, including the meaning of "frontier," imperialism, development of capitalist economies and trade relations in the region, diplomacy and militarism, migration and racism, and colonial histories of the US West, the Pacific Islands, and East Asia.
Fall or Spring
Also Offered As: HIST 1785
1 Course Unit

ASAM 3110 Immigration and the Making of US Law
This course examines the legal history of the United States to illuminate one of the most urgent issues of our time: immigration. From the late nineteenth century, immigration to the United States changed the legal landscape of the country by challenging the bounds of national citizenship, “separate but equal,” Congressional powers, home ownership, and an array of other topics. In this course, we will trace how immigrants challenged existing orders of their time through major state and federal supreme court cases, and the subsequent aftermaths of their trials. In addition to considering the key legal issues at stake in these cases, this course compels us to consider the dynamics of race, disability, gender, and labor that define the construction of US law in the context of immigration.
Also Offered As: HIST 3910
1 Course Unit
ASAM 3130 The Chinese Body and Spatial Consumption in Chinatown
This is a primarily an art and planning course that centers on the representation of the oriental, specifically the Chinese, in both its historical and present contexts. The localization of the Chinese throughout the Americas within Chinatown precincts were also subject to representational imaginings that were negotiated through the lens of civic planning. This course will study the often fraught negotiation between representation and planning. The hyper-urbanization of China over the past several decades has radically altered traditional conceptions of public space in China. Mass migration from rural to urban areas has meant very high population densities in Chinese cities. Traditional courtyards surrounded by housing and other modestly scaled buildings are rapidly disappearing, incongruent with the demands of heated property development. Moreover, Chinese cities have comparatively little public green space per resident compared to equivalents in the West. Zoning in Chinese cities is also much more varied for any given area than what one would find in cities such as New York, Paris, and London. Intensifying density of urban areas precludes the construction of large public squares. Furthermore, large public squares tend to be either intensively congested and overcrowded or underused due to their oversight by government that render such spaces somewhat opprobrious in terms of use. Historically, the urban courtyards of temples, native place associations, and provincial guilds served as public spaces of gathering. They were also sites of festivals and the conducting of neighbourhood and civic business. These spaces have become increasingly privatized or commodified with entrance fees. The air-conditioned concourses of enclosed shopping malls or busy outdoor market streets have become de facto public spaces in China where collective window shopping or promenading is the primary activity rather than bodily repose as one might find in a public space in a large Western city. The seminar/studio will investigate the meaning of the term public in the constitution of Chinese space, audience and critical voice through firstly the enclave of Chinatown and secondly through examples from China. The course will look into the changing conceptualization of public space in Chinatown as it has declined in its traditional form and become reinvented in the form of high-end shopping centered districts. This flux has its roots in post 1979 China as well as the post 1997 reversion of Hong Kong to China. As such, the course will examine the situation of rapid urbanization in China and the concomitant relationship to new Chinese (and Asian) districts in the North American urban and suburban landscape i.e Vancouver, Toronto, Arlington (Virginia), Oakland, Los Angeles valley and Queens (Flushing), New York. In what ways can artists and designers respond to and challenge these conceptualizations of the old and the new within the context of urban change? What of the changing formations of the Chinese subject through the experiences of embodiment? How is public space produced through an ethnically bracketed bodily presence? Findings will be translated by the student as tools for design and public art imaginings. This course will include a week’s trip to San Francisco to study how intense growth in the city has all but usurped old Chinatown while new and more vibrant Chinese centers have emerged in multiple other districts within the city and the suburbs.
Also Offered As: ENGL 2275, FNAR 3060
1 Course Unit

ASAM 3211 Modern Chinese Poetry in a Global Context
The tumultuous political and economic history of modern China has been mirrored in and shaped by equally fundamental revolutions in language and poetic expression. In this course, we will take Chinese poetry as a crucible in which we can observe the interacting forces of literary history and social change. From diplomats who saw poetry as a medium for cultural translation between China and the world, to revolutionaries who enlisted poetry in the project of social transformation, we will examine the lives and works of some of China’s most prominent poets and ask, what can we learn about modern China from reading their poetry? In asking this question, we will also reckon with the strengths and limitations of using poetry as an historical source. In addition to poems, the course will include fiction, essays, photographs, and films by both Chinese and non-Chinese artists that place our poets in a broader context. We will pay close attention to how these poets represent China’s place in the world, as well as the role of language in social change. Topics of discussion include: national identity, revolution, translation, gender, the body, ethnicity, and technology. Familiarity with Chinese or related cultural context is beneficial, but not required. This course introduces students to Chinese poetry in English translation. Students will leave the course with an in-depth understanding of the main figures, themes, and techniques of Chinese poetry, and will be introduced to some of the major developments in the history of China. Through a focus on primary texts, students will develop the vocabulary and analytical skills to appreciate and analyze poetry in translation and will gain confidence as writers thinking about literary texts.
Not Offered Every Year
Also Offered As: COML 3211, EALC 3211
Mutually Exclusive: EALC 7211
1 Course Unit

ASAM 3356 Asian American Nonfiction Workshop
Contemporary literature has seen a recent rise of Asian American nonfiction writing, particularly in the form of essays and memoirs. Asian American writers are reshaping the form of the immigration story and the personal narrative, and are adding their voices to the pressing topics of political activism, STEM, and mental health. This course will include readings by authors such as Hsu, Hong, Nunez, Chang, Fan, Wang, Jacob, and Kalanithi, amongs others. For memoir and personal pieces, we will discuss how these writers transform their own material through craft, structure, and perspective. For essays, we will discuss how writers use research (and, yes, craft!) to present difficult and/or technical information in an engaging way. Students will write and workshop their own pieces. Also Offered As: ENGL 3356
1 Course Unit
Asian Languages (ALAN)

ALAN 0300 Intermediate Mongolian I
Mongolian is the national language of the independent State of Mongolia and the language of the nomadic warriors Genghis Khan (known to the Mongolians themselves as Chinggis Khan). It is also spoken in China and Siberia. Today Mongolian musical styles like throat singing (khoomii), products like cashmere (nooluur), and tourism to visit Mongolia's nomadic herders (malchid) are making a mark on the world stage. In this class the students will continue with the basics of modern Mongolian language, as spoken in Ulaanbaatar "Red Hero," the country's capital. They will learn in the phonetic Cyrillic script, which was adapted to Mongolian language from Russian in 1945, with a few additional letters. Intermediate and more advanced grammar will be taught through communicative methodology. Students will also have opportunity to experience Mongolian arts, culture, and cooking in and out of class. This is the first semester of Intermediate Mongolian. By the end of two semesters intermediate Mongolian, students will have learned all the noun forms, and all the major verb forms and will be able to form complex, multi-clause sentences, telling stories, expressing their feelings, and making arguments and explanations. They should be able to interact in all basic "survival" situations in Mongolia.

Fall
Prerequisite: ALAN 0200
1 Course Unit

ALAN 0400 Intermediate Mongolian II
This course is a continuation of Intermediate Mongolian I. Mongolian is the national language of the independent State of Mongolia and the language of the nomadic warriors Genghis Khan (known to the Mongolians themselves as Chinggis Khan). It is also spoken in China and Siberia. Today Mongolian musical styles like throat singing (khoomii), products like cashmere (nooluur), and tourism to visit Mongolia's nomadic herders (malchid) are making a mark on the world stage. In this class the students will continue with the basics of modern Mongolian language, as spoken in Ulaanbaatar "Red Hero," the country's capital. They will learn in the phonetic Cyrillic script, which was adapted to Mongolian language from Russian in 1945, with a few additional letters. Intermediate and more advanced grammar will be taught through communicative methodology. Students will also have opportunity to experience Mongolian arts, culture, and cooking in and out of class. This is the first semester of Intermediate Mongolian. By the end of two semesters intermediate Mongolian, students will have learned all the noun forms, and all the major verb forms and will be able to form complex, multi-clause sentences, telling stories, expressing their feelings, and making arguments and explanations. They should be able to interact in all basic "survival" situations in Mongolia.

1 Course Unit

Astronomy (ASTR)

ASTR 0001 A Survey of the Universe
A general survey, designed for the non-major, of the facts and theories of the astronomical universe, from solar system, to stars, to galaxies and cosmology. Topics include planets, satellites, small objects in the solar system, and extraterrestrial life; stars, their evolution, and their final state as white dwarfs, neutron stars, or black holes; galaxies, quasars, large structures, background radiation, and big bang cosmology. Elementary algebra and geometry will be used. This course is not recommended for physical-science majors or engineering students. Engineering students receive no credit for this course. Fulfills quantitative data analysis requirement.

Fall, Spring, and Summer Terms
Mutually Exclusive: ASTR 0006, ASTR 0007
1 Course Unit

ASTR 0006 The Solar System, Exoplanets, and Life
A survey course on planets and life covering our own Solar System and exoplanets orbiting other stars. Topics include the latest results and theories about: the origin and evolution of planetary systems around our Sun and other stars; the detection of exoplanets; the implications of planetary atmospheres for life; and the search for life on other planets in our Solar System. This course is designed for the non-major and elementary algebra and geometry will be used. Physical science majors and engineering students should prefer ASTR 1211 to this course.

Spring
Mutually Exclusive: ASTR 0001, ASTR 0007
1 Course Unit

ASTR 0007 The Big Bang and Beyond
An introductory course for students who do not intend to major in a physical science or engineering, covering theories of the Universe ranging from the ancient perspective to the contemporary hot big bang model, including some notions of Einstein's special and general theories of relativity. Topics will include the solar system, stars, black holes, galaxies, and the structure, origin and future of the Universe itself. Elementary algebra is used. Fulfills quantitative data analysis requirement.

Fall
Mutually Exclusive: ASTR 0001, ASTR 0006
1 Course Unit

ASTR 1211 Introduction to Astrophysics I
A basic course for majors in physical sciences and engineering; required for the astrophysics concentration. The course provides fundamental knowledge of Newtonian gravity and the properties of light and matter as they are relevant for understanding astrophysical objects. Application is made to the observed features of planetary motion, the atmospheres and stars and planets, and the structure and evolution of stars.

Fall
Prerequisite: MATH 1400 OR PHYS 0150
1 Course Unit

ASTR 1212 Introduction to Astrophysics II
A basic course for majors in physical sciences and engineering; required for the astrophysics concentration. The course covers fundamental knowledge of Einstein's gravity, the contents of the universe, and the structure and distribution of galaxies. Emphasis is on the key elements of modern cosmology: the mathematical model of the expanding universe, the cosmic microwave background, the early universe and the emergence of large-scale structure in the present universe.

Spring
Prerequisite: MATH 1410 OR PHYS 0151
1 Course Unit
ASTR 1250 Astronomical Techniques
A laboratory course in astronomical observations and data reduction. This course satisfies one of the requirements for the astrophysics concentration. Topics vary, but include spherical astronomy, timekeeping and coordinate systems, astro-statistics, telescopes, CCD’s, signal processing, imaging, spectroscopy, radio astronomy and data reduction techniques using custom software. Attendance at observational sessions outside of the scheduled class time is required, but times are uncertain due to weather conditions. The course requires small-group work in-class, and substantial out-of-class time. Notes: Course not offered every year. The observatories at DRL are used for experimental and observational practice. Spring, odd numbered years only
Prerequisite: (ASTR 0001 AND MATH 2400 AND MATH 2410) OR (ASTR 0007 AND MATH 2400 AND MATH 2410) OR ASTR 1211 OR ASTR 1212
1 Course Unit

ASTR 3392 Life and Death of Stars
This is an advanced undergraduate course on the life and death of stars. The course will cover the structure of stellar interiors, nuclear reactions and the formation of elements, stellar evolution, supernovae, and the physics of white dwarfs, neutron stars, and black holes. We will approach these topics from both theoretical and observational perspectives. Spring, even numbered years only
1 Course Unit

ASTR 5503 Astronomical Methods and Instrumentation
Techniques of modern astronomical observations, including: detection of light from the radio through gamma rays; sources of noise in astronomical measurements; image analysis and reduction techniques; telescope optics and adaptive optics; spectroscopic measurements; radio interferometry and spectroscopy. Spring, odd numbered years only
1 Course Unit

ASTR 5533 Galaxies: Structure, Dynamics and Formation
Galactic structure and dynamics. Observed scaling relations. Models and observations of galaxy formation and evolution. Enrollment restricted to graduate students. Fall, odd numbered years only
1 Course Unit

Bachelor of Applied Arts and Sciences (BAAS)

The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).

BAAS 1700 Topics in Applied Arts & Sciences
Introductory topics in the applied arts and sciences. Topics vary by section. Fall or Spring
1 Course Unit

BAAS 1990 Independent Study
Independent Study
Fall or Spring
1 Course Unit

BAAS 3700 Advanced Topics in the Applied Arts & Sciences
Advanced topics in the applied arts and sciences. Topics change with every section.
Fall or Spring
1 Course Unit

BAAS 4000 The Art of Work
This course is designed to expose students to a scholarly understanding of the modern world of work, examining the many ways that work shapes our identities, communities, and society. Drawing on insights from psychology, sociology, and anthropology, we will explore the cultural and personal dimensions of work, as well as the contemporary challenges and opportunities of the future of work. Topics will include the culture of work, psychological identity and career development, organizational science, work-life wellness, and the future of work. Concurrently, students will be asked to apply their understanding of these concepts to their personal conceptions of career across their lifespan. Our class will also provide ample opportunity, space, and guidance for students to effectively synthesize an iteration of their professional identity based on a variety of factors internal and external to their existence. More specifically, students will work to probe the meaning of their professional narrative, and then, translate how those choices will guide their future endeavors. We will begin by studying the qualitative method of autoethnography. Using this foundation, we will then examine a sociological lens of work, specifically discovering how individual and cultural values, norms, and assumptions intersect with our collective and cultural understandings of careers. Following this, we will turn to psychology to foster the connection between our interests and goals, andprobe how these traits and states guide career pursuits. Additionally, we will discuss the broader concept of identity in its many forms andfashions. Then, we will discuss how career choices contribute to identity development by reading scholars such as Savickas. We also will look to the organizational science literature to learn more about well-being as it relates to work. Concluding this component of the course, we will consider lifelong career development as a continuous process of design and redesign based on internal and external stimuli, and summarize research on well-being and work. Finally, we will delve into Krbmboltz’s theory of career happenstance, which encourages professionals to consider how chance can modify and enhance career trajectory. We also will talk about the future of work, and how learning, un-learning, and re-learning will contribute to career agility. Through satisfactory completion of this course, degree students will be able to: Demonstrate increased knowledge of the broader cultural or conceptual contexts of work, specifically focusing on values, assumptions, and norms Practice design thinking when considering career decision-making, harnessing the power of iterative processes Evaluate the theoretical and practical implications of the relationship between work and life, incorporating appropriate concepts and techniques to integrate personal and professional behaviors for long-term well-being Analyze the intersectionality of personal and professional identity Employ critical thinking to analyze how self-reflection can guide career Formulate future professional plans through the lens of predictions on the future of work, generating increasingly nuanced interpretations of career development and explaining why those plans are congruent to their identity. Each week, assignments will scaffold to support students in the composition of an autoethnography, the final deliverable of this course.
1 Course Unit
BAAS 4080 Senior BAAS Portfolio
BAAS 408 is designed to guide students through the completion of their final milestone for the BAAS degree. Reflective and applied in nature, the experience provides students with space and support as they make meaning of the skills and abilities acquired throughout the program and inform career development. This is an 8-week non-credit course. Fall, Spring, and Summer Terms
0 Course Units

BAAS 4160 Senior BAAS Portfolio
BAAS 4160 is designed to guide students through the completion of their final milestone for the BAAS degree. Reflective and applied in nature, the experience provides students with space and support as they make meaning of the skills and abilities acquired throughout the program and inform career development.
Fall or Spring
0 Course Units

BAAS 4990 Advanced Independent Study
Advanced Independent Study
Fall or Spring
1 Course Unit

Behavioral & Decision Sciences (BDS)

BDS 5000 Introduction to Behavioral & Decision Sciences
In the past 50 years, social scientists have increasingly used insights from psychology to explore the limitations of the standard, economic model of rational decision-making—a field now known broadly as behavioral science. This course is an introduction to the central concepts of behavioral science, touching on related research in economics, psychology, political science, and more. We also touch on various practical implications of this work for practitioners, from businesspeople to policymakers to everyday people in their day-to-day lives. The topics covered include self-control, procrastination, fairness, cooperation, reference dependence, and choice under uncertainty. The course consists of live and asynchronous core lectures that introduce the central concepts in behavioral science to students, supplemented by a series of exciting guest lectures that bring some of the leading academic voices working in the behavioral sciences to the classroom to share their work and insights.
Summer Term
0.5-1 Course Unit

BDS 5010 Behavioral Science: Theory and Application of Experimental Methods
Our understanding of different mechanisms and (economic) relationships is hampered by a lack of data and—more often than not—either the observation or the data is not reliable. In recent decades, through the work of pioneers in the behavioral and experimental economics fields, such as Daniel Kahneman and Vernon Smith, economics experiments have become a vital part of the scientific discourse, facilitating our understanding of the world we live in (much like in biology, chemistry, physics, etc.). In this course, we will explore economic behavior by developing a research idea, designing an experiment, then carrying out the experiment under controlled conditions. Essentially, you will learn how to think about ideas, generate ideas, and use economic experiments to test them. Permits offered to non-MBDS students if space is available.
1 Course Unit

BDS 5020 Norms and Nudges
Social norms are the rules we live by, and we encounter them in any area of our life. Social norms often guarantee the smooth functioning of a group or organization. Sometimes, however, these norms are inefficient or do not benefit society at large. What can we do to change these harmful collective behaviors? Social psychology, philosophy, sociology, rational- choice, legal theory, and even economics, are investigating and theorizing pro-social behavior, justice motivation, and moral and social norms.
In this course, we will examine the latest and best in this emerging multidisciplinary field. Students will be encouraged to apply its findings and methods to their area of interest.
Mutually Exclusive: PHIL 4470
1 Course Unit

BDS 5030 Behavioral Public Policy
A core MBDS program course requirement, this course addresses methodological issues that apply to each of the policies currently provided by governmental and non-governmental institutions worldwide. We will discuss the conditions that must be satisfied to make policies effective and the behavioral incentives that policy actors face. The course relies on the main theoretical and empirical findings of modern policy analysis and upon an extensive set of case studies. Students are required to master the conceptual material and to confront and solve practical cases in public policy. Permits offered to non-MBDS students if space is available.
1 Course Unit

BDS 5050 Research Methods for Behavioral Science
The course is a survey of methods of research in behavioral and decision sciences. We will cover principles of scientific thinking, operationalizing research questions into testable ideas, and the ethics of behavioral research. A significant portion of the class will be devoted to study designs. We will cover basics of experimental design, quasi-experiments, and observational surveys. The class will also provide an introduction to qualitative research methods, including focus groups, unstructured and semi-structured interviews, and ethnographies. We will conclude the semester with the methods of communicating our findings to different types of audiences. We will analyze research processes and results from the perspective of the information consumer. The class will be useful for those interested in learning how to read and write behavioral science publications and how to design one's own studies. For practical skills in using software to analyze data, see BDS 5220 and BDS 5160.
Fall
1 Course Unit

BDS 5060 Applied Statistics for Behavioral & Decision Sciences
This course is a basic primer for key concepts in statistics needed for anyone that wants to take additional classes in behavioral and decision sciences- or work in a relevant field. This course helps serve as a prerequisite for the MBDS Program.
Summer Term
0.5 Course Units
**BDS 5090 Applied Game Theory**
This course covers basic concepts in game theory and applies these concepts to the social sciences. By the end of the course students will know how to identify Nash equilibria and Pareto optima, understand how to diagram simultaneous and sequential games, and be able to explain how different strategies apply to single play games and repeated games. Topics will include why conflict and cooperation occur among organisms with diverse goals and scarce resources, and how pro-social emotions and norms can alter human behavior in ways that facilitate cooperation. This course helps serve as a prerequisite for the MBDS Program. 
Summer Term  
0.5 Course Units

**BDS 5110 Negotiation Behavior**
We negotiate every day—with merchants, service providers, employers, coworkers, friends, and family-determining the price we will pay, the amount of our compensation, where to go to dinner, who will clean the kitchen, etc. Although negotiations are a ubiquitous part of our everyday lives, many of us know little about the strategy and psychology of effective negotiations. Why do we sometimes get our way, while other times we walk away feeling frustrated by our inability to achieve the agreement we desire? Over the past few decades, research in social psychology and decision science has sought the answer to this question and created a rich body of knowledge on bargaining behavior, leading to a well-validated prescription on how to negotiate. In this course, you will learn both the how and the why of negotiation behavior. Through role-playing exercises, you will be able to evaluate your own negotiation behavior as well as that of your classmates and receive advice on how to optimize it to achieve your desired outcomes. Importantly, you will also read and discuss research articles that have led to such practical advice. Non-MBDS students may request a permit to register through Path@Penn. 
Two Term Class, Student may enter either term; credit given after both terms are complete  
1 Course Unit

**BDS 5120 Power, Persuasion and Influence**
Power and influence are fundamental for taking action in personal relationships, professional contexts and in society in general. To be able to use them effectively, however, we need to understand the nature, sources, uses and development of power and influence in these various contexts. To accomplish this goal, this course will survey theories of power, persuasion and influence from multiple disciplines and discuss their application to everyday actions. Permits offered to non-MBDS students if space is available.  
1 Course Unit

**BDS 5150 Game Theory**
This course provides a way to understand the behavior of individuals and organizations in situations where their actions have a strategic impact on each other. As players can be individuals, organizations, or even countries, this course covers a broad range of strategic settings. As an interdisciplinary tool, game theory is used in a wide range of fields, including economics, political science, psychology, and sociology. Game theory is applied to inform decisions in situations such as price wars between companies, international relations, or even evolutionary biology. In this course students will learn how strategic players map strategies with the payoffs associated with each possible outcome, and how to best respond to the decisions of other players. Strategies refer to the actions that players can take, and payoffs represent the rewards or consequences that players obtain based on their actions and the actions of others. Game theory models are useful not only to analyze the strategic interaction of players, but to predict the outcome of games. Even when most predictions assume that each player acts rationally, meaning that they choose the strategy that maximizes their payoff, we will explicitly consider deviations from this assumption in the course. The course covers both fundamental concepts and applications of game theory. Examples of applications studied in the course include cooperation (like in a social dilemma or a public good game), coordination (as in the weakest link or minimum effort game), and conflict (as in contests and tournaments). These strategic settings will be used to understand how human behavior aligns with the principles and predictions of game theory. The course will provide answers to questions like the following: Why do individuals cooperate with strangers they are never going to meet again? Why do organizations fail to effectively use incentives to coordinate individuals and teams? Why is the sophistication of counterparts so difficult to predict? Why are resources systematically destroyed in wars, and inter-group conflict easily reignites despite its huge cost? The course is composed of a series of self-contained modules addressing these questions with examples and cases. Game theory and behavioral science concepts and tools will be explained from scratch: no pre-existing knowledge is required.  
Fall  
1 Course Unit

**BDS 5160 Data Science and Quantitative Modeling**
(This course fulfills the MBDS program’s quantitative course requirement.) Increasingly, decision-makers and systems rely on intelligent technology to analyze data systematically to improve decision-making. Data science is opening new pathways to improve decision-making in private and public organizations. Through lectures and real-world examples, this course will present a practical understanding of the fundamental methods used by data scientists including data management techniques, quantitative modeling, and data visualization. The primary emphasis is on understanding the fundamental concepts and applications of data science in the context of behavioral and decision sciences. We will cover several algorithms though this is not an algorithms course. We will examine real-world examples and cases to place data science techniques in context, to develop data-analytic thinking, and to illustrate that proper application is as much an art as it is a science. Permits offered to non-MBDS students if space is available.  
Spring  
1 Course Unit
BDS 5210 Judgments & Decisions
This course addresses the ideal standards of judging and deciding, and the ways in which people fall short of these standards, with emphasis on the latter. We will discuss heuristics and other intuitive strategies that people may use in day-to-day thinking, and the biases that result from this use. We will apply this approach to shed light on faulty analyses in medicine, law, and everyday thinking. Understanding the ideals of good thinking and causes of our failure to conform to these ideals may ultimately help improve the decisions we make in private and professional lives. Permits offered to non-MBDS students if space is available.
1 Course Unit

BDS 5220 Statistical Reasoning for Behavioral Science
The complexity of human behavior exceeds that of most phenomena studied in the natural sciences. Any reference about human behavior and decision-making has to rely on statistical methods rather than on deterministic modeling. In this class, students will learn the methods of descriptive and inferential statistics used in behavioral science from the basics to those more commonly used. In this sense, this is a class on theoretical statistics, but we will go beyond theory to apply these methods to answer our own research questions. As such, this is also a class on applied statistics. We will rely heavily on statistical programming languages (namely, R) and version control systems (Git) to create statistical reports. Finally, we will work with new research in the field and learn to critically assess the statistical methods used therein. After completing this class, students will be competent in reading cutting-edge scientific literature, producing their own results using the more commonly used methods, and able to critically assess the limitations of their own and other people’s research. Non-MBDS students must complete a permit request.
1 Course Unit

BDS 5250 Organizational Behavior
In order to successfully manage an organization, its groups, and its individuals, you need to first understand why people in a given organization do what they do. In other words, an understanding of the human side of management and an ability to communicate that understanding are essential to your success in any career you choose. This course assumes that in order to accomplish organizational goals; you will need to work for other people, work with other people, and supervise other people. To do so effectively, you need to understand the behavioral science behind organizations. This course will survey several topics in service of this goal, including decision biases, motivation, power and influence, networks, diversity, team processes and culture. Throughout, you will be asked to demonstrate your knowledge of these concepts and your ability to use them to analyze situations as well as to provide prescriptions for change. Permits offered to non-MBDS students if space is available.
1 Course Unit

BDS 5310 Behavioral Science in Action: Past, Present & Future
This course will combine pragmatic insight with discerning attention to the latest (robust) behavioral science findings. It will focus on providing participants with a good grounding in how behavioral science is applied in practice, and the issues that arise when doing so. For example: What are the common ethical dilemmas and implementation challenges that arise? What are the best ways to ensure behavioral science has an impact in large organizations? What are employers of behavioral scientists looking for? And how should behavioral science be applied differently in the future?
Fall
1 Course Unit

BDS 5400 Explanation and Non-Experimental Methods in Behavioral Science
Applied behavioral scientists must be able to explain what behavioral science is (or behavioral insights are) and how we can leverage them for a better world. What do we mean by “behavioral science and behavioral insights”? How do we use those insights? Whether working in public companies, global non-profits, research institutions, or other organizations, one must interpret, evaluate, and communicate interdisciplinary research with colleagues. Put another way, creating, assessing, and applying behavioral insights from research requires a strong understanding of and ability to communicate about disparate, sometimes competing, social theories, methods, and forms of explanation. This course will provide overviews of major trends in academic disciplines which study human behavior and link these research programs to contemporary B-sci practice. We will investigate the research methods each of these disciplines use which can inform us about human behavior. The two primary modalities of evidence-use in contemporary B-sci - experimental economics and experimental psychology - will be discussed in comparison with non-experimental methods, with a focus on non-experimental methods. Thus, a primary goal of this course is for students to be able to leverage the different kinds of insights gained from different methods in order to create coherent, well-reasoned, and understandable explanations for use in applied settings. Topics covered will include anthropological, sociological, economic, linguistic, and psychological perspectives; AI-use and authorship; and the meta-study of science, among others.
Summer Term
1 Course Unit

BDS 5450 International Organizations & Organizational Influence
This course is meant to build on the skills developed in the rest of the Master of Behavioral and Decision Sciences program, to diversify the scope of applied behavioral science in the context of the non-profit arena, and more broadly speaking, to apply behavioral insights for (pro)social change. This seminar emphasizes the potential use of behavioral science for social transformation and shared quality of life. Goals – Perspective – Practice – Partnerships – Positioning 1. Perspective: Students gain understanding of the scope and workstyle of international and non-profit organizations and are motivated to get involved in social change endeavors. 2. Practice: Students gain work experience in view of future employment opportunities in organizations with a social orientation. 3. Partnerships: Students are connected to potential clients from the nonprofit world. 4. Positioning: Recognition and reputation of UPenn MBDS Program with potential employers from international organizations are raised.
Fall
1 Course Unit
BDS 5550 Groups and Networks
Understanding social groups and networks is a crucial component to understanding the nuances of interdependent behavior. The first aim of the class is to critically examine the theoretical approaches used to conceptualize the formation and performance of social groups as well as their dynamics from a social network perspective. The next part of the course will cover applied aspects of social network data collection and analysis including concepts such as sampling, descriptive statistics, and inferential models. We will discuss the design and implementation of field studies to answer research questions about community formation, homophily, and the spread of behavior and beliefs. The last part of the course will introduce students to agent-based modeling. We will study diffusion, contagion, and the emergence of norms using microsimulations. The course will wrap up with an overview of the presented theories, methods, and approaches of social network analysis and students will have the opportunity to reflect and synthesize about these overarching concepts. Please note: the course will draw from current literature and applied research and while some parts of the course will be taught in R and NetLogo, coding is not the primary focus of the course. Proficiency in R or Netlogo is not required.
1 Course Unit

BDS 5850 Consulting in Behavioral Science
In this course, students will gain a better understanding of applied behavioral science. The course will emphasize oral and written communications and the development of client deliverables, client relations, team work, client presentation, and peer review. Team meetings with clients will take place during weekdays. Permits offered to non-MBDS students if space is available.
1 Course Unit

BDS 5880 Special Topics in Behavioral & Decision Sciences
This course offers students an opportunity to learn, interact with, and discuss cutting edge topic areas in behavioral and decision sciences.
1 Course Unit

BDS 5991 Independent Study
The Independent Study is only open to MBDS students.
1 Course Unit

BDS 5997 Capstone: Consulting with Behavioral Science
The updated MBDS capstone is a two-semester program designed to help students engage with industry and gain a deeper understanding of the field of Behavioral Sciences. In BDS 5997, offered in the fall semester, students will have the opportunity to talk to industry leaders and gain firsthand knowledge on how behavioral science is applied in various organizational settings. They will also learn about the increasing relevance of BeSci insights and tools in organizations, as well as the job market prospects for MBDS graduates. Additionally, Skill BOOSTcamps will be organized to teach students crucial skills that will be useful for their applied capstone course in the Spring.
Fall
0.5 Course Units

BDS 5998 Capstone: Design Challenge
As the second portion of the MBDS capstone, this course will be offered during the spring semester to students who have taken BDS 5997 Capstone: Consulting in Behavioral Science. As part of this course, students will participate in professional development workshops and engage in a Design Challenge. Working in teams, they will use the instructional and strategic input they received in the fall term to tackle specific industry problems. The goal of the program is to prepare students to be industry-ready as soon as they complete the program.
Spring
0.5 Course Units

BDS 5999 Behavioral Science Individual Capstone
Behavioral Science Individual Capstone for cohorts before 2022.
1 Course Unit

BDS 9900 Master’s Continuation
0 Course Units

Bengali (BENG)

BENG 0100 Beginning Bengali Part I
This course introduces students to colloquial Bengali. It gives equal emphasis to each of the four skills, reading, writing, listening, and speaking. Language will be studied in the context of socio-cultural aspects of West Bengal and Bangladesh. Besides lessons from the text, a major portion of the syllabus will be based on topics drawn from films, cultural events, festivals, food, and religion.
Fall
1 Course Unit

BENG 0200 Beginning Bengali Part II
This course introduces students to colloquial Bengali. It gives equal emphasis to each of the four skills, reading, writing, listening, and speaking. Language will be studied in the context of socio-cultural aspects of West Bengal and Bangladesh. Besides lessons from the text, a major portion of the syllabus will be based on topics drawn from films, cultural events, festivals, food, and religion.
Spring
Prerequisite: BENG 0100 OR BENG 5100
1 Course Unit

BENG 0300 Intermediate Bengali Part I
This course develops the student's prior knowledge of Bengali. An attempt is made to gear the syllabus to meet the specific needs of students. The focus of the course is to develop the oral and aural skills of the learner as well as improve writing skills and reading strategies. Emphasis is also laid on increasing the sociolinguistic and strategic competence of the learners so that they will be able to function in the target culture. Besides discussions on various aspects of Bengali life, students read some short literary texts in the original Bengali version. Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

BENG 0400 Intermediate Bengali Part II
This course develops the student's prior knowledge of Bengali. An attempt is made to gear the syllabus to meet the specific needs of students. The focus of the course is to develop the oral and aural skills of the learner as well as improve writing skills and reading strategies. Emphasis is also laid on increasing the sociolinguistic and strategic competence of the learners so that they will be able to function in the target culture. Besides discussions on various aspects of Bengali life, students read some short literary texts in the original Bengali version.
Spring
Prerequisite: BENG 0300 OR BENG 5300
1 Course Unit
BENG 1500 Advanced Bengali
The objective of this course is to develop the proficiency level of the students in all the four skills by using different genres of Bengali literature (West Bengal and Bangladesh) as its course content. Reading comprehension will be enhanced as students learn to understand authentic texts at the linguistic and cultural level while discussion (description, narration, supporting opinion) on issues related to these texts aim to hone the oral and written skills. Students will be allowed to work on individual texts & topics (with the instructors permission) for their final project. This is a one semester course. Spring: Bengali Popular Culture - This course aims to use as its content, different aspects of popular Bengali culture as they are represented in media (film, television, magazines, newspapers) and arts (fashion, local and regional art, music). Students will be expected to develop their linguistic skills (description, narration, supporting opinion) and socio-cultural awareness while interacting with these varied types of texts. Students will be allowed to work on individual texts & topics (with the instructors permission) for their final project. This is a one semester course.
Not Offered Every Year
1 Course Unit

BENG 5100 Beginning Bengali Part I
This course introduces students to colloquial Bengali. It gives equal emphasis to each of the four skills, reading, writing, listening, and speaking. Language will be studied in the context of socio-cultural aspects of West Bengal and Bangladesh. Besides lessons from the text, a major portion of the syllabus will be based on topics drawn from films, cultural events, festivals, food, and religion.
Fall
1 Course Unit

BENG 5200 Beginning Bengali Part II
This course introduces students to colloquial Bengali. It gives equal emphasis to each of the four skills, reading, writing, listening, and speaking. Language will be studied in the context of socio-cultural aspects of West Bengal and Bangladesh. Besides lessons from the text, a major portion of the syllabus will be based on topics drawn from films, cultural events, festivals, food, and religion.
Spring
1 Course Unit

BENG 5300 Intermediate Bengali Part I
This course develops the student’s prior knowledge of Bengali. An attempt is made to gear the syllabus to meet the specific needs of students. The focus of the course is to develop the oral and aural skills of the learner as well as improve writing skills and reading strategies. Emphasis is also laid on increasing the sociolinguistic and strategic competence of the learners so that they will be able to function in the target culture. Besides discussions on various aspects of Bengali life, students read some short literary texts in the original Bengali version. Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

BENG 5400 Intermediate Bengali Part II
This course develops the student’s prior knowledge of Bengali. An attempt is made to gear the syllabus to meet the specific needs of students. The focus of the course is to develop the oral and aural skills of the learner as well as improve writing skills and reading strategies. Emphasis is also laid on increasing the sociolinguistic and strategic competence of the learners so that they will be able to function in the target culture. Besides discussions on various aspects of Bengali life, students read some short literary texts in the original Bengali version. Spring
1 Course Unit

BENG 5500 Advanced Bengali
The objective of this course is to develop the proficiency level of the students in all the four skills by using different genres of Bengali literature (West Bengal and Bangladesh) as its course content. Reading comprehension will be enhanced as students learn to understand authentic texts at the linguistic and cultural level while discussion (description, narration, supporting opinion) on issues related to these texts aim to hone the oral and written skills. Students will be allowed to work on individual texts & topics (with the instructors permission) for their final project. This is a one semester course.
Not Offered Every Year
1 Course Unit
Benjamin Franklin Seminars (BENF)

BENF 2230 Philanthropy and Health
This course that brings together the recent literature from the social sciences and health sciences as well as other disciplines to explore how philanthropy impacts health care in society at large, and in particular, the health of the donor and volunteer. Furthermore, the course will include an "ideas in action" component. Students will examine philanthropic donations at work in Philadelphia, as well as engage in philanthropic activities alongside the instructor. The course consists of three parts: Part 1) Philanthropy and Healthcare in Society. The US has a long tradition of channeling philanthropic resources to augment healthcare in society, as the demand for health care exceeds the capacity of individuals or government to fully satisfy the demand. Philanthropic resources, which include both time and money, are emerging as significant means by which the capacity of the healthcare sector is fortified; these include resources for service providers, health care researchers, and health care policy advocates. To understand the heterogeneous impact of philanthropy on healthcare, this part of the course will examine the "who, what, when, where, and how" of philanthropic inputs into healthcare and their impact. Part 2) Health Effects on the Individual Philanthropist: The second part of the course examines individuals who give of their time and money. From decreased mortality to better health outcomes, researchers have carefully documented the effect on individual givers. Recent findings from the health sciences also show what mechanisms might be involved in an individual's psychology and physiology that can explain the beneficial health effects of philanthropic behavior. We will examine recent experimental research along these lines provides further evidence along these lines. Part 3) Ideas in Action: The course will include three specific volunteering events and do so by selecting a healthcare related organization of their choice that uses philanthropic resources. Students will gain first-hand experience as volunteers (and if feasible, as donors) and discuss their experiences with philanthropy in class presentations and relate them to course content.

Fall
1 Course Unit

BENF 2260 Health and Social Justice
This course considers various theoretical approaches to justice and health, motivated by the idea that a moral framework is needed to address the ethical challenges posed by inequalities in access, quality, financial burdens, and resource priorities, as well as rising health care costs. The course includes four parts. The first part examines ethical frameworks that involve various approaches to medical and public health ethics. The second part presents an alternative theory of justice and health, the health capability paradigm (HCP), grounded in human flourishing. The third part explores domestic health policy applications, including equal access, equitable and efficient health financing and insurance, rising costs and allocating resources. The fourth and final part of the course investigates domestic health reform, particularly a normative theory of health policy decision making grounded in political and moral legitimacy. The course scrutinizes the relevance of health justice for governing health at the domestic level, that is within countries, offers a new theory of health and social justice, the health capability paradigm, and of health governance, shared health governance, evaluating current domestic health systems and proposals for reforming them in light of these alternative theoretical frameworks.

Also Offered As: SOCI 2952
1 Course Unit

BENF 2270 Global Health Justice and Governance
This course considers various theoretical approaches to global justice and global governance and analyzes their implications for global health. The course includes two parts. The first part examines accounts of cosmopolitanism, nationalism and other theories of global justice, critically assessing duties ascribed by each that may be owed universally to all persons or confined within associative boundaries of communities or nations. The second part explores applications to global health governance encompassing consideration of human rights and the operation and accountability of global institutions such as the United Nations, the World Bank, and the World Health Organization and national health systems. The course scrutinizes the relevance of global justice for governing the global health realm, proposes a new theory of global health justice, provincial globalism, and of global health governance, shared health governance, evaluating the current global health system and proposals for reforming it in light of these alternative theoretical frameworks.

Spring
1 Course Unit

BENF 2280 Education and International Development
Educational development is central to the policies of every country in the world, and to children, youth and adults everywhere, as the participants in educational systems and agents of change for broader economic and social development. With increased globalization, population migration, and information exchange, there is increasing interest in the differing ways that learning education is organized and experienced around the world. High GNP countries like the U.S. are interested in understanding how they sometimes fail to serve students when compared with other high GNP countries, while many developing countries are struggling to put into place educational systems that assure a basic education for all. Much of this may be usefully understood in the context of the United Nations Sustainable Development Goals (for more detail on the SDGs, see http://www.un.org/sustainabledevelopment/). Both access to schooling and the quality of learning are central to these goals. This course will explore, compare and contrast education and international development models, as they affect the lives and development of children, youth and adults, with an emphasis on poor and developing countries. The course will work from primary and secondary materials on theories, research, and applications used to promote human development and basic education. Some programs are carried out by multinational/bilateral agencies such as World Bank, Unicef, UNESCO, and USAID, while others are undertaken by intermediary organizations (such as NGOs and universities) and local organizations or individual specialists. Issues include a range of social, economic and ethno-political dimensions in the provision of quality education.

Spring
1 Course Unit
BENF 2990 Health Capability
This course examines the idea of health capability. Health capability is the ability to be healthy; it integrates health functioning and health agency. Health capability helps us understand the conditions that facilitate and barriers that impede health and the ability to make healthy choices. Health capabilities are key strengths resulting from individual and societal commitment of human, financial, and physical resources with the goal of helping people thrive. Differences in health capability explain why, for example, personal skills and determination or health beliefs are not enough to achieve health, why people with even the best external conditions can still have poor health, and why a narrow biomedical model of disease is insufficient. Health capability captures the dynamic, interactive, multidimensionality of health and flourishing. Health capability has the effect of creating a virtuous circle; developing people’s health capability enables them to create and support the conditions for their own and other’s health capability and so forth. It offers an evaluation of the aim and success of public policies in terms of people’s lived experiences. The course is motivated by the idea that health capabilities ought to be a primary dimension in which equity in health and public policy is sought. The course includes three parts. The first part engages with the health capability model. The second part examines the health capability profile. The second part explores health capability applications. Twin goals of the course include cultivating the development of students’ knowledge base, values and competencies as well as aiding students in identifying, assessing and expanding their own health capabilities for individual and community health and flourishing.
Fall or Spring
1 Course Unit

Biochemistry & Molecular Biophysics (BMB)

BMB 5080 Macromolecular Biophysics: Principles and Methods
This course introduces students to the physical and chemical properties of biological macromolecules, including proteins and nucleic acids. It surveys the biophysical techniques used to study the structure and thermodynamics of macromolecules. It is intended to be a first course for graduate students with an undergraduate background in either physics, chemistry or biology, and no necessary background in biochemistry. Prerequisite: Senior undergraduate or graduate level biochemistry of biophysics.
Fall
1 Course Unit

BMB 5090 Structural and Mechanistic Biochemistry
The course will focus on the key biochemical task areas of living cells. The course progresses from primarily molecular level events, such as storage and translation of genetic information, creation, control and removal of proteins, to higher organization levels such as metabolic pathways, signaling pathways, regulation and homeostasis. Each section will cover structure details of the relevant molecules, appropriate binding/catalysis events, regulatory aspects, and how they fit into the relevant pathway(s) and cell function. Material will be covered with a combination of formal lectures and student presentations. Prerequisite: If course requirements not met, permission of course director required.
Spring
Prerequisite: BMB 5080 AND BIOM 6000
1 Course Unit

BMB 5100 Data Analysis and Scientific Inference
An introductory course in the analysis of data and scientific inference for graduate students in Biochemistry, Molecular Biophysics, and related quantitative biomedical research areas. The course will stress fundamental principles of data analysis, best practice in presenting data, and how to draw sound scientific inferences from the data. The overall goal is to provide students the tools to carry out rigorous and reproducible scientific research.
Spring
1 Course Unit

BMB 5180 Protein Conformation Diseases
Protein misfolding and aggregation has been associated with over 40 human diseases, including Alzheimer’s disease, Parkinson’s disease, amyotrophic lateral sclerosis, prion diseases, alpha (1)-antitrypsin deficiency, inclusion body myopathy, and systemic amyloidoses. This course will include lectures, directed readings and student presentations to cover seminal and current papers on the cell biology of protein conformational diseases including topics such as protein folding and misfolding, protein degradation pathways, effects of protein aggregation on cell function, model systems to study protein aggregation and novel approaches to prevent protein aggregation. Target audience is primarily 1st year CAMB, other BGS graduate students, or students interested in acquiring a cell biological perspective on the topic. MD/PhDs and Postdoc are welcome. MS and undergraduate students must obtain permission from course directors. Class size is limited to 14 students.
Fall
Also Offered As: CAMB 6150
Prerequisite: BIOM 6000
1 Course Unit

BMB 5540 Macromolecular Crystallography: Methods and Applications
This is an introductory course on methods and applications of macromolecular structure determination using X-ray crystallography. The course will be broken up into three parts: 1) Principles of X-ray crystallography involving didactic lectures on the technique with weekly problem sets; 2) Workshops on macromolecular structure determination involving hands-on experience with the technology; 3) Student "journal club" presentations on current high impact publications involving X-ray crystal structure determination. Prerequisite: Undergraduate calculus and trigonometry.
Fall
Also Offered As: CHEM 5550
1 Course Unit

BMB 5580 Biomolecular Spectroscopy and Microscopy
CHEM 5580 covers basic fluorescence spectroscopy and microscopy, as well as advanced topics such as single molecule spectroscopy and non-linear and super-resolution microscopies. There are weekly homework assignments that include problems based on the lectures as well as journal club style reports on by pairs of students on papers relevant to the course material.
Fall
Also Offered As: CHEM 5580
0.5 Course Units
**BMB 5670 Bio-inorganic Chemistry**

The course covers selected topics in bioinorganic chemistry; special emphasis is placed on dioxygen chemistry and electron transfer processes. Course topics include: (i) oxygen uptake and utilization; (ii) diatomic oxygen transport; (iii) diatomic and monatomic oxygen incorporation into substrates; (iv) metalloenzyme-catalyzed C-C bond formation; (v) the metallobiology of DNA; (vi) metal-sulfide proteins; (vii) manganese-containing metalloproteins; (viii) Photosystem II: light-driven electron transfer and the biological water-splitting reaction; (ix) biological electron transfer; (x) electron transfer theory; (xi) mechanisms of energy storage and release; and (xii) long-distance electron transfer reactions.

**Fall or Spring**
Also Offered As: CHEM 5670  
1 Course Unit

**BMB 5810 Techniques of Magnetic Resonance Imaging**

Detailed introduction to the physics and engineering of magnetic resonance imaging as applied to medical diagnosis. Covered are magnetism spatial encoding principles, Fourier analysis, spin relaxation, imaging pulse sequences and pulse design, contrast mechanisms, chemical shift, flow encoding, diffusion and perfusion, and a discussion of the most relevant clinical applications.

**Spring, even numbered years only**
Also Offered As: BE 5810  
1 Course Unit

**BMB 5850 Wistar Institute Cancer Biology Course: Signaling Pathways in Cancer**

This course is intended to provide foundational information about the molecular basis of cancer. When necessary the significance of this information for clinical aspects of cancer is also discussed. The main theme centers around cell cycle checkpoints with specific emphasis on the biochemistry and genetics of DNA damage signaling pathways, DNA damage checkpoints, mitotic checkpoints and their relevance to human cancer. The course is taught by the organizers and guest lecturers from universities and research institutions in the Northeast. Following every lecture, students present a research paper related to the topic of that lecture. The course is intended for first and second year graduate students but all graduate students are welcome to attend. Prerequisite: Undergraduates and Master’s degree candidates require permission from the course directors.

**Fall**
Also Offered As: GCB 5850, PHRM 6500  
1 Course Unit

**BMB 5980 Tutorial**

The tutorial course is designed for in-depth study of a specific topic thorough one-on-one meetings and discussions between the student and a selected BMB faculty member. The intent of the course is to broaden the students knowledge, thus the tutorial may not be taken with the student's current rotation advisor or thesis advisor. Choice of faculty member and topic is by prior mutual agreement between the student and faculty member, subject to approval by the course director. Student and faculty member will typically meet for an hour or so 2-3 times per week. The course may take the form of literature study, or where appropriate, a mini-project (typically computer-based). A tutorial can be used by students to become more deeply acquainted with the literature related to their thesis project or to help prepare students for their Candidacy Exam. Upon completion of the tutorial, students must prepare a written description of the area studied (5-10 typewritten pages).

**Fall, Spring, and Summer Terms**
1 Course Unit

---

**BMB 6010 Fundamentals of Magnetic Resonance**

This course introduces basic theoretical and experimental concepts of magnetic resonance and its applications in biochemistry, biology and medicine. Topics covered include description of the phenomenon of magnetic resonance, and classical and quantum strategies to compute nuclear spin responses in liquids, solids and biological tissues, polarization transfer and multiple quantum effects and their applications in biomedicine. Nuclear spin relaxation in solid-state materials and in biological systems will be discussed. Concepts of magnetic resonance imaging, imaging strategies, image contrast, and diagnostic applications are discussed. The course includes several practicals dealing with the demonstration of NMR hardware and experiments to compute basic NMR parameters on high resolution and clinical MRI scanners. For further details of this course, visit www.mmrccc.upenn.edu

**Fall, odd numbered years only**
0.5 Course Units

**BMB 6050 Drug Discovery and Development**

This course will expose graduate-level students to the process of drug discovery and development. The course will be structured to cover topics from the identification of a disease-relevant target through to Phase III Clinical Trials. The course will be lecture based and there will also be student-led journal club presentations as part of the course. There will also be a writing project consisting of a 3 page proposal of how to advance one of the areas of Drug Discovery & Development covered in the course.

**Spring**
Also Offered As: CAMB 7100, PHRM 6050  
1 Course Unit

**BMB 6180 Applications of High Resolution NMR Spectroscopy to Problems in Structural Biology**

A lecture-based course designed to introduce graduate students to applications of modern high-resolution multinuclear and multidimensional NMR spectroscopy to problems in structural biology. The course will first introduce classical definitions and descriptions of nuclear magnetic resonance and a convenient formalism for the analysis of advanced NMR experiments. Concepts and applications of multidimensional homonuclear 1H NMR and multidimensional heteronuclear spectroscopy of proteins and nucleic acids will be described. Resonance assignment strategies including analysis of triple resonance spectroscopy will be covered. The origin, measurement and extraction of structural restraints and their use in structure determination will be surveyed and illustrated with recent examples. Undergraduate biochemistry and physical chemistry background required.

**Fall, odd numbered years only**
Prerequisite: BMB 6010  
0.5 Course Units

**BMB 6220 Physical Principles of Mechano-Enzymes**

This course will provide an introduction to the biochemical, structural, and mechanical properties of energy-transducing enzymes. We will emphasize the relationships of mechanical, thermal, and chemical forces in mechano-enzyme function.

**Spring, odd numbered years only**
1 Course Unit

---

2023-24 Catalog | Generated 08/02/23
**BMB 6240 Molecular and Physical Basis of Ion Channels**
The course is a journal club format, targeted to graduate and MD/PhD students interested in ion channels from graduate programs in Physiology, Pathology, Neuroscience, Pharmacology, Biochemistry & Molecular Biophysics. It meets for two hours on alternate weeks and is coupled to the Ion Channel Journal Club, which also meets for one hour on the same alternate weeks. A faculty member meets with students to discuss and review the contents of each selected article earlier in the week in preparation for the subsequent Journal Club presentation. The day following the Journal Club the person who discussed the paper meets with the students to answer questions and to discuss the research that goes on in his lab. This elective course is meant to introduce students to the latest advances in ion channel research and includes topics extending from biophysics, structure, and physiology to cell biology and medical applications.
Spring, even numbered years only
0.5 Course Units

**BMB 6260 Mass Spectrometry and Proteomics**
This course will provide a detailed introduction to proteomics and mass spectrometry. The role of mass spectrometry in both characterizing proteins for traditional protein structure-function studies and identification of proteins in proteome studies will be emphasized. Targeted and global proteomes, quantitative protein profiling and compositional proteomics, and applications of proteome studies will be discussed. Intended for first and second year graduate students and others with an interest in proteomics and mass spectrometry.
Spring, odd numbered years only
0.5 Course Units

**BMB 6270 Computer Programming for Biochemists and Biophysicists**
An introductory course on programming and algorithms for scientists with an emphasis on applications to biophysics. Students will learn to write, debug, and execute basic programs through lectures, in-class workshops, and programming projects outside of class. Prerequisite: Permission of instructor for non-BMB students.
0.5 Course Units

**BMB 6320 Probing Structure and Function of Complex RNA-Protein Machines**
RNA-Protein complexes or RNPs can range from simple assemblies to megadalton enzymatic machines. The latter include two of the most abundant and essential enzymatic complexes for converting genes to functional protein - the ribosome and the spliceosome. Understanding the molecular interactions that hold these RNPs together and how these complexes function has required the development of new techniques and pushed the boundaries of quantitative biochemistry. In this course we will take an in-depth look at general concepts common to many RNA binding proteins, the methods used to study protein-RNA and RNA-RNA interactions, and how the complex nature of large RNPs uniquely allow them to achieve their precise functions. The course will be a combination of both lectures and student-lead discussion of recent literature. Students will be evaluated based on their presentations of primary literature and their participation in class discussion.
Fall, even numbered years only
1 Course Unit

**BMB 6340 Cryo-Em**
This is an introductory course on methods and applications of cryo-EM single-particle analysis and tomography. The course will be broken up into three parts: 1) Principles of single-particle reconstruction including hands-on experience with the technology; 2) Principles of cryo-EM tomography including data analysis; 3) Student presentations of their 3D reconstructions and research article
Spring
1 Course Unit

**BMB 6350 Computational Structural**
1 Course Unit

**BMB 6500 Current Biochemical Topics**
Participation in the “Dr. George W. Raiziss Biochemical Rounds”, a weekly seminar program sponsored by the Department of Biochemistry and Biophysics. Program deals with a wide range of modern biochemical and biophysical topics presented by established investigators selected from our faculty, and by leading scientists from other institutions. Prerequisite: Permission needed from DepartmentFall, Spring, and Summer TermsAlso Offered As: CAMB 7020
1 Course Unit

**BMB 6990 Laboratory Rotation**
Supervised "mini-projects" for graduate students in Biochemistry and Molecular Biophysics. End of the semester requirements are 1) poster presentations; 2) written rotation summaries; or 3) talks. Course is offered fall, winter, spring, and summer semesters.
Fall, Spring, and Summer Terms
0-3 Course Units

**BMB 7040 Structural Biology Tg**
1 Course Unit

**BMB 7050 Candidacy Exam Preparation Course**
This course is designed for second year BMB students to prepare them for the Candidacy Examination, which must be completed in the spring semester of the second year.
Spring
0.5 Course Units

**BMB 7150 Chemical Biology**
This course focuses on current topics in Chemical Biology, particularly experiments in which 1) chemical synthesis enables one to probe or control biological systems, or 2) manipulation of biological systems facilitates novel chemical syntheses. The course is broadly divided into two sections, one dealing with the study of individual proteins and nucleic acids, and one dealing with complex cellular systems. As the goal of the course is to familiarize students with innovative recent experimental approaches and to stimulate them to conceive of their own new methodology, students will be responsible for delivering presentations on topics selected from the literature, designing experiments to address currently unsolved problems in Chemical Biology (in take-home examinations), and generating several novel research proposal ideas, one of which will be elaborated into a full proposal.
Fall or Spring
Also Offered As: CHEM 7510
1 Course Unit

**BMB 7990 Independent Study (Yrs 1 - 2)**
0.5-4 Course Units
BMB 8990 Pre-Dissertation Research
Pre-dissertation research lab rotation.
Fall or Spring
0.5-4 Course Units

BMB 9900 Master’s Thesis Research
Fall or Spring
0 Course Units

BMB 9950 Dissertation Research
0 Course Units

Biochemistry (BCHE)

BCHE 2280 Physical Models of Biological Systems
Classic case studies of successful reductionistic models of complex phenomena, emphasizing the key steps of making estimates, using them to figure out which physical variables and phenomena will be most relevant to a given system, finding analogies to purely physical systems whose behavior is already known, and embodying those in a mathematical model, which is often implemented in computer code. Topics may include bacterial genetics, genetic switches and oscillators; systems that sense or utilize light; superresolution and other new microscopy methods; and vision and other modes of sensory transduction.
Fall
Also Offered As: PHYS 2280
Prerequisite: (PHYS 0101 OR PHYS 0151) AND MATH 1400 AND (MATH 1410 OR MATH 1610)
1 Course Unit

BCHE 2999 Undergraduate Research Projects
Independent Research.
Fall or Spring
1-2 Course Units

BCHE 3000 Senior Research Projects
Research in standing faculty groups in any School for special cases beyond participation in BCHE 404. Proposal required before the end of the add period in any given semester.
Fall or Spring
1 Course Unit

BCHE 4597A Biochemistry Laboratory
Students carry out mentored research broadly relevant to biomolecular science within the groups of individual faculty investigators on or near the Penn campus. Students commit a minimum of 15 hours/week to original research in their host laboratories. In addition to research and assignments, students meet to present and discuss scientific research. Course activities and assignments complement the research effort. Developing effective scientific presentations is an emphasis. Each student must contact the course instructor with information regarding research group (faculty principal investigator) in the spring term prior the fall term of BCHE 4597A. BCHE 4597A and BCHE 4597B is a year-long, 2 cu course required of the Biochemistry major. The course is taken in a Biochemistry major’s final year as an undergraduate.
Fall or Spring
1 Course Unit

BCHE 4597B Biochemistry Laboratory
Students carry out mentored research broadly relevant to biomolecular science within the groups of individual faculty investigators on or near the Penn campus. Students commit a minimum of 15 hours/week to original research in their host laboratories. In addition to research and assignments, students meet to present and discuss scientific research. Course activities and assignments complement the research effort. Developing effective scientific presentations is an emphasis. Each student must contact the course instructor with information regarding research group (faculty principal investigator) in the spring term prior the fall term of BCHE 4597A. BCHE 4597A and BCHE 4597B is a year-long, 2 cu course required of the Biochemistry major. The course is taken in a Biochemistry major’s final year as an undergraduate.
Fall or Spring
1 Course Unit

Bioengineering (BE)

BE 1000 Introduction to Bioengineering
Survey course introducing students to the breadth of bioengineering. Course consists of introductory lectures, guest speakers/panelists, and a series of small assignments that allow students to explore different facets of bioengineering and the Penn Bioengineering program.
Fall
0.5 Course Units

BE 2000 Introduction to Biomechanics
This course investigates the application of statics and strength of materials to soft and hard biologic tissues. The course will cover simple force analyses of the musculoskeletal system and introduces the fundamentals of the mechanics of materials including axial loading, torsion and bending and their application to biomechanics. The lecture and recitation will be complemented with hands-on examples emphasizing connections between theoretical principles and practical applications.
Fall
Prerequisite: MATH 1410 AND (PHYS 0140 OR PHYS 0150)
1 Course Unit
BE 2200 Biomaterials
This course investigates the application of materials science and engineering to biomedical applications, with a focus on polymers, ceramics, and metals. The course will cover concepts related to basic material fabrication and synthesis, structure and property characterization, as well as applications of biomaterials. The lecture and recitation will be complemented with laboratory examples of material assessment and characterization.  
Spring  
Prerequisite: BE 2000 AND CHEM 1022  
1 Course Unit

BE 2700 Bioengineering Laboratory Principles
This course will cover a variety of bioengineering laboratory principles and techniques including data collection, analysis and reporting. Students will explore tools related to mechanics, materials and electronics with applications in the bioengineering field. Corequisite with BE 2200.  
Spring  
Prerequisite: BE 2000 AND (ENGR 1050 OR CIS 1200 OR CIS 1210)  
1 Course Unit

BE 3010 Bioengineering Signals and Systems
Properties of signals and systems; Examples of biological and biomedical signal and systems; Signal operations, continuous and discrete signals; Linear, time invariant systems; Time domain analysis; Systems characterized by linear constant-coefficient differential equations; Fourier analysis with applications to biomedical signals and systems; Introduction to filtering; Sampling and the sampling theorem. Examples vary from year to year, but usually include signals such as the ECG and blood pressure wave, principles of signal coding in the auditory system and cochlear implants, and simple applications in biomedical imaging.  
Fall or Spring  
Prerequisite: (MATH 2400 OR ENM 2400) AND (PHYS 0141 OR PHYS 0151)  
1 Course Unit

BE 3060 Cellular Engineering
The biological cell is a complex machine and its function is at the root of all physiology and many pathologies. Recent advances in molecular and cell biology enable the redesign of cell function. This course aims to develop a quantitative understanding of cell function, and how we might go about changing cell function through intelligent redesign. The course covers topics ranging from receptor binding and endocytosis, cell adhesion and motility, cell function in the immune system, systems and synthetic biology, genetic knockdown and manipulation using CRISPR and gene therapy, and strategies for immunotherapy including chimeric antigen receptor therapy (carT).  
Fall  
Prerequisite: CHEM 1022 AND (MATH 2400 OR ENM 2400) AND (PHYS 0140 OR PHYS 0150) AND (PHYS 0141 OR PHYS 0151) AND BIOL 1121 AND (ENGR 1050 OR CIS 1200 OR CIS 1210)  
1 Course Unit

BE 3090 Bioengineering Modeling, Analysis and Design Laboratory I
BE 3090 is a one course-unit laboratory course with a focus on combining experimental and mathematical approaches to understand biological systems and solve bioengineering problems. The course content integrates concepts from mathematics, physics, signal analysis, control engineering, mass transport, and heat transfer with applications in physiology and pharmacology. Areas of emphasis are model development and validation, statistical analysis, experimental design, error analysis and uncertainty, and scientific writing.  
Fall  
Prerequisite: (ENGR 1050 OR CIS 1200 OR CIS 1210) AND (PHYS 0141 OR PHYS 0151) AND (MATH 2400 OR ENM 2400) AND BE 2000 AND BE 2200 AND BE 2700 AND (ENM 3750 OR ENGR 3440 OR STAT 4310)  
1 Course Unit

BE 3100 Bioengineering Modeling, Analysis and Design Laboratory II
BE 3100 is a one course-unit laboratory course on the design of technology to measure and control biological systems. The course is divided into four modules: (i) microfluidics for point of care diagnostics, (ii) synthetic biology for predicting cellular behavior, (iii) electronics and signal analysis of bioelectrical signals, and (iv) bioanalytical spectroscopy for low-cost diagnostics. Each module will have two components: (i) a series of structured learning exercises to teach key concepts and methods of the topic that we are studying, and (ii) a design challenge, in which the understanding gained in the first component is used to design a solution to an open ended bioengineering challenge.  
Spring  
Prerequisite: (ENGR 1050 OR CIS 1200 OR CIS 1210) AND (PHYS 0141 OR PHYS 0151) AND (MATH 2400 OR ENM 2400) AND BE 2000 AND BE 2200 AND BE 2700 AND AND BE 3010 AND (ENM 3750 OR ENGR 3440 OR STAT 4310)  
1 Course Unit

BE 3300 Self-Assembly of Soft Materials
Soft matter is found in diverse applications including sports (helmets & cloths); food (chocolate, egg); consumer products (e.g., lotions and shampoo); and devices (displays, electronics). Whereas solids and liquids are typically hard and crystalline or soft and fluid, respectively, soft matter can exhibit both solid and liquid like behavior. In this class, we investigate the thermodynamic and dynamic principles common to soft matter as well as soft (weak) forces, self-assembly and phase behavior. Classes of matter include colloidal particles, polymers, liquid crystalline molecules, amphiphilic molecules, biomacromolecules/membranes, and food.  
Fall  
Also Offered As: MSE 3300  
Prerequisite: (MSE 2200 OR BE 2200) AND CHEM 1022 or equivalent  
1 Course Unit

BE 3500 Introduction to Biotransport Processes
Introduction to basic principles of fluid mechanics and of energy and mass transport with emphasis on applications to living systems and biomedical devices.  
Spring  
Prerequisite: (MATH 2400 OR ENM 2400) AND (PHYS 0140 OR PHYS 0150) AND BE 2000  
1 Course Unit

BE 4000 Preceptorship in Clinical Bioengineering
Introduction to the integration of biomedical engineering in clinical medicine through lectures and a preceptorship with clinical faculty. This course is for BE majors ONLY, with preference given to BSE students.  
Spring  
1 Course Unit
**BE 4260 Immunology for Bioengineers**

Immunology is a fast-growing field that is critical to human health and therapeutic development and engineering. To better prepare bioengineers for a career in immunotherapy and biotech areas, it is essential for them to learn the fundamental knowledge of the immune system and the diseases associated as well as common and emerging technologies used in immunological research. This will not only enable the students to communicate more effectively in a multidisciplinary team, it will also empower them to take advantage of their training in engineering and mathematics to develop tools to analyze the immune system with great depth, solve important questions in immunology, and engineering new therapeutics. Therefore, the goal of this course is to provide the immunology foundation for engineering students and technical background of commonly used tools and emerging technologies in immunological research. The course is open to upper level undergraduate students who have taken courses in biochemistry and/or cell biology.

Fall
Mutually Exclusive: BE 5260
1 Course Unit

**BE 4700 Medical Devices**

Lab-based course where students learn the fundamentals of medical device design through hands-on projects using microcontrollers. Students first learn basic design building blocks regularly employed in microcontroller-based medical devices, and then carry out a small design project using those building blocks. Projects are informed by reverse-engineering of competing products, FDA regulations, and marketplace considerations. Prerequisite: Junior or Senior BE Majors only. Students who have taken ESE 3500 or a similar course may not enroll. Permission of instructor required if course prerequisites not met.

Spring
1 Course Unit

**BE 4720 Medical Device Development**

Students will learn the process of developing medical devices that fulfill unmet patient needs. Students will be equipped with an understanding of what is required to lead a startup venture in medical devices including regulatory, legal, fundraising, team building, and leadership. In lab, students will develop a proof-of-concept prototype device. Students will pitch their ideas to real med tech investors. The successful student will leave the class with the knowledge, skills, and confidence to lead a startup venture in medical devices. If desired by the student, the proof-of-concept device can be used as the basis for their senior design project. Junior standing in Bioengineering or permission of the instructor if course prerequisite is not met.

Spring
1 Course Unit

**BE 4800 Introduction to Biomedical Imaging**

Introduction to the mathematical, physical and engineering design principles underlying modern medical imaging systems including x-ray computed tomography, ultrasonic imaging, and magnetic resonance imaging. Mathematical tools including Fourier analysis and the sampling theorem. The Radon transform and related transforms. Filtered back-projection and other reconstruction algorithms. Bloch equations, free induction decay, spin echoes and gradient echoes. Applications include one-dimensional Fourier magnetic resonance imaging, three-dimensional magnetic resonance imaging and slice excitation.

Spring
Prerequisite: BE 3010 OR ESE 3250
1 Course Unit

**BE 4830 Physics of Medical/Molecular Imaging**

This course will provide a comprehensive survey of modern medical imaging modalities and the emerging field of molecular imaging. The basic principles of X-ray, ultrasound, nuclear imaging, and magnetic resonance imaging will be reviewed. The course will also cover concepts related to contrast media and targeted molecular imaging. Topics to be covered include the chemistry and mechanisms of various contrast agents, approaches to identifying molecular markers of disease, ligand screening strategies, and the basic principles of toxicology and pharmacology relevant to imaging agents.

Fall
Mutually Exclusive: BE 5830
Prerequisite: MATH 2410 OR BIOL 2310 OR BE 3050
1 Course Unit

**BE 4900 Independent Project in Bioengineering**

An intensive independent study experience on an engineering or biological science problem related to bioengineering. Requires preparation of a proposal, literature evaluation, and preparation of a paper and presentation. Regular progress reports and meetings with faculty advisor are required. Sophomore, Junior and Senior BE majors only.

Fall or Spring
1 Course Unit

**BE 4920 Independent Project in Bioengineering**

Second semester of an independent project. Sophomore, Junior and Senior BE majors only.

Fall or Spring
1 Course Unit

**BE 4950 Senior Design Project**

Group design projects in various areas of bioengineering. Project ideas are proposed by the students in the Spring semester of the Junior year and refined during the Fall semester. The course guides the students through choosing and understanding an impactful biomedical problem, defining characteristics of a successful design solution to eliminate or mitigate a problem or fulfill a need, identifying and prioritizing constraints, creatively developing potential design solutions, iteratively refining design options, defining and implementing an optimal solution, and evaluating how well the solution fulfills the need. Final oral and written reports are required. Also emphasized are teamwork, project management, time management, regulations/standards, and effective communication.

Seniors in BE or Department Permission.

Fall
1 Course Unit

**BE 4960 Senior Design Project**

Second semester of a two-semester design project. Seniors in BE or Department Permission.

Spring
1 Course Unit

**BE 4970 Senior Thesis in Biomedical Science**

An intensive independent project experience incorporating both technical and non-technical aspects of the student’s chosen career path. Chosen topic should incorporate elements from the student’s career path electives, and may involve advisors for both technical and non-technical elements. Topics may range from biomedical research to societal, technological, and business aspects of Bioengineering. A proposal, regular progress reports and meetings with a faculty advisor, a written thesis, and a presentation are required. Seniors in BAS or Department Permission.

Fall
1 Course Unit
BE 4980 Senior Thesis in Biomedical Science
Second semester of a year-long project. Seniors in BAS or Department Permission.
Spring 1 Course Unit

BE 5020 From Biomedical Science to the Marketplace
This course explores, through own work (this is, own discovery) the transition from fundamental knowledge to its ultimate application in a clinical device or drug. Emphasis is placed upon factors that influence this transition and upon the integrative requirements across many fields necessary to achieve commercial success. Special emphasis is placed upon entrepreneurial strategies, intellectual property, and the FDA process of proving safety and efficacy. Graduate students or permission of the instructor.
Fall 1 Course Unit

BE 5040 Biological Data Science II: Data Mining Principles for Epigenomics
This course will teach upper level undergraduates and graduate students how to answer biological questions by harnessing the wealth of genomic and epigenomic data sets generated by high-throughput sequencing technologies. Graduate students or permission of the instructor
Spring 1 Course Unit

BE 5100 Biomechanics and Biotransport
The course is intended as an introduction to continuum mechanics in both solid and fluid media, with special emphasis on the application to biomedical engineering. Once basic principles are established, the course will cover more advanced concepts in biosolid mechanics that include computational mechanics and bio-constitutive theory. Applications of these advanced concepts to current research problems will be emphasized.
Spring 1 Course Unit

BE 5120 Bioengineering III: Biomaterials
This course provides a comprehensive background in biomaterials. It covers surface properties, mechanical behavior and tissue response of ceramics, polymers and metals used in the body. It also builds on this knowledge to address aspects of tissue engineering, particularly the substrate component of engineering tissue and organs. General Chemistry, basic biomechanics. General Chemistry, basic biomechanics.
Fall 1 Course Unit

BE 5140 Rehab Engineering and Design
Students will learn about problems faced by disabled persons and medical rehabilitation specialists, and how engineering design can be used to solve and ameliorate those problems. The course combines lectures, multiple design projects and exercises, and field trips to clinical rehabilitation facilities. Students will have substantial interaction with clinical faculty, as well as with patients. Prerequisite: Graduate students or permission of the instructor.
Fall Also Offered As: IPD 5040 1 Course Unit

BE 5160 Introduction to High-Performance Scientific Computing
Research problems in the domain of physical, biological and biomedical sciences and engineering often span multiple time and length-scales from the molecular to the organ/organism, owing to the complexity of information transfer underlying biological mechanisms. Multiscale modeling (MSM) and high-performance scientific computing (HPC) have emerged as indispensable tools for tackling such complex problems. However, a paradigm shift in training is now necessary to leverage the rapid advances, and emerging paradigms in HPC — GPU, cloud, exascale supercomputing, quantum computing — that will define the 21st century. This course is a collaboration between Penn, UC Berkeley, and the Extreme Science and Engineering Discovery Environment (XSEDE) which administers several of the federally funded research purpose supercomputing centers in the US. It will be taught as a regular 1 CU course at Penn by adopting a flip-classroom/active learning format. The course is designed to teach students how to program parallel architectures to efficiently solve challenging problems in science and engineering, where very fast computers are required either to perform complex simulations or to analyze enormous datasets. The course is intended to be useful for students from many departments and with different backgrounds, e.g., scholar of Penn Institute for Computational Science, although we will assume reasonable programming skills in a conventional (non-parallel) language, as well as enough mathematical skills to understand the problems and algorithmic solutions presented.
Fall or Spring
Also Offered As: CBE 5060 1 Course Unit

BE 5180 Optical Microscopy
Fall
Prerequisite: MATH 2400 1 Course Unit

BE 5210 Brain-Computer Interfaces
The course is geared to advanced undergraduate and graduate students interested in understanding the basics of implantable neuro-devices, their design, practical implementation, approval, and use. Reading will cover the basics of neuro signals, recording, analysis, classification, modulation, and fundamental principles of Brain-Machine Interfaces. The course will be based upon twice weekly lectures and "hands-on" weekly assignments that teach basic signal recording, feature extraction, classification and practical implementation in clinical systems. Assignments will build incrementally toward constructing a complete, functional BMI system. Fundamental concepts in neurosignals, hardware and software will be reinforced by practical examples and in-depth study. Guest lecturers and demonstrations will supplement regular lectures.
BE 3010 (Signals and Systems) or equivalent, computer programming experience, preferably MATLAB (e.g., as used the BE labs, BE 3100). Some basic neuroscience background (e.g. BIOL 2310, BE 3050, INSC core course), or independent study in neuroscience, is required. This requirement may be waived based upon practical experience on a case by case basis by the instructor.
Spring
Also Offered As: NGG 5210 1 Course Unit
BE 5260 Immunology for Bioengineers
Immunology is a fast-growing field that is critical to human health and therapeutic development and engineering. To better prepare bioengineers for a career in immunotherapy and biotech areas, it is essential for them to learn the fundamental knowledge of the immune system and the diseases associated as well as common and emerging technologies used in immunological research. This will not only enable the students to communicate more effectively in a multidisciplinary team, it will also empower them to take advantage of their training in engineering and mathematics to develop tools to analyze the immune system with great depth, solve important questions in immunology, and engineering new therapeutics. Therefore, the goal of this course is to provide the immunology foundation for engineering students and technical background of commonly used tools and emerging technologies in immunological research. The course is open to upper level undergraduate students who have taken courses in biochemistry and/or cell biology. Fall
Mutually Exclusive: BE 4260
1 Course Unit

BE 5270 Immune Engineering
This course would target graduate students and upper level undergraduate students. This course introduces students to the concept of immune engineering that ranges from vaccine design to cancer immunotherapy and cutting edge tools recently developed in these areas. It is best suited for graduate students and upper level undergraduate students who have had cell biology and immunology. We will build on the topics covered in Immunology and explore deeper questions and applications in cancer immunotherapy, infection, and auto-immune diseases, and high-throughput immune profiling technologies. The course will use a combination of lectures, journal clubs, and a final project presentation that will be discussed mirroring NIH study section format. The course is open to graduate students and upper level undergraduate students who have taken courses in biochemistry and/or cell biology. Fall or Spring
1 Course Unit

BE 5280 Applied Medical Innovation I
Applied Medical Innovation I: Bedside to Bench is a hands-on, project-based team design experience for graduate students, offered in partnership with the Center for Health, Devices, and Technology (Penn Health Tech). The course acts as an idea INCUBATOR for projects originating from unmet clinical needs, identified by clinical collaborators, industry sponsors, and Penn Health Tech partners. By the end of this course, students will understand all aspects of medical device design, innovation, and entrepreneurship, including the importance of a clear problem definition and stakeholder input, an introduction to engineering design principles, and how to navigate the complex pathway by which these products reach patients. The end point of the semester is a final pitch (outlining the need, the solution, and the business opportunity) and a functional prototype with initial proof of concept data. The course is open to all graduate and senior undergraduate students (pre-application required). Fall
1 Course Unit

BE 5290 Applied Medical Innovation II
Applied Medical Innovation II: Bench to Bedside is a hands-on, interdisciplinary, project experience for graduate students, offered in partnership with the Center for Health, Devices, and Technology (Penn Health Tech). The course acts as device ACCELERATOR for projects originating from Applied Medical Innovation I and Penn Health Tech. Students partner with experienced technical teams (clinicians + engineers) to create a commercialization plan for real-world, cutting-edge medical technologies under development at Penn. Students work closely with their interdisciplinary team to identify and validate the clinical need, stakeholder requirements, and business case in order to de-risk the technology, increase commercial potential, and package the idea for follow-on investment. In the second half of the course, students will also gain exposure to medical technology entrepreneurship and investing. The course is open to all graduate and senior undergraduate students (pre-application required). Fall or Spring
1 Course Unit

BE 5300 Theoretical and Computational Neuroscience
This course will develop theoretical and computational approaches to structural and functional organization in the brain. The course will cover: (i) the basic biophysics of neural responses, (ii) neural coding and decoding with an emphasis on sensory systems, (iii) approaches to the study of networks of neurons, (iv) models of adaptation, learning and memory, (v) models of decision making, and (vi) ideas that address why the brain is organized the way that it is. The course will be appropriate for advanced undergraduates and beginning graduate students. A knowledge of multi-variable calculus, linear algebra and differential equations is required (except by permission of the instructor). Prior exposure to neuroscience and/or Matlab programming will be helpful. Spring
Also Offered As: NGG 5940, NRSC 5585, PHYS 5585, PSYC 5390
1 Course Unit

BE 5370 Biomedical Image Analysis
This course covers the fundamentals of advanced quantitative image analysis that apply to all of the major and emerging modalities in biological/biomaterials imaging and in vivo biomedical imaging. While traditional image processing techniques will be discussed to provide context, the emphasis will be on cutting edge aspects of all areas of image analysis (including registration, segmentation, and high-dimensional statistical analysis). Significant coverage of state-of-the-art biomedical research and clinical applications will be incorporated to reinforce the theoretical basis of the analysis methods. Prerequisite: Mathematics through multivariate calculus (MATH 2410), programming experience, as well as some familiarity with linear algebra, basic physics, and statistics. Fall or Spring
Also Offered As: CIS 5370, MPHY 6090
1 Course Unit
BE 5400 Principles of Molecular and Cellular Bioengineering
This course aims to provide theoretical and conceptual principles underlying biomolecular and biological systems. The course will start with basic and advanced concepts in physical chemistry and thermodynamics and introduce statistical mechanics as a tool to understand molecular interactions. The applications will be of relevance to bioengineering and biology disciplines. The course will not shy away from mathematical formulations and will stress the molecular perspective. This course explores physical biology of the cell across several length and timescales, while simultaneously emphasizing molecular specificity and clinical implications such as disease outcome or biomedical applications. The course emphasizes how the basic tools and insights of engineering, physics, chemistry, and mathematics can illuminate the study of molecular and cell biology to make predictive biomedical models and subject them to clinical validation. Drawing on key examples and seminal experiments from the current bioengineering literature, the course demonstrates how quantitative models can help refine our understanding of existing biological data and also be used to make useful clinical predictions. The course blends traditional models in cell biology with the quantitative approach typical in engineering, in order to introduce the student to both the possibilities and boundaries of the emerging field of physical systems biology. While teaching physical model building in cell biology through a practical, case-study approach, the course explores how quantitative modeling based on engineering principles can be used to build a more profound, intuitive understanding of cell biology. Worksheets will be integral to this course. Recitation will comprise of biweekly illustrations of problems and concepts from the worksheets and biweekly quizzes.
Fall or Spring
Also Offered As: CBE 5400
1 Course Unit

BE 5470 Fundamental Techniques of Imaging
This laboratory course covers the fundamentals of modern medical imaging techniques. Students will participate in a series of hands-on exercises, covering the principals of X-ray imaging, CT imaging, photoacoustic imaging, diffusion tensor imaging, localized magnetic resonance (MR) spectroscopy, MR contrast agents, diffuse optical spectroscopy, and bioluminescence imaging. Each lab is designed to reinforce and expand upon material taught in BE 4830/BE 5830 Molecular Imaging and MMP 5070 Physics of Medical Imaging. Graduate students or permission of the instructor.
Spring
1 Course Unit

BE 5510 Biomicrofluidics
The focus of this course is on microfluidics for biomedical applications. Topics to be covered in the first half of this course include microscale phenomena, small-scale fabrication techniques, and sensing technologies that are often leveraged in the development of microfluidic systems for the study of biomolecules, cells, tissues, and organs in living biological systems. In the second half of this course, strong emphasis will be placed on the application of microfluidics in cell biology, bioanalytical chemistry, molecular biology, tissue engineering, and drug discovery. Prerequisite: Experience with an undergraduate level fluid mechanics course is preferred. Examples of relevant SEAS courses include BE 3500 (Biotransport), CBE 3500 (Fluid Mechanics), and MEAM 3020 Fluid Mechanics.
Fall
1 Course Unit

BE 5530 Principles, Methods, and Applications of Tissue Engineering
Tissue engineering demonstrates enormous potential for improving human health. This course explores principles of tissue engineering, drawing upon diverse fields such as developmental biology, cell biology, physiology, transport phenomena, material science, and polymer chemistry. Current and developing methods of tissue engineering, as well as specific applications will be discussed in the context of these principles. A significant component of the course will involve review of current literature within this developing field. Graduate Standing or instructor’s permission.
Spring
1 Course Unit

BE 5540 Engineering Biotechnology
Advanced study of re DNA techniques; bioreactor design for bacteria, mammalian and insect culture; separation methods; chromatography; drug and cell delivery systems; gene therapy; and diagnostics.
Spring
Also Offered As: CBE 5540
1 Course Unit

BE 5550 Continuum Tissue Mechanics
This course introduces tensor calculus and continuum mechanics, with a focus on finite-deformation behavior of biological tissues including skin, tendon/ligament, cartilage, bone, blood vessels, nerves. Senior/Graduate Student in Bioengineering or permission of the instructor.
Spring
1 Course Unit
BE 5550 Nanoscale Systems Biology
NANO-science and engineering approaches to systems in biology are of growing importance. They extend from novel methods, especially microscopies that innovate in novel materials and/or computational modeling which incorporate the physics and chemistry of small scale biology. Proteins and DNA, for example, are highly specialized polymers that interact, catalyze, stretch and bend, move, and/or store information. Membranes are also used extensively by cells to isolate, adhere, deform, and regulate reactions. In this course, students will become familiar with cell & molecular biology and nanobiotechnology through an emphasis on nano-methods, membranes, molecular machines, and ‘polymers’ - from the quantitative perspectives of thermodynamics, statistical physics, and mechanics. We specifically elaborate ideas of energetics, fluctuations and noise, force, kinetics, diffusion, etc. on the nano- thru micro- scale, drawing from very recent examples in the literature. Laboratory experiments will provide hands-on exposure to microscopies in a biological context (eg. fluorescence down to nano-scale, AFM), physical methods (eg. micromanipulation, tracking virus-scale particles or quantum dots), and numerical problems in applied biophysics, chemistry, and engineering. A key goal of the course is to familiarize students with the concepts and technology (plus their limitations) as being employed in current research problems in nanoscale systems biology, extending to nanobiotechnology. Prerequisite: Background in Biology, Physics, Chemistry or Engineering with coursework in Thermodynamics or permission of the instructor. Fall
Also Offered As: CBE 5550, MEAM 5550
1 Course Unit

BE 5560 Molecular Diagnostics for Precision Medicine
This course provides a broad overview of current molecular diagnostics that have been implemented in clinical settings. Students will gain knowledge in the field and they will apply the knowledge to come up with their own ideas on next generation molecular diagnostics that can resolve currently intractable clinical problems. The course also introduces key concepts and emerging concepts in the area of diagnostics. Topics covered in this course include point-of-care diagnostics, microfluidics, microscopy, liquid biopsy, digital assays, microfabrication, molecular probe design, biomarkers, biosensing, commercialization, and machine learning based data analysis. Upon completion of the course, students will have the ability to design their own diagnostic platforms.
Fall
1 Course Unit

BE 5580 Principles of Biological Fabrication
BE 558 introduces methodological approaches that are currently used for the de novo construction of biological molecules - primarily, nucleic acids and proteins - and how to use these molecules to engineer the properties of cells and intact tissue. By the end of the semester, students should (i) possess a molecular-scale understanding of key biological synthesis (ii) and assembly processes, (ii) gain an intuition for how to create novel (iii) methodologies based on these existing processes, and (iii) appreciate (iv) the drivers of technology adoption (e.g. cost, time, ease, and (v) reproducibility). Throughout the course, we will place the material in context of applications in bioengineering and human health, including: protein engineering, drug discovery, synthetic biology & optogenetics, bio-inspired materials, and bio-electronic devices. Graduate standing or permission of the instructor. Undergraduate level biology, physics and chemistry.
Fall, odd numbered years only
1 Course Unit

BE 5590 Multiscale Modeling of Chemical and Biological Systems
This course provides theoretical, conceptual, and hands-on modeling experience on three different length and time scales - (1) electronic structure (A, ps); (2) molecular mechanics (100A, ns); and (3) deterministic and stochastic approaches for microscale systems (um, sec). Students will gain hands-on experience, i.e., running codes on real applications together with the following theoretical formalisms: molecular dynamics, Monte Carlo, free energy methods, deterministic and stochastic modeling, multiscale modeling. Prerequisite: Undergraduate courses in numerical analysis and physical chemistry. Not Offered Every Year
Also Offered As: CBE 5590, SCMP 5590
1 Course Unit

BE 5610 Musculoskeletal Biology and Bioengineering
The goal of this course is to educate students in core principles and expose them to cutting edge research in musculoskeletal biology and bioengineering through (1) lectures covering the basic engineering principles, biological fundamentals, and clinical practices involved in the function, repair, and regeneration of the musculoskeletal tissues; (2) critical review and presentation by student groups of recent and seminal publications in the field related to the basic science, translation, and clinical practice of musculoskeletal biology and bioengineering, with discussion input by faculty members with relevant expertise. This course will place an emphasis on delivering multidisciplinary knowledge of cell and molecular biology, mechanics, material science, imaging, and clinical medicine as it relates to the field of musculoskeletal bioengineering and science. Graduate student standing in Engineering and/or CAMB. Undergraduate students with permission of the instructor.
Fall, odd numbered years only
1 Course Unit

BE 5620 Drug Discovery and Development
Intro to Drug Discovery; Overview of Pharmaceutical Industry and Drug Development Costs, Timelines; High Throughput Screening (HTS); Assay Design and Sensitivity Solid Phase Synthesis and Combinatorial Chemistry; Enzyme Kinetics; Fluorescence, Linearity, Inner-filter effect, quenching; Time dynamics of a Michaelis-Menten Reaction; Competitive Inhibitor; FLINT, FRET, TRF, FP, SPA, alpha-screen; Enzyme HTS (protease); Cell based screening; Fura-2 ratio, loading signaling; Gfpcalmodulin-gfp integrated calcium response; Estrogen/ERE-Luc HTS; Problems with cell based screening (toxicity, permeability, nonspecificity); Instrumentation, Robotics/Automation; Z-factor; SAR, Positioning Scanning; Microarray HTS; IC50, % Conversion in HTS and IC50, Assay Optimization.
Fall
Also Offered As: CBE 5620
1 Course Unit
BE 5650 Developmental Engineering of Tissues
This course discusses systems biology approaches to understanding tissue development, homeostasis, and organogenesis. Emphasis is placed on modern technologies, models, and approaches to understanding collective cell behaviors that sculpt tissue form and function, placing developmental principles within an engineering framework. We will consider morphogenetic, mechanobiology, and micro-engineering/sensing analyses. Senior Standing in Bioengineering or permission of the instructor. In keeping with modern graduate-level engineering classes, this course will assume some basic knowledge of coding and/or willingness to learn coding practices. The course will not attempt to serve as a comprehensive introduction to developmental biology (CAMB 5110: Principles of Development is a recommended potential companion course). However, your success in the course will not require familiarity with developmental biology.
Fall
1 Course Unit

BE 5660 Networked Neuroscience
The human brain produces complex functions using a range of system components over varying temporal and spatial scales. These components are coupled together by heterogeneous interactions, forming an intricate information-processing network. In this course, we will cover the use of network science in understanding such large-scale and neuronal-level brain circuitry. Prerequisite: Graduate standing or permission of the instructor. Experience with Linear Algebra and MATLAB.
Spring
Also Offered As: ESE 5660
1 Course Unit

BE 5670 Mathematical Computation Methods for Modeling Biological Systems
This course will cover topics in systems biology at the molecular/cellular scale. The emphasis will be on quantitative aspects of molecular biology, with possible subjects including probabilistic aspects of DNA replication, transcription, translation, as well as gene regulatory networks and signaling. The class will involve analyzing and simulating models of biological behavior using MATLAB. Prerequisite: Graduate standing or permission of the instructor.
Fall or Spring
Also Offered As: AMCS 5670, GCB 5670
1 Course Unit

BE 5690 Systems Biology of Cell Signaling Behavior
This course discusses the principles of cell signaling and cell decisions. We start from a molecular description of cell signaling components. The course builds towards understanding how their interactions govern cell and tissue behavior and how these processes can breakdown in disease. We conclude with a survey of modern approaches to analyze and manipulate signaling networks to study and control biological systems. Graduate, Junior or Senior standing in Bioengineering or permission of the instructor.
Spring
1 Course Unit

BE 5700 Biomechatronics
Mechatronics is the combination of mechanical, electrical and computer engineering principles in the design of electromechanical systems. Biomechatronics is the application of these principles to human biology and includes orthopaedic, hearing, respiratory, vision and cardiovascular applications. In this hands-on, project-based course, these biomechatronic systems will be explored. Students will learn the basic mechanical and electrical elements needed to complete a biomechatronic design challenge including basic circuits, design considerations, material fabrication, microcontrollers and mechanisms (e.g. converting rotational motion into linear motion). Students will carry out a final design project utilizing these building blocks. A first course in programming (Matlab and/or C++ preferred), Senior standing in BE or permission of the instructor
Fall
1 Course Unit

BE 5710 The Goals of Scientific Inquiry
A key skill needed for a successful career in engineering and applied science is the ability to capitalize on current advances in technology (e.g., big data, data science, machine learning) to solve important problems. To gain this ability a student must go beyond an understanding of the technology itself, and instead must achieve the more challenging capacity to identify tractable problems, to formulate good questions, to initiate big ideas, to guide the advancement of science. In this course, we provide a broad and rich perspective on science as a field, laying the critical groundwork for just such achievements. Prerequisites: The course is open to all graduate students. Undergraduates must have passed Math 2410, ENM 3750 or equivalent, CIS 1200 or higher, and PHYS 0141. PHIL 1800 or similar is beneficial but not required.
Spring, odd numbered years only
1 Course Unit

BE 5730 Special Topics in Bioengineering - 1
This special topics course will focus on emerging topics in Bioengineering at the molecular and cellular level covering genomics, epigenetics, molecular and cellular systems with focus on immunology, cancer, neuroengineering, biomechanics, and other facets of bioengineering. This course is intended for incoming PhD students.
Fall
0 Course Units

BE 5740 Special Topics in Bioengineering - 2
This special topics course will focus on emerging topics in Bioengineering at the macroscale from organ to population level covering genomics, epigenetics, molecular and cellular systems with focus on immunology, cancer, neuroengineering, biomechanics, and other facets of bioengineering. This course is intended for PhD students in their first year of study.
Spring
0-1 Course Unit
BE 5760 The Cell as a Machine
The course is a general survey of cell mechanics, emphasizing problem-based and hypothesis-testing approaches. It is based on the concept that the cell is a complex machine, and that the cell can therefore be understood by first understanding principles of complex functions in robust machines, and then understanding the design and operation of complex functions specifically in cells. The course has been offered internationally for many years using a reverse-classroom format. Lectures, which are given primarily by Michael Sheetz, former director of the Mechanobiology Institute at the National University of Singapore, are pre-recorded and viewed independently by students, who also do outside reading and prepare questions in advance of a live, remote, 2 hour question/discussion session with Dr. Sheetz. The Penn course directors are present at all question/discussion sections, and lead tutorials on site. Homework and exams are graded, and Penn course directors will review them for consistency. Other sites that will be involved in the course in the coming year include Columbia, MIT, and Berkeley. Graduate Standing or permission of the instructor.
Fall
1 Course Unit

BE 5780 Principles of Controlled Release Systems
This course provides a basic understanding of the engineering of controlled release systems specifically geared towards the development of formulations for drug delivery, which stands as a 114 billion dollar industry. The course focuses on topics at the interface between engineering and medicine, such as biomaterials, pharmacokinetics, polymer chemistry, reaction kinetics, and transport phenomena. Design of controlled release systems for transdermal, aerosol, oral, gene, and targeted cellular delivery are discussed with emphasis placed on fabrication, US FDA regulatory considerations, and the relevant physiological milieu. The course comprises (1) foundational lectures that provide the basic tools for the student to elaborate a controlled delivery system, (2) an overview of key current research on biomedical controlled release systems for different pathologies and body compartments, (3) an elevator pitch competition for original ideas that use controlled release systems, and (4) a project; plan and presentation to implement the pitched controlled release; system idea to practice design and problem-solving skills and practice basic elements of business proposal. Graduate students and senior standing in Bioengineering, Chemical and Biomolecular Engineering, or permission of the instructor.
Fall
1 Course Unit

BE 5810 Techniques of Magnetic Resonance Imaging
Detailed introduction to the physics and engineering of magnetic resonance imaging as applied to medical diagnosis. Covered are magnetism spatial encoding principles, Fourier analysis, spin relaxation, imaging pulse sequences and pulse design, contrast mechanisms, chemical shift, flow encoding, diffusion and perfusion, and a discussion of the most relevant clinical applications. Spring, even numbered years only
Also Offered As: BMB 5810
1 Course Unit

BE 5830 Physics of Medical / Molecular Imaging
Physical principles of diagnostic radiology, fluoroscopy, computed tomography; principles of ultrasound and magnetic resonance imaging; radioisotope production, gamma cameras, SPECT systems, PET systems; diagnostic and nuclear medicine facilities and regulations. The course includes a component emphasizing the emerging field of molecular imaging.
Fall
Mutually Exclusive: GE 4830
1 Course Unit

BE 5840 The Mathematics of Medical Imaging and Measurement
The last several decades have seen major revolutions in both medical and non-medical and imaging technologies. Underlying all of these advances are sophisticated mathematical tools to model the measurement process and reconstruct images. This course begins with an introduction of the mathematical models and then proceeds to discuss the integral transforms that underlie these models: the Fourier transform, the Radon transform and the Laplace transform. We discuss how each of these transforms is inverted, both in theory and in practice. Along the way we study interpolation, sampling, approximation theory, filtering and noise analysis. This course assumes a thorough knowledge of linear algebra and a knowledge of analysis at the undergraduate level (MATH 3140 and MATH 3600 and MATH 3610, or MATH 5080 and MATH 5090).
Not Offered Every Year
Also Offered As: AMCS 5840, MATH 5840
Prerequisite: MATH 1410 AND (MATH 3600 OR MATH 5080) AND (MATH 3610 OR MATH 5090)
1 Course Unit

BE 5850 Materials for Bioelectronics
Bioelectronics is an emerging field that involves the use of engineering principles to create devices for applications in biology, medicine, and health sciences. One of the most important aspects of bioelectronics is the development of communication interfaces between biological materials (cells, tissues and organs) and manmade devices for optimal energy delivery and signal transduction efficacies. Progress in materials science and engineering is bringing revolutionary advances to the bionterface design and has unlocked unprecedented applications in various biomedical fields. This course focuses on the materials science and engineering concepts that are of relevance to bioelectronics. It also introduces basic biochemical, biophysical and physiological principles that are required to understand the design and application of bioelectronic devices.
Spring
Also Offered As: MSE 5850
1 Course Unit

BE 5970 Master's Thesis Research
For students working on an advanced research program leading to the completion of master’s thesis.
Fall or Spring
1-2 Course Units

BE 5990 Master's Independent Study
The purpose of BE 5990 is to allow a student to create a customized curriculum to study material beyond or outside the scope of our standard BE course offerings. Independent study is NOT a research or design project, it is a one-on-one or small-group course with a professor. The course should require an effort comparable to that of a regular course, about 10-12 hours per week. A paper or presentation is required.
Fall or Spring
1-4 Course Units
BE 6080 Medical Entrepreneurship: Commercializing Translational Science
This course provides in depth insight into the process by which health technology platforms including scientific discoveries are transformed into viable commercial entities. This includes methods to evaluate market opportunities and derisk critical assumptions within the rapidly changing academic and healthcare environment. Topics include intellectual property creation and licensing, technology transfer, regulatory pathways, raising capital/NIH SBIR/STTR grant funding, go to market strategy, market sizing, formation equity, and recruiting co-founders. The major project will involve the formation of teams that will create a defensible business plan and consummate in a presentation (pitch deck) intended to raise capital. The course will be especially valuable for students who may be considering entrepreneurial career paths including starting a company, working for an early stage venture, healthcare consulting, or assuming innovation leadership roles.
Spring
Also Offered As: MTR 6200
1 Course Unit

BE 6400 Mechanobiology of the Cell and its Microenvironment
This course is geared towards first and second year graduate students in BGS/CAMB and SEAS/BE with an interest in the interface of extracellular matrix (ECM) cell biology and biomechanics. Students will learn about the ECM and adhesion receptors and their impact on the cytoskeleton and signaling, as well as fundamental concepts in biomechanics and engineered materials. We will discuss how these topics can inform the study of cell biology, physiology and disease. An additional objective of the course is to give students experience in leading critical discussions and writing manuscript reviews. Invited outside speakers will complement the strengths of the Penn faculty.
Spring, odd numbered years only
Also Offered As: CAMB 7030
Prerequisite: BIOM 6000
1 Course Unit

BE 6500 Advanced Biomedical Imaging Applications
The course will cover a broad range of biomedical imaging technologies including X-ray, MRI, US, molecular and optical imaging. The curriculum will focus on the design of biomedical imaging based research studies spanning from basic technology development through clinical trials. This discussion oriented course is expected prepare students for integrating imaging technology and biomedical concepts to answer biological and medical questions.
Fall
1 Course Unit

BE 6620 Advanced Molecular Thermodynamics
This course begins with a brief review of classical thermodynamics, including the development of Maxwell relationships and stability analysis. The remainder of the course develops the fundamental framework of statistical mechanics, then reviews various related topics including ideal and interacting gases, Einstein and Debye models of crystals, lattice models of liquids, and the basis of distribution function theory.
Fall
Also Offered As: CBE 6180, MEAM 6620
1 Course Unit

BE 6990 Bioengineering Graduate Seminar
This is a required course for BE PhD candidates and covers topics related to bioengineering and the PhD level graduate studies. The goal is to expose students to a breadth of bioengineering topics beyond their specific dissertation work.
Fall or Spring
0.5 Course Units

BE 7110 Integrative plant and animal mechanobiology
This course aims to provide students with an understanding of biomechanics that spans the plant and animal kingdoms, with the goal of emphasizing principles common to both. Major concepts include 1) Plant and Animal Cell Biology; 2) Solid, Fluid, and Transport Mechanics; and 3) Integrating Biology and Mechanics - Big Questions. In addition to lectures, there will be two journal article discussion sections. Most lectures will be given by Penn faculty, although selected topics (particularly in plant biology and mechanics) will be covered by faculty at other sites through lectures broadcast remotely. The Penn director will be present at all sessions of the class. Undergraduates require special permission from the director.
Fall
Also Offered As: CAMB 7110
1 Course Unit

BE 8990 PhD Independent Study
The purpose of BE 899 is to allow a student to create a customized curriculum to study material beyond or outside the scope of our standard BE course offerings. Rather than a research or design project, BE 899 is a one-on-one or small-group course with a professor. Students must submit a proposal outlining the study area along with the professor's approval. A paper or presentation is required.
Fall or Spring
1-4 Course Units

BE 9950 Doctoral Dissertation Status
Ph.D. Students register for Doctoral Dissertation Status after they have advanced to Ph.D. candidacy by completing the Candidacy Exam which consists of the Dissertation Proposal Defense. Permission required. For PhD candidates only.
Fall or Spring
0 Course Units

BE 9990 Bioengineering Graduate Seminar
For students working on an advanced research program leading to the completion of master’s thesis or Ph.D. dissertation requirements.
Fall or Spring
1-4 Course Units
Bioethics (BIOE)

BIOE 4010 Introduction to Bioethics
This course is intended to serve as an introduction to the academic field of bioethics. Students will be introduced to classic papers, basic concepts, field history and important legal cases in the field. But rather than being a broad survey course of many content areas in bioethics, this course will examine how bioethical arguments are constructed with the objective of mastering both the critique of bioethical arguments and their construction. Therefore, most importantly, this course serves as a "methods course" for learning the skill of persuasive bioethics argument, i.e., "the art of conversion." In some of the course sessions, we will focus on the analysis of arguments made by others. In many of the weeks of the course, we will focus on the process of constructing our own, effective bioethical arguments.
Fall
Mutually Exclusive: BIOE 6010
1 Course Unit

BIOE 4020 Foundations of Bioethics
This course examines the various theoretical approaches to bioethics and critically assesses their underpinnings. Topics to be covered include an examination of various types of ideologies, utilitarianism, virtue ethics, principlism, casuistry, feminist ethics, narrative theory, and pragmatism.
Mutually Exclusive: BIOE 6020
1 Course Unit

BIOE 5050 Sex and Bioethics
While the topics of sex and sexuality have a long and storied history in medical culture, they have been especially complex and problematic in the past century. With the creation of distinct sexually-minded medical fields since the late 19th-century including sexology, psychiatry, and hormonal studies, medicine has also occasioned the very categories and labels of the homosexual, the hermaphrodite, the invert, and the nymphomanic, to name a few. While medical historians and queer theorists have paid almost obsessive attention to these subjects, bioethicists have intervened to a lesser degree and on only a handful of relevant subjects. In this course, we will address the range of historical and theoretical matters that speak to this intersection of bioethics and sex, paying special attention to the health concerns of lesbian, gay, bisexual, trans, queer, and intersex (LGBTQI) persons. Who has sex with whom? What does it mean to pathologize or diagnose such desires? How do we raise the stakes when considering persons who question their sex or who are in sexual transition? And how do such questions reveal the dilemmas of bioethicists at large, not just those related to matters of sex and sexuality? Accordingly, this course will consider a range of historical and contemporary topics which speak to the bioethical dilemmas of the intersection of medicine, sex, and sexuality, including: the gay adolescent, the intersex person, gay-conversion therapies, the prospect of gay gene studies, sex addiction, and blood/organ donation policies in wake of the HIV/AIDS pandemic. Specifically, we will focus on literary sources (poetry, memoirs, diaries, and films) as well as on non-literary accounts (medical texts, bioethical scholarship, legal cases, and historical records) that explore the emotional and somatic aspects of matters related to sex and bioethics.
1 Course Unit

BIOE 5400 Challenging Clinical Ethics: Managing patient/caregiver conflicts through mediation.
The contemporary healthcare system in which patients, families, institutions and a multiplicity of caregivers interact over matters of life and death with legal, ethical, emotional and scientific complexities inherently gives rise to a variety of disputes. Such disputes are frequently highly charged and are often emergent in nature. In recent years, mediation has grown exponentially as a dispute resolution mechanism of choice. Not surprisingly, the success of mediation and a wider understanding of the process, has led to its application in the realm of healthcare disputes with encouraging results. This course will initially provide an overview of classical mediation theory and practice. Students will be introduced to negotiation fundamentals critical to the practice of mediation. Similarities and differences between mediation in the healthcare field, as distinct from other contexts, will be examined. All class members will participate in mediation role-plays designed to simulate disputes of the kind prevalent in healthcare landscape.
Not Offered Every Year
1 Course Unit

BIOE 5450 Mediation Intensive I
Students will be placed in a variety of clinical situations in which they will play the roles of disputants and mediators, with ongoing discussions and critiques of mediator performance. Each student will be videotaped during their mediation to elicit feedback from the group and to catalyze self-criticism. As distinct from the course, BIOE 5400: Challenging Clinical Ethics, in which negotiation and mediation theory are taught as a prelude to clinical simulations, this course references the literature solely in relation to problems encountered in the hands-on mediation of specific cases. Students may take the mediation intensives in any order; they do not need to be taken from I to IV. Students may take all 4 intensive courses, as the material will not be repeated.
0.5-1 Course Unit

BIOE 5460 Mediation Intensive II
Students will have an immersion experience, learning mediation through role-playing simulations. Note that the format is similar to Mediation Intensive I, but the Mediation Intensive II will NOT duplicate simulations. Students in this course will: learn to effectively manage clinical disputes among and between caregivers, patients, and surrogates through mediation; discover how to define problems and assess underlying interests to generate mutually acceptable options; role play in a variety of clinical situations as both disputants and mediators; practice mediation with professional actors; and receive constructive feedback in a supportive environment. Students will also be required to complete a written research paper. Students may take the mediation intensives in any order; they do not need to be taken from I to IV. Students may take all 4 intensive courses, as the material will not be repeated.
0.5-1 Course Unit
BIOE 5470 Mediation Intensive III
Students will have an immersion experience, learning mediation through role-playing simulations. Note that the format is similar to Mediation Intensive I and II, but med. intensive III will NOT duplicate simulations. Students in this course will: learn to effectively manage clinical disputes among and between caregivers, patients, and surrogates through mediation; discover how to define problems and assess underlying interests to generate mutually acceptable options; role play in a variety of clinical situations as both disputants and mediators; practice mediation with professional actors; and receive constructive feedback in a supportive environment. Students will also be required to complete a written research paper. Students may take the mediation intensives in any order; they do not need to be taken from I to IV. Students may take all 4 intensive courses, as the material will not be repeated.
0.5-1 Course Unit

BIOE 5480 Mediation Intensive IV
Students will have an immersion experience, learning mediation through role-playing simulations. Note that the format is similar to earlier mediation intensives but the mediation intensive IV will NOT duplicate simulations. Students in this course will: learn to effectively manage clinical disputes among and between caregivers, patients, and surrogates through mediation; discover how to define problems and assess underlying interests to generate mutually acceptable options; role play in a variety of clinical situations as both disputants and mediators; practice mediation with professional actors; use video-tapes of simulations to improve mediation techniques and strengthen interpersonal skills; receive constructive feedback in a supportive environment. Students may take the mediation intensives in any order; they do not need to be taken from I to IV. Students may take all 4 intensive courses, as the material will not be repeated.
0.5-1 Course Unit

BIOE 5500 Bioethics and Society
This set of courses will deal with bioethical issues in popular culture addressed from a social science perspective. Courses to be offered include: "Sociology of Bioethics," and "Media and the Doctor-Patient Relationship." This is a topics course - for information on the topic currently being offered, please go to the course listing on the Bioethics website: http://www.med.upenn.edu/mb.
Not Offered Every Year
1 Course Unit

BIOE 5510 Race and Bioethics
Much of the mainstream dialogue regarding medicine, technological advances, and healthcare has relied on the premise of fairness and equality. However, this is not the entire story. Many of the advancements we take for granted were produced at the expense of racially marginalized individuals. This course aims to explore those topics and teach bioethics students how to engage with them in a practical way. The course will cover historical bioethical incidents that shaped racially marginalized individuals' relationships with healthcare and science. It will also examine bioethics through the lens of racially marginalized peoples. Lastly, it will also cover various approaches to integrating anti-racist principles into the practice of bioethics.
Not Offered Every Year
1 Course Unit

BIOE 5520 Anthropological Topics in Bioethics
This set of courses provides an introduction to the use of anthropological methods and approaches to address bioethical issues. Courses might include cross-cultural studies of medicine and doctoring, diversity and the culture of medicine, cross-cultural bioethics. This is a topics course - for information on the topics currently being offered, please go to the course listing on the Bioethics website: https://www.med.upenn.edu/mb.
Not Offered Every Year
1 Course Unit

BIOE 5530 Medicine on the Fringes: the Ethics of Alternative, Experimental, and Do-It-Yourself Treatments
Much bioethics literature focuses on issues in mainstream, established medicine — but what are the ethics of therapies, treatments and techniques utilized outside of common practice? This course begins with a historical exploration of "quack medicine" and medical professionalization. We then explore ethical and regulatory issues regarding complementary and alternative medicine, as well as the ethics of providing experimental, off-label, and placebo treatments. Finally, we will examine how individuals are accessing therapeutic techniques outside of the physician's office, via do-it-yourself medical movements, direct-to-consumer health technologies, and medical tourism.
Not Offered Every Year
1 Course Unit

BIOE 5540 Bioethics and Law
This course will present a broad survey of topics at the intersection of law and bioethics. Much of bioethics deals with topics of public policy, and law is the tool of policy. Areas to be covered will range from an overview of American law making to enforcement mechanisms, topics including FDA regulations, state interventions into beginning and end of life issues, privacy, malpractice, healthcare reform, and international issues, including those related to innovation and access to medicines.
Not Offered Every Year
1 Course Unit

BIOE 5550 Bioethics and Technology: Neuroethics
Neuroethics might well be the most rapidly growing area within bioethics; indeed, in some respects neuroethics has grown as an independent field, with its own journals, professional society and institutional centers. This growth over the past decade is partly attributable to the growth of neuroscience itself and to the challenging philosophical and moral questions it inherently raises. A 2012 Royal Society report, observes that an increasingly mechanistic understanding of the brain raises a host of ethical, legal, and social implications. This has laid the foundation for the emergent field of Neuroethics, which examines ethical issues governing the conceptual and practical developments of neuroscience. Irrespective of their validity, even the claims that modern neuroscience entails the re-examination of complex and sensitive topics like free will, consciousness, identity, and responsibility raise significant ethical issues. As such, neuroethics asks questions that extend beyond the usual umbrella of biomedical ethics. This course will, therefore, consider the new knowledge and ways of learning about the brain from scientific and ethico-legal and social standpoints. We will examine the core themes of neuroethics, including cognitive enhancement, the nature of the self and personhood, neuroimaging and privacy, and the ways that all these themes are brought together in matters affecting national security.
1 Course Unit
BIOE 5560 Evidence in Bioethics and Health Policy
The ability to critically appraise scholarly work is a necessary skill to effectively contribute to bioethics and health policy debates, and for development and implementation of health interventions. The object of this course is to provide students with the skills needed to become fluent in reading and assessment of empirical bioethics and health service research. The course will review and evaluate a wide range of qualitative and quantitative methods utilized in bioethics, health policy, and medical research. Specifically, students will learn the conceptual rational for standard qualitative and quantitative methods, their strengths and weaknesses. At course completion, students should be able to critically evaluate empirical research published in top bioethics, health policy, and medical journals. 

Fall
1 Course Unit

BIOE 5570 Disability Bioethics
1 Course Unit

BIOE 5580 Reproductive Health
Whether dealing with personal decisions or public policy, reproductive health matters are almost always controversial and often intractable. It is almost 50 years since the Supreme Court decision Griswold v Connecticut "settled" the right to contraceptives yet the last several years have been marked by increasing legislative action and judicial review of this right. This course will explore the ethical dimensions of reproductive health controversies including: 1) the moral and legal status of the human embryo and fetus in the context of assisted reproduction, embryonic stem cell research and abortion; 2) contraception, including over-the-counter provision of emergency contraception and contraceptives and legislation challenges to contraceptive insurance coverage in the Affordable Care Act; 3) attempts to restrict access to abortion by restricting later term abortion, mandating informed consent and waiting periods, and regulating abortion clinics; 4) maternal-fetal relationship including prenatal testing and the regulation of women's behavior while pregnant; 5) assisted reproduction and 6) global concerns such as sex selective abortion, forced abortion and sterilization and reproductive rights in relation to population dynamics and environmental concerns.
1 Course Unit

BIOE 5590 Speaking For Patients: Ethical Issues in Patient Advocacy
This course examines the role that activism and advocacy play in shaping health care in the United States and abroad. The course combines in-depth exploration of particular case studies—AIDS activism in the 1980s, the billion-dollar breast cancer movement, the anti-vaccine movement—with an analysis of cross-cutting questions and themes. We consider how health advocates contribute to forming personal identities around certain illnesses and conditions, how they mobilize constituents and recruit allies, and how they influence decisions about health policy, research, and practice. We also consider the implications of an increasingly professionalized health advocacy industry and ask how corporate sponsorship has changed the landscape of health activism. In addition, we examine the ethical issues involved in speaking on behalf of others, particularly those (e.g., young children, persons with intellectual disabilities) who cannot speak for themselves.
1 Course Unit

BIOE 5600 Pediatric Ethics
In this course, we will explore the history, conceptual frameworks, and landmark debates of bioethics related to children. We will examine common ethical challenges (e.g., transplantation, critical illness, end of life) when the patient is a child. We will also examine issues unique to children, such as newborn screening, consent vs. assent, the rights and responsibilities of parents, and the role of the courts and the state. We will draw upon theories from moral philosophy, clinical cases, and seminal legal decisions to demonstrate the breadth and complexity of pediatric ethics.
Not Offered Every Year
1 Course Unit

BIOE 5610 Ethics of Science
This Bioethics course will examine ethics as it relates to science. Not Offered Every Year
1 Course Unit

BIOE 5620 Propaganda
A Bioethics examination of truth and persuasion in health and pandemics.
Not Offered Every Year
1 Course Unit

BIOE 5630 History of Bioethics
This course will take an historical approach to the emergence of modern bioethics, the study of ethical issues in medicine and the life sciences. The course will consider pre-20th century medical ethics; the scandals, tragedies and controversies that motivated the modern field; the institutionalization of bioethics in the academy, government, industry and the military; and the recent growing emphasis on ethics in basic life sciences research and development, including genetics, stem cell biology and neuroscience; and the role of bioethics in the rules-based global order. Recurring themes will include physician-patient relations, the ethics of human experimentation, military medical ethics, and human rights theory.
1 Course Unit

BIOE 5640 Social Media, Healthcare, and Medical Ethics
In this course, students will examine the conceptual and ethical challenges posed by the use of artificial intelligence, social media, and the 'internet of things' in healthcare contexts. The course will combine both didactics and discussion to engage students on these issues.
Not Offered Every Year
1 Course Unit
**BIOE 5650 Rationing & Resource Allocation**
You have one liver but three patients awaiting a liver transplant. Who should get the liver? What criteria should be used to select the recipient? Is it fair to give it to an alcoholic? These are some of the questions that arise in the context of rationing and allocating scarce health care resources among particular individuals, and concern what are called micro-allocation decisions. But trade-offs also need to be made at the meso- and macro-level. Budgets of public payers of healthcare, such as governments, and of private ones, such as health plans, are limited: they cannot cover all drugs and services that appear beneficial to patients or physicians. So what services should they provide? Is there a core set of benefits that everyone should be entitled to? If so, by what process should we determine these? How can we make fair decisions, if we know from the outset than not all needs can be met? Using the cases of organs for transplantation, the rationing for vaccines in a flu pandemic, and drug shortages, the course will critically examine alternative theories for allocating scarce resources among individuals. Using both the need to establish priorities for global health aid and to define an essential benefit package for health insurance, the course will critically examine diverse theories for allocation decisions, including cost-effectiveness analysis, age-based rationing and accountability for reasonableness.
Not Offered Every Year
1 Course Unit

**BIOE 5660 Personal Responsibility for Health in Policy and Practice**
Excess body weight is often associated with higher healthcare cost. Should overweight and obese people pay more for health insurance? If we want to encourage people to quit smoking, is it best to give insurance discounts to those who succeed, or impose surcharges on those who do not? Should companies be permitted not to hire smokers? Globally, more than seven in ten deaths are due to chronic diseases, such as stroke, cancer, diabetes or heart disease. In the US, rates are even higher. Good or poor health is typically the result of a number of interacting factors. Genetics, social status, environmental conditions and personal behavior all play a role. In the best case, appeals to personal responsibility can motivate people to achieve oftentimes challenging behavior change. But in the worst case, policies penalize people for factor that are beyond their control. We will critically assess how personal responsibility is conceptualized in law and policy in different countries, and evaluate philosophical, political, economic and health-science related rationales in favor and against personal responsibility for health. Some of the material will be conceptual in nature, but throughout, the discussion will be focused on concrete cases, including obesity, smoking, breast screening, organ donation and medication adherence. We will also discuss controversial new work requirements and other policies aimed at strengthening personal responsibility in Medicaid.
1 Course Unit

**BIOE 5670 Public Health Ethics**
When New York City passed a ban on the sale of large sugary drinks, critics denounced the law as an abuse of government power and an attack on personal freedom. "If people want to be fat, let them be fat," protested one opponent of the law. Though the controversy surrounding the so-called "soda ban" garnered national attention, there is nothing unusual about policies that restrict or shape personal choice in the name of public health. From controls on the sale of certain drugs to healthy eating campaigns, governments regularly take measures to promote healthy behaviors and prevent people from engaging in actions that are harmful to themselves or others. What ethical values justify these sorts of public health inventions and how do they differ from the ethical values that inform clinical care? How far should governments go in limiting individual autonomy in order to achieve public health goals? How should governments and other actors prioritize different public health interventions? This course will explore these and other ethical questions in the context of case studies involving childhood vaccination, infectious disease monitoring and control, safe-injection sites, tobacco control, and other public health efforts.
Not Offered Every Year
1 Course Unit

**BIOE 5720 Global Bioethics**
According to the WHO, around 30 million people with HIV/AIDS should receive anti-retroviral treatment. But only 10 million do. Drugs containing tenofovir—the standard of care in developed countries are expensive. Stavudine-based treatments are much cheaper but have worse side-effects. Is it ethical to use stavudine-based rather than tenofovir-based treatments in sub-Saharan Africa? Smoking rates have decreased drastically in most developed countries. But they are increasing in many developing countries. Established public health measures are not implemented, and the tobacco industry pursues a range of marketing activities that would be unacceptable in developed countries. As a consequence, global deaths from smoking are expected to increase to 1bn by the end of the 21st century, with 80% of deaths in developing countries. Is industry s behavior immoral or normal in a global market? ARDS is a disease of premature newborns. Is it ethical to test a new ARDS drug in Bolivia if the drug—if proven to be effective—will be very expensive and accessible only to the richest people in Bolivia and other developing countries? An overarching question that these different cases raise is whether there are universal ethical standards that should apply to all people, or whether regional variations should be acceptable. Universalists typically argue that there must be no double standards, and that people should be treated the same regardless of where they live. Pragmatists raise concerns about moral imperialism, neo-colonialism, or insufficient respect for cultural or other differences. Increasing globalization fuels debates about which of competing sets of moral standards is the right one. Looking at a range of diverse cases including healthcare research, health policy, flu pandemics, family planning, smoking and obesity policy, and genetically modified crops, this course explores controversies in the cross winds of market forces, politics and ethics, and examines the roles and responsibilities of key actors and international policy guidance.
Fall
1 Course Unit
BIOE 5730 Medicine Through the Artist’s Eyes
From Matthias Grünewald’s Isenheim Altarpiece (c. 1512-1516) with its pox-ridden, emaciated Christ, displayed in a hospital for sick and dying peasants, to Frida Kahlo’s ‘The Broken Column’ (1944), a gut-wrenching self-portrait visualizing her chronic pain after spinal surgery, for hundreds of years, artists have used their work to document, explain, critique, challenge, and glorify medicine, its practitioners, and its institutions. This course will examine artworks from 1450 to today that depict illness and disease, doctors and patients, and medical treatments – or lack thereof. This class offers students an art historical approach to the history of medicine and its critical reception by artists working in different times and geographies. Through class discussions and close readings of scholarly articles, we will consider how the ethics of medicine have or have not changed over the centuries, and how the categories of gender, race, class, sexuality, religion, and physical and mental ability influence medical care. In addition to situating their own approaches to patient care in a vivid, art historical context, students will gain skills in visual analysis and written and oral communication.
1 Course Unit

BIOE 5750 Health Care Reform and the Future of the American Health Care System
This course provides students with a rigorous understanding of the current American health care system and how it is likely to evolve over the next decade. The course will focus on six topics: 1) the development of the current health care system; 2) challenges of health care costs, quality, and access; 3) lessons of previous attempts to reform the system including the Affordable Care Act (ACA); 4) analysis of current policies regarding provider payment, technology, and electronic health records and how various sectors (e.g. public health and hospitals) are evolving in the current system; 5) drug pricing and potential strategies for reform, and 6) future megatrends in American health care system. Throughout the course, lessons will integrate basic health economics, history, health policy, and politics to elucidate key principles for understanding the health care system. The course will also examine at least one other country’s health system for comparison. The course will end with a consideration of the long-term outlook for the structure of the US health system and potential reform. Numerous expert guest speakers will give their perspectives throughout the semester.
Fall
Also Offered As: HCMG 8500
0.5/1 Course Unit

BIOE 5780 Bioethics and Human Rights
The constitution of the World Health Organization enshrines “the highest attainable standard of health as a fundamental right of every human being.” If such a right exists, it is far from being realized. Worldwide, over 1 billion people are living in hunger. Every day, 21,000 children die before their fifth birthday of pneumonia, malaria, diarrhea and other diseases. Even wealthy countries are marked by significant health disparities. In the U.S., for instance, infants born to African-American women are 1.5 to 3 times more likely to die than infants born to women of other races. This course explores the moral principles and the political and legal structures that inform a human rights approach to health. What sorts of freedoms (e.g., to bodily integrity) and entitlements (e.g., to accessible and affordable health care) does a right to the highest attainable standard of health entail? If countries cannot ensure their citizens’ right to the highest attainable standard of health, what responsibility does the international community bear for intervening? Should undocumented and irregular migrants have the same access to health care as citizens? Is a human rights approach to health compatible with using the market to allocate health-related goods? Finally, what are the limitations of analyzing health and formulating health policy using a human rights framework?
1 Course Unit

BIOE 5800 Research Ethics
This seminar is intended to give students a broad overview of research ethics and regulation. The students will come out of the class with an understanding of the historical evolution, moral bases and practical application of biomedical research ethics. The course includes reading assignments, lectures, discussions and practical review of research protocols and in-class interviews with researchers and study subjects. Course topics include: history of human subjects protections, regulatory and ethical frameworks for biomedical research, informed consent theory and application, selection of fair research subjects and payment, confidentiality, secondary uses of data and stored tissue, ethics of international research, pediatric and genetic research and conflicts of interest in biomedical research.
Not Offered Every Year
1 Course Unit

BIOE 5810 Narrative Medicine
How can we use the power of storytelling to understand the medical world? How does narrative medicine help us gain insight into the myriad experiences of patients, caregivers, physicians, and other medical professionals? How do we search for and create meaning in the medical context? Why is this search for meaning important not just for patients, but for all those involved in their care? Last, but certainly not least: how can the study of narrative medicine can help us become better doctors, lawyers, bioethicists, and other professionals involved in patient care? Narrative medicine is an interdisciplinary field that uses skills of close reading, radical listening, and creativity to explore the world of patients, caregivers, and those who provide medical care. It helps us turn a critical eye on what we think we know about the experiences of patients and medical providers, as well as allowing us to examine the cultural influences on the medical system and our concepts of disease, wellness, ability, and disability. We will have lively discussions of all of the above questions (and many more) in this narrative medicine course exploring storytelling in many forms, including fiction (novels, films, short stories, poems), creative non-fiction (essays, graphic novels), as well as discussions with doctors and other medical professionals.
1 Course Unit
BIOE 5900 Ethics in Mental Healthcare
Mental healthcare—which includes, but is not limited to, psychiatry, psychology, and clinical social work—is an especially ethically fraught subdiscipline of the larger medical enterprise. Issues range from garden-variety problems related to informed consent, patient capacity, and clinical professionalism to novel issues related to involuntary treatment, research on mentally ill persons, questions about free will and nosological categories. This course will present a survey of these ethical issues by first introducing foundational concepts from ethical theory and the philosophy of psychiatry and mind. Students will be expected to become conversant in several bioethical approaches and methods and be able to use them to critically examine both historical and contemporary questions in mental healthcare and research.
Not Offered Every Year
1 Course Unit

BIOE 6010 Introduction to Bioethics
This course is intended to serve as an introduction to the academic field of bioethics. Students will be introduced to classic papers, basic concepts, field history and important legal cases in the field. But rather than being a broad survey course of many content areas in bioethics, this course will examine how bioethical arguments are constructed with the objective of mastering both the critique of bioethical arguments and their construction. Therefore, most importantly, this course serves as a “methods course” for learning the skill of persuasive bioethics argument, i.e., “the art of conversion.” In some of the course sessions, we will focus on the analysis of arguments made by others. In many of the weeks of the course, we will focus on the process of constructing our own, effective bioethical arguments.
Fall
Mutually Exclusive: BIOE 4010
1 Course Unit

BIOE 6020 Conceptual Foundations in Bioethics
In this course, students examine the two moral frameworks – deontology and consequentialism – that individuals use to make decisions about right and wrong both in their personal life and in their professional life. These two moral frameworks provide the foundation for bioethical analysis. Understanding these two moral frameworks not only enables one to understand one’s own moral perspective, but also provides the tools to be able to understand ethical arguments made by others. The theory of deontology and consequentialism are supplemented by applications of these frameworks in the bioethical literature. Additionally, students are introduced to the three theoretical contributions to moral analysis created internally in the field of bioethics: casuistry, narrative theory, and principlism.
Spring
Mutually Exclusive: BIOE 4020
1 Course Unit

BIOE 6030 Clinical Ethics
In this course, we will explore paradigmatic clinical ethics debates spanning the life course. Using an interdisciplinary approach, we will consider some of the challenges in clinical decision-making for and with patients, such as assessing patient capacity, deciding for others, rationing at the bedside, and requests for assistance in dying. We will also examine hospital policies related to triage and allocation of scarce medical resources, including ventilators, vaccines, and organs. We will draw upon theories from moral philosophy, legal cases, and contemporaneous reports related to the COVID-19 pandemic to demonstrate the live ethical challenges of clinical practice today.
Not Offered Every Year
1 Course Unit

BIOE 6050 Mentored Research I
This course gives postdoctoral students the opportunity to work with a faculty mentor for one semester. The student chooses a specialized topic in Bioethics and identifies a problem to which they apply research and draw some conclusion. The faculty mentor assesses and submits a grade for this work. This is often resulting in a publishable quality paper.
Fall, Spring, and Summer Terms
1 Course Unit

BIOE 6060 Mentored Research II
This course gives postdoctoral students the opportunity to work with a faculty mentor for one semester. The student chooses a specialized topic in Bioethics and identifies a problem to which they apply research and draw some conclusion. The faculty mentor assesses and submits a grade for this work. This is often resulting in a publishable quality paper.
Fall, Spring, and Summer Terms
1 Course Unit

BIOE 6070 Mentored Research III
This course gives postdoctoral students the opportunity to work with a faculty mentor for one semester. The student chooses a specialized topic in Bioethics and identifies a problem to which they apply research and draw some conclusion. The faculty mentor assesses and submits a grade for this work. This is often resulting in a publishable quality paper.
Fall, Spring, and Summer Terms
1 Course Unit

BIOE 6080 Mentored Research IV
This course gives postdoctoral students the opportunity to work with a faculty mentor for one semester. The student chooses a specialized topic in Bioethics and identifies a problem to which they apply research and draw some conclusion. The faculty mentor assesses and submits a grade for this work. This is often resulting in a publishable quality paper.
Fall, Spring, and Summer Terms
1 Course Unit

BIOE 7010 MBE/MSME Proseminar
This course will provide an opportunity to engage, at an advanced level, with contemporary controversies in bioethics. Each week, we will read and discuss a mix of conceptual and empirical papers and cases.
Fall, Spring, and Summer Terms
1 Course Unit

BIOE 7470 Contemporary Research Issues in Social, Cognitive and Affective Neuroscience
This course is intended to take you from a textbook-level acquaintance with psychology and neuroscience to critical engagement with the primary literature, through lectures, discussion and short written assignments. You will learn to extract, from the dense and detail-laden pages of a journal article, its contribution to the “big picture” of human neuroscience. You will also learn to recognize problematic research practices when they arise, and to analyze and communicate about the strengths and weaknesses of research articles.
Spring
Also Offered As: PSYC 7470
1 Course Unit

BIOE 9900 Mentored Research I
0 Course Units

BIOE 9901 Mentored Research II
0 Course Units

BIOE 9902 Mentored Research III
0 Course Units
BIOE 9960 Master of Bioethics Capstone
This course serves the final MBE project. This course requires students to work with faculty to produce original research that is of publishable quality. Past students have published in Nature, Science, and other prominent journals. This course is only open to students in the Master of Bioethics program.
Fall, Spring, and Summer Terms
1 Course Unit

BIOE 9990 Master of Bioethics Independent Study
This course serves the MBE Independent Study. Directed reading course on a topic not covered in our standard courses. WRITTEN REQUIREMENT: negotiated with advisor but there needs to be some written output – similar to regular class. Student creates a syllabus. Purpose: To learn a new topic of bioethics. Example Topics: Pediatric ethics, Transplant ethics, End of life, Jewish/religion bioethics, Examples of a Independent Study, Compare/Contrast of 2 positions in the field and then decide which position you choose. A response paper for weeks readings. Penn 2 page response paper for different Fall, Spring, and Summer Terms
1 Course Unit

Biology (BIOL)

BIOL 0004 Killer Viruses: What threat do they pose in contemporary society?
The goal of this course is two fold: to provide students with an introductory, practical view of biological systems, and to enable students to evaluate the health threat of viruses as natural or terrorist-driven agents in contemporary society. We are all well aware of the recent emergence of multiple viruses as potential treats to the public health: examples include SARS-CoV-2 and other SARS, HIV, West Nile and Ebola viruses. However, still greater threats may arise by expansion of existing virus, such as smallpox and influenza that we more commonly think of as being either eradicated or harmless. Through this course we will examine the general properties of viruses, our capacity to ward-off common virus infections using the immune response, the general concept of vaccination, the emergence of new virus pathogens, and the capacity of these pathogens to spread within our population based on regional and global culture and finance.
Not Offered Every Year
1 Course Unit

BIOL 0010 Ecological Consequences of Climate Change
Students will read and discuss seminal papers on a number of major topics in the ecology of climate change and the long-term consequences of the effects of climate change on ecological systems. Some of the topics include: effects of climate change on species distributions, disruption of plant pollinator systems and the consequences for ecosystem composition and stability, changes in the distribution and epidemiology of insect-borne infectious diseases, and the consequences of sea level rise and the increased intensity and frequency of severe weather events. Other topics may be covered. Grading will be based on participation in discussions, a paper on an approved topic, and a presentation on the topic of the student’s paper.
Spring
1 Course Unit

BIOL 0014 Descent with Modification: An introduction to the science of evolution
Evolution provides the unifying framework for the biological sciences and has been confirmed by a huge and diverse body of evidence. Public opinion polls show, however, that evolution continues to be socially and politically controversial in the United States. In this first-year seminar, we will explore the scientific basis for evolution by reading and discussing historical sources, a current nonspecialist text on evolution, and selected papers and articles from the scientific and popular literature. With our knowledge of evolutionary fact and theory as background, we will also discuss social and political opposition to the teaching of evolution. Grading will be based on participation in class discussions and on performance in several brief writing assignments. There is no course prerequisite, but high school introductory biology would be helpful. Fall, even numbered years only
1 Course Unit

BIOL 1017 The Biology of Food
This course will examine the ways in which humans manipulate - and have been manipulated by - the organisms we depend on for food, with particular emphasis on the biological factors that influence this interaction. The first part of the course will cover the biology, genetics, evolution, and breeding of cultivated plants and animals; the second part will concern the ecological, economic, and political factors that influence food production. Spring, even numbered years only
1 Course Unit

BIOL 1101 Introduction to Biology A
General principles of biology focusing on the basic chemistry of life, cell biology, molecular biology, and genetics in all types of living organisms. Particular emphasis will be given to links between the fundamental processes covered and current challenges of humankind in the areas of energy, food, and health. Fall or Spring
1.5 Course Unit

BIOL 1102 Introduction to Biology B
General principles of biology focusing on evolution, physiology, development, and ecology in all types of living organisms. Fall or Spring
Prerequisite: BIOL 1101
1.5 Course Unit

BIOL 1110 Introduction to Brain and Behavior
Introduction to the structure and function of the vertebrate nervous system. We begin with the cellular basis of neuronal activities, then discuss the physiological bases of motor control, sensory systems, motivated behaviors, and higher mental processes. This course is intended for students interested in the neurobiology of behavior, ranging from animal behaviors to clinical disorders. Fall or Spring
Also Offered As: NRSC 1110, PSYC 1210
1 Course Unit

2023-24 Catalog | Generated 08/02/23
BIOL 1121 Introduction to Biology - The Molecular Biology of Life
An intensive introductory lecture course covering the cell, molecular biology, biochemistry, and the genetics of animals, bacteria, and viruses. This course is comparable to Biology 1101, but places greater emphasis on molecular mechanisms and experimental approaches. Particular attention is given to the ways in which modern cell biological and molecular genetic methods contribute to our understanding of evolutionary processes, the mechanistic basis of human disease, and recent biotechnological innovations. Students are encouraged to take BIOL 1121 and BIOL 1123 concurrently.
Fall
1 Course Unit

BIOL 1123 Introductory Molecular Biology Laboratory
An intensive introductory laboratory course emphasizing how molecular biology has revolutionized our understanding of cell and organism functions. BIOL 1121 and BIOL 1123 should be taken concurrently.
Fall
Prerequisite: BIOL 1121
.5 Course Units

BIOL 1124 Introductory Organismal Biology Lab
An intensive introductory laboratory course in organismal biology.
Spring
.5 Course Units

BIOL 1604 Humans and the Environment
Intensive exposure to current issues and solutions in contemporary human interactions with the environment. Global in scope, but focused on case histories. Emphasis on providing biological and sociological background for a given major environment-human interaction, and state-of-the-art suggested solutions.
Fall
1 Course Unit

BIOL 1850 Research in Biological Sciences and its Social Impact (SNF Paideia Program Course)
Working to remove the myths about fundamental and translational research, this course focuses on informing students beyond the public perception of biology and biological research. Striving to develop students' scientific communication skills, personal identity in science, and the intersection between research and community, we will engage students through collaboration with the Philadelphia community in addition to lecture and discussion based learning.
Spring
1 Course Unit

BIOL 1999 Clinical & Translational Research
Independent study for students doing research based on data that is generated in a clinical setting. Projects must be sponsored by standing faculty of the University of Pennsylvania and co-sponsored by a faculty member in the Department of Biology. The project must be of biological interest and must use appropriate quantitative or statistical methods. A final paper is required. Apply at the Academic Office, 102 Leidy Labs.
Fall or Spring
1 Course Unit

BIOL 2001 Essentials of Cell Biology
An intermediate level exploration of cell structure and function including membrane structure, intracellular organelles, membrane trafficking, surface receptors and signal transduction, the cytoskeleton, cell motility and communication, and the cell cycle. Cell biology is a dynamic field and recent research discoveries will be included in the lectures.
Fall or Spring
Prerequisite: (BIOL 1101 AND BIOL 1102) OR BIOL 1121
1 Course Unit

BIOL 2010 Cell Biology
A conceptual view of cell structure and function including membrane structure, intracellular organelles, membrane trafficking, surface receptors and signal transduction, the cytoskeleton, cell motility and communication, and the cell cycle. Cell biology is a dynamic field and recent research discoveries will be included in the lectures.
Fall
Prerequisite: (BIOL 1101 AND BIOL 1102) OR BIOL 1121
1 Course Unit

BIOL 2110 Molecular and Cellular Neurobiology
Cellular physiology of neurons and excitable cells; molecular neurobiology and development. Topics include: action potential generation; synaptic transmission; molecular and physiological studies of ion channels; second messengers; simple neural circuits; synaptic plasticity; learning and memory; and neural development.
Fall
Also Offered As: NRSC 2110
Prerequisite: (BIOL 1101 AND BIOL 1102) OR BIOL 1121
1 Course Unit

BIOL 2140 Evolution of Behavior: Animal Behavior
The evolution of behavior in animals will be explored using basic genetic and evolutionary principles. Lectures will highlight behavioral principles using a wide range of animal species, both vertebrate and invertebrate. Examples of behavior include the complex economic decisions related to foraging, migratory birds using geomagnetic fields to find breeding grounds, and the decision individuals make to live in groups. Group living has led to the evolution of social behavior and much of the course will focus on group formation, cooperation among kin, mating systems, territoriality and communication.
Fall
Also Offered As: NRSC 2140, PSYC 2220
Prerequisite: BIOL 1101 OR BIOL 1121 OR PSYC 0001
1 Course Unit

BIOL 2201 Essentials of Molecular Biology and Genetics
This course will survey the discipline of molecular genetics. Mendelian and molecular genetics will be discussed as well as the use of genetic analysis to address questions in all areas of biology. The processes of DNA replication, transcription, and translation will be discussed at the molecular level. Other topics include the regulation of gene expression and genomics. This course is open to students in the College of Liberal and Professional Studies only.
Fall or Spring
Prerequisite: (BIOL 1101 AND BIOL 1102) OR BIOL 1121
1 Course Unit
BIOL 2210 Molecular Biology and Genetics
This course will survey the discipline of molecular genetics. Two broad areas will be considered 1) Molecular Biology: DNA replication, transcription, translation, regulation of gene expression in both prokaryotic and eukaryotic systems, and genomics and 2) Genetics: basic Mendelian & molecular genetics.
Fall or Spring
Prerequisite: BIOL 1101 OR BIOL 1121
1 Course Unit

BIOL 2301 Essentials of Vertebrate Physiology
A comparative and quantitative approach to the physiological function of vertebrates. Topics include muscles, nervous system, cardiovascular system, respiration, and renal function. This course is open to students in the College of Liberal and Professional Studies only.
Fall or Spring
Prerequisite: (BIOL 1101 AND BIOL 1102) OR (BIOL 1121 AND BIOL 1124)
1 Course Unit

BIOL 2311 Human Physiology
This course examines the physiological mechanisms underlying homeostasis in humans. Integration from the cellular to organismal level as well as cooperation of multiple organ systems will be explored. Examples of pathophysiology during disease states will be discussed and highlighted. Although the focus will be on humans, we will study comparative aspects from other vertebrate and non-vertebrate organisms.
Spring
Mutually Exclusive: BIOL 3310
1 Course Unit

BIOL 2410 Evolutionary Biology
Theories and mechanisms of evolution, with emphasis on the genetic basis of evolutionary change.
Spring
Mutually Exclusive: BIOL 5410
Prerequisite: (BIOL 1101 AND BIOL 1102) OR BIOL 1121
1 Course Unit

BIOL 2510 Statistics for Biologists
Introductory probability theory. Principles of statistical methods. Problems of estimation and hypothesis testing in biology and related areas.
Fall
Mutually Exclusive: BIOL 4510, BIOL 5510
Prerequisite: MATH 1400
1 Course Unit

BIOL 2610 Ecology: From individuals to ecosystems
The study of living organisms in their natural environment, spanning the ecological physiology of individuals, the structure of populations, and interactions among species, including the organization of communities and ecosystem function.
Fall
Prerequisite: BIOL 1102 OR BIOL 1121
1 Course Unit

BIOL 2701 Elements of Microbiology
Microbiology plays a central role in diverse areas of human life such as infectious disease, ecology, and biotechnology. This course will cover aspects of modern microbiology with an emphasis on prokaryotic organisms. The topics will include basic aspects of microbial diversity, genetics, and pathogenesis as well as examples of applied microbiology. This course is open to students in the College of Liberal and Professional Studies only.
Fall or Spring
Prerequisite: (BIOL 1101 OR BIOL 1121) AND (BIOL 2201 OR BIOL 2210)
1 Course Unit

BIOL 2801 Essentials of Biochemistry
Intermediate level course covering principles of modern biochemistry. Topics include protein structure, protein purification and characterization, proteomics, enzyme kinetics and mechanisms, membrane structure and function, metabolism, and cellular energy transduction. Emphasis will be on biochemical problem solving, experimental design, and application of quantitative methods in a biological and clinical context. This course is open to students in the College of Liberal and Professional Studies only.
Fall or Spring
Prerequisite: ((BIOL 1101 AND BIOL 1102) OR BIOL 1121) AND CHEM 2410
1 Course Unit

BIOL 2810 Biochemistry
BIOL 204 examines the basic principles of protein structure, protein purification and characterization, proteomics, enzyme kinetics and mechanism, membrane structure and function, metabolism, and cellular energy transduction. The primary objective is to provide life scientists with an appreciation of basic principles of modern biochemistry, and of how the current conceptual and technical framework arose. Emphasis is placed on the experimental approaches and reasoning behind the dissection and reconstitution of these processes in a biological and, in some cases, clinical context. Discussions directed at biochemical problem solving, experimental design and the application of quantitative methods are integral to the course.
Fall or Spring
Prerequisite: (BIOL 1101 OR BIOL 1102) OR BIOL 1121 AND CHEM 2410
1 Course Unit
BIOL 3006 Histology
This course is designed to introduce the undergraduate student to the structure of tissues at the cellular level and to the way in which those tissues are assembled into organs. This knowledge of structure will be the basis for discussion of tissue and organ function. This course is open to students in the College of Liberal and Professional Studies only.
Fall or Spring
Prerequisite: ((BIOL 1101 AND BIOL 1102) OR BIOL 1121) AND (BIOL 2001 OR BIOL 2010)
1 Course Unit

BIOL 3008 Immunology in Action
A foundational understanding of the immune response is central to our ability to address challenges in treating and preventing disease as scientists and to understand advances as citizens. The study of immunology can be daunting, in part because our response is complex and integrates many systems, and in part because the vocabulary that has developed around this discipline is dense with abbreviations and acronyms. In this class, we will work together to demystify the immune system by considering responses in context - for example, by considering how vaccines exploit the ability of the immune system to generate memories, analyzing the design of a CAR-T cell to understand how it can be used to attack tumors, evaluating the remarkable history and current promise of monoclonal antibodies in treatment of inflammatory diseases, and more. The course, which will consist of a combination of weekly interactive synchronous sessions and asynchronous assignments, should provide you with tools to critically evaluate information about advances - and a foundation that will allow you to contribute to new discoveries in this fascinating, dynamic field.
Fall
1 Course Unit

BIOL 3054 Developmental Biology
A view of how an animal embryo is specified to develop and differentiate into a wide spectrum of cell types, and how the spatial patterns and axes of embryos are determined. The course will focus on genetic and molecular approaches, but will also cover the comparative anatomy of developing embryos to the extent necessary to understand the conserved aspects of embryonic patterning. Special emphasis will be placed on organisms with particular advantages for the study of embryonic development: e.g., mouse, frog, zebrafish, and Drosophila. The first half of the course will cover cell fate restrictions, cloning animals using nuclear transfer, stem cell biology, formation of the embryonic axes in vertebrates and Drosophila, and patterning of the neural tube and mesodermal tissues. The second half of the course will focus on emerging ideas and findings in the field, with emphasis on analysis of original literature.
Spring
Prerequisite: BIOL 2010 OR BIOL 2210
1 Course Unit

BIOL 3310 Principles of Human Physiology
Our focus will be on human physiology and we will cover most of the major organ systems in some depth. We seek to understand physiological phenomena using physical and chemical principles where possible. Basic cell and molecular biology, (bio)chemistry, physics and mathematics are prerequisites for the course, although we will quickly review the required background material when needed. Much of the motivation for the study of physiology is to understand disease, which in turn allows us to better appreciate normal physiology. We will discuss disease throughout the class. In physiology, structure often implies function, and we will thus also cover a fair amount of anatomy and histology.
Fall
Mutually Exclusive: BIOL 2310, BIOL 2311
Prerequisite: BIOL 1102 OR BIOL 1121
1 Course Unit

BIOL 3313 Essentials of Pathophysiology
This course is a study of homeostatic changes that occur with disease, and the implications of those changes in the progression and treatment of disease at molecular and cellular levels. Generalized mechanisms of disease as well as diseases of individual organ systems will be examined, with a view to understanding homeostatic compensations that occur as a result of altered function.
Spring
1 Course Unit

BIOL 3430 Comparative Vertebrate Anatomy and Evolution
This course will survey the phylogeny and anatomy of vertebrate organisms from a comparative evolutionary perspective. The lecture will concentrate on the history, diversity, structure and function of vertebrates. A companion lab course, BIOL 3431, is available for those students interested in a more complete understanding of vertebrate anatomy.
Spring
Prerequisite: BIOL 1102 OR BIOL 1121
1 Course Unit

BIOL 3431 Comparative Vertebrate Anatomy Lab
Laboratory portion of BIOL 3430 Comparative Vertebrate Anatomy and Evolution. Students will learn comparative anatomy through dissection of representative vertebrates. Students taking the lab must have credit or register for the lecture course, BIOL 3430.
Spring
Prerequisite: BIOL 3430
0.5 Course Units

BIOL 3625 Marine Biology
An introduction to marine biology and oceanography. Topics will include chemical and physical oceanography, a survey of form, function and phylogeny of algae, invertebrates and vertebrates, and an examination of ecological and evolutionary principles as applied to marine organisms and ecosystems.
Fall
Prerequisite: BIOL 1102 OR BIOL 1121
1 Course Unit
BIOL 3710 Microbial Diversity and Pathogenesis
Microbiology plays a central role in diverse areas of human life such as infectious disease, ecology, and biotechnology. This course will cover aspects of modern microbiology with an emphasis on prokaryotic organisms. The topics will include basic aspects of microbial diversity, genetics, virology, and pathogenesis as well as examples of applied microbiology.
Spring
Prerequisite: ((BIOL 1101 AND BIOL 1102) OR BIOL 1121) AND BIOL 2210
1 Course Unit

BIOL 3711 Microbial Diversity and Pathogenesis Lab
The importance of microbiology in complex issues, such as the impact of the microbiome in human health or as alternative energy sources, is being appreciated more and more each day. This upper level laboratory course provides students with a robust technical skill set while also giving them an opportunity to participate in an authentic research project that may lead to novel discoveries. Students will generate research questions, formulate hypotheses, design experiments, analyze data, and present their research findings to the class. In each project, students will use the cutting edge approach of metagenomics to evaluate the microbial diversity of their environment via Next Generation Sequencing. Students will also examine the function of microbial species within their communities. Potential projects include the isolation of novel antibiotic producers and the antibiotic they produce, designing and optimizing microbial fuel cells that can be used to generate electricity, or isolating antibiotic resistant bacteria and attempting novel approaches to inhibit or prevent their growth.
Spring
Prerequisite: BIOL 3710
1 Course Unit

BIOL 3851 Biology and Society (SNF Paideia Program Course)
This course uses a biological foundation to explore general issues at the interface of biology and society. We will use both historical and contemporary reading materials, with an emphasis on the primary scientific literature, to inform discussions on often controversial issues in biology as well as the social responsibility of scientists to respond to these issues. The course will cover how science has shaped social and political opinions on such topics as race, ethnicity, and gender, as well as how society and politics are influenced by and impact science. This course will provide a background and context in which to consider, anticipate, and respond to biology's present and future ethical and social implications.
Spring
Prerequisite: BIOL 1101 AND (BIOL 1102 OR BIOL 1121)
1 Course Unit

BIOL 3999 Independent Study
Laboratory research with a faculty member in the Department of Biology. Research may also be conducted elsewhere on campus but co-sponsored by a faculty member in Biology. A final paper is required. Apply at the Biology Academic Office, 102 Leidy Labs.
Fall or Spring
1 Course Unit

BIOL 4004 Immunobiology
Early development of microbiology, pathology, and immunobiology; molecular and cellular bases of immune phenomena including: immunity to pathogens, immune diseases, autoimmunity, and hypersensitivity. This course is open to students in the College of Liberal and Professional Studies only.
Fall or Spring
Prerequisite: (BIOL 2001 OR BIOL 2010) AND (BIOL 2201 OR BIOL 2210)
1 Course Unit

BIOL 4007 Cancer Cell Biology
This course will focus on the molecular mechanisms by which fundamental cellular processes are disrupted in the development of cancer.
Fall
Prerequisite: BIOL 2010 AND 2210
1 Course Unit

BIOL 4010 Advanced Cell Biology
This course is designed for beginning graduate students and advanced undergraduates with a particular enthusiasm for cell biology. BIOL 4010 does not attempt to cover all aspects of cell biology, and is therefore not appropriate for students seeking a lecture course which provides a comprehensive survey of the field. Rather, the primary objective of this course is to teach those students considering a career in the biomedical sciences how to read, discuss, and question original research papers effectively. Intensive classroom discussions focus on the experimental methods used, results obtained, interpretation of these results in the context of cell structure and function, and implications for further studies.
Spring
Also Offered As: CAMB 4800
Mutually Exclusive: BIOL 5010
Prerequisite: BIOL 2001 OR BIOL 2010
1 Course Unit

BIOL 4016 Molecular Mechanisms of Infectious Disease Biology
This course is designed for advanced undergraduates and beginning graduate students with a particular interest in infectious disease biology. Note that this course is not a comprehensive survey of the field and is therefore not appropriate for students seeking a lecture course on disease. The primary objective of this course is to teach students considering a career in the biomedical sciences how to read, discuss, and question research papers effectively. Intensive classroom discussions focus on the experimental methods used, results obtained, interpretation of these results in the context of pathogen interactions with host cells and organisms, and implications for basic research and therapeutic development.
Spring
Mutually Exclusive: BIOL 5016
Prerequisite: BIOL 2010
1 Course Unit
BIOL 4018 Cell Communication and Disease
Effective coordination between cells through cell communication and signaling enables multicellular organisms to develop and survive. Conversely, aberrations in these pathways are at the heart of a wide variety of human diseases. In this seminar course, we will discuss the molecular and cellular mechanisms of cell communication using a series of human diseases as a framework. The course will introduce postbac and advanced undergraduate students to the fundamental principles of cell signaling and will explore current questions of interest to the field. The synergistic nature of research directed at understanding basic cell biology, development and physiology with research aimed at elucidation and control of specific human ailments will be emphasized. The course will be comprised of a combination of introductory lectures and extensive discussion of primary literature. Students are expected to have a basic knowledge of cell biology, biochemistry and cell structure. BIOL 2201 and BIOL 2801 are recommended pre-requisites.
Fall
1 Course Unit

BIOL 4024 Cell Motility and the Cytoskeleton
Cytoskeleton and cell motility plays a crucial role in many aspects of normal and pathological physiology of individual cells, tissues, and whole organisms, including morphogenesis, immune response, wound healing, oncogenesis, and infection. This course will cover current topics in cell biology with emphasis on cytoskeleton and cell motility and their roles in these processes. Lectures, student presentations, and discussions in the class will be based on primary scientific literature.
Fall
Mutually Exclusive: BIOL 5024
Prerequisite: BIOL 2010
1 Course Unit

BIOL 4026 Chromosomes and the Cell Cycle
Life depends on the propagation of genetic material from one generation to the next through cycles of genome replication and cell division. The genome is copied by the parent, and one exact copy is inherited by each daughter cell. We will treat chromosomes as discrete entities, rather than collections of genes, that are replicated and divided with high fidelity to ensure that the genome remains stable over many generations. By reading selected primary literature covering several decades, we will build an understanding of the cell cycle by focusing on chromosomes and the associated molecular machinery. We will explore mechanisms that underlie replication and division, particularly control mechanisms that maintain genome integrity and are critical to prevent disease. The goal of the course is to develop a picture of the cell cycle by examining some of the key experiments and insights that have led to our current understanding.
Spring
Also Offered As: CAMB 4860
Mutually Exclusive: BIOL 5026
Prerequisite: BIOL 2010
1 Course Unit

BIOL 4077 The Science and Art of Biotechnology
Biotechnology transforms basic biological research into pharmaceutical therapies. This course will examine some explanations for American biotechnology vitality by studying case histories in which fundamental, biological observations were subsequently developed, successfully and unsuccessfully, for therapeutic applications. Along the way, we will also seek to understand the interactions among academic research institutions, biotechnology companies, large pharmaceutical companies, the Food and Drug Administration, financial institutions, venture groups, and the Patent and Trademark Office. Classes will be highly interactive. Students will present case histories in a critical fashion. Ultimately, students will conduct mock negotiations focused on university technology transfers, clinical trial design, financing, and intellectual property.
Fall
Prerequisite: BIOL 2810 OR BIOL 2010 OR BIOL 2210
1 Course Unit

BIOL 4110 Neural Systems and Behavior
This course will investigate neural processing at the systems level. Principles of how brains encode information will be explored in both sensory (e.g. visual, auditory, olfactory, etc.) and motor systems. Neural encoding strategies will be discussed in relation to the specific behavioral needs of the animal. Examples will be drawn from a variety of different model systems.
Spring
Also Offered As: NRSC 4110, PSYC 3220
Prerequisite: BIOL 2110
1 Course Unit

BIOL 4116 Neural Circuits for Survival
A fundamental goal of neuroscience is to understand how neural circuits in the brain function to influence behavior. The aim of this course is to highlight the neural basis of behavior and discuss modern approaches and novel methods to study the neuronal control of classically studied aspects of behavior. Through a combination of discussions, student presentations, and interactive lectures, we will explore the neural systems that regulate the interactions an animal has with the external world. We will explore sensory systems (such as vision, taste, and olfaction), motor systems, and survival behaviors (such as feeding, drinking, mating, and aggression). The course evaluation will be based largely on written work, participation, and presentations.
Spring
Mutually Exclusive: BIOL 5116
Prerequisite: BIOL 2110
1 Course Unit

BIOL 4119 Biological Basis of Animal Diversity
Animals display extraordinary diversity in their morphology, physiology, and behavior. Traditionally, these topics have been mostly studied from an ecological perspective. This course will focus on recent advances and discoveries that address the underlying biological mechanisms of animal diversity. Specific topics will include the genetic, molecular, and developmental basis of animal morphological diversity, and genetic, molecular, and neural basis of animal behavioral diversity. Students will gain an understanding of how animal diversity is encoded at the different levels of biological organization. The course will be comprised of lectures to introduce topics, discussion of primary literature, and in-class activities.
Spring
Mutually Exclusive: BIOL 5119
1 Course Unit
BIOL 4142 Neurobiology of Learning and Memory
This course focuses on the current state of our knowledge about the neurobiological basis of learning and memory. A combination of lectures and student seminars will explore the molecular and cellular basis of learning in invertebrates and vertebrates from a behavioral and neural perspective.
Fall
Also Offered As: NRSC 4442, PSYC 3301
Prerequisite: BIOL 2110
1 Course Unit

BIOL 4210 Molecular Genetics
A detailed analysis of gene structure and expression in both prokaryotic and eukaryotic organisms. Rapid advances in DNA technology and genomics will be emphasized. The application of these advances to the molecular genetic analysis of development, cell function and disease will be discussed.
Fall
Prerequisite: BIOL 2210
1 Course Unit

BIOL 4231 Genome Science and Genomic Medicine
This course will be a focused study of genomes, genomic techniques, and how these approaches are and will be used in diagnosing and treating human disease. Topics will include genome sequencing, analysis of sequences and microarrays, and new techniques including high-throughput sequencing and reverse genetic analysis with a focus on genome-wide mutant collections.
Spring
Also Offered As: CAMB 4310
Mutually Exclusive: BIOL 5231
Prerequisite: BIOL 2210
1 Course Unit

BIOL 4233 The Genetics of Adaptation: How sex, conflict, and pathogens shape modern genomes
In this course we explore the genetic basis of adaptation. We will investigate the forces that drive adaptation (e.g., environmental stress, pathogens, conflict, sex), the genetic mechanisms of adaptation (protein sequence changes, expression divergence, gene duplication, etc.), and the consequences of adaptation for contemporary cellular functions, developmental processes, and ecological interactions. The class meetings will be structured around both lectures and student-led discussions of the primary literature.
Spring
Mutually Exclusive: BIOL 5233
Prerequisite: BIOL 2210 OR BIOL 2410
1 Course Unit

BIOL 4234 Epigenetics
This course investigates epigenetic phenomena: heritable alternate states of gene activity that do not result from an alteration in nucleotide composition (mutations). Epigenetic mechanisms regulate genome accessibility and cell differentiation. They play a key role in normal development and in oncogenesis. For example both mammalian X-chromosome inactivation and nuclear transfer (cloning) are subject to epigenetic regulation. Amongst the epigenetic mechanisms we will discuss in this course are chromatin organization, histone modification, DNA methylation and non-coding RNAs. The course is geared toward advanced undergraduate and beginning graduate students and is a combination of lectures, student presentations and research presentations by guest speakers. Students will work with the current scientific literature.
Spring
Also Offered As: CAMB 4830
Mutually Exclusive: BIOL 5234
Prerequisite: BIOL 2210
1 Course Unit

BIOL 4235 The RNA World: A functional and computational analysis
A focused study of genomic, biochemical, cellular, and molecular aspects of RNA. Topics of study will include RNA structure, RNA processing and turnover, splicing, ribozymes and riboswitches, RNA editing and modification, RNA interference, endogenous eukaryotic RNA silencing pathways, small RNA biology, computational methodologies for studying RNA biology, and RNA viruses. Lectures, students presentations, and discussions will be based on readings from the primary literature.
Spring, odd numbered years only
Also Offered As: CAMB 4850
Prerequisite: BIOL 2210
1 Course Unit

BIOL 4244 Epigenetics of Human Health and Disease
Epigenetic alterations encompass heritable, non-genetic changes to chromatin (the polymer of DNA plus histone proteins) that influence cellular and organismal processes. This course will examine epigenetic mechanisms in directing development from the earliest stages of growth, and in maintaining normal cellular homeostasis during life. We will also explore how diverse epigenetic processes are at the heart of numerous human disease states. We will review topics ranging from an historical perspective of the discovery of epigenetic mechanisms to the use of modern technology and drug development to target epigenetic mechanisms to increase healthy lifespan and combat human disease. The course will involve a combination of didactic lectures, primary scientific literature and research lectures, and student-led presentations.
Spring, even numbered years only
Also Offered As: CAMB 4930, GCB 4930
Prerequisite: BIOL 2210
1 Course Unit
BIOL 4250 Molecular Genetics of Development
Development is the process by which organisms grow and acquire their final shape. This remarkably complex process requires exquisite spatiotemporal control, and principles of developmental biology have implications for nearly all other biological disciplines. This course is a deep dive into these general biological principles, using plants as a model system. Students will prepare presentations on primary literature and engage in vigorous discussions in a "journal club" format. Our goal is to learn how developmentally significant genes and cellular interactions control differentiation and pattern formation.

Fall
Prerequisite: BIOL 2210
1 Course Unit

BIOL 4256 Molecular Genetics of Neurological Disease
This course will focus on the molecular basis of neurological diseases, exploring in detail key papers that cover topics including defining the disease genes, development of animal models that provide mechanistic insight, and seminal findings that reveal molecular understanding. Diseases covered will include neurological diseases of great focus today such as Alzheimer’s, Fragile-X and autism, motor neuron degeneration, and microsatellite repeat expansion disorders. The course will provide a perspective from initial molecular determination through current status. Students will gain an understanding of how the molecular basis of a disease is discovered (from classical genetics to modern genomics) and how such diseases can be modeled in simple genetic systems for mechanistic insight. The course will be comprised of lectures with detailed analysis of primary literature and in-class activities. Grading will be based on class participation, exams, and written papers. Biology 2210 is a pre-requisite. Seniors are prioritized for the course.

Fall
Also Offered As: NRSC 4266
Prerequisite: BIOL 2210
1 Course Unit

BIOL 4310 Molecular Physiology
This course is designed for advanced undergraduate and graduate students who are interested in molecular physiology of sensory signal transduction. The major topics to cover will be signal transduction mechanisms used by membrane ion channels and receptors that detect the sensory stimuli (light, sound, temperature and taste, for example) and transmit the signals to the nervous system. Modern molecular/structural techniques (patch clamp, protein crystallization, molecular genetics, expression cloning and protein purification) will be introduced along with each topic. References will be primary research articles. Students will critically evaluate research discoveries by reading and presenting one to two original research papers. Each student is required to write a 10-page research proposal and to critique proposals written by fellow students.

Fall
Prerequisite: (BIOL 1101 AND BIOL 1102) OR BIOL 1121
1 Course Unit

BIOL 4313 Energy Transformations and Living off-the-Grid
The course will examine major sources of energy on earth: sunlight, mechanical, chemical and biological, and how this energy is transformed into useful energy for humans — typically electrical energy, heat, mechanical power or food. Considerable emphasis will be on forms of regenerative energy that can be used when living off-the-grid. As a case study, we will examine some approaches taken by the US military to provide energy capability for dismounted Marines operating on foot in austere environments. Faculty lectures will be supplemented by guest lectures from leaders in various areas of science. A major goal of the course is for students to develop an awareness of the amounts of energy they use in their daily lives, and how they might reduce them. As an exercise, students will measure how much energy their smart phones and laptops use in a day and try to generate a comparable amount of energy through physical effort. The course will include lectures, discussion, guest expert lectures, and laboratory measurements.

Spring, even numbered years only
1 Course Unit

BIOL 4314 Molecular Evolution of Physiological Functions
This course is designed for students who are interested in understanding how physiological functions are achieved. Taking advantage of the recent explosion in genetic data and high-resolution protein structure analysis across organisms, the course focuses on the evolution of physiological functions at the genetic, structural, circuit and organismal levels. Examples include the co-evolution of toxins and toxin resistance between hunter and prey, the evolution of substance transport across cell membranes, intracellular signaling cascades, intercellular communication, distributed and centralized nervous systems, neural circuits controlling physiological functions such as feeding, locomotion and visual information processing. Students are expected to learn 1) basic physiological processes, their origin and adaptation, 2) modern genetic, structural and physiological techniques, 3) to critically evaluate research findings, 4) to present scientific papers, and 5) to write a research report.

Spring
Prerequisite: NRSC 1110 OR BIOL 2310 OR BIOL 2210 OR BIOL 2110
1 Course Unit

BIOL 4318 Systems Biology: Integrative physiology and biomechanics of the muscular system
The course will focus on muscle function from the level of molecules to whole animal locomotion. At each level of organization, muscle function will be explored from mechanical and energetic viewpoints. The course will include lectures, demonstrations, and several guest expert lectures. Students will also be introduced to realistic musculo-skeletal modelling and forward dynamic simulations to explore integrated function.

Spring
Prerequisite: NRSC 1110 OR BIOL 2310 OR BIOL 2210 OR BIOL 2110
1 Course Unit

BIOL 4410 Advanced Evolution
Mechanisms of evolution at the genetic and populational levels. Empirical and theoretical approaches to natural selection, population structure, gene flow, and quantitative genetics will be emphasized.

Fall, odd numbered years only
Prerequisite: BIOL 2410
1 Course Unit
BIOL 4411 Evolutionary Ecology
This course will focus on topics at the intersection of evolutionary biology and ecology, including the evolution of cooperation and conflict from genes to societies to ecological communities, life history evolution, and the evolution of interspecific interactions and ecological communities. The course will use a combination of lectures and discussion of readings from the primary literature.
Spring
Prerequisite: BIOL 2410 OR BIOL 2140 OR BIOL 2610
1 Course Unit

BIOL 4430 Evolution and Ecology of Infectious Diseases
This course will focus on fundamental topics related to the ecological and evolutionary processes driving the transmission of pathogenic microbes among hosts including life-history strategies; evolution of pathogenic traits; the impacts of temporal, spatial and host-trait heterogeneity; and factors causing the emergence of an infectious pathogen. Examples will be drawn from human, wildlife, and plant pathogens to illustrate these ecological and evolutionary topics. Students will learn to develop and apply current ecological and evolutionary theory to infectious microbe research and gain practical experience accessing, interpreting and synthesizing the peer-reviewed scientific literature through a combination of popular and scientific readings, discussion, and lecture.
Fall
Mutually Exclusive: BIOL 5430
Prerequisite: BIOL 2410 OR BIOL 2610
1 Course Unit

BIOL 4450 Macroevolution
Macroevolution, or evolution above the population level and on long timescales, as a field addresses fundamental questions about the origins of life, past and present. These include but are not limited to: How are highly dissimilar species related? Why are animals on distant continents so similar? How and when did major groups, like birds or mammals, originate? What drives evolutionary arms races? Why are there so many more species of beetle than crocodile? Why are there more species in the tropics than the arctic? Did dinosaurs prevent the diversification of mammals? Why do some animals survive mass extinction? How can invasive species spread so rapidly? Students will learn important concepts underlying our understanding of modern biodiversity and the fossil record, as well as how to use different methods and lines of evidence, including evolutionary trees (phylogeny), fossil databases, past climate and global events, mathematical modeling, and even modern genomics, to answer fundamental questions about the evolution of life.
Spring, odd numbered years only
Also Offered As: EESC 4550
1 Course Unit

BIOL 4511 Biological Data Analysis
This course focuses on the underlying principles, implementation, and interpretation of statistical methods commonly used in biology. Lectures will incorporate exercises that implement these analyses in the open source software R, as well as exercises in data visualization. We will draw on examples from ecology, evolution, genetics, and genomics.
Spring
Mutually Exclusive: BIOL 5511
Prerequisite: BIOL 2510
1 Course Unit

BIOL 4517 Theoretical Population Biology
Introduction to basic theoretical tools to study the evolutionary and ecological dynamics of populations. Topics to be discussed include: basic population dynamics and population genetics theory, evolutionary game theory/adaptive dynamics, social evolution (kin selection/multilevel selection), life-history evolution, and stochastic models. Other topics may be added based on the specific interests of students in the class.
Spring
Mutually Exclusive: BIOL 5517
Prerequisite: BIOL 2410 AND MATH 1400
1 Course Unit

BIOL 4536 Introduction to Computational Biology & Biological Modeling
The goal of this course is to develop a deeper understanding of techniques and concepts used in Computational Biology. The course will strive to focus on a small set of approaches to gain both theoretical and practical understanding of the methods. We will aim to cover practical issues such as programming and the use of programs, as well as theoretical issues such as algorithm design, statistical data analysis, theory of algorithms and statistics. This course WILL NOT provide a broad survey of the field or teach specific tools but focus on a deep understanding of a small set of topics. We will discuss string algorithms, hidden Markov models, dimension reduction, and machine learning (or phylogeny estimation) for biomedical problems.
Fall
Also Offered As: CIS 4360
Mutually Exclusive: BIOL 5535
Prerequisite: MATH 1400 AND (BIOL 2510 OR BIOL 5510)
1 Course Unit

BIOL 4600 Field Botany
This course focuses on teaching students the Pennsylvania flora, both native and naturalized. Through weekly field trips, students will gain an appreciation for the diversity of plant species and plant communities in PA, and observe and discuss ecological and historical forces that influence plant species occurrences and plant communities. The ability to quickly and accurately identify plants in the field, through both sight identification and the use of a dichotomous key, is the major thrust of this course. Students will also learn how to appropriately collect plant materials for further study/identification in the laboratory and for archiving in an herbarium collection.
Fall
Mutually Exclusive: BIOL 5600
Prerequisite: (BIOL 1101 AND BIOL 1102) OR BIOL 1124
1 Course Unit

BIOL 4615 Freshwater Ecology
Survey of the physical, chemical and biological properties of freshwater ecosystems, both riverine and lentic, natural and polluted.
Spring
Also Offered As: ENVS 2390
Mutually Exclusive: BIOL 5615
Prerequisite: BIOL 1101 OR BIOL 1121
1 Course Unit

BIOL 4623 Plant Ecology
The course consists of both lecture material and hands on research involving questions in plant population or community ecology. Quantitative information from published studies will be discussed and students, working in teams, will summarize and analyze data from class experiments.
Not Offered Every Year
1 Course Unit
BIOL 4669 Plant Physiology Through Space and Time
This course is a lab/lecture/seminar hybrid that will meet once per week for three hours. Each session will consist of mini-lecture/lab, paper discussions/lab, or solely lab efforts. All reading assignments will be available on Canvas (no textbook fees). We will exam various aspects of photosynthesis, water relations and nutrient acquisition in the context of the evolutionary progression of higher plants. With each subject, we will consider, measure, and in some cases model whole-plant physiology while examining sub-cellular-level controls and ecosystem-to-global-level consequences. This course is designed to give molecular biologists through earth-system scientists the tools to measure and understand whole-plant physiological responses to molecular manipulation and environmental variability. All students will learn to appreciate the context of their work on both micro and macro scales.
Spring
Mutually Exclusive: BIOL 5669
Prerequisite: BIOL 2610
1 Course Unit

BIOL 4701 Prokaryotic Microbiology: A Pragmatic View
This interactive course is intended for a small group of students aspiring to pursue research in microbiology, preferably using prokaryotes. Students will study selected papers and will attend the Prokaryotic Microbiology Seminars on Fridays. Specific problems of importance to a given field at a particular time will be critically analyzed and discussed: How were cutting edge techniques of the time used to address these problems? How would the same problems be approached using current techniques? The emphasis of the course will be on learning to become a thoughtful experimentalist rather than acquiring the hottest emerging knowledge.
Spring
1 Course Unit

BIOL 4710 Topics in Prokaryotic Biology: From Molecules to Microbiomes
This course will cover research articles from both the classic and contemporary literature on the genetics, cell biology, and physiology of prokaryotes. The material will focus on a small number of subjects in depth, with an emphasis on how the field has arrived at its current state of knowledge and on exciting new research directions. Possible topics include: stress responses, cell signaling, subcellular organization, bacteriophages, microbial communities, and host-microbe interactions.
Spring, odd numbered years only
Prerequisite: BIOL 2210 OR BIOL 3710
1 Course Unit

BIOL 4825 Biochemistry and Molecular Genetics Superlab
Intensive laboratory class where open-ended, interesting biological problems are explored using modern lab techniques. Topics may include protein structure/function studies; genetic screens, genomics and gene expression studies; proteomics and protein purification techniques; and molecular cloning and DNA manipulation. The course emphasizes developing scientific communication and independent research skills. Course topics reflect the interests of individual Biology faculty members. This course is recommended for students considering independent research.
Fall or Spring
Mutually Exclusive: BIOL 5825
Prerequisite: BIOL 2810 OR BIOL 2010 OR BIOL 2210
1 Course Unit

BIOL 4999 Advanced Independent Study
A second semester of independent study, in most cases extending the research undertaken for the BIOL 3999. Apply at the Biology Academic Office, 102 Leidy Labs.
Fall or Spring
1 Course Unit

BIOL 5010 Advanced Cell Biology
This course is designed for beginning graduate students and advanced undergraduates with a particular enthusiasm for cell biology. BIOL 4010/5010 does not attempt to cover all aspects of cell biology, and is therefore not appropriate for students seeking a lecture course which provides a comprehensive survey of the field. Rather, the primary objective of this course is to teach those students considering a career in the biomedical sciences how to read, discuss, and question original research papers effectively. Intensive classroom discussions focus on the experimental methods used, results obtained, interpretation of these results in the context of cell structure and function, and implications for further studies.
Spring
Mutually Exclusive: BIOL 4010, CAMB 4800
Prerequisite: BIOL 2001 OR BIOL 2010
1 Course Unit

BIOL 5016 Molecular Mechanisms of Infectious Disease Biology
This course is designed for advanced undergraduates and beginning graduate students with a particular interest in infectious disease biology. Note that this course is not a comprehensive survey of the field and is not appropriate for students seeking a lecture course on disease. The primary objective of this course is to teach students considering a career in the biomedical sciences how to read, discuss, and question research papers effectively. Intensive classroom discussions focus on the experimental methods used, results obtained, interpretation of these results in the context of pathogen interactions with host cells and organisms, and implications for basic research and therapeutic development.
Spring
Mutually Exclusive: BIOL 4016
Prerequisite: BIOL 2010
1 Course Unit

BIOL 5022 Cell Signaling
The evolution of multicellularity required that cells be able to both send and receive signals from their neighbors. The development of organs and differentiation of cells and tissues requires reliable and continuous communication between cells. Consequences of inappropriate or anomalous signaling include development abnormalities and cancer. This class will examine mechanisms of cell-to-cell signaling between cells in plants and animals with an emphasis on the cell biology of development.
Fall
Prerequisite: BIOL 2010
1 Course Unit

BIOL 5024 Cell Motility and the Cytoskeleton
Cytoskeleton and cell motility plays a crucial role in many aspects of normal and pathological physiology of individual cells, tissues, and whole organisms, including morphogenesis, immune response, wound healing, onco genesis, and infection. This course will cover current topics in cell biology with emphasis on cytoskeleton and cell motility and their roles in these processes. Lectures, student presentations, and discussions in the class will be based on primary scientific literature.
Fall
Mutually Exclusive: BIOL 4024
Prerequisite: BIOL 2024
1 Course Unit
**BIOL 5026 Chromosomes and the Cell Cycle**  
Life depends on the propagation of genetic material from one generation to the next through cycles of genome replication and cell division. The genome is copied by the parent, and one exact copy is inherited by each daughter cell. We will treat chromosomes as discrete entities, rather than collections of genes, that are replicated and divided with high fidelity to ensure that the genome remains stable over many generations. By reading selected primary literature covering several decades, we will build an understanding of the cell cycle by focusing on chromosomes and the associated molecular machinery. We will explore mechanisms that underlie replication and division, particularly control mechanisms that maintain genome integrity and are critical to prevent disease. The goal of the course is to develop a picture of the cell cycle by examining some of the key experiments and insights that have led to our current understanding.  
Spring
Mutually Exclusive: BIOL 4026  
Prerequisite: BIOL 2010  
1 Course Unit

**BIOL 5116 Neural Circuits for Survival**  
A fundamental goal of neuroscience is to understand how neural circuits in the brain function to influence behavior. The aim of this course is to highlight the neural basis of behavior and discuss modern approaches and novel methods to study the neuronal control of classically studied aspects of behavior. Through a combination of discussions, student presentations, and interactive lectures, we will explore the neural systems that regulate the interactions an animal has with the external world. We will explore sensory systems (such as vision, taste, and olfaction), motor systems, and survival behaviors (such as feeding, drinking, mating, and aggression). The course evaluation will be based largely on written work, participation, and presentations.  
Spring
Mutually Exclusive: BIOL 4116  
Prerequisite: BIOL 2110  
1 Course Unit

**BIOL 5119 Biological Basis of Animal Diversity**  
Animals display extraordinary diversity in their morphology, physiology, and behavior. Traditionally, these topics have been mostly studied from an ecological perspective. This course will focus on recent advances and discoveries that address the underlying biological mechanisms of animal diversity. Specific topics will include the genetic, molecular, and developmental basis of animal morphological diversity, and genetic, molecular, and neural basis of animal behavioral diversity. Students will gain an understanding of how animal diversity is encoded at the different levels of biological organization. The course will be comprised of lectures to introduce topics, discussion of primary literature, and in-class activities.  
Spring
Mutually Exclusive: BIOL 4119  
1 Course Unit

**BIOL 5210 Molecular Biology and Genetics**  
This course will survey the discipline of molecular genetics. Two broad areas will be considered 1) Molecular Biology: DNA replication, transcription, translation, regulation of gene expression in both prokaryotic and eukaryotic systems, and genomics and 2) Genetics: basic Mendelian & molecular genetics.  
Fall or Spring  
Prerequisite: BIOL 1101 OR BIOL 1121  
1 Course Unit

**BIOL 5220 Human Evolutionary Genomics**  
Advanced seminar on current topics in human genomics and human evolution. Topics include the methods used for mapping and sequencing genomes; phylogenetic and population genetic analysis; and detecting variation in the human genome. This course is designed for graduate students but advanced undergraduates with a strong background in genetics are also welcome.  
Spring, odd numbered years only  
Also Offered As: CAMB 5220  
1 Course Unit

**BIOL 5231 Genome Science and Genomic Medicine**  
This course will be a focused study of genomes, genomic techniques, and how these approaches are and will be used in diagnosing and treating human disease. Topics will include genome sequencing, analysis of sequences and microarrays, and new techniques including high-throughput sequencing and reverse genetic analysis with a focus on genome-wide mutant collections.  
Spring
Mutually Exclusive: BIOL 4231  
Prerequisite: BIOL 2210  
1 Course Unit

**BIOL 5233 The Genetics of Adaptation: How sex, conflict, and pathogens shape modern genomes**  
In this course we explore the genetic basis of adaptation. We will investigate the forces that drive adaptation (e.g., environmental stress, pathogens, conflict, sex), the genetic mechanisms of adaptation (protein sequence changes, expression divergence, gene duplication, etc.), and the consequences of adaptation for contemporary cellular functions, developmental processes, and ecological interactions. The class meetings will be structured around both lectures and student-led discussions of the primary literature.  
Spring
Mutually Exclusive: BIOL 4233  
Prerequisite: BIOL 2210 OR BIOL 2410  
1 Course Unit

**BIOL 5234 Epigenetics**  
This course investigates epigenetic phenomena: heritable alternate states of gene activity that do not result from an alteration in nucleotide composition (mutations). Epigenetic mechanisms regulate genome accessibility and cell differentiation. They play a key role in normal development and in oncogenesis. For example both mammalian X-chromosome inactivation and nuclear transfer (cloning) are subject to epigenetic regulation. Amongst the epigenetic mechanisms we will discuss in this course are chromatin organization, histone modification, DNA methylation and non-coding RNAs. The course is geared toward advanced undergraduate and beginning graduate students and is a combination of lectures, student presentations and research presentations by guest speakers. Students will work with the current scientific literature.  
Spring
Mutually Exclusive: BIOL 4234, CAMB 4830  
Prerequisite: BIOL 2210  
1 Course Unit
BIOL 5240 Genetic Analysis
The logic and methodology of genetic analysis in plants and animals. This lecture course will focus on the use of mutations to study gene function and higher order biological processes, methods for reporting and manipulating gene expression, and analysis of the genetic basis of natural variation.
Not Offered Every Year
Prerequisite: BIOL 2210
1 Course Unit

BIOL 5250 Molecular Genetics of Development
Development is the process by which organisms grow and acquire their final shape. This remarkably complex process requires exquisite spatiotemporal control, and principles of developmental biology have implications for nearly all other biological disciplines. This course is a deep dive into these general biological principles, using plants as a model system. Students will prepare presentations on primary literature and engage in vigorous discussions in a "journal club" format. Our goal is to learn how developmentally significant genes and cellular interactions control differentiation and pattern formation.
Spring
Mutually Exclusive: BIOL 4250
Prerequisite: BIOL 2210
1 Course Unit

BIOL 5314 Molecular Evolution of Physiological Functions
This course is designed for students who are interested in understanding how physiological functions are achieved. Taking advantage of the recent explosion in genetic data and high-resolution protein structure analysis across organisms, the course focuses on the evolution of physiological functions at the genetic, structural, circuit and organismal levels. Examples include the co-evolution of toxins and toxin resistance between hunter and prey, the evolution of substance transport across cell membranes, intracellular signaling cascades, intercellular communication, distributed and centralized nervous systems, neural circuits controlling physiological functions such as feeding, locomotion and visual information processing. Students are expected to learn 1) basic physiological processes, their origin and adaptation, 2) modern genetic, structural and physiological techniques, 3) to critically evaluate research findings, 4) to present scientific papers, and 5) to write a research report.
Spring, even numbered years only
Mutually Exclusive: BIOL 4314
Prerequisite: NRSC 1110 OR BIOL 2310 OR BIOL 2210 OR BIOL 2110
1 Course Unit

BIOL 5318 Systems Biology: Integrative physiology and biomechanics of the muscular system
The course will focus on muscle function from the level of molecules to whole animal locomotion. At each level of organization, muscle function will be explored from mechanical and energetic viewpoints. The course will include lectures, demonstrations, and several guest expert lectures. Students will also be introduced to realistic musculo-skeletal modelling and forward dynamic simulations to explore integrated function.
Spring
Mutually Exclusive: BIOL 4318
Prerequisite: BIOL 2310 OR BIOL 2110
1 Course Unit

BIOL 5410 Evolutionary Biology
Theories and mechanisms of evolution, with emphasis on the genetic basis of evolutionary change.
Spring
Mutually Exclusive: BIOL 2410
Prerequisite: (BIOL 1101 AND BIOL 1102) OR BIOL 1121
1 Course Unit

BIOL 5430 Evolution and Ecology of Infectious Diseases
This course will focus on fundamental topics related to the ecological and evolutionary processes driving the transmission of pathogenic microbes among hosts including life-history strategies; evolution of pathogenic traits; the impacts of temporal, spatial and host-trait heterogeneity; and factors causing the emergence of an infectious pathogen. Examples will be drawn from human, wildlife, and plant pathogens to illustrate these ecological and evolutionary topics. Students will learn to develop and apply current ecological and evolutionary theory to infectious microbe research and gain practical experience accessing, interpreting and synthesizing the peer-reviewed scientific literature through a combination of popular and scientific readings, discussion, and lecture.
Fall
Mutually Exclusive: BIOL 4430
Prerequisite: BIOL 2410 OR BIOL 2610
1 Course Unit

BIOL 5510 Statistics for Biologists
Introductory probability theory. Principles of statistical methods. Problems of estimation and hypothesis testing in biology and related areas.
Fall
Mutually Exclusive: BIOL 2510, BIOL 4510
Prerequisite: MATH 1400
1 Course Unit

BIOL 5511 Biological Data Analysis
This course focuses on the underlying principles, implementation, and interpretation of statistical methods commonly used in biology. Lectures will incorporate exercises that implement these analyses in the open source software R, as well as exercises in data visualization. We will draw on examples from ecology, evolution, genetics, and genomics.
Spring
Mutually Exclusive: BIOL 4511
Prerequisite: BIOL 2510
1 Course Unit

BIOL 5517 Theoretical Population Biology
Introduction to basic theoretical tools to study the evolutionary and ecological dynamics of populations. Topics to be discussed include: basic population dynamics and population genetics theory, evolutionary game theory/adaptive dynamics, social evolution (kin selection/multilevel selection), life-history evolution, and stochastic models. Other topics may be added based on the specific interests of students in the class.
Spring
Mutually Exclusive: BIOL 4517
Prerequisite: BIOL 2410 AND MATH 1400
1 Course Unit
BIOL 5535 Introduction to Computational Biology & Biological Modeling
The goal of this course is to develop a deeper understanding of techniques and concepts used in Computational Biology. The course will strive to focus on a small set of approaches to gain both theoretical and practical understanding of the methods. We will aim to cover practical issues such as programming and the use of programs, as well as theoretical issues such as algorithm design, statistical data analysis, theory of algorithms and statistics. This course WILL NOT provide a broad survey of the field nor teach specific tools but focus on a deep understanding of a small set of topics. We will discuss string algorithms, hidden markov models, dimension reduction, and machine learning (or phylogeny estimation) for biomedical problems.
Fall
Mutually Exclusive: BIOL 4536
Prerequisite: MATH 1400 AND (BIOL 2510 OR BIOL 5510)
1 Course Unit

BIOL 5536 Fundamentals of Computational Biology
Introductory computational biology course designed for both biology students and computer science, engineering students. The course will cover fundamentals of algorithms, statistics, and mathematics as applied to biological problems. In particular, emphasis will be given to biological problem modeling and understanding the algorithms and mathematical procedures at the "pencil and paper" level. That is, practical implementation of the algorithms is not taught but principles of the algorithms are covered using small sized examples. Topics to be covered are: genome annotation and string algorithms, pattern search and statistical learning, molecular evolution and phylogenetics, functional genomics and systems level analysis.
Fall
Also Offered As: CIS 5360, GCB 5360
Prerequisite: ((BIOL 1101 AND BIOL 1110) OR BIOL 1121) AND STAT 111
AND STAT 112
1 Course Unit

BIOL 5566 Machine Learning Methods in Natural Science Modeling
This is a course for PhD students in natural sciences with interests in applying latest machine learning and AI approaches to their problem domains. The course will consist of directed readings and covering available tutorials with weekly discussions. The goal is to motivate mutual self-learning through guided discussions. Weekly participation and completion of readings or other assigned materials is essential and lack of attendance will be graded. Topics to be covered will be decided after the first meeting. Prerequisites: multivariate calculus, linear algebra, statistics, and probability.
Not Offered Every Year
Also Offered As: PHYS 5566
1 Course Unit

BIOL 5568 Mathematical Modeling in Physiology and Cell Biology
Mathematical modeling is increasingly becoming a standard technique in physiology and cell biology. In this class, we will cover some classical models in physiology and cell biology. Half of the course will be devoted to electrophysiology (Hodgkin-Huxley model, action potential propagation and related topics), which has arguably been the most successful area of application of mathematical techniques to biology. We will then consider models of molecular motors and muscle mechanics, of pattern formation and cell polarization.
Not Offered Every Year
Also Offered As: AMCS 5681
1 Course Unit

BIOL 5571 Topics in Computational Biology
Course for graduate students planning research in computational biology and genomics. Assigned readings will cover algorithms and data analysis techniques in computational biology. The course will include presentations and discussion of research problems involving computational analysis and there. Active group participation is required. Topics could include string algorithms, probability theory, multivariate statistics, molecular evolution, Markov Models, phylogenetic trees, and machine learning.
Not Offered Every Year
1 Course Unit

BIOL 5600 Field Botany
This course focuses on teaching students the Pennsylvania flora, both native and naturalized. Through weekly field trips, students will gain an appreciation for the diversity of plant species and plant communities in PA, and observe and discuss ecological and historical forces that influence plant species occurrences and plant communities. The ability to quickly and accurately identify plants in the field, through both sight identification and the use of a dichotomous key, is the major thrust of this course. Students will also learn how to appropriately collect plant materials for further study/identification in the laboratory and for archiving in an herbarium collection.
Mutually Exclusive: BIOL 4600
Prerequisite: ((BIOL 1101 AND BIOL 1110) OR BIOL 1124)
1 Course Unit

BIOL 5615 Freshwater Ecology
Survey of the physical, chemical and biological properties of freshwater ecosystems, both riverine and lentic, natural and polluted.
Spring
Mutually Exclusive: BIOL 4615
Prerequisite: BIOL 1101 OR BIOL 1121
1 Course Unit

BIOL 5669 Plant Physiology Through Space and Time
This course is a lab/lecture/seminar hybrid that will meet once per week for three hours. Each session will consist of mini-lecture/lab, paper discussions/lab, or solely lab efforts. All reading assignments will be available on Canvas (no textbook fees). We will exam various aspects of photosynthesis, water relations and nutrient acquisition in the context of the evolutionary progression of higher plants. We will discuss, measure, and in some cases model whole-plant physiology while examining sub-cellular-level controls and ecosystem-to-global-level consequences. This course is designed to give molecular biologists through earth-system scientists the tools to measure and understand whole-plant physiological responses to molecular manipulation and environmental variability. All students will learn to appreciate the context of their work on both micro and macro scales.
Spring
Mutually Exclusive: BIOL 4669
Prerequisite: BIOL 2610
1 Course Unit

BIOL 5710 Microbial Diversity and Pathogenesis
Microbiology plays a central role in diverse areas of human life such as infectious disease, ecology, and biotechnology. This course will cover aspects of modern microbiology with an emphasis on prokaryotic organisms. The topics will include basic aspects of microbial diversity, genetics, virology, and pathogenesis as well as examples of applied microbiology.
Spring
Prerequisite: BIOL 2210
1 Course Unit
BIOL 5711 Microbial Diversity and Pathogenesis Lab
The importance of microbiology in complex issues, such as the impact of the microbiome in human health or as alternative energy sources, is being appreciated more and more each day. This upper level laboratory course provides students with a robust technical skill set while also giving them an opportunity to participate in an authentic research project that may lead to novel discoveries. Students will generate research questions, formulate hypotheses, design experiments, analyze data, and present their research findings to the class. In each project, students will use the cutting edge approach of metagenomics to evaluate the microbial diversity of their environment via Next Generation Sequencing. Students will also examine the function of microbial species within their communities. Potential projects include the isolation of novel antibiotic producers and the antibiotic they produce, designing and optimizing microbial fuel cells that can be used to generate electricity, or isolating antibiotic resistant bacteria and attempting novel approaches to inhibit or prevent their growth.
Spring
1 Course Unit

BIOL 5825 Biochemistry and Molecular Genetics Superlab
Intensive laboratory class where open-ended, interesting biological problems are explored using modern lab techniques. Topics may include protein structure/function studies; genetic screens, genomics and gene expression studies; proteomics and protein purification techniques; and molecular cloning and DNA manipulation. The course emphasizes developing scientific communication and independent research skills. Course topics reflect the interests of individual Biology faculty members. This course is recommended for students considering independent research. Mutually Exclusive: BIOL 4825 Prerequisite: BIOL 2810 OR BIOL 2010 OR BIOL 2210
1 Course Unit

BIOL 5860 Mathematical Modeling in Biology
This course will cover various mathematical models and tools that are used to study modern biological problems. Mathematical models may be drawn from cell biology, physiology, population genetics, or ecology. Tools in dynamical systems or stochastic processes will be introduced as necessary. No prior knowledge of biology is needed to take this course, but some familiarity with differential equations and probability will be assumed.
Fall
Also Offered As: MATH 5861
1 Course Unit

BIOL 5999 Master's Independent Study
Laboratory research for the Master’s of Science in Biology submatriculation program. Apply at the Academic Office, 102 Leidy Labs.
Fall or Spring
0.5-3 Course Units

BIOL 6010 Communication for Biologists
Basic science writing and presentation skills for PhD students in Biology. Designed for second year graduate students preparing for qualifying exams. In the first half of the course, students will produce weekly writing assignments and critique writing submitted by others. In the second half, students will learn techniques for effective research presentations in both seminar style environments and chalk-talk settings.
Spring
1 Course Unit

BIOL 7000 Advanced Topics in Current Biological Research
Integrative seminar on current biological research for first-year PhD students.
Fall
1 Course Unit

BIOL 9999 Independent Study and Research
Advanced laboratory research with a member of the Biology Graduate Group.
Fall or Spring
0.5-4 Course Units

Biomedical Graduate Studies (BIOM)

BIOM 5020 Molecular Basis of Disease
BIOM 502 introduces students to basic mechanisms of disease and examines a different disease each week. The focus of the course will be on understanding the pathophysiology of the diseases and how research has enhanced not only our knowledge of disease mechanisms but has also led to improved therapy for patients with these diseases. This course is reserved for BGS students only. Prerequisite:Permission of course director.
Spring
1 Course Unit

BIOM 5100 Case Studies in Translational Research (CSTR) (Open to MD/PhD and VMD/PhD students only)
This course is open to MD/PhD, VMD/PhD and Biomedical Graduate Studies PhD students. All second year combined degree students are expected to take this course unless excused by Dr. Brass. Enrollment is limited to 24 students but interested VMD/PhD and BGS students are welcome as space permits. Prerequisite:Must be in the MD/PhD or VMD/PhD program and have completes the first year of training. CSTR is a seminar style course where groups of students work with selected Penn faculty to prepare a discussion and literature review on disease topics. Topics will include gene therapy for hemophilia, retinal disease and wound healing, cytokine therapies for immune disorders, genetic sleep disturbances and vaccine development. Most of the course will focus on the analysis of successful translational research projects that are taking place here at Penn.
Fall
1 Course Unit

BIOM 5550 Regulation of the Genome
Regulation of gene expression including chromatin structure, transcription, DNA modification, RNA processing, translation, control of gene expression via microRNAs and post-translational processing. Prerequisite: Permission of instructors.
Spring
1 Course Unit

BIOM 5550 Regulation of the Genome
Regulation of gene expression including chromatin structure, transcription, DNA modification, RNA processing, translation, control of gene expression via microRNAs and post-translational processing. Prerequisite: Permission of instructors.
Spring
1 Course Unit

BGS 0590 Case Study in Current Biological Research
Integrative seminar on current biological research for first-year BGS students. All second year combined degree students are expected to take this course unless excused by Dr. Brass. Enrollment is limited to 24 students but interested BGS students are welcome as space permits. Prerequisite: Permission of course director.
Spring
1 Course Unit

BGS 5020 Molecular Basis of Disease
BIOM 502 introduces students to basic mechanisms of disease and examines a different disease each week. The focus of the course will be on understanding the pathophysiology of the diseases and how research has enhanced not only our knowledge of disease mechanisms but has also led to improved therapy for patients with these diseases. This course is reserved for BGS students only. Prerequisite: Permission of course director.
Spring
1 Course Unit

BGS 5100 Case Studies in Translational Research (CSTR) (Open to MD/PhD and VMD/PhD students only)
This course is open to MD/PhD, VMD/PhD and Biomedical Graduate Studies PhD students. All second year combined degree students are expected to take this course unless excused by Dr. Brass. Enrollment is limited to 24 students but interested VMD/PhD and BGS students are welcome as space permits. Prerequisite: Must be in the MD/PhD or VMD/PhD program and have completes the first year of training. CSTR is a seminar style course where groups of students work with selected Penn faculty to prepare a discussion and literature review on disease topics. Topics will include gene therapy for hemophilia, retinal disease and wound healing, cytokine therapies for immune disorders, genetic sleep disturbances and vaccine development. Most of the course will focus on the analysis of successful translational research projects that are taking place here at Penn.
Fall
1 Course Unit

BGS 5550 Regulation of the Genome
Regulation of gene expression including chromatin structure, transcription, DNA modification, RNA processing, translation, control of gene expression via microRNAs and post-translational processing. Prerequisite: Permission of instructors.
Spring
1 Course Unit

BGS 5550 Regulation of the Genome
Regulation of gene expression including chromatin structure, transcription, DNA modification, RNA processing, translation, control of gene expression via microRNAs and post-translational processing. Prerequisite: Permission of instructors.
Spring
1 Course Unit
**Biomédicas Bioinformáticas (BMIN)**

**BMIN 5010 Introducción a Biomedicina y Informática de Salud**
Este curso se diseña para proporcionar una visión general de los temas principales en informática biomédica, especialmente aquellos que se aplican a la investigación clínica. A través de una serie de conferencias y demostraciones, los estudiantes aprenderán sobre temas como los estándares de datos médicos, registros de salud electrónica, sistemas de procesamiento de lenguaje natural, investigación biomédica en desarrollo, soporte de toma de decisiones clínicas, informática de imágenes, informática de salud pública, e informática de salud de consumidores. Es recomendado que los estudiantes tengan competencia básica con conceptos biomédicos. Los no-mayores deben obtener permiso de la facultad.

**BMIN 5020 Datos de Base y Integración de Datos en Investigación Biomédica**
Este curso está diseñado para proporcionar una experiencia en profundidad en el diseño, implementación y uso de bases de datos en investigación biomédica, y para proveer a los estudiantes con los conocimientos para diseñar y conducir un proyecto de investigación utilizando datos primarios y secundarios. Los temas que se cubrirán incluyen: arquitecturas de bases de datos, normalización de datos, bases de datos de servidor, concurrencia, validación, lenguaje de consulta estructurada (SQL), implementación, bases de datos cliente-servidor, concurrencia, validación. Todos los ejemplos utilizarán bases de datos o datos de investigación biomédicos. MySQL se utilizará como plataforma de la base de datos para este curso, aunque los principios se aplican en general a investigación biomédica. Los no-mayores deben obtener permiso de la facultad.

**BMIN 5030 Ciencia de Datos para Investigación Biomédica**
En este curso, se utilizarán R y otras herramientas de software libre para aprender de la fundamenta Ciencia de Datos aplicada a una gama de temas de investigación biomédica, incluyendo el uso de datos de salud y genómicos. Después de completar este curso, los estudiantes serán capaces de recuperar y limpiar datos, realizar análisis descriptivos, implementar modelos para responder a preguntas científicas, y presentar resultados atractivos de visualización con datos. Se recomendó como pre-requisito: Introducción a la Ciencia de Datos. Familiarización con el uso de R y GitHub. Los no-mayores deben obtener permiso de la facultad.

**BMIN 5040 Temas Especiales en Investigación Biomédica y de Salud**
Este curso está diseñado para proporcionar una visión general de los temas principales en la investigación biomédica. Cada tema será organizado en módulos temáticos que se presentarán en semanas consecutivas, con la intención de que cada módulo se convierta en su propio "mini-curso". Los temas para cada módulo pueden rotar de semestre a semestre, basado en estos criterios: importancia histórica para el campo de la investigación biomédica; y/o práctica; Corte de desarrollo en informática biomédica; Temas no cubiertos en BMIN 5010; Consenso del programa y la facultad, es recomendado que los estudiantes hayan completado BMIN 5020 y BMIN 5030 antes de inscribirse en este curso. Los no-mayores deben obtener permiso del instructor.
BMIN 5050 Precision Medicine and Health Policy
Through a series of lectures, readings and response papers, students will learn about topics such as medical ethics, unintended consequences of medicine/research, genetics, genetic interpretation, hospital performance, and data mining and informatics methods to assess these factors. The informatics topics covered in this course include: decision support, clinical interpretation of genetics, detection of bias in EHRs, detection of bias in guidelines, methods to ameliorate bias, mapping clinical guidelines to computable standards, hospital performance assessment, machine learning, and artificial intelligence applications in this space. We also cover ways that Race, Sex/Gender, Socioeconomics, and Genetics can alter informatics algorithms and introduce biases into EHR data and algorithms. NOTE: Non-majors need permission from the department.
Fall
1 Course Unit

BMIN 5060 Standards and Clinical Terminologies
This survey course is designed to provide an overview of health information standards and clinical terminologies. Through a series of lectures, demonstrations, and hands-on exercises, students will learn about topics such as standards, interoperability, data modeling, vocabularies, and health information exchange. It is recommended that students have completed BMIN 5010 prior to enrolling in this course. NOTE: Non-majors need permission from the department.
Fall
0.5 Course Units

BMIN 5070 Human Factors
The course will cover four main topic areas: 1. Sociotechnical and human-centered design in biomedical informatics; 2. Evaluation and measurement of usability; 3. Implementation and optimization—including tensions among existing vs revised workflows, new software vs legacy systems, vendor software vs need for new builds, customization, retrofits, dongles, etc.; and 4. Ethics, policy, cybersecurity, and advocacy. Each topic area will incorporate definitions, principles, methods, and applications. We review the terminology, the concepts and underlying assumptions, how key concepts relate to each other, the ways we measure usability and outcomes, and then examine the relevance of the topic's to applied clinical informatics. The course will cover qualitative, quantitative, and computational methods used for the design, implementation, and evaluation of health information technology. The applications section for each topic will use relevant case studies that examine the real-world application of principles and methods. It is recommended that students have completed BMIN 5010 prior to enrolling in this course. NOTE: Non-majors need permission from the department.
Fall
0.5 Course Units

BMIN 5080 Biomedical Information Systems Analysis and Design
This course provides an introduction to the concepts and principles of information systems analysis and design, focusing on the techniques of the Unified Modeling Language and the Unified Process, specifically as these apply to healthcare settings. As a result, there is a strong emphasis on applying these techniques to real-world issues with clinical and clinical research information systems. These include the electronic health record, information systems in clinical specialties, and systems to support the management of data used for clinical research and healthcare administration. This course is required for MBMI students in the Healthcare Quality Informatics Track.
1 Course Unit

BMIN 5090 Consumer and Personal Health Informatics
This course is designed to develop intelligent consumers, managers, and researchers of telehealth and personal health/ consumer health informatics systems through guided exploration into the components of such systems. The course is designed to introduce many of the challenges facing designers and managers of telehealth/ mHealth and remote health care delivery networks. The spectrum of activity ranging from research into implications of system design for applications that bridge geographic distance to the development of practical applications to promote patient engagement is considered in both historical context and in case studies. The current status and future trends of this emerging domain are reviewed. It is recommended that students have some exposure to health care or health systems prior to enrolling in this course. NOTE: Non-majors need permission from the department.
Fall
Also Offered As: NURS 5290
1 Course Unit

BMIN 5100 Clinical Research Informatics in the Cloud: Analytic Workflows and Infrastructure
Machine learning, analysis, and meaningful visualizations can provide significant insights into clinical research datasets. One of the challenges is to make these tools, and workflows available at scale in a meaningful way for clinicians, data scientists, and patients. In this course, we will focus on cloud-based mechanisms and infrastructure to make analysis workflows broadly available to a wide range of potential users. Students will implement an analytic workflow related to a clinical research dataset and ultimately deploy the workflow as a publicly available service on the internet using AWS services. We will discuss all components related to the development life-cycle of cloud based analytic services including testing, logging, deploying infrastructure, APIs, front-end development and the value of doing research in the cloud. It is expected that students are comfortable with Python coding and have taken a data science class prior to enrolling in this course. Pre-requisites: - Students should have significant experience with programming in Python. - BMIN 5030 or BMIN 5200 or equivalent. - Students are interested in learning to work within the AWS environment.
Prerequisite: BMIN 5030 OR BMIN 5200
1 Course Unit

BMIN 5200 or equivalent. - Students are interested in learning to work within the AWS environment. It is expected that students are comfortable with Python coding and have taken a data science class prior to enrolling in this course. Pre-requisites: - Students should have significant experience with programming in Python. - BMIN 5030 or BMIN 5200 or equivalent. - Students are interested in learning to work within the AWS environment.
Prerequisite: BMIN 5030 OR BMIN 5200
1 Course Unit
BMIN 5200 Foundations of Artificial Intelligence in Health
As a subfield of computer science, artificial intelligence is often used interchangeably with the term 'machine learning', which itself is more accurately a subfield of AI dealing with the broader concept of inductive reasoning. However, a wealth of key prerequisite topics that focus on deductive reasoning align with the bulk of biomedical informatics applications being actively utilized today. These founding principles of AI and their intersection with biomedical informatics are the focus of this first course on artificial intelligence. The course is divided into modules that cover (1) introductory/background materials, (2) knowledge representation, (3) logic, (4) essentials of rule-based systems, (5) search, (6) information structure and inference, and (7) special topics. These topics offer a global foundation for branches of AI application and research in biomedical domains, including concepts that will later support a deeper understanding of inductive reasoning and machine learning. In a practical sense, this course focuses on how biomedical data can be organized, represented, interpreted, searched, and applied in order to derive knowledge, make decisions, and ultimately make predictions while avoiding bias. It is expected that all students will be somewhat familiar with basic biomedical concepts and terminology, statistics. Additionally, students must be familiar with basic computer programming concepts including data structures, control flow, and I/O. Recommended, but not required, that students have taken Introduction to Biomedical Informatics (BMIN 5010), Data Science for Biomedical Informatics (BMIN 5030), and a programming course (any language). No previous exposure to artificial intelligence is assumed.
Fall
1 Course Unit

BMIN 5210 Advanced Methods and Health Applications in Machine Learning
Machine learning studies how computers learn from data and has enormous potential to impact biomedical research and applications. This course will cover fundamental topics in machine learning with an application focus on biomedical informatics. Specifically, the course will cover: supervised learning methods such as linear regression, logistic regression, nearest neighbors, support vector machines, decision trees and random forests; unsupervised learning topics such as clustering and dimensionality reduction; neural networks and deep learning methods for supervised or unsupervised learning tasks, including Convolutional Neural Network (CNN), Recurrent Neural Network (RNN), Auto Encoder (AE), Generative Adversarial Network (GAN), and Graph Neural Network (GNN); and the applications of these machine learning techniques to various biomedical informatics problems via analyzing imaging, biomarker, electronic health record, clinical and/or other biomedical data. The precise topics may vary from year to year based on student interest and developments in the field. Students are required to have completed BMIN525 (Python Class) or equivalent programming experience. It is recommended that students have basic knowledge in data analysis and biomedical research. Basic knowledge of machine learning, linear algebra, statistics and probability is preferred. NOTE: Non-majors need permission from the instructor.
Fall
1 Course Unit

BMIN 5220 Natural Language Processing for Health
The growing volume of unstructured health-related data presents unparalleled challenges and opportunities for informaticians, clinicians, epidemiologists and other public health researchers that seek to mine the rich information "locked" within free-texts. Clinical records, social media, published literature, are all sources designed for human eyes, but not necessarily for automatic processing. In this class, we will survey the most recent natural language processing methods used for identifying and classifying information present in these sources. The class provides learning of health language processing – that is, the fundamental principles and methods of both natural language processing and machine learning and how they are currently applied in the biomedical domain. The class will focus on real problems in the context of health research where data are inherently biased, e.g., noisy, missing, or extremely imbalanced (where instances of interest are rare in the data). Methods for addressing these biases, such as text normalization, rules-based systems, machine learning (supervised, unsupervised, active learning), deep learning, and large language models will be discussed. In-class lectures will be most often taught using Jupyter notebooks and guest speakers presenting how an NLP/ML method was used to solve a driving biomedical use case. This course requires proficiency in python programming demonstrated through examination. NOTE: Non-majors need permission from the instructor.
Spring
1 Course Unit

BMIN 5230 Informatics Prec Med

BMIN 5250 Introduction to Python Programming
This introductory course is designed to provide an overview of the Python programming language including data types, data structures, variables, packages, modules, programming practices, and more. Using lectures and hands-on demonstrations, students will learn how to write Python programs that store, retrieve, represent, transform, analyze, and visualize biomedical and clinical data. Upon completing this introductory course, students will have acquired foundational knowledge using Python to solve problems as well as gained the self-confidence to expand their knowledge of Python well beyond this course. Non-majors need permission from the department.
Fall
1 Course Unit

BMIN 5330 Statistics for Genomics and Biomedical Informatics
BMIN 5330 is an introductory course in probability theory and statistical inference for graduate students in Genomics and Computational Biology. The goal of the course is to provide foundation of basic concepts and tools as well as hands-on practice in their application to problems in genomics. At the completion of the course, students should have an intuitive understanding of basic probability and statistical inference and be prepared to select and execute appropriate statistical approaches in their future research.
Also Offered As: GCB 5330, IMUN 5770
1 Course Unit
Biostatistics (BSTA)

**BSTA 5110 Biostatistics in Practice**
Biostatistics in Practice offers Biostatistics students an opportunity to acquire and demonstrate proficiency in statistical collaboration, data analysis and scientific writing. The project is defined by several elements: A scientific question or hypothesis arising in medical research; the statistical methodology needed to address the question; the development of a study design and/or analysis of a relevant data set; and a summary of the results of these analyses. In most cases, a collaborating medical scientist provides the research question and the data. The student, under the supervision of a biostatistics faculty member, identifies the appropriate statistical methods and conducts the analysis. The analysis should be sufficiently extensive and detailed to support a manuscript publishable in the medical literature. Enrollment open to Biostatistics student only.

*Fall* 1 Course Unit

**BSTA 5500 Applied Regression and Analysis of Variance**
An applied graduate level course in multiple regression and analysis of variance for students who have completed an undergraduate course in basic statistical methods. Emphasis is on practical methods of data analysis and their interpretation. Covers model building, general linear hypothesis, residual analysis, leverage and influence, one-way anova, two-way anova, factorial anova. Primarily for doctoral students in the managerial, behavioral, social and health sciences. Permission of instructor required to enroll.

*Fall* 1 Course Unit

**BSTA 6200 Probability I**
This course covers Elements of (non-measure theoretic) probability necessary for the further study of statistics and biostatistics. Topics include set theory, axioms of probability, counting arguments, conditional probability, random variables and distributions, expectations, generating functions, families of distributions, joint and marginal distributions, hierarchical models, covariance and correlation, random sampling, sampling properties of statistics, modes of convergence, and random number generation. Two semesters of calculus (through multivariate calculus), linear algebra, or permission of the instructor to enroll.

*Fall* 1 Course Unit

**BSTA 6210 Statistical Inference I**
This class will cover the fundamental concepts of statistical inference. Topics include sufficiency, consistency, finding and evaluating point estimators, finding and evaluating interval estimators, hypothesis testing, and asymptotic evaluations for point and interval estimation. Prerequisite: If course requirements not met, permission of instructor.

*Spring* 1 Course Unit

**BSTA 6220 Statistical Inference II**
This class will cover the fundamental concepts of statistical inference. Topics include sufficiency, consistency, finding and evaluating point estimators, finding and evaluating interval estimators, hypothesis testing, and asymptotic evaluations for point and interval estimation.

*Fall* 1 Course Unit

---

**BMIN 5490 Exploring Data Science Methods with Health Care Data**
The growth and development of electronic health records, genetic information, sensor technologies and computing power propelled health care into the big data era. This course will emphasize data science strategies and techniques for extracting knowledge from structured and unstructured data sources. The course will follow the data science process from obtaining raw data, processing and cleaning, conducting exploratory data analysis, building models and algorithms, communication and visualization, to producing data products. Students will participate in hands-on exercises whenever possible using a clinical dataset.

*Spring*

Also Offered As: NURS 8490
1 Course Unit

**BMIN 6060 Applied Clinical Informatics in Quality Improvement**
This four-day intensive graduate institute applies core clinical informatics concepts in the context of quality improvement and patient safety initiatives. Content covered addresses foundational theories, frameworks, and policies of clinical informatics relevant to quality improvement and patient safety as well as practical application of informatics tools relevant to quality improvement efforts and local governance structure. Learners will be exposed to a variety of informatics leaders from across both the University of Pennsylvania Health System and Children’s Hospital of Philadelphia. A hybrid structure of two full, in-person days with two half, virtual days with optional offers hours is intended to allow flexibility for learners while maximizing beneficial interactions between learner, instructors, and building the UPHS/CHOP informatics community.

*Spring*

Also Offered As: HQS 6060
0.5 Course Units

**BMIN 7990 Independent Study**
An opportunity for the biomedical informatics student to become closely associated with a professor to develop a program of independent in-depth study in a subject area in which the professor and student have a common interest that is not covered (or covered in depth) in the biomedical informatics program curriculum. The challenge of the task undertaken must be consistent with the student’s academic level. To register for this course, the student and supervising professor jointly submit a detailed proposal to the program Curriculum Committee via the Program Coordinator not later than two weeks before the beginning of the semester. This course is open only to students enrolled in one of the approved Biomedical Informatics programs. The course can be taken for 0.5 or 1.0cu, depending on the depth and breadth of the proposed independent study.

*Fall or Spring*
0.5-1 Course Unit

**BMIN 9900 Capstone**
The MBMI program requires that students engage in a mentored Capstone Project in clinical informatics during their final year. This is accomplished in the context of a weekly seminar in which students develop, propose, implement, and present their capstone project. During the semester, students meet with their Capstone Advisor, who is also invited to attend the seminars. The seminar affords both students and advisors the opportunity for cross-fertilization of ideas and skills, and ultimately the honing of projects to a high level of value for the students and the clinical environments in which they conduct their projects.

Required Pre-requisite: Minimum of 7 CUs of the required coursework of the MBMI Program
1 Course Unit
**Biostatistics (BSTA)**

**BSTA 6300 Statistical Methods and Data Analysis I**
This first course in statistical methods for data analysis is aimed at first-year Biostatistics students. It focuses on the analysis of continuous data. Topics include descriptive statistics (measures of central tendency and dispersion, shapes of distributions, graphical representations of distributions, transformations, and testing for goodness of fit); populations and sampling (hypotheses of differences and equivalence, statistical errors); one- and two-sample t tests; analysis of variance; correlation; nonparametric tests on means and correlations; estimation (confidence intervals and robust methods); categorical analysis (proportions; statistics and test for comparing proportions; test for matched samples; study design); and regression modeling (simple linear regression, multiple regression, model fitting and testing, partial correlation, residuals, multicollinearity). Examples of medical and biologic data will be used throughout the course, and use of computer software demonstrated. Multivariable calculus and linear algebra and permission of instructor required to enroll.

Fall
Prerequisite: BSTA 6200
1 Course Unit

**BSTA 6320 Statistical Methods for Categorical and Survival Data**
This is the second half of the methods sequence, where the focus shifts to methods for categorical and survival data. Topics in categorical include defining rates; incidence and prevalence; the chi-squared test; Fisher’s exact test and its extension; relative risk and odds-ratio; sensitivity; specificity; predictive values; logistic regression with goodness of fit tests; ROC curves; the Mantel-Haenszel test; McNemar’s test; the Poisson model; and the Kappa statistic. Survival analysis will include defining the survival curve, censoring, and the hazard function; the Kaplan-Meier estimate, Greenwood’s formula and confidence bands; the log rank test; and Cox’s proportional hazards regression model. Examples of medical and biologic data will be used throughout the course, and use of computer software demonstrated.

Spring
Prerequisite: BSTA 6200 AND BSTA 6210 AND BSTA 6300
1 Course Unit

**BSTA 6510 Introduction to Linear Models and Generalized Linear Models**
This course extends the content on linear models in BSTA 630 and BSTA 632 to more advanced concepts and applications of linear models. Topics include the matrix approach to linear models including regression and analysis of variance, general linear hypothesis, estimability, polynomial, piecewise, ridge, and weighted regression, regression and collinearity diagnostics, multiple comparisons, fitting strategies, simple experimental designs (block designs, split plot), random effects models, Best Linear Unbiased Prediction. In addition, generalized linear models will be introduced with emphasis on the binomial, logit and Poisson log-linear models. Applications of methods to example data sets will be emphasized.

Spring
Prerequisite: BSTA 6200 AND BSTA 6300 AND BSTA 6210 AND BSTA 6320
1 Course Unit

**BSTA 6560 Longitudinal Data Analysis**
This course covers both the applied aspects and methods developments in longitudinal data analysis. In the first part, we review the properties of the multivariate normal distribution and cover basic methods in longitudinal data analysis, such as exploratory data analysis, two-stage analysis and mixed-effects models. Focus is on the linear mixed-effects models, where we cover restricted maximum likelihood estimation, estimation and inference for fixed and random effects and models for serial correlations. We will also cover Bayesian inference for linear mixed-effects models. The second part covers advanced topics, including nonlinear mixed-effects models, GEE, generalized linear mixed-effects models, nonparametric longitudinal models, functional mixed-effects models, and joint modeling of longitudinal data and the dropout mechanism. If course requirements are not met, permission of instructor required.

Prerequisite: BSTA 6210 AND (BSTA 6310 OR BSTA 6320) AND BSTA 6510 AND (BSTA 6530 OR BSTA 7540)
0.5 Course Units

**BSTA 6600 Design of Observational Studies**
This course will cover statistical methods for the design and analysis of observational studies. Topics for the course will include epidemiologic study designs, issues of confounding and hidden bias, matching methods, propensity score methods, sensitivity analysis, and instrumental variables. Case studies in biomedical research will be presented as illustrations. Prerequisite: If course requirements not met, permission of instructor required.

0.5 Course Units

**BSTA 6610 Design of Interventional Studies**
This course is designed for graduate students in statistics or biostatistics interested in the statistical methodology underlying the design, conduct, and analysis of clinical trials and related interventional studies. General topics include designs for various types of clinical trials (Phase I, II, III), endpoints and control groups, sample size determination, and sequential methods and adaptive design. Regulatory and ethical issues will also be covered. Prerequisite: If course requirement not met, permission of instructor required.

0.5 Course Units

**BSTA 6650 Longitudinal Data Analysis**
This course covers both the applied aspects and methods developments in longitudinal data analysis. In the first part, we review the properties of the multivariate normal distribution and cover basic methods in longitudinal data analysis, such as exploratory data analysis, two-stage analysis and mixed-effects models. Focus is on the linear mixed-effects models, where we cover restricted maximum likelihood estimation, estimation and inference for fixed and random effects and models for serial correlations. We will also cover Bayesian inference for linear mixed-effects models. The second part covers advanced topics, including nonlinear mixed-effects models, GEE, generalized linear mixed-effects models, nonparametric longitudinal models, functional mixed-effects models, and joint modeling of longitudinal data and the dropout mechanism. If course requirements are not met, permission of instructor required.

Prerequisite: BSTA 6210 AND (BSTA 6310 OR BSTA 6320) AND BSTA 6510 AND (BSTA 6530 OR BSTA 7540)
0.5 Course Units

**BSTA 6700 Statistical Computing**
This course concentrates on computational tools, which are useful for statistical research and for computationally intensive statistics. Through this course you will develop a knowledge base and skill set of a wide range of computational tools needed for statistical research. Topics include computer storage, architecture and arithmetic; random number generation; numerical optimization methods; spline smoothing and penalized likelihood; numerical integration; simulation design; Gibbs sampling; bootstrap methods; and the EM algorithm. Prerequisite: If course requirements not met, permission of instructor required.

Prerequisite: BSTA 6510 AND BSTA 6200 AND BSTA 6210
1 Course Unit

**BSTA 6990 Lab Rotation**
Student lab rotation.
0-4 Course Units
**BSTA 7500 Statistical Methods for Risk Prediction and Precision Medicine**

This is an advanced elective course for graduate students in Biostatistics, Statistics, Epidemiology, and other BGS disciplines. It will cover various topics for evaluating the performance of biomarkers to predict risk of clinical or disease outcomes, specifically including relative, absolute and competing risks for binary and time-to-disease outcomes; statistical inference for quantifying predictive accuracy with binary and time-to-event outcomes; statistical methods and inference for case-control study designs; Efficient study design issues for biomarker evaluation. This course is designed to help students 1) understand various concepts of risk in the medical literature; 2) understand various statistical methods for evaluating prediction performance of biomarkers and diagnostic tests and for designing efficient biomarker studies; 3) improve the ability to read critically papers published in statistical and medical journals on related topics; and 4) develop research ideas for risk prediction. Upon successfully completing this course, students will be able to: 1) Conduct statistical analysis for evaluating prediction performance of biomarkers and diagnostic tests; 2) Have a better ability to read and understand papers published in statistical and medical journals on related topics; and 3) Be well prepared to work on related topics for dissertation.

Fall
Prerequisite: BSTA 6300 AND BSTA 6320
0.5 Course Units

**BSTA 7510 Statistical Methods for Neuroimaging**

This course is intended for students interested in both statistical methodology, and the process of developing this methodology, for the field of neuroimaging. This will include quantitative techniques that allow for inference and prediction from ultra-high dimensional and complex images. In this course, basics of imaging neuroscience and preprocessing will be covered to provide students with requisite knowledge to develop the next generation of statistical approaches for imaging studies. High-performance computational neuroscience tools and approaches for voxel- and region-level analyses will be studied. The multiple testing problem will be discussed, and the state-of-the-art in the area will be examined. Finally, the course will end with a detailed study of multivariate pattern analysis, which aims to harness the power of patterns in images to identify disease effects and provide sensitive and specific biomarkers. The student will be evaluated based on 3 homework assignments and a final in-class presentation. Prerequisite: If course requirement not met, permission of instructor required.

Prerequisite: BSTA 6210 AND BSTA 6510
1 Course Unit

**BSTA 7540 Advanced Survival Analysis**

This advanced survival analysis course will cover statistical theory in counting processes, large sample theory using martingales, and other state of the art theoretical concepts useful in modern survival analysis research. Examples in deriving rank-based tests and Cox regression models as well as their asymptotic properties will be demonstrated using these theoretical concepts. Additional potential topics may include competing risk, recurrent event analysis, multivariate failure time analysis, joint modeling of survival and longitudinal data, sample size calculations, multi-state models, and complex sampling schemes involving failure time data. In addition to satisfying course prerequisites, permission of instructor is required.

Fall
Prerequisite: BSTA 6220
0.5 Course Units

**BSTA 7770 Statistical Methods for Meta-Analyses**

This graduate-level Biostatistics course will introduce the fundamentals of statistical methods for meta-analyses. It will cover key principles of meta-analysis and the statistical rationales behind the analytic models, including univariate meta-analysis, multivariate meta-analysis, meta-analysis of diagnostic test accuracy, network meta-analysis, and multivariate network meta-analysis. Beyond these commonly used models, the course will cover statistical methods and software that investigate and correct for biases in systematic reviews such as publication bias, outcome reporting bias. Advanced statistical inferential tools such as publication bias, outcome reporting bias. Advanced statistical inferential tools such as composite likelihood, pseudolikelihood, integrated likelihood methods, EM algorithms will be introduced. In addition, the course will also cover some practical steps in systematic review including search strategies, data abstraction methods; quality assessment; and writing a meta-analysis report. The course is composed of a series of weekly lectures and small group discussions. Students will be expected to attend weekly lectures, participate in class discussions, review assigned readings, complete homework assignments, and conduct a real-world meta-analysis with a clinically meaningful problem. Fundamentals of Biostatistics background or permission of instructor required to enroll.

1 Course Unit

**BSTA 7820 Stat Meth/Incomplete Data**

Selected topics from public health and biomedical research where "Big data" are being collected and methods are being developed and applied, together with some core statistical methods in high dimensional data analysis. Topics include dimension reduction, detection of novel association in large datasets, regularization and high dimensional regression, ensemble learning and prediction, kernel methods, deep learning and network analysis. R programs will be used throughout the course, other standalone programs will also be used. Prerequisite: If course requirement not met, permission of instructor required.

Spring
1 Course Unit

**BSTA 7870 Methods for Statistical Genetics and Genomics in Complex Human Disease**

This is an advanced elective course for graduate students in Biostatistics, Statistics, Epidemiology, Bioinformatics, Computational Biology, and other BGS disciplines. This course will cover statistical methods for the analysis of genetics and genomics data. Topics covered will include genetic linkage and association analysis, analysis of next-generation sequencing data, including those generated from DNA sequencing and RNA sequencing experiments. Students will be exposed to the latest statistical methodology and computer tools on genetic and genomic data analysis. They will also read and evaluate current statistical genetics and genomics literature. Prerequisite: If course requirements not met, permission of instructor required.

Prerequisite: (BSTA 6300 AND BSTA 6320) OR (EPID 5200 AND EPID 5210)
1 Course Unit
BSTA 7980 Advanced Topics in Biostatistics
This course is designed for second-year PhD students in Biostatistics. The goal is to provide an in-depth exploration of special topics within the field of biostatistics. The course covers a range of advanced statistical methods and their applications in various biostatistical domains, including clinical trials, causal inference, survival analysis, genetics and genomics, neuroimaging, and health informatics. The course emphasizes the unique aspects of these topics and their significance in biomedical research and public health. Throughout the course, ten faculty members will deliver presentations, each focusing on a specific topic.
Fall
Prerequisite: BSTA 6200 AND BSTA 6210 AND BSTA 6300 AND BSTA 6510 AND BSTA 6320
0.5 Course Units

BSTA 8990 Pre-Dissertation Research
0.5-3 Course Units

BSTA 9200 Guided Dissertation Research
0.5-3 Course Units

BSTA 9900 Guided Dissertation Research
0 Course Units

BSTA 9950 Dissertation
Fall or Spring
0 Course Units

Biotechnology (BIOT)

BIOT 5990 BIOT Independent Study
Independent Study
Fall or Spring
1-2 Course Units

Bosnian-Croatian-Serbo

BCS 0100 Bosnian-Croatian-Serbian I
This course is the first in the series of first-year courses, intended for students with no previous background in Bosnian, Croatian and Serbian languages. The course develops competence in speaking, reading, writing, and understanding contemporary BCS. At the end of the course students will be comfortable using both Latin and Cyrillic versions of the alphabet and will be able to read simple texts, including signs, menus, short news articles, and short stories. Class work emphasizes development of communicative and cultural competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in BCS. By the end of the course, you will be able to engage in simple conversations in BSC on topics concerning your daily life. You will also be able to write short personalized messages in BCS.
Not Offered Every Year
1 Course Unit

BCS 0200 Bosnian-Croatian-Serbian II
This course is the second in the series of first-year courses, the continuation of Bosnian-Croatian-Serbian I. The course continues to develop competence in speaking, reading, writing, and understanding contemporary BCS. Class work emphasizes development of communicative and cultural competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in BCS. By the end of the course, you will be able to engage in simple conversations on many topics in informal and some formal contexts concerning your daily life. You will also be able to write longer personalized messages in BCS.
Not Offered Every Year
1 Course Unit

BCS 0300 Bosnian-Croatian-Serbian III
This course is the first in the series of second-year courses, continuation of Bosnian-Croatian-Serbian II. The course will strengthen students’ competence in speaking, reading, writing, and understanding contemporary BCS and will expand students’ active and passive vocabulary on a variety of topics. Class work emphasizes development of communicative and cultural competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in BCS. By the end of the course, you will be able to engage in increasingly complex conversations in BCS on many topics in informal and formal contexts concerning your daily life, significant personal and cultural events and situations, important cultural figures. You will be able to write longer messages in a variety of informal and formal contexts.
Not Offered Every Year
1 Course Unit
BCS 0400 Bosnian-Croatian-Serbian IV
This course is the second in the series of second-year courses, continuation of Bosnian-Croatian-Serbian III. The course will continue strengthening and expanding students’ competence in speaking, reading, writing, and understanding contemporary BCS and increasing active and passive vocabulary on a variety of topics. Class work emphasizes development of communicative and cultural competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in BCS. By the end of the course, you will be able to engage in increasingly complex conversations in BCS on many topics in informal and formal contexts concerning your daily life, significant personal and cultural events, attitudes and perspectives. You will be able to write longer messages in a variety of informal and formal contexts. Satisfies Penn Language Requirement.
Not Offered Every Year
1 Course Unit

Business Economics & Public Policy (BEPP)

BEPP 0001 Introduction to Behavioral Economics
Governments and firms set policy in a world of behavioral agents. This course will present economic approaches to these policy problems when individuals act in behavioral ways. Readings will be newspaper articles that will be discussed in class. Assignments -- two problem sets and an exam -- will include qualitative and quantitative analysis.
0.5 Course Units

BEPP 1000 Introductory Economics for Business Students
Microeconomics is the study of the behavior of households and firms, whose collective decisions determine how resources are allocated in a free market economy. We will study when markets are likely to produce "efficient" outcomes, and when government intervention may improve on or harm the competitive market outcome. We will use economic theory to analyze issues like a gas tax to change reliance on oil, minimum wages to increase salaries of the working poor, and government subsidies to increase education. Macroeconomics is the study of the economy as a whole. We will understand how the size of the US economy is determined, how unemployment is measured, how inflation affects life. We will look at policy options that the government and the Federal Reserve Bank face, and discuss pros and cons of their actions. Economic arguments are often used in debates about government policies, discussion of business strategies, and many of life’s other arenas. The goal of the course is to teach you to “think like an economist,” which I hope will help you to understand the world around you, make better economic decisions in your own life, and be a more informed citizen and voter.
Fall
1 Course Unit

BEPP 2010 Public Finance and Policy
This course explores the economics and politics of public policy to provide an analytic framework for considering why, how, and with what success/failure government intervenes in a variety of policy areas. Particular attention will be paid to important policy issues relating to taxation, social security, low-income assistance, health insurance, education (both K-12 and higher ed), the environment, and government deficits. The costs and benefits of alternative policies will be explored along with the distribution of responsibilities between the federal, state and local governments. While the course will focus primarily on U.S. policies, the topics covered (e.g. tax reform, deficits versus austerity, etc.) are currently at the center of the policy debate in many other industrialized countries as well.
Fall or Spring
Mutually Exclusive: BEPP 7700
1 Course Unit

BEPP 2020 Consumer Financial Decision Making
Research shows that many individuals are profoundly underinformed about important financial facts and financial products, which frequently lead them to make mistakes and lose money. Moreover, consumer finance comprises an enormous sector of the economy, including products like credit cards, student loans, mortgages, retail banking, insurance, and a wide variety of retirement savings vehicles and investment alternatives. Additionally, recent breakthroughs in the FinTech arena are integrating innovative approaches to help consumers. Though virtually all people use these products, many find financial decisions to be confusing and complex, rendering them susceptible to fraud and deception. As a result, government regulation plays a major role in these markets. This course intended for Penn undergraduates considers economic models of household decisions and examines evidence on how consumers are managing (and mismanaging) their finances. Although academic research has historically placed more attention on corporate finance, household finance is receiving a brighter spotlight now-- partly due to its role in the recent financial crisis. Thus the course is geared toward those seeking to take charge of their own financial futures, anyone interested in policy debates over consumer financial decision making, and future FinTech entrepreneurs.
Fall
Also Offered As: FNCE 2020
1 Course Unit

BEPP 2030 Business in the Global Political Environment.
This course examines the non-market components of business and the broader political, regulatory, and civil context in which companies function. This course addresses how businesses interact with political and regulatory institutions, as well as the general public, with a focus on the global economy. The first portion examines the realities associated with political economy and the actual making of laws and regulations by imperfect politicians and regulators. The second portion analyzes the economic rationale for legislation and regulation in the presence of market failures. The course covers specific market failures and potential solutions including government regulation.
Fall or Spring
Prerequisite: ECON 0100
1 Course Unit

BEPP 2070 Economics for the Next Hundred Years
TBD
0.5 Course Units
BEPP 2080 Housing Markets
This course is designed for students interested in the economics and operations of housing markets. It is primarily a U.S. focused course, but does include a limited amount of international material for comparative purposes. The class is divided into four sections: (1) supply and demand for housing, including the operations of homebuilders and rental landlords; (2) house prices, including cycles and price dynamics; (3) international comparisons; and (4) public policy analysis applied to a current housing markets-related issue. This course presumes knowledge of intermediate economics, as we will apply that knowledge throughout the semester. For Wharton students, this means you must have passed BEPP 2500 (undergrads) or MGEC 61100 and 6120 for MBA’s. Non-Wharton students should have taken the equivalent course in the College. Lecture with discussion required.
Spring
Also Offered As: REAL 2080
Prerequisite: BEPP 2500
1 Course Unit

BEPP 2110 Tax Policy and Practice in the Philadelphia Community
The academic component of the course will focus on several areas: (1) The Color of Money: Black Banks and the Racial Wealth Gap. Students will read this book throughout the semester to support their understanding of the community that they will be serving. (2) Statutory tax system. Students will learn about the tax system as it relates to individuals and sole proprietors. The VITA training covers general tax preparation, with a specific focus on tax credits available to VITA-eligible taxpayers and the use of VITA software. In addition, one session of the course will include a guest lecture/discussion by Professor Jennifer Blouin. She will focus on statutory tax issues related to organizational form choice for self-employed and gig economy workers, which is an important statutory issue in low-income communities. (3) Social policy debate. Tax policy, including deductions, subsidies and credits, are one tool that lawmakers can use to get more cash in the hands of individuals and families, especially for low-income groups. Students will consider the effectiveness and usefulness of tax policies relative to other tools that the government has available. There are three guest lecturers for the sessions on tax policy: Wharton Professors Alex Rees-Jones and Kent Smetters, and Professor Amy Beth Castro from SP2. (4) Working with people. Volunteering with VITA requires students to work with people from a low-income community on the sensitive issue of personal finances. Students will learn to discuss sensitive financial issues with lower-income adults (including many seniors) through readings and in-class discussions, and by reflecting on their real-life experiences in the local community. This skill is important in a variety of roles such as healthcare (physicians and nurses), business (e.g., the HR function), and education. The community service part of the course is volunteering with VITA, which is the IRS’s "Volunteer Income Tax Assistance" program. Following training, students will perform tax services for the West Philadelphia community during the 2023 tax season. The course will meet once a week in three-hour sessions for 8-9 weeks during the Spring semester. Students are expected to be in the field performing service throughout a significant portion of the semester. As described on the IRS website, the VITA program has operated for over 50 years. Volunteers offer free tax help to people who need assistance in preparing their own tax returns, including: • People who generally make $58,000 or less • Persons with disabilities; and • Limited English-speaking taxpayers.
Spring
Also Offered As: ACCT 2110
1 Course Unit

BEPP 2120 Economic Analysis of Law
This course provides an introduction to the economic analysis of law and legal institutions. Our goal is develop intuitions about the ways law simultaneously shapes and responds to private behavioral incentives. In the first half of the course, we will survey the application of key economic concepts to basic features of the Anglo-American common law of property, contract, and tort. In the second half of the course, we will use the tools developed in our survey to focus in depth on the law of intellectual property.
Fall or Spring
Also Offered As: LGST 2120
1 Course Unit

BEPP 2140 Nonprofit Sector: Economic Challenges and Strategic Responses.
The nonprofit sector plays a key role in the provision of many goods and services which are fundamental in our society and which may be difficult to provide using market mechanisms alone. Education, health care, charitable services, and the arts are some primary examples of these. Nonprofit organizations operate in service of specific social missions rather than profit maximization, but in order to serve those missions effectively while ensuring their own survival, they must also make many of the decisions typically associated with private firms. That is, they must compete for funding, human resources, and consumers of their services, they must manage and invest their resources efficiently, and they must innovate new products and services over time. Importantly, the latter requirements may at times come in conflict with the organizations’ social values. As a result, nonprofit organizations as economic decision-makers confront a number of unique challenges to their success and growth. The goal of this course is to give students a broad overview of the economic, organizational, and strategic concerns facing the non-profit sector. Our objective is to characterize the unique economic environment, identify effective strategic governance, and management approaches, and explore how appropriate measurement techniques can inform the policy treatment of nonprofits. This course is organized around a number of lectures, readings and outside speakers, a midterm exam and a required project.
1 Course Unit

BEPP 2200 Behavioral Economics, Markets, and Public Policy
Behavioral economics has revealed a variety of systematic ways in which people deviate from being perfectly selfish, rational, optimizing agents. These findings have important implications for government policy and firm behavior. This course will explore these implications by answering two main questions: (1) what does behavioral economics imply for when and how the government should intervene in markets? (2) What does behavioral economics imply for firms’ pricing and production decisions? The course will present the standard economic approaches to answering these questions and then explore how answers change when we consider that people act in behavioral ways. Towards the end of the course, we will investigate specific policy questions, allowing us to debate solutions while hearing from policy makers operating in a world of behavioral agents.
Spring
1 Course Unit
BEPP 2300 Urban Fiscal Policy
This course will examine the provision of public services for firms and people through cities. Why cities exist, when fiscal policy fails, investments in infrastructure, realities of local governments such as inequality, crime, corruption, high cost of living, congestion, and unfunded pensions and debt, will be covered. We will pay special attention to recent topics, such as partnerships with the private sector, enterprise zones, the role of technology, environmental challenges, and real estate policies that promote housing affordability, such as rent control and inclusionary zoning.
Spring
Also Offered As: FNCE 2300, REAL 2300
1 Course Unit

BEPP 2330 Consumers, Firms and Markets in Developing Countries
Nearly four-fifths of the world's population lives in low income or developing countries. Though currently far behind the U.S., the 15 fastest growing economies/markets in the world are all developing countries. And developing countries already account for 6 of the world's 15 largest economies. This course will examine economic life, including consumers, firms and markets, in low income countries. We will apply both economic theory and empirical analysis for analyzing the roles of both business and government in consumption, production and market equilibria.
Fall or Spring
1 Course Unit

BEPP 2360 International Housing Comparisons
This course analyzes housing finance systems and housing market outcomes across the globe. In the US, the course focuses on the development of securitization markets and addresses the current challenges of housing finance reform, including the future of Fannie Mae and Freddie Mac. Internationally, the course covers issues of access to housing and housing informality in developing countries, financial crises arising out of the housing sector, and market-oriented and public policy solutions. The course features a wide array of speakers in finance, government and academia who contribute their perspectives to pressing issues of mortgage market design.
Spring
Also Offered As: REAL 2360
1 Course Unit

BEPP 2500 Managerial Economics
This course will introduce you to "managerial economics" which is the application of microeconomic theory to managerial decision-making. Microeconomic theory is a remarkably useful body of ideas for understanding and analyzing the behavior of individuals and firms in a variety of economic settings. The goal of the course is for you to understand this body of theory well enough so that you can effectively analyze managerial (and other) problems in an economic framework. While this is a "tools" course, we will cover many real-world applications, particularly business applications, so that you can witness the usefulness of these tools and acquire the skills to use them yourself. We will depart from the usual microeconomic theory course by giving more emphasis to prescription: What should a manager do in order to achieve some objective? That course deliverable is to compare with description: Why do firms and consumers act the way they do? The latter will still be quite prominent in this course because only by understanding how other firms and customers behave can a manager determine what is best for him or her to do. Strategic interaction is explored both in product markets and auctions. Finally, the challenges created by asymmetric information - both in the market and within the firm - are investigated.
Fall or Spring
Mutually Exclusive: BEPP 2508, BEPP 9500, ECON 2100
Prerequisite: ECON 0100 AND MATH 1300
1 Course Unit

BEPP 2508 Managerial Economics
This course will introduce you to "managerial economics" which is the application of microeconomic theory to managerial decision-making. Microeconomic theory is a remarkably useful body of ideas for understanding and analyzing the behavior of individuals and firms in a variety of economic settings. The goal of the course is for you to understand this body of theory well enough so that you can effectively analyze managerial (and other) problems in an economic framework. While this is a "tools" course, we will cover many real-world applications, particularly business applications, so that you can witness the usefulness of these tools and acquire the skills to use them yourself. We will depart from the usual microeconomic theory course by giving more emphasis to prescription: What should a manager do in order to achieve some objective? That course deliverable is to compare with description: Why do firms and consumers act the way they do? The latter will still be quite prominent in this course because only by understanding how other firms and customers behave can a manager determine what is best for him or her to do. Strategic interaction is explored both in product markets and auctions. Finally, the challenges created by asymmetric information - both in the market and within the firm - are investigated.
Mutually Exclusive: BEPP 2500, BEPP 9500, ECON 2100
Prerequisite: ECON 0100 AND MATH 1300
1 Course Unit
BEPP 2610 Risk Analysis and Environmental Management
This course will introduce students to concepts in risk governance. We will delve into the three pillars of risk analysis: risk assessment, risk management, and risk communication. The course will spend time on risk financing, including insurance markets. There will be particular emphasis on climate risks, although the course will also discuss several other examples, including pandemics, biodiversity loss, and systemic risks, among others. The course will cover how people perceive risks and the impact this has on risk communication and management. We will explore public policy surrounding risk management and how the public and private sectors can successfully work together to build resilience, particularly to changing risks.
Fall or Spring
Also Offered As: OIDD 2610
1 Course Unit

BEPP 2630 Environmental & Energy Economics and Policy
This course examines environmental and energy issues from an economist's perspective. Over the last several decades, energy markets have become some of the most dynamic markets of the world economy, as they experienced a shift from heavy regulation to market-driven incentives. First, we look at scarcity pricing and market power in electricity and gasoline markets. We then study oil and gas markets, with an emphasis on optimal extraction and pricing, and geopolitical risks that investors in hydrocarbon resources face. We then shift gears to the sources of environmental problems, and how policy makers can intervene to solve some of these problems. We talk about the economic rationale for a broad range of possible policies: environmental taxes, subsidies, performance standards and cap-and-trade. In doing so, we discuss fundamental concepts in environmental economics, such as externalities, valuation of the environment and the challenge of designing international agreements. At the end of the course, there will be special attention for the economics and finance of renewable energy and policies to foster its growth. Finally, we discuss the transportation sector, and analyze heavily debated policies such as fuel-economy standards and subsidies for green vehicles. Prerequisites: An introductory microeconomics course (ECON1, or another course approved by the instructor) will be sufficient in most cases; BEPP 250 or an equivalent intermediate microeconomics course is recommended.
Also Offered As: OIDD 2630
1 Course Unit

BEPP 2640 Climate and Financial Markets
Climate change might be the defining challenge of our times, with a wide range of effects on financial markets and the broader economy. At the same time, financial markets play an important role in financing the transition to a net-zero economy. This role, however, is shaped by the information that is available to market participants. In this course, we examine how climate risks—both physical and regulatory—affect firms, financial markets (including carbon and renewable-energy certificate markets), and markets for energy and real estate. We examine the role that firms' disclosures and third-party information sources play. As climate change is high on the agenda of almost every company and government, this course will be valuable both for students with the ambition to pursue a career centered around sustainability and those who want to gain a better understanding of how climate issues affect more traditional roles in the financial sector, consulting, or non-profits. The starting point for this course is that financial market participants increasingly realize that climate change represents an important investment risk. One central concern focuses on transition risks, and in particular on the effects that regulatory responses to climate change have on the business models of carbon-intensive energy companies. We discuss how concerns about various climate risks influence the way investors allocate their capital and exercise their oversight of firms. We start with the price impacts of climate risks in equity, debt and real estate markets, including the role played by shareholder activism and engagement, divestment and portfolio alignment. Next, we study carbon markets with a focus on pricing and discuss strategies to hedge climate risks through financial instruments such as carbon or renewable-energy credits and derivative contracts. We then explore how different firms in the global energy sector—ranging from oil & gas to renewable energy to electric utilities—have responded to climate-related pressures from their investors and other stakeholders. Because outsiders' reactions depend on the information that they have, we investigate the impact of ESG reporting on financial markets and on the choices that managers make. Here, we also discuss the costs and benefits of regulating ESG reporting and the impact of greenwashing. We pay special attention to the impact of climate risk and reporting on decisions inside organizations, such as spin-offs, hedging, catastrophe insurance, and the structure of executive-compensation contracts. Further topics include life-cycle emissions and the social cost of carbon.
Spring
Also Offered As: ACCT 2640
Mutually Exclusive: BEPP 7640
Prerequisite: ACCT 1010 AND BEPP 2500
0.5 Course Units
BEPP 2650 Economics of Diversity and Discrimination
This class will cover the economics of gender, race, and discrimination guided by economic theory and empirical evidence. Topics on gender will include workplace discrimination, policies to promote gender equality, the historical evolution of economic gender roles in the US, and initiatives to promote women's empowerment in developing countries. Topics on race will include an overview of historical economic exclusion and its consequences, the empirical measurement of discrimination, models of discrimination and their shortcomings, and how understanding hidden biases and historical barriers can increase firms' equity and performance. This course is complementary with MGMT 2240/MGMT 6240, and material will not overlap, so students especially interested in diversity issues should seek to take both courses. While MGMT 2240/MGMT 6240 focuses on evidence-based solutions for managing diversity, this course focuses on the economic science of race, gender, and discrimination: How do economists model bias? What does empirical evidence say about the benefits of diversity, and the harms of discrimination? How do we measure whether discrimination is still taking place, despite a growing awareness of diversity and inclusion? What is unique about women as economic agents, and how do we understand gender equality in the workplace in light of this? This class will equip students with economics models and empirical evidence that can serve as a toolkit to analyze both policy and business decisions.
Mutually Exclusive: BEPP 7650
1 Course Unit

BEPP 2800 Applied Data Analysis
This course will examine how and when data can be used specifically to infer whether there is a causal relationship between two variables. We will emphasize (a) the critical role of an underlying economic theory of behavior in interpreting data and guiding analysis, as well as (b) a range of advanced techniques for inferring causality from data, such as randomized controlled trials, regression discontinuity, difference-in-difference, audit study (mystery shopping) approaches and stock-market event studies. The issue of causality, and the relevance of thinking about models and methods for inferring causality, is just as central and important for "Big Data" as it is when working with traditional data sets in business and public policy. The emphasis will not be on proofs and derivations but rather on understanding the underlying concepts, the practical use, implications and limitations of techniques. Students will work intensively with data, drawing from examples in business and public policy, to develop the skills to use data analysis to make better decisions. All analysis will be conducted using R. The goals of the course are for students to become expert consumers able to interpret and evaluate empirical studies as well as expert producers of convincing empirical analysis themselves.
Fall or Spring
Mutually Exclusive: BEPP 7800
Prerequisite: STAT 1020 OR STAT 1120 OR STAT 4310 OR ECON 2310 OR PSCI 1801 OR SOCI 2010
1 Course Unit

BEPP 2840 Game Theory for Business and Life
The objective of this course is to make you more skilled in strategic reasoning. Strategic situations permeate our lives and we will examine many such situations through the lens of game theory. The course is composed of game-theoretic concepts, applications, and experiential learning. The bulk of the applications are to business situations including product entry, bargaining, managerial incentive contracts, and network effects. Given the ubiquitous presence of strategic situations in human societies, applications will also extend to politics, war, sports, history, crime, theology, and every day life, and cover such topics as steroid use in sports, traffic congestion, corruption, racial discrimination, and sexual harassment. Students will regularly participate in experiments involving strategic reasoning, and form teams to compete in a simulated industry environment.
Fall or Spring
1 Course Unit

BEPP 2890 Economic Globalization: Policy, History and Contemporary Issues
This course is intended to deepen understanding of the major contemporary issues in the world economy. The focus is on the "big picture" of global economic developments and the evolution of economic thought over the last one hundred years. The topics include: financial market booms and busts; business cycles; monetary and fiscal policies; inequality; the social welfare state; technological change and economic growth; and international trade and financial arrangements. The time period covers: the Roaring Twenties; the Great Depression, the post war Golden Age (1945-1973); the stagflation of the 1970s; the Washington Consensus era of the market liberalization (1980-2007); and the 2008 financial crisis and Great Recession of 2007-2010 and its aftermath. The course also explores different schools of thought. The course will chronicle and compare economic policy and performance of the United States, Europe, Japan and emerging markets (Asia, Latin America, Africa). Spring
Mutually Exclusive: BEPP 7890
Prerequisite: ECON 0200
1 Course Unit

BEPP 2990 Independent Study
Fall or Spring
0.5-1 Course Unit
BEPP 3050 Risk Management
The last financial crisis and subsequent recession provide ample evidence that failure to properly manage risk can result in disaster. Individuals and firms confront risk in nearly all decisions they make. People face uncertainty in their choice of careers, spending and saving decisions, family choices and many other facets of life. Similarly, the value that firms create by designing and marketing good products is at risk from a variety of sources. The bankruptcy of a key supplier, sharp rise in cost of financing, destruction of an important asset, impact of global warming, or a liability suit can quickly squander the value created by firms. In extreme cases, risky outcomes can bankrupt a firm, as has happened recently to manufacturers of automobile parts and a variety of financial service firms. The events since the Global Financial Crisis also offer stark reminders that risk can impose significant costs on individuals, firms, governments, and society as a whole. This course explores how individuals and firms assess and evaluate risk, examines the tolls available to successfully manage risk and discusses real-world phenomena that limit the desired amount of risk-sharing. Our focus is primarily on explaining the products and institutions that will serve you better when making decisions in your future careers and lives.
Fall or Spring
Mutually Exclusive: BEPP 8050
Prerequisite: BEPP 2500 AND FNCE 1000
1 Course Unit

BEPP 3220 Business Insurance and Estate Planning.
This course presents an analysis of overall private wealth management. This includes planning for disposition of closely-held business interests; the impact of income taxes and other transfer costs on business interests and other assets; integration of life insurance, disability insurance, medical benefits, and long-term care insurance in the financial plan; planning for concentrated asset (e.g. common stock) positions, diversification techniques, and asset allocation strategies; distribution of retirement assets; lifetime giving and estate planning; and analysis of current developments in the creation, conservation, and distribution of estates. Attention also is given to various executive compensation techniques (including restricted stock and stock options) and planning for various employee benefits. The course also covers sophisticated charitable giving techniques and methods for financing education expenses. Reading consist of textbooks, case studies, and bulk pack articles.
Fall or Spring
1 Course Unit

BEPP 4010 Public Policy Analysis
BEPP 4010 fulfills the Wharton capstone requirement with a hands-on approach to addressing a key public policy question at the local, state, national, or global level. The question will vary from year to year in order to ensure it is topical and relevant. A core data set will be provided that is appropriate for addressing the defining question to the capstone course. Students will apply economic reasoning and empirical analysis to produce a report yielding new insight into the question of interest.
Not Offered Every Year
Prerequisite: BEPP 2500 AND WH 1010 AND WH 2010 AND MGMT 3010
0.5 Course Units

BEPP 6200 Behavioral Economics, Markets and Public Policy
Behavioral economics has revealed a variety of systematic ways in which people deviate from being perfectly selfish, rational, optimizing agents. These findings have important implications for government policy and firm behavior. This course will explore these implications by answering two main questions: (1) what does behavioral economics imply for when and how the government should intervene in markets? (2) What does behavioral economics imply for firms’ pricing and production decisions? The course will present the standard economic approaches to answering these questions and then explore how answers change when we consider that people act in behavioral ways. Towards the end of the course, we will investigate specific policy questions, allowing us to debate solutions while hearing from policy makers operating in a world of behavioral agents.
Spring
1 Course Unit

BEPP 7080 Housing Markets
This course is designed for students interested in the economics and operations of housing markets. It is primarily a U.S. focused course, but does include a limited amount of international material for comparative purposes. The class is divided into four sections: (1) supply and demand for housing, including the operations of homebuilders and rental landlords; (2) house prices, including cycles and price dynamics; (3) international comparisons; and (4) public policy analysis applied to a current housing markets-related issue. This course presumes knowledge of intermediate economics, as we will apply that knowledge throughout the semester. For Wharton students, this means you must have passed BEPP 2500 (undergrads) or MGEC 6110 for MBA’s. Non-Wharton students should have taken the equivalent course in the College. Lecture with discussion required.
Spring
Also Offered As: REAL 7080
Prerequisite: MGEC 6110
1 Course Unit

BEPP 7610 Risk Analysis and Environmental Management
This course will introduce students to concepts in risk governance. We will delve into the three pillars of risk analysis: risk assessment, risk management, and risk communication. The course will spend time on risk financing, including insurance markets. There will be particular emphasis on climate risk management, including both physical impact risk and transition risk, although the course will also discuss several other examples, including management of environmental risks, terrorism, and cyber-security, among other examples. The course will cover how people perceive risks and the impact this has on risk management. We will explore public policy surrounding risk management and how the public and private sector can successfully work together to build resilience, particularly to changing risks.
Fall or Spring
Also Offered As: ESE 5670, OIDD 7610
1 Course Unit
BEPP 7630 Energy Markets & Policy
Over the last several decades, energy markets have become some of the most dynamic markets of the world economy. Traditional fossil fuel and electricity markets have been seen a partial shift from heavy regulation to market-driven incentives, while rising environmental concerns have led to a wide array of new regulations and "environmental markets". The growth of renewable energy could be another source of rapid change, but brings with it a whole new set of technological and policy challenges. This changing energy landscape requires quick adaptation from energy companies, but also offers opportunities to turn regulations into new business. The objective of this course is to provide students with the economist's perspective on a broad range of topics that professionals in the energy industry will encounter. Topics include the effect of competition, market power and scarcity on energy prices, the impact of deregulation on electricity and fossil fuel markets, extraction and pricing of oil and gas, geopolitical uncertainty and risk in hydrocarbon investments, the environmental impact and policies related to the energy sector, environmental cap-and-trade markets, energy efficiency, the economics and finance of renewable energy, and recent developments in the transportation sector.
Also Offered As: OIDD 7630
1 Course Unit

BEPP 7640 Climate and Financial Markets
Climate change might be the defining challenge of our times, with a wide range of effects on financial markets and the broader economy. At the same time, financial markets play an important role in financing the transition to a net-zero economy. This role, however, is shaped by the information that is available to market participants. In this course, we examine how climate risks—both physical and regulatory—affect firms, financial markets (including carbon and renewable-energy certificate markets), and markets for energy and real estate. We examine the role that firms' disclosures and third-party information sources play. As climate change is high on the agenda of almost every company and government, this course will be valuable both for students with the ambition to pursue a career centered around sustainability and those who want to gain a better understanding of how climate issues affect more traditional roles in the financial sector, consulting, or non-profits. The starting point for this course is that financial market participants increasingly realize that climate change represents an important investment risk. One central concern focuses on transition risks, and in particular on the effects that regulatory responses to climate change have on the business models of carbon-intensive energy companies. We discuss how concerns about various climate risks influence the way investors allocate their capital and exercise their oversight of firms. We start with the price impacts of climate risks in equity, debt and real estate markets, including the role played by shareholder activism and engagement, divestment and portfolio alignment. Next, we study carbon markets with a focus on pricing and discuss strategies to hedge climate risks through financial instruments such as carbon or renewable-energy credits and derivative contracts. We then explore how different firms in the global energy sector—ranging from oil & gas to renewable energy to electric utilities—have responded to climate-related pressures from their investors and other stakeholders. Because outsiders' reactions depend on the information that they have, we investigate the impact of ESG reporting on financial markets and on the choices that managers make. Here, we also discuss the costs and benefits of regulating ESG reporting and the impact of greenwashing. We pay special attention to the impact of climate risk and reporting on decisions inside organizations, such as spin-offs, hedging, catastrophe insurance, and the structure of executive-compensation contracts. Further topics include life-cycle emissions and the social cost of carbon.
Spring
Also Offered As: ACCT 7640
Mutually Exclusive: BEPP 2640
Prerequisite: (ACCT 6110 OR ACCT 6130) AND MGEC 6110 AND MGEC 6120
0.5 Course Units
BEPP 7650 Economics of Diversity and Discrimination
This class will cover the economics of gender, race, and discrimination guided by economic theory and empirical evidence. Topics on gender will include workplace discrimination, policies to promote gender equality, the historical evolution of economic gender roles in the US, and initiatives to promote women’s empowerment in developing countries. Topics on race will include an overview of historical economic exclusion and its consequences, the empirical measurement of discrimination, models of discrimination and their shortcomings, and how understanding hidden biases and historical barriers can increase firms’ equity and performance. This course is complementary with MGEC 6110/MGEC 6120, and material will not overlap, so students especially interested in diversity issues should seek to take both courses. While MGEC 6110/MGEC 6120 focuses on evidence-based solutions for managing diversity, this course focuses on the economic science of race, gender, and discrimination: How do economists model bias? What does empirical evidence say about the benefits of diversity, and the harms of discrimination? How do we measure whether discrimination is still taking place, despite a growing awareness of diversity and inclusion? What is unique about women as economic agents, and how do we understand gender equality in the workplace in light of this? This class will equip students with economics models and empirical evidence that can serve as a toolkit to analyze both policy and business decisions. The format will be discussion based, with a short lecture each session and then active class discussion, drawing parallels between research and current events and news articles. Students will also present on various topics throughout the semester. The final project can be either a) an original research project, based on one of the topics discussed in class, or b) a case-style analysis of a modern management or policy dilemma building upon the class material.
Spring
Mutually Exclusive: BEPP 2650
1 Course Unit

BEPP 7700 Public Finance and Policy
This course explores the economics and politics of public policy to provide an analytic framework for considering why, how, and with what success/failure government intervenes in a variety of policy areas. Particular attention will be paid to important policy issues relating to taxation, social security, low-income assistance, health insurance, education (both K-12 and higher ed), the environment, and government deficits. The costs and benefits of alternative policies will be explored along with the distribution of responsibilities between the federal, state, and local governments. While the course will focus primarily on U.S. policies, the topics covered (e.g. tax reform, deficits versus austerity, etc.) are currently at the center of the policy debate in many other industrialized countries as well.
Two Term Class, Student may enter either term; credit given for either
Mutually Exclusive: BEPP 2010
1 Course Unit

BEPP 7730 Urban Fiscal Policy
This course will examine the provision of public services for firms and people through cities. Why cities exist, when fiscal policy fails, investments in infrastructure, realities of local governments such as inequality, crime, corruption, high cost of living, congestion, and unfunded pensions and debt, will be covered. We will pay special attention to recent topics, such as partnerships with the private sector, enterprise zones, the role of technology, environmental challenges, and real estate policies that promote housing affordability, such as rent control and inclusionary zoning.
Fall
Also Offered As: FNCE 7300, REAL 7300
1 Course Unit

BEPP 7800 Applied Data Analysis
This course will examine how and when data can be used specifically to infer whether there is a causal relationship between two variables. We will emphasize (a) the critical role of an underlying economic theory of behavior in interpreting data and guiding analysis, as well as (b) a range of advanced techniques for inferring causality from data, such as randomized controlled trials, regression discontinuity, difference-in-difference, audit study (mystery shopping) approaches and stock-market event studies. The issue of causality, and the relevance of thinking about models and methods for inferring causality, is just as central and important for "Big Data" as it is when working with traditional data sets in business and public policy. The emphasis will not be on proofs and derivations but rather on understanding the underlying concepts, the practical use, implications and limitations of techniques. Students will work intensively with data, drawing from examples in business and public policy, to develop the skills to use data analysis to make better decisions. All analysis will be conducted using R. The goals of the course are for students to become expert consumers able to interpret and evaluate empirical studies as well as expert producers of convincing empirical analysis themselves.
Mutually Exclusive: BEPP 2800
1 Course Unit

BEPP 7890 Economic Globalization: Policy, History and Contemporary Issues
This course is intended to deepen understanding of the major contemporary issues in the world economy. The focus is on the "big picture" of global economic developments and the evolution of economic thought over the last one hundred years. The topics include: financial market booms and busts; business cycles; monetary and fiscal policies; inequality; the social welfare state; technological change and economic growth; and international trade and financial arrangements. The time period covers: the Roaring Twenties; the Great Depression, the post war Golden Age (1945-1973); the stagflation of the 1970s; the Washington Consensus era of the market liberalization (1980-2007); and the 2008 financial crisis and ensuing Great Recession; and the recent rise of populism. This course also explores different schools of thought. The course will chronicle and compare economic policy and performance of the United States, Europe, Japan and emerging markets (Asia, Latin America, Africa).
Fall or Spring
Mutually Exclusive: BEPP 2890
Prerequisite: MGEC 6110 AND MGEC 6120
1 Course Unit
BEPP 8050 Risk Management
The last financial crisis and subsequent recession provide ample evidence that failure to properly manage risk can result in disaster. Individuals and firms confront risk in nearly all decisions they make. People face uncertainty in their choice of careers, spending and saving decisions, family choices, and many other facets of life. Similarly, the value that firms create by designing and marketing good products is at risk from a variety of sources. The bankruptcy of a key supplier, sharp rise in cost of financing, destruction of an important asset, impact of global warming, or a liability suit can quickly squander the value created by firms. In extreme cases, risky outcomes can bankrupt a firm, as has happened recently to manufacturers of automobile parts and a variety of financial service firms. The events since the Global Financial Crisis also offer stark reminders that risk can impose significant costs on individuals, firms, governments, and society as a whole. This course explores how individuals and firms assess and evaluate risk, examines the tools available to successfully manage risk, and discusses real-world phenomena that limit the desired amount of risk-sharing. Our focus is primarily on explaining the products and institutions that will serve you better when making decisions in your future careers and lives.
Fall or Spring
Mutually Exclusive: BEPP 3050
1 Course Unit

BEPP 8110 Risk and Crisis Management.
The growing connectivity of global economies and financial markets has produced widespread risk contagion, resulting in increased volatility and an ever-increasing demand for risk capital. This course focuses on understanding the drivers of risk contagion and ways to restore confidence in worldwide markets for pure and financial risk. The class begins with an evaluation of recent financial and pure risk events: for example, the sovereign debt crisis, Japanese earthquake, and BP Deepwater Horizon. We explore how these events are being financed in innovative ways via the capital and insurance markets. Next we emphasize the role of risk management in the preservation and creation of value, helping firms identify, measure, monitor and manage/finance risk. Doing so results in risk-adjusted returns (or return on risk-adjusted capital) that exceed the cost of capital. We devote substantial focus on the practical implementation of effective risk management/financing, given evolving regulatory and governance standards. In addition, we explore opportunities for corporate growth as well as public/private partnerships. The course will conclude with a discussion of emerging markets and the role of risk management in developing a middle class needing new forms of risk transfer/financing.
Fall or Spring
0.5 Course Units

BEPP 8360 International Housing Comparisons
This course analyzes housing finance systems and housing market outcomes across the globe. In the US, the course focuses on the development of securitization markets and addresses the current challenges of housing finance reform, including the future of Fannie Mae and Freddie Mac. Internationally, the course covers issues of access to housing and housing informality in developing countries, financial crises arising out of the housing sector, and market-oriented and public policy solutions. The course features a wide array of speakers in finance, government and academia who contribute their perspectives to pressing issues of mortgage market design.
Spring
Also Offered As: REAL 8360
Prerequisite: FNCE 6130
1 Course Unit

BEPP 8930 Advanced Study Projects
“This course closes the gap between the theory of business economics analytics and its actual practice, i.e., how you can really use it in your practice. Normally, this type of comprehensive problem solving would require using coding languages like Python or R. However, the instructor for this course has developed a plugin no-code toolbox for Microsoft Excel that allows for end-to-end analytics, making data analytics accessible to a much wider audience. This software plugin will be provided for free to you. You will learn how to conduct in-depth business analytics based on sensible economics reasoning within Excel. The hands-on experience does not require in-depth software coding, and your new skillset is repeatable for your future projects.”
Fall or Spring
0.5-1 Course Unit

BEPP 8970 Special Topics
Course titles and descriptions for Special Topics courses can be found in Path@Penn for the term in which they are offered. See “SECTION DETAILS” in Path@Penn for the course description and use the Syllabi@Wharton app to see the course syllabus.
0.5-1 Course Unit

BEPP 8980 Global Modular Course
Global Modular Course - MBA
0.5 Course Units

BEPP 9000 Research Seminar
Of the many ways that doctoral students typically learn how to do research, two that are important are watching others give seminar presentations (as in Applied Economics Seminars) and presenting one’s own research. The BEPP 9000 course provides a venue for the latter. Wharton doctoral students enrolled in this course present applied economics research. Presentations both of papers assigned for other classes and of research leading toward a dissertation are appropriate in BEPP 9000. This course aims to help students further develop a hands-on understanding of the research process. All doctoral students with applied microeconomic interests are encouraged to attend and present. Second and third year Applied Economic Ph.D. students are required to enroll in BEPP 9000 and receive one-semester credit per year of participation. Two Term Class, Student may enter either term; credit given after both terms are complete
0.5 Course Units

BEPP 9040 Experimental Economics
This course will help prepare you to run your own economics laboratory and field experiments. Experimental methods have been widely adopted by economists to develop new insights, and some economic theories and hypotheses are uniquely well-suited for testing with experimental tools and data. Achieving high internal and external validity requires careful experimental design. Substantive areas of application in the course will include market equilibrium, asset bubbles, learning in games, public good provision, and labor market relationships. Additional topics may include biases in individual decision-making; field experiments in development economics; and happiness, neuroeconomics, and behavioral/experimental welfare economics. Economists’ typical interests in strategic and market-based interactions raise particular methodological challenges and opportunities.
Not Offered Every Year
Also Offered As: OIDD 9040
1 Course Unit
BEPP 9110 Empirical Public Policy
This course examines econometric research on a variety of topics related to public policy, with the goal of preparing students to undertake academic-caliber research. The course is not an econometrics or statistics course per se; rather, it focuses on research designs with observational data and how econometric techniques are applied in practice. The course aims to train students to do applied economic research that involves measuring effects of theoretical or practical interest. It proceeds in two major parts. The first part examines endogeneity and inference about causal relationships, instrumental variables methods and critiques, and panel data methods. The second part of the course addresses 'structural' econometric modeling. Topics covered in this part include sorting and selection, entry models, and counterfactual analyses of policy changes. The course proceeds by analyzing, in detail, approximately 24 well-known empirical research papers in applied economics or related fields. These include public economics and tax policy, labor economics, law and economics, health care policy, industrial organization and competition, transportation demand and policy, and others. Spring
1 Course Unit

BEPP 9150 Behavioral Economics and Policy Analysis
In this course we will be surveying the ways in which behavioral economics ideas are influencing economic analysis in different "applied micro" fields. A guiding focus of the course will be studying the role of behavioral economics when conducting welfare or policy analysis. The course will begin with a high-level overview of the common themes seen across all the fields we will discuss, and then we will proceed through a series of modules in which we examine the specifics in different applications. Over the course of the semester, we will dive into public finance, health economics, market design, labor economics, and industrial organization. Fall or Spring
Prerequisite: ECON 7110
1 Course Unit

BEPP 9310 Numerical Methods in Economics
The objective of this course is to introduce graduate students to computational approaches for solving economic models. We will formulate economic problems in computationally tractable form and use techniques from numerical analysis to solve them. Examples of computational techniques in the current economics literature as well as discuss areas where these techniques may be useful in future research will be disclosed. We will pay particular attention to methods for solving dynamic optimization problems and computing equilibria of games. The substantive applications will cover a wide range of problems including industrial organization, game theory, macroeconomics, finance, and econometrics. Fall or Spring
1 Course Unit

BEPP 9320 Contract Theory and Applications
The course provides an advanced introduction to the theory of contracts and its mixture of foundational theories and applications to fields such as labor, reguindustrial organization. Spring
1 Course Unit

BEPP 9330 Public Economics: Social Insurance and Government Expenditures
The first part of this course will examine the rationale for and economic impact (e.g. on saving, labor supply, etc.) of social insurance programs such as social security, unemployment insurance and disability insurance. The next major part of the course will explore these same issues for government interventions in health insurance markets. The course will then cover research on public goods, externalities, fiscal federalism, and economic stimulus (including the government's recent response to the "Great Recession") before proceeding to an exploration of the government's role in K-12 and high education. Both theoretical and empirical evidence will be covered along with a mix of classic studies and more cutting-edge research. Throughout the course we will discuss the tradeoffs - for example between the protection and distortion of social insurance programs – that influence government's optional role. While the focus will be on evidence from the U.S., some research from other industrialized and developing countries will also be covered. Fall or Spring
1 Course Unit

BEPP 9410 Development Economics
This course will cover current microeconomic issues of developing countries including poverty, risk, savings, human capital, and institutions. We will also explore the causes and consequences of market failures that are common in many developing countries with a focus on credit, land, and labor markets. The course is designed to introduce recent research with focus on empirical methods and testing theories with data. Fall or Spring
1 Course Unit

BEPP 9500 Managerial Economics
Public goods, externalities, uncertainty, and income redistribution as sources of market failures; private market and collective choice models as possible correcting mechanisms. Microeconomic theories of taxation and public sector expenditures. The administration and organization of the public sector. Fall or Spring
Prerequisite: BEPP 2500
1 Course Unit

BEPP 9520 Economics and Law
1 Course Unit

BEPP 9610 Risk Analysis and Environmental Management
This course will introduce students to concepts in risk governance. We will delve into the three pillars of risk analysis: risk assessment, risk management, and risk communication. The course will spend time on risk financing, including insurance markets. There will be particular emphasis on climate risk management, including both physical impact risk and transition risk, although the course will also discuss several other examples, including management of environmental risks, terrorism, and cyber-security, among other examples. The course will cover how people perceive risks and the impact this has on risk management. We will explore public policy surrounding risk management and how the public and private sector can successfully work together to build resilience, particularly to changing risks. Fall or Spring
1 Course Unit
**BEPP 9620 Applied Economics Seminar**
The goal of this course is to help doctoral students develop critical thinking skills through both seminar participation and writing of referee reports. To this end students will attend the Wharton Applied Economics each Wednesday at noon seminar when it meets; prepare two written referee reports on WAE papers per semester, due before the seminar is presented. After attending the seminar and the ensuing discussion of the paper, students will prepare follow-up evaluations of their referee reports, due one week after the seminar.
Two Term Class, Student may enter either term; credit given after both terms are complete
Also Offered As: REAL 9620
0.5-1 Course Unit

**BEPP 9710 Market Design**
The course covers Market Design, the analysis and engineering of market rules and institutions. In the last 60 years practitioners and academics have deliberately engineered the rules of an increasing number of markets, with classic examples including medical resident matching (e.g., NRMP), spectrum auctions (e.g., FCC auctions), and organ donation exchanges. In the last few years, very large markets have been created from scratch, such as eBay, Adwords, and smaller markets like odesk.com and sittercity.com. These designs use a broad set of tools, including economic theory, empirical analysis and experiments (and a fair dose of trial-and-error). With this experience, useful principles have emerged, on what market failures typically have to be addressed, and on which rules work and which do not.
1 Course Unit

**BEPP 9870 Industrial Organization and Competition Policy**
This course focuses on empirical methods and applications of research topics in Industrial Organization. Although not exclusively, the course will focus mostly on the application of econometric techniques used to study specific markets and antitrust policies. The topics that will be covered include the evaluation of market power and mergers, product differentiation, investment and innovation, collusion, price discrimination, vertical relations, entry and product positioning, and the dynamics of industries. The course will also discuss research methodologies related to microeconomic theory, computational methods, and econometric analysis. The applicability of the techniques goes beyond the field of Industrial Organization, and include the Labor, Health, Trade and Public economics.
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7110 OR (ECON 6100 AND ECON 6110)
1 Course Unit

**BEPP 9870 Market Design**
The course covers Market Design, the analysis and engineering of market rules and institutions. In the last 60 years practitioners and academics have deliberately engineered the rules of an increasing number of markets, with classic examples including medical resident matching (e.g., NRMP), spectrum auctions (e.g., FCC auctions), and organ donation exchanges. In the last few years, very large markets have been created from scratch, such as eBay, Adwords, and smaller markets like odesk.com and sittercity.com. These designs use a broad set of tools, including economic theory, empirical analysis and experiments (and a fair dose of trial-and-error). With this experience, useful principles have emerged, on what market failures typically have to be addressed, and on which rules work and which do not.
1 Course Unit

**BEPP 9870 Industrial Organization and Competition Policy**
This course focuses on empirical methods and applications of research topics in Industrial Organization. Although not exclusively, the course will focus mostly on the application of econometric techniques used to study specific markets and antitrust policies. The topics that will be covered include the evaluation of market power and mergers, product differentiation, investment and innovation, collusion, price discrimination, vertical relations, entry and product positioning, and the dynamics of industries. The course will also discuss research methodologies related to microeconomic theory, computational methods, and econometric analysis. The applicability of the techniques goes beyond the field of Industrial Organization, and include the Labor, Health, Trade and Public economics.
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7110 OR (ECON 6100 AND ECON 6110)
1 Course Unit

**Cell and Molecular Biology (CAMB)**

**CAMB 4310 Genome Science and Genomic Medicine**
This course will be a focused study of genomes, genomic techniques, and how these approaches are and will be used in diagnosing and treating human disease. Topics will include genome sequencing, analysis of sequences and microarrays, and new techniques including high-throughput sequencing and reverse genetic analysis with a focus on genome-wide mutant collections.
Spring
Also Offered As: BIOL 4231
Mutually Exclusive: BIOL 5231
Prerequisite: BIOL 2210
1 Course Unit

**CAMB 4800 Advanced Cell Biology**
This course is designed for beginning graduate students and advanced undergraduates with a particular enthusiasm for cell biology. Biology 4010 does not attempt to cover all aspects of cell biology, and is therefore not appropriate for students seeking a lecture course which provides a comprehensive survey of the field. Rather, the primary objective of this course is to teach those students considering a career in the biomedical sciences how to read, discuss, and question original research papers effectively. Intensive classroom discussions focus on the experimental methods used, results obtained, interpretation of these results in the context of cell structure and function, and implications for further studies.
Spring
Also Offered As: BIOL 4010
Mutually Exclusive: BIOL 5010
Prerequisite: BIOL 2001 OR BIOL 2010
1 Course Unit

**CAMB 4830 Epigenetics**
This course investigates epigenetic phenomena: heritable alternate states of gene activity that do not result from an alteration in nucleotide composition (mutations). Epigenetic mechanisms regulate genome accessibility and cell differentiation. They play a key role in normal development and in oncogenesis. For example both mammalian X-chromosome inactivation and nuclear transfer (cloning) are subject to epigenetic regulation. Amongst the epigenetic mechanisms we will discuss in this course are chromatin organization, histone modification, DNA methylation and non-coding RNAs. The course is geared toward advanced undergraduate and beginning graduate students and is a combination of lectures, student presentations and research presentations by guest speakers. Students will work with the current scientific literature.
Spring
Also Offered As: BIOL 4234
Mutually Exclusive: BIOL 5234
Prerequisite: BIOL 2210
1 Course Unit

**CAMB 4850 The RNA World: A functional and computational analysis**
A focused study of genomic, biochemical, cellular, and molecular aspects of RNA. Topics of study will include RNA structure, RNA processing and turnover, splicing, ribozymes and riboswitches, RNA editing and modification, RNA interference, endogenous eukaryotic RNA silencing pathways, small RNA biology, computational methodologies for studying RNA biology, and RNA viruses. Lectures, students presentations, and discussions will be based on readings from the primary literature.
Spring, odd numbered years only
Also Offered As: BIOL 4235
Prerequisite: BIOL 2210
1 Course Unit

2023-24 Catalog | Generated 08/02/23
CAMB 4860 Chromosomes and the Cell Cycle
Life depends on the propagation of genetic material from one generation to the next through cycles of genome replication and cell division. The genome is copied by the parent, and one exact copy is inherited by each daughter cell. We will treat chromosomes as discrete entities, rather than collections of genes, that are replicated and divided with high fidelity to ensure that the genome remains stable over many generations. By reading selected primary literature covering several decades, we will build an understanding of the cell cycle by focusing on chromosomes and the associated molecular machinery. We will explore mechanisms that underlie replication and division, particularly control mechanisms that maintain genome integrity and are critical to prevent disease. The goal of the course is to develop a picture of the cell cycle by examining some of the key experiments and insights that have led to our current understanding.
Spring
Also Offered As: BIOL 4026
Mutually Exclusive: BIOL 5026
Prerequisite: BIOL 2010
1 Course Unit

CAMB 4930 Epigenetics of Human Health and Disease
Epigenetic alterations encompass heritable, non-genetic changes to chromatin (the polymer of DNA plus histone proteins) that influence cellular and organismal processes. This course will examine epigenetic mechanisms in directing development from the earliest stages of growth, and in maintaining normal cellular homeostasis during life. We will also explore how diverse epigenetic processes are at the heart of numerous human disease states. We will review topics ranging from an historical perspective of the discovery of epigenetic mechanisms to the use of modern technology and drug development to target epigenetic mechanisms to increase healthy lifespan and combat human disease. The course will involve a combination of didactic lectures, primary scientific literature and research lectures, and student-led presentations.
Spring, even numbered years only
Also Offered As: BIOL 4244, GCB 4930
Prerequisite: BIOL 2210
1 Course Unit

CAMB 5010 Topics in Cancer Biology
Topics in Cancer Biology - more to come. Placeholder course for now
1 Course Unit

CAMB 5020 Topics in Developmental, Stem Cell and Regenerative Biology
Topics in Developmental, Stem Cell and Regenerative Biology
1 Course Unit

CAMB 5030 Topics in Genetics and Epidemiology
Topics in Genetics and Epidemiology - more to come. Placeholder course for now.
1 Course Unit

CAMB 5040 Topics in Gene Therapy and Vaccines
TBD - placeholdering the course for now
1 Course Unit

CAMB 5050 Topics in Cell and Molecular Biology
Topics in Cell and Molecular Biology
1 Course Unit

CAMB 5060 Topics in Microbiology, Virology and Parasitology
Topics in Microbiology, Virology and Parasitology. More info TBD, course is a placeholder for now.
1 Course Unit

CAMB 5070 Topics in Physiology, Metabolism and Cell Biology
Topics in Physiology, Metabolism and Cell Biology. This course will be better defined later. Right now using this as placeholder since we need to get this info in the system by February 20
1 Course Unit

CAMB 5080 Topics in Quantitative Training
Topics in Quantitative Training. This course will be better defined later. Right now using this as placeholder since we need to get this info in the system by February 20
1 Course Unit

CAMB 5100 Immunology for CAMB
The purpose of this course is to provide a thorough grounding in immunology to Cell and Molecular Biology graduate students, with an emphasis on the role of the immune system in combating infectious diseases. This is a required course for CAMB students in the Microbiology, Virology and Parasitology program and the Vaccine and Gene Therapy program, replacing IMMU 506 (Immune Mechanisms). It may also be used as an elective by CAMB students in other programs such as those from the Cancer Biology program and Cell Biology, Physiology and Metabolism program. Prerequisite: If course requirements not met, permission of instructor required. The course is divided into two parts. The first deals with innate immune response with a focus on pattern recognition and subsequent signaling in infection by bacteria, viruses, and parasites. The second half will focus on adaptive immune mechanisms, the structure, function, and molecular biology of antigen receptors and major histocompatibility complex molecules, and the development, activation, and differentiation of lymphocytes and other hematopoietic cells involved in immunity. The course is comprised of two 1.5-hour lectures per week, with Friday journal club on selected weeks.
Spring
Prerequisite: BIOM 6000
1 Course Unit

CAMB 5110 Principles of Development
This graduate course, which will include lectures and readings from the literature, is designed to provide a foundation in the principles of developmental biology. Topics covered will include: the germ line and piRNA, signaling pathways in development, pattern formation and cell specification, gastrulation, tissue differentiation, morphogenesis, cell polarity, epigenetics in development, organogenesis, stem cell biology, regeneration, and developmental evolution. The use of molecular biology, biochemistry, genomics and genetics, cell biology, and embryological manipulations will be discussed in the context of the analysis of developmental mechanisms. Undergraduate background in cell biology and molecular biology required. Non-BGS students require permission from course director to enroll.
Spring
1 Course Unit
CAMB 5120 Cancer Biology and Genetics
The course objective is to introduce the students to important and current concepts in Cancer Biology and Cancer Genetics. The lectures are organized into 4 broad thematic groups: A) Intro to Cancer Biology and Signal Transduction (e.g., tumor suppressor and oncogene function, DNA repair pathways, senescence, apoptosis); B) Intrinsic and Extrinsic Drivers (e.g., tumor microenvironment, hypoxia, angiogenesis); C) Genome regulation and in Primary and Metastatic Tumors and D) Evading Cell Death. The organizers, along with faculty from the School of Medicine, the Wistar Institute, and CHOP, with expertise in the corresponding areas provide lectures for the course. The students are expected to present and participate in discussions of one or more key recent papers. This is a year-long course. Non-CAMB students must contact the course director prior to registration. This course is not for undergraduates. Students must have taken the fall CAMB 5120 course to participate in the spring semester.
Two Term Class, Student may enter either term; credit given after both terms are complete
0.5 Course Units

CAMB 5180 Current Topics in Ion Channels
The course is a seminar format, specifically a journal club format, targeted to graduate students and MD/PhD students interested in ion channels. It meets for one hour, once a week for graduate students and once every other week for the entire group with formal presentation. On alternate weeks a faculty member meets with students to discuss and review the contents of each selected article for the subsequent week’s presentation. This is an elective course meant to excite and intellectually enlighten students regarding the latest advances in ion channel research. It includes a wide range of ion channel topics from basic biophysics, structure, and physiology to cell biology and clinical applications. It is attended by faculty, students, and postdocs from the departments of Physiology, Pathology, Neuroscience, Pharmacology, Biochemistry & Biophysics, Psychiatry. We require a written critique of each paper presented by other participants during the semester, submitted prior to the formal presentation of the paper. This critique will be graded by a faculty member, as will the student’s participation in both the preparatory sessions and formal presentation sessions. A final grade would be based on both of these components.
Fall or Spring
Prerequisite: BIOM 6000
1 Course Unit

CAMB 5220 Human Evolutionary Genomics
Advanced seminar on current topics in human genomics and human evolution. Topics include the methods used for mapping and sequencing genomes; phylogenetic and population genetic analysis; and detecting variation in the human genome. This course is designed for graduate students but advanced undergraduates with a strong background in genetics are also welcome.
Spring, odd numbered years only
Also Offered As: BIOL 5220
1 Course Unit

CAMB 5300 The Cell Cycle, Genome Integrity and Cancer
This seminar course focuses on molecular and biochemical events that regulate cell cycle progression and genome maintenance, and explores how these processes influence cancer etiology and treatment. Specific topics will familiarize students with the key principles and recent developments within these areas. These topics include CDK-Cyclins and their inhibitors, regulation of G1-S and G2-M phase cell cycle transitions, DNA damage checkpoints and repair, the impact of chromatin regulation on DNA repair, and how each of these processes affects cancer etiology and treatment. In depth reading and evaluation of research literature will be primarily used to accomplish these aims, as well as provide instruction on rigorous experimental design and data interpretation. If course requirements not met, permission of instructor required. Preferential registration of Cancer Biology and CAMB students up to the maximum of 12 students applies. Permission to register is required upon exceeding the 12 student limit.
Fall
Prerequisite: BIOM 5550 AND BIOM 6000
1 Course Unit

CAMB 5320 Human Physiology
This course will present a survey of the physiology of most of the major organ systems. It will integrate knowledge of cellular and molecular mechanisms into an understanding of function at the tissue, organ, and organism levels. It will begin with a brief review of membrane physiology, followed by electrophysiology and signaling in nerve. Then, after a brief outline of neural control systems and their role in homeostasis, it will present motility and muscle, the cardiovascular system, respiration, the renal and gastrointestinal systems, and selected topics from the endocrine system, the reproductive systems, environmental and exercise physiology. As well as providing a basis of integrative physiology for students in fields such as physiology, bioengineering and pharmacology, it should be of interest to students of cellular and molecular biology and genetic engineering who will need to appreciate the roles of specific systems and molecules at higher levels of organization. Prerequisite: Although not a formal prerequisite, a good foundation in cell bio level of BIOM/CAMB 6000 (or an equivalent upper level undergraduate strongly recommended. A general understanding of the chemistry biochemistry of macromolecules, and of basic molecular biology is assumed. This course is primarily designed for 2nd year BGS stud year students in BGS or other programs will require the permission instructor. This course is not open to undergraduates.
Fall
Also Offered As: PHRM 5320
1 Course Unit

CAMB 5340 Seminar on current genetic research: Human Disease Modeling in Experimental Sys
An advanced seminar course emphasizing genetic research in model organisms and how it informs modern medicine. Each week a student will present background on a specific human disease. This is followed by an intense discussion by the entire class of 2 recent papers in which model organisms have been used to address the disease mechanism and/or treatment. As a final assignment, students will have the opportunity to write, edit, and publish a “News & Views” style article in the journal "Disease Models and Mechanisms". Offered spring semester. Prerequisite: If course requirements not met, permission of instructor required.
Spring
Also Offered As: NGG 5340
Prerequisite: CAMB 5420 OR CAMB 6050
1 Course Unit
CAMB 5420 Topics in Molecular Medicine
TiMM is planned as a once-weekly seminar course whose goal is to introduce students to the ways in which biomedical research can provide new insights into clinical medicine and, conversely, how knowledge of clinical disease impacts scientific discovery. There are two sections for the course — 401 and 402. Section 401 is for first year MD/PhD students only and section 402 is for VMD/PhD and PhD students.
Fall
Also Offered As: PHRM 5420
1 Course Unit

CAMB 5500 Genetic Principles
This is a required course of the Genetics and Epigenetics Program and is designed to provide students with a comprehensive overview of genetic concepts and methodology. The course is organized into three parts: I Fundamental genetic concepts and tools; II Genetics of model organisms (with focus on worms, flies, zebrafish and mice); III Human genetics and disease. Each week there will be two lectures and one associated discussion/problem-solving session. Discussions emphasize practical aspects of generating and interpreting genetic data. Offered spring semester.
Spring
1 Course Unit

CAMB 5770 Advanced Epigenetics Technology
Second year students in GCB, CAMB (G&E), or IGG programs using genomics methods to measure transcriptomics and epigenomics changes in their experimental systems. The goal is to familiarize students with the latest cutting-edge genomics tools and cover solutions to major experimental and computational challenges in the investigation of genome-wide epigenetic data sets. Students will develop competence in (i) variations of experimental techniques improving resolution and throughout, (ii) issues related to the computational analyses closely related to the various genome-wide assays used to probe epigenetic processes and signals, (iii) computational approaches useful to overcome pitfalls associated to the analysis of a given epigenetic data modality, (iv) methods, techniques and studies on the integration of multi-layer epigenetic data sets.
Spring
Also Offered As: GCB 5770, MTR 5350, PHRM 5350
Prerequisite: (BIOL 4234 OR BIOL 4244) AND GCB 5340 AND (GCB 5350 OR GCB 5360)
1 Course Unit

CAMB 5970 Neural Development, Regeneration and Repair
General Description: The goals of this course are to examine the principles underlying the nervous system development and to learn how understanding developmental mechanisms can inform strategies to promote regeneration and repair. This is not a survey course. Rather, the course will focus on selected topics, for which we will discuss the genetic, molecular and cellular strategies employed to study these problems in different model organisms. Emphasis is on how to interpret and critically evaluate experimental data. Students who are not in one of the BGS graduate programs need instructor permission to enroll.
Fall
Also Offered As: NGG 5970
Prerequisite: BIOM 6000
1 Course Unit

CAMB 6010 Advanced Virology Seminar
This seminar course covers current topics and important concepts in virology. Students will read selected papers on various topics in virology. Each subject will be illustrated by ground-breaking classic papers and innovative recent articles. Students will present a seminar under the guidance of a faculty member. Grades will be based on the quality of the seminar(s) and participation in discussion. Prerequisite: Non-CAMB students must obtain instructor approval.
Spring
Prerequisite: CAMB 7060
1 Course Unit

CAMB 6050 CAMB First Year Seminar
Topics are selected by course instructors and student participants. Course instructors vary yearly. The goal of this course is to provide students with an opportunity to analyze, present, and discuss significant research papers in the field of cell and molecular biology in small group settings. The sections are taught by faculty from the different programs within the Graduate Group. This is a required course for CAMB PhD students. Other BGS students are eligible, space permitting.
Fall
1 Course Unit

CAMB 6080 Regulation of Eukaryotic Gene Transcription
An advanced seminar course emphasizing current topics in gene regulatory mechanisms in eukaryotes. Based on the current literature, presentations and in depth discussions will familiarize the student with recent innovations and developing principles of genome regulation. Students are expected to bring their laptops to class. Non-CAMB students need approval from course directors. MD/PhD students do not need to take BIOM 5550 as prerequisite.
Fall
Prerequisite: BIOM 5550
1 Course Unit
CAMB 6090 Vaccines and Immune Therapeutics
Vaccination is perhaps the most successful medical technological intervention. The goal of this course is to expand on students’ general understanding of the immune system and to focus this understanding towards the application of modern vaccines and immune therapies in the 21st century. The course will provide the student with a sense of how these principles are applied to a vaccine and immune therapeutic development. The course covers basic vaccine science and describes how this science is translated through clinical, regulatory, ethical, and political issues to result in a final vaccine product. The courses’ goal is to leave the student with an understanding of the implications of modern vaccines/immunotherapies and their impact on world health. Initial lectures review immune mechanisms believed to be responsible for vaccine-induced protection from disease. Subsequent lectures build on this background to explore the science of vaccines for diverse pathogens, including agents of bioterrorism, as well as vaccines and immunotherapies for cancer. An appreciation for the application of laboratory science to the clinical development and clinical trials of vaccines are provided. An important focus on the regulatory, safety, and ethical implications of vaccines in different world situations based on true world examples are presented. The financial implications of specific vaccines with these implications for global health is a focus of the course. The course is presented in a lecture-style consisting of multiple distinguished guest lecturers who are experts in their particular area of vaccine development. There are required readings to provide the student context and background for the diverse lectures. Students are graded on course participation and a final project/exam which the students will present. The project is to design a vaccine strategy for a current disease or pathogen of importance that does not as yet have an effective vaccine or immune therapy and present this to the class. Strategies used should build on the material presented in the class lectures. The course is intended for graduate students or medical students in various MS, Ph.D., or MD/Ph.D. programs on the campus, as well as local scientists and professionals in the community. As a prerequisite, students should have taken biology, biochemistry, or immunology courses at the advanced college level. This course is offered in the fall semester. Prerequisite: BIOM 6000

Also Offered As: IMUN 6090
1 Course Unit

CAMB 6100 Molecular Basis of Genetic Therapies
This course focuses on the basic science relevant to achieving efficient and effective gene transfer and genome editing in animal models and humans for the treatment of disease. The course includes units devoted to a variety of vectors useful for gene transfer, the fundamentals of genome editing, and current therapeutic approaches using specific diseases as models. Prior background in biochemistry, cell biology, and molecular biology is essential. Aspects of organ system anatomy and physiology, virology, and immunology that are relevant to the course material are included in the course. Because of rapid movement in this field, specific topics vary somewhat from year to year. Offered every fall. Students not enrolled in a BGS graduate program who wish to take this course must notify Dr. Musunuru in advance in order to be added to a waiting list, given the limited enrollment. Students should send their undergraduate and graduate transcripts (including spring semester) along with their request to Dr. Musunuru via email: kiranmusunuru@gmail.com. This class is not accepting non-BGS masters students or auditors. Background in biochemistry, cell biology, and molecular biology is prerequisite for this course. Fall
1 Course Unit

CAMB 6150 Protein Conformation Diseases
Protein misfolding and aggregation has been associated with over 40 human diseases, including Alzheimer’s disease, Parkinsons disease, amyotrophic lateral sclerosis, prion diseases, alpha (1)-antitrypsin deficiency, inclusion body myopathy, and systemic amyloidoses. This course will include lectures, directed readings and student presentations to cover seminal and current papers on the cell biology of protein conformational diseases including topics such as protein folding and misfolding, protein degradation pathways, effects of protein aggregation on cell function, model systems to study protein aggregation and novel approaches to prevent protein aggregation. Target audience is primarily 1st year CAMB, other BGS graduate students, or students interested in acquiring a cell biological perspective on the topic. MD/PhDs and Postdocs are welcome. MS and undergraduate students must obtain permission from course directors. Class size is limited to 14 students. Fall
Also Offered As: BMB 5180
Prerequisite: BIOM 6000
1 Course Unit
CAMB 6170 Emerging Infectious Diseases
A physician from just 25 years ago would not recognize two of today's most pressing public health problems, AIDS and Hepatitis C, nor be familiar with many other infectious diseases or agents including MERS, Ebola virus, Hantavirus, HTLV-1, HHV-8 and Borrelia burgdorferi. Such a physician might also be dismayed to learn that old enemies such as tuberculosis, malaria, diphtheria, West Nile virus, meningococcal meningitis, Yellow fever, and Dengue have become more (or rather less) prevalent due to antibiotic resistance and other factors. In addition, bioterrorism, long a theoretical possibility, is now part of today's reality and could result in the deliberate introduction of anthrax or other biological agents into the civilian population or the food supply. Thus, with the beginning of the new millennium, the medical profession, the veterinary profession, and the biomedical research establishment are faced with the triple-threat of emerging infectious diseases, reemerging infectious diseases, and bioterrorism. These topics are covered in this course, with an emphasis on student's participation in the discussion. Course open to graduate students only. Other students may petition the course director for permission to enroll. Emerging Infectious Diseases will cover emerging viral, bacterial and parasitic organisms, with lectures being given by faculty from the Schools of Medicine, Veterinary Medicine, Dental Medicine, and Arts and Sciences, and outside lecturers. Epidemiology, immune responses to infection, vaccine and antimicrobial agents, and pathogenesis will be discussed. The course format will include short lectures by various faculty members to provide background information on each topic, followed by extensive discussion by students. Classes will run from 10am to 11:30AM on Mondays and Wednesdays in Johnson 207. Evaluation will be based on presentations of a research manuscript from the literature and participation in discussion sessions. Prerequisite: BIOM 6000 AND CAMB 7060 1 Course Unit

CAMB 6330 Advanced Seminar in Gene Therapy
Class: Each class will involve a review of a manuscript in the field of gene therapy selected by course faculty (Drs. Kurre, Pardi, Melenhorst or Rivella). Two weeks prior to their lecture, faculty will assign one primary research paper plus review articles that provides relevant background. Before the session, each paper will be assigned to a student presenter, who will prepare slides and meet with the faculty lecturers ahead of time. Two faculty will be present for each class. The student leader will introduce the paper and ask the group to each cover a portion of the result section in order to promote discussion, interaction and participation. Each session will last 1 hour, including presentation of the manuscript and Q&A. Each session will cover one paper on a weekly base, alternating these classes with lectures (see below). Each presentation will be utilized to grade the students (70%). Lectures: during each lecture, a faculty or external speakers will lecture for 40 minutes followed by a 15 minutes breakout discussion. The student will attend and ask questions during or at the end of the lecture. These lectures will happen independently from the paper discussion. Dr. Rivella, or a substitute, will also be present at each lecture. Prerequisites: Second year students, who already have notions of cell manipulation, immunotherapy and vector biology. Spring, odd numbered years only 1 Course Unit

CAMB 6320 Cell Control by Signal Transduction Pathways
This course, "Targeting the cancer cell: from mechanism to precision medicine", will examine how various signal transduction mechanisms influence cell functions including replication, growth, transcription, translation and intracellular trafficking. We will also consider how non-cell autonomous mechanisms, such as the tumor microenvironment and the immune system influence cancer cell signaling. We will consider how important signaling pathways, such as Ras, Raf, Notch, Wnt, TGF beta, and various kinases/phosphatases become dysregulated in cancer, as well as delve into how the DNA damage response, immune system, and tumor microenvironment exert important influences on oncogenic signaling. In the first half of the course, invited faculty members will pick 2 relatively recent papers from their field that highlight important areas. Each paper will be assigned to a student, who will meet with the faculty mentor prior to the class to discuss the paper and their presentation. During the class, students will present each paper for approximately 45 minutes with time for discussion. Students will present the important background, break down the paper, look for strengths and weakness and come up with a plan of what the next set of experiments could or should be. In the second half of the course, students will independently pick a relevant paper for in class presentation and will also write a short "News and Views" style article based on the paper they have chosen. The goal of the course is to provide students with a view of the cancer cell that integrates both cell autonomous and non-cell autonomous signals and to use this information to consider how to successfully treat cancer. Spring Also Offered As: NGG 6150, PHRM 6320 Prerequisite: BIOM 6000 1 Course Unit
CAMB 6910 Advanced Topics in Cell Biology & Physiology
This course, together with its companion CAMB 6920, offers an advanced, in-depth analysis of selected topics in cell biology and physiology. CAMB 6910 and 6920 are complementary courses that focus on different aspects of cell biology; these courses are offered on an alternating basis in the spring semester. The courses can be taken in either order, but require BIOM 6000 or an equivalent background in basic cell biology. CAMB 6910 will focus on key issues at the forefront of research in the areas of (1) Channels and transporters, (2) Vesicular and viral trafficking, (3) Tissue mechanics, (4) Heart and muscle physiology, (5) Cytoskeletal dynamics and cell division. The course format pairs faculty presentations with student-led discussion sessions highlighting important papers from the primary literature. Students will be evaluated on their presentations, their participation in class discussions, and weekly problem sets. Offered alternately in the spring semester with CAMB 6920. Permission needed for all non-CAMB students. Advanced undergrads must contact instructor to confirm qualifications.
Spring, odd numbered years only
Prerequisite: BIOM 6000
1 Course Unit

CAMB 6920 Advanced Topics in Cell Biology and Physiology II: Cell Signaling and Metabolism
Cells in complex organisms are required to adapt rapidly in a changing environment. Maintaining homeostasis while performing specialized functions requires that cells respond to extracellular signals as well as fluctuations in a host of intracellular metabolites. This course will cover selected topics and general principles related to signal transduction and the control of metabolic flux in living cells. The course format will include student-led discussion sessions both providing an overview of a topic as well as focusing on important papers from the primary literature. Students will be evaluated on their presentations and participation, as well as problem sets. Offered alternately in the spring semester with CAMB 691.
Spring, even numbered years only
Prerequisite: BIOM 6000
1 Course Unit

CAMB 6950 Scientific Writing
This 7-week course is designed to introduce students to basic scientific writing skills and is based upon the premise that clear writing, giving feedback, and receiving feedback are all essential tools for professional development. While this is not strictly a prelim preparatory course, applying the principles of this course will help improve your prelim writing and your scientific writing in general. Structure: An initial introductory lecture for the entire class is followed by 6 weekly small group sessions. These sessions are conducted as workshops designed to enhance student and faculty engagement to improve scientific writing. During the course, participants review the principles of clear, persuasive writing, and apply these principles to writing for a scientific audience. Particular emphasis is placed on conveying the significance of your research, outlining your aims, and discussing your results. Classes are highly interactive, and the majority of class time will be spent discussing student scientific writing. In order to focus on the techniques of scientific writing, in-class discussion and critiques will not address scientific methodology or interpretations of results. Evaluations: One of the goals of the course is to encourage active and open interaction among students, and grading will be predominantly based on class attendance, participation, and timely submission of assignments, not on the quality of the writing itself. Offered spring semester.
Spring
Prerequisite: (BIOM 5550 AND BIOM 6000) AND CAMB 6050
0.5 Course Units

CAMB 6970 Biology of Stem Cells
The goal of this course is to introduce graduate students to the field of stem cell biology through lectures and reviews of important contributions from the literature. Topics include embryonic stem cells, epigenetics and reprogramming, tissue specific stem cells such as hematopoietic, neuronal and epithelial stem cells, tissue regeneration, and tissue engineering. The future potential and challenges in stem cell and regeneration biology will be discussed. Important aspects of stem cell identification and characterization utilizing multiple model systems will also be a focus. Offered Fall Semester.
Fall
1 Course Unit

CAMB 6980 Elective Tutorials in Cell and Molecular Biology
Interested students must contact the course directors well in advance to get permission to enroll in the course: Dr. Lee (jjl@pennmedicine.upenn.edu) for the fall semester or Dr. Stanger (bstanger@upenn.edu) for the spring semester. Total course enrollment is limited to 12 students (first come, first served). Students will meet weekly with a faculty mentor to focus in-depth on a biomedical topic of their choice. Prior to each semester in which the course is offered, students are encouraged to make arrangements with faculty on their own and contact mentors directly to set up an individualized plan. Student should submit proposed mentors/topics to the course director before enrolling. The course director must approve the plan prior to enrollment. This tutorial course is designed to provide students with an in-depth knowledge of a specific topic in Cell and Molecular biology. The tutorial can be used to enable students to become more deeply acquainted with the literature related to their field of interest or to expand on a topic that the student found interesting in one of their basic courses. It is also intended to improve presentation skills. Final student grades will be based on mentor evaluations as well as a written review-style paper and brief (10 min) presentation to all students enrolled in the course. One-term course offered either term.
Fall or Spring
Prerequisite: BIOM 6000
1 Course Unit

CAMB 6990 Lab Rotation
Student lab rotation.
0-4 Course Units

CAMB 7000 Topics in Microbiology
This course is designed for second year students in the MVP program, and focuses on pathogen-host interactions. Students make a presentation designed for 30 minutes on a topic of their choice. The topic can be something that they are working on, or simply something that they are interested in. They are requested to provide sufficient background, discuss what is known and what is not known about the topic, and then frame two to three Specific Aims. The success of the course rests entirely upon the quality of the faculty and students involved. In past years, the class have been very interactive, with each class lasting about 1.5 hours. The discussions are deliberatly wide-ranging, and review recent literature, techniques, and how to construct a grant. Generally, two faculty will be in attendance. Permission of instructor required to enroll. Students must have taken Immunology and two MVP pathogen classes.
Spring
1 Course Unit
CAMB 7010 Tumor Microenvironment
This course is designed for second year (and up) graduate students interested in learning about the tumor microenvironment. The course will cover the main players of the tumor microenvironment field (stroma, vasculature and immune cells) and emphasize the connections between the basic biology of the tumor microenvironment to potential therapeutic intervention. The goals of this course are to enrich scientific culture, train for clear and concise oral presentations, improve grant-writing skills, and develop critical thinking, professional composure, and discussion skills. The course will be divided into 4 broad topic areas. The course will begin with didactic lectures presented with overviews of Immunology, Stromal cells and extracellular matrix, and Angiogenesis/Endothelial cells. After that each session will be student run and consist of one hour of presentation of a didactic background lecture regarding the salient points of that week’s topic, followed in the second hour by a discussion of a primary research paper(s) to be read in advance of the session by all class participants. Discussions will include specific technical background needed for the paper, presentation of the KEY data in the paper, leading discussion on the data and conclusions drawn from the paper and putting them in the context of the state of the field. Specific requirements for students include: - One to two presentations throughout the course. Students will be guided in choosing the appropriate depth of background nd topic area and ingiving formal presentations and constructive criticism of scientific data. - Submission of a discussion point each week that a student is not presenting, due the night before class. - A Specific Aims Page for a grant using one of his or her two presentations as "preliminary data" or their own research project provided it is related to the tumor microenvironment and is approved by one of the course directors. Evaluation: Students will be evaluated on their participation in class (30%), their presentations (30%), their discussion points (15%) and their Specific Aims Page (25%). Students will be given feedback immediately after their presentations. Prerequisite: First year CAMB core courses must be completed. Course is for 2nd year graduate students and beyond. CB students get first priority followed by other CAMB students. Spring
1 Course Unit

CAMB 7020 Current Biochemical Topics
Participation in the "Dr. George W. Raiziss Biochemical Rounds", a weekly seminar program sponsored by the Department of Biochemistry and Biophysics. Program deals with a wide range of modern biochemical and biophysical topics presented by established investigators selected from our faculty, and by leading scientists from other institutions. Prerequisite: Permission needed from Department
Fall, Spring, and Summer Terms
Also Offered As: BMB 6500
1 Course Unit

CAMB 7030 Mechanobiology of the Cell and its Microenvironment
This course is geared towards first and second graduate students in BGS/CAMB and SEAS/BE with an interest in the interface of extracellular matrix (ECM) cell biology and biomechanics. Students will learn about the ECM and adhesion receptors and their impact on the cytoskeleton and signaling, as well as fundamental concepts in biomechanics and engineered materials. We will discuss how these topics can inform the study of cell biology, physiology and disease. An additional objective of the course is to give students experience in leading critical discussions and writing manuscript reviews. Invited outside speakers will complement the strengths of the Penn faculty. Spring, odd numbered years only
Also Offered As: BE 6400
Prerequisite: BIOM 6000
1 Course Unit

CAMB 7040 Stress Responses in Metabolism and Cancer
The course meets once a week for student presentations and lectures. The first 2-3 weeks encompasses lectures on state-of-the-art metabolic labeling, metabolomics, and other related methodologies. Subsequently, both "historical" and more recent papers in the field of cancer metabolism are reviewed with individual faculty experts in each chosen area. The overall goal of the course is to give students a better understanding of the abrogation of normal cellular metabolism and stress during cancer, and how these interplay with each other to create/retain a malignant state. Grades are dependent on 2 presentations per semester, class participation, and weekly answers to 2-3 questions on the assigned papers. Must have completed first-year CAMB courses to enroll.
Fall
1 Course Unit

CAMB 7050 Advanced Topics in Bacterial-Host Interactions
This course will delve into specific topics in general area of bacterial pathogenesis and bacteria-host interactions. We will be exploring key historical and current papers on topics related to bacterial invasion of and replication within host cells, bacterial interference with host cell signaling pathways, bacterial interactions with host mucosal tissues, and the role of bacterial colonization in shaping and instructing host immune responses. Each week, a student will lead the class in the discussion of published papers on a specific topic. The format of each class will be a 10-15 minute introduction of the key background and underlying questions to be presented by the student, followed by an in-depth analysis by all members of the class of one to two articles. Students will be graded based on their introductory presentation and active participation in the paper discussions. Recommended strong background in cell biology, immunology and/or bacteriology fulfilled by 1st year CAMB (previous BGS) courses. Course is limited to 2nd - 3rd year graduate students or advanced undergraduates with course directors permission.
Spring
1 Course Unit
CAMB 7060 MVP Core
This is a year-long course for the incoming CAMB-MVP students and others wishing to gain a broad overview of pathogens and their interactions with hosts. The course will provide students with key fundamental knowledge of Microbiology, Virology and Parasitology. The course starts with introductory lectures on Concepts of Host-Pathogen interactions. The rest of the course is divided into sections on Bacteriology, Virology and Parasitology. Each week there are three 1 hour class slots that are either lectures on a specific topic or discussions of a relevant paper presented by students. Classes are led by faculty from across the campus and are highly interactive. Evaluation is based on mid and final take home essay topics for each of the three sections. Regular attendance and active participation in the discussions is also part of the evaluation.
Two Term Class, Student may enter either term; credit given after both terms are complete
1 Course Unit

CAMB 7070 Cell and Gene Therapy
This course will provide students with a general overview of translational research in the area of gene and cell therapy. This includes technical considerations, translating preclinical investigation into therapeutics, the execution of gene and cell therapies clinical trials, and key regulatory issues. Entrepreneurial considerations will be discussed as well. By the end of this course, students will understand the basic technologies employed for gene and cell therapy along with approaches and pitfalls to translating these therapies into clinical applications including regulatory and commercial aspects of this emerging area. Prerequisite: For graduate students, at least one prior course in immunology. An undergraduate-level or medical school immunology course is sufficient to meet the prerequisite.
Spring
Also Offered As: MTR 6210, REG 6210
1 Course Unit

CAMB 7080 HIV Virology/Pathogenesis/Cure Seminar/Journal Club
This will be a year-long class, held every other week, that is paper-based utilizing the current literature in HIV virology, pathogenesis and cure research. The class will have a journal club format with attendance and participation open to the full Penn student & postdoc community (teach-your-peers). Enrolled students will be responsible for approximately 4-5 presentations over the duration of the course, as well as for bi-weekly paper selection in conjunction with the instructors and coordinating the presentations by other participants. Prerequisites: Strong background in cell biology, immunology or virology fulfilled by 1st yr CAMB Courses. Course is limited to graduate students. Instructor permission required for non-CAMB graduate students.
Two Term Class, Student may enter either term; credit given after both terms are complete
1 Course Unit

CAMB 7090 Quantitative Imaging and Analysis for Biologists (QIAB)
This course will provide an introduction to the fundamentals of modern light microscopy and image analysis utilizing the free software package, Fiji, as a guide. Topics include fundamentals of basic and advanced light microscopy, image data optimization, and commonly-used processing and analysis tools such as filters, segmentation, tracking, and simple macro programming. The goal is to provide students with the background and confidence required to pursue more advanced quantitative imaging methods as the need arises in their research. Students will be graded based on their active participation in class, completion of hands-on Fiji exercises, and a final presentation describing an application of at least one of the analysis methods covered in class to their own image data. CAMB 7090 is limited to 2nd - 4th-year graduate students who have previous/current experience with light microscopy. Permission to enroll from course directors is required for all students.
0.5 Course Units

CAMB 7100 Drug Discovery and Development
This course will expose graduate-level students to the process of drug discovery and development. The course will be structured to cover topics from the identification of a disease-relevant target through to Phase III Clinical Trials. The course will be lecture based and there will also be student-led journal club presentations as part of the course. There will also be a writing project consisting of a 3 page proposal of how to advance one of the areas of Drug Discovery & Development covered in the course.
Spring
Also Offered As: BMB 6050, PHRM 6050
1 Course Unit

CAMB 7110 Integrative plant and animal mechanobiology
This course aims to provide students with an understanding of biomechanics that spans the plant and animal kingdoms, with the goal of emphasizing principles common to both. Major concepts include 1) Plant and Animal Cell Biology; 2) Solid, Fluid, and Transport Mechanics; and 3) Integrating Biology and Mechanics - Big Questions. In addition to lectures, there will be two journal article discussion sections. Most lectures will be given by Penn faculty, although selected topics (particularly in plant biology and mechanics) will be covered by faculty at other sites through lectures broadcast remotely. The Penn director will be present at all sessions of the class. Undergraduates require special permission from the director.
Fall
Also Offered As: BE 7110
1 Course Unit

CAMB 7120 Topics in Cancer Biology
This course is an elective course for 2nd year Cancer Biology Students on a range of cancer-related topics. The course is designed to expose students to a range of topics in cancer biology, improve writing skills, train students to give clear and concise oral presentations, develop active listening and critical thinking skills as well as discussion skills. The course will also teach students about rigor and reproducibility in experimental design. The course will interface with Cancer Biology WIP talks (which are only given by 3rd year and up students) and complement journal club and prelim preparation. Completion of first-year CAMB courses required to enroll. Course is designed for second-year CAMB students.
Two Term Class, Student may enter either term; credit given for either
1 Course Unit
CAMB 7130 Neuroepigenetics
This is a course intended to bring students up to date concerning our understanding of Neural Epigenetics. It is based on assigned topics and readings covering a variety of experimental systems and concepts in the field of Neuroepigenetics, formal presentations by individual students, critical evaluation of primary data, and in-depth discussion of potential issues and future directions, with goals to: 1) Review basic concepts of epigenetics in the context of neuroscience, 2) Learn to critically evaluate a topic (not a single paper) and set the premise, 3) Improve experimental design and enhance rigor and reproducibility, 4) Catch up with the most recent development in neuroepigenetics, 5) Develop professional presentation skills - be a story teller. Each week will focus on a specific topic of Neuroepigenetics via a "seminar" style presentation by a class member. Prerequisite: If course requirement not met, permission of instructor is required.
Fall
Also Offered As: NGG 7130
Prerequisite: BIOM 5550
1 Course Unit

CAMB 7140 DIYtranscriptomics
As access to high-throughput sequencing technology increases, the bottleneck in biomedical research has shifted from generating data, to analyzing and integrating diverse data types. Addressing these needs requires that students and postdocs equip themselves with a toolkit for data mining and interrogation. This course focuses specifically on studying global gene expression (transcriptomics) through the use of the R programming environment and the Bioconductor suite of software packages - a versatile and robust collection of tools for bioinformatics, statistics, and plotting. During this semester-long course students participate in a mix of lectures and guided code review, all while working with real datasets directly on their laptop. Students will learn to analyze RNAseq data using a lightweight and reusable set of modular scripts that leverage open-source software. In addition, students will learn best practices in data science for working in R/Bioconductor, including creating interactive data visualizations, making their analyses transparent and reproducible, and identifying experimental bias in large datasets. Students are encouraged, but not required, to bring their own RNAseq data to the course. This course requires completion of pre-course materials provided by the instructor.
Fall or Spring
1 Course Unit

CAMB 7520 Genomics
Recent advances in molecular biology, computer science, and engineering have opened up new possibilities for studying the biology of organisms. Biologists now have access to the complete genomic sequence and set of cellular instructions encoded in the DNA of specific organisms, including homo sapiens, dozens of bacterial species, the yeast Saccharomyces cerevisiae, the nematode C. elegans, and the fruit fly Drosophila melanogaster. The goals of the course include the following: 1. introduce the basic principles involved in sequencing genomes, 2. familiarize the students with new instrumentation, informative tools, and laboratory automation technologies related to genomics, 3. teach the students how to access the information and biological materials that are being developed in genomics and 4. examine how these new tools and resources are being applied to basic and translational research. This will be accomplished through in depth discussion of classic and recent papers. Prerequisite: Permission of Instructor.
Spring
Also Offered As: GCB 7520
Prerequisite: GCB 5340
1 Course Unit

CAMB 8990 Pre-Dissertation Lab Rot
Pre-dissertation research lab rotation.
0-4 Course Units

CAMB 9950 Dissertation
0 Course Units

Chemical & Biomolecular Engineering (CBE)

CBE 0099 Undergraduate Research and Independent Study
An opportunity for the student to work closely with a professor in a project to develop skills and technique in research and development. To register for this course, the student writes a one-page proposal that is approved by the professor supervising the research and submitted to the undergraduate curriculum chairman during the first week of the term.
Fall or Spring
1-2 Course Units

CBE 1500 Introduction to Biotechnology
The goal of this course is to teach you the fundamentals of biotechnology and introduce you to concepts in Chemical Engineering along the way. Concepts in Biotechnology that will be covered include, DNA, RNA, the Central Dogma, proteins, recombinant technology, RNA silencing, electrophoresis, chromatography, synthetic biology, pull down assays, PCR, hybridization, array technology, DNA machines, DNA sequencing, and forensics. Concepts in Chemical Engineering that will be covered include the mass balance, scaling laws and the Buckingham-Pi theorem, kinetics of enzyme reactions, thermodynamics of molecular binding, the Langmuir isotherm, separations via chromatography. Reserved for Freshmen only.
Fall
1 Course Unit

CBE 1600 Introduction to Chemical Engineering
Chemical Engineering integrates basic science, mathematics, and engineering principles in a coherent manner that equips Chemical Engineers to tackle a remarkable variety of challenges, "from quantum mechanics to techno-economics". This course introduces students to the subject through a multifaceted lens that emphasizes the generality of conservation laws, physico-chemical phenomena and engineering design principles, in several different settings. These include but are not limited to chemical transformations at scale, energy and environmental science, design and formulation of drugs, food science, materials processing, and biomaterials. Students will develop familiarity with process flow diagrams, computational tools used in Chemical Engineering, foundational concepts pertaining to thermodynamics and transport, and the methods of engineering design. The class also surveys seminal Chemical Engineering contributions that have altered the course of human history. This course is well suited to students entering the major, or any student who is simply curious about how all the pieces come together to design and manufacture the molecules, materials, products and processes that shape everyday life.
Spring
1 Course Unit
CBE 2300 Material and Energy Balances of Chemical Processes
This course introduces the principles of material and energy balances and their applications to the analysis of single- and multiple-phase processes used in the chemical, pharmaceutical, and environmental industries. The course focuses on the conceptual understanding of properties of pure fluids, equations of state, and heat effects accompanying phase changes and chemical reactions, and problem-solving skills needed to solve a wide range of realistic, process-related problems.
Fall
Prerequisite: CBE 1600
1 Course Unit

CBE 2970 Study Abroad
Fall or Spring
1 Course Unit

CBE 3000 Special Topics in Chemical and Biomolecular Engineering
This course will be offered when necessitated by demand and permitted by schedule. The topics covered by the course will vary depending on the particular interests and expertise of the instructor(s). Topics are generally subjects of contemporary concern in the discipline.
Not Offered Every Year
1 Course Unit

CBE 3200 Basic Chemical Process Safety
Process safety is an important but often overlooked aspect of a chemical engineer's education. When working in chemical engineering, it's simply not possible to learn by trial and error when the error can have catastrophic or dangerous implications. Students will learn the important technical fundamentals to allow them to contribute to a safer future. Chemical process safety is a scientific discipline as important as chemical production. What the students learn here could literally save their life. At the conclusion of the course, the expectation is that students should be able to identify hazards, safety risks and perform inherently safer design for chemical processes. By the end of the course, students will achieve Level I certification from SACHE (Safety and Chemical Engineering Education), a division of AIChE.
Spring
Prerequisite: CBE 2310 AND CBE 3500
1 Course Unit

CBE 3250 Renewable Energy
This course covers engineering concepts for renewable energy processes. Fundamental engineering calculations for solar, wind, biofuel, geothermal, and hydroelectric energy production in comparison to oil and gas will be covered. Electric vehicles and energy storage will be discussed. Students will consider the specific needs of public health, safety and welfare in addition to global, cultural, social, environmental and economic factors will be in a particular country for a group project.
Spring
Prerequisite: CHEM 1011 AND PHYS 141
1 Course Unit

CBE 3500 Fluid Mechanics
This course is designed for students to understand the fundamental characteristics of fluids. We will develop, starting from first principles, the basic equations for fluid statics, and use them to assess buoyancy forces and determine the pressure variations in fluids with rigid body rotation. Students will understand in detail the basic types of fluid flow line patterns (eg. streamlines and streamtubes) and the different types of interchangeable energy forms (eg. kinetic, potential, and pressure). It is also important to develop, starting from first principles, the formulations for inviscid and viscous flow problems. These include the discussion of a control system and system boundaries, the detailed construction of conservations equations of mass, energy, and momentum for Newtonian fluids, the derivation of the Navier-Stokes equations, and the determination of appropriate initial and boundary conditions. A final objective of the course is to solve various fluid mechanics problems using control systems, dimensional analysis, and developed equations. Such problems include, but are not limited to, the terminal velocity of a falling sphere, Stokes flow, the relation between the friction factor and the Reynolds number, and flow profiles in numerous geometries.
Fall
Prerequisite: CBE 2310
1 Course Unit

CBE 3510 Heat and Mass Transport
Spring
Prerequisite: CBE 3500
1 Course Unit

CBE 3530 Molecular Thermodynamics and Chemical Kinetics
Fall
Prerequisite: CBE 2310 AND (CHEM 2210 OR MSE 2210)
1 Course Unit
CBE 3600 Chemical Process Control
Spring
Prerequisite: CBE 2300
1 Course Unit

CBE 3710 Separation Processes
The design of industrial methods for separating mixtures. Distillation; liquid-liquid extraction; membranes; absorption. Computer simulations of the processes.
Spring
Prerequisite: CBE 2310
1 Course Unit

CBE 3750 Engineering and the Environment
The course will introduce emerging environmental issues, relevant engineering solutions, and problem-solving techniques to students. The case study approach will be used to assist students to develop and apply the fundamental engineering skills and scientific insights needed to recognize a variety of environmental problems that have profound impacts on all aspects of modern society. Sophomore standing required to enroll.
Spring
1 Course Unit

CBE 3990 Engineering Independent Study
An opportunity for the student to work closely with a professor in a project to develop skills and technique in engineering research and development. To register for this course, the student writes a one-page proposal that is approved by the professor supervising the research and submitted to the undergraduate curriculum chairman during the first week of the term. This course is distinct from CBE 0099 in its emphasis on the engineering aspects of the research topic, and as such it can be used as a CBE elective. In the Project Proposal described on the Application for Independent Study form, the proposal should highlight the engineering aspects of the work. A final report is required to be submitted to the supervising professor and the undergraduate curriculum chair, who will work together to assign a grade.
Fall or Spring
1 Course Unit

CBE 4000 Introduction to Product and Process Design
Introduction to product design, process synthesis, steady-state and batch process simulation, synthesis of separation trains, second-law analysis, heat integration, heat-exchanger design, equipment sizing, and capital cost estimation.
Fall
Prerequisite: CBE 3510 AND CBE 3710
Corequisite: CBE 4510
1 Course Unit

CBE 4100 Chemical Engineering Laboratory
Experimental studies in heat and mass transfer, separations and chemical reactors to verify theoretical concepts and learn laboratory techniques. Methods for analyzing and presenting data. Report preparation and the presentation of an oral technical report.
Fall
Prerequisite: CBE 3510 AND CBE 3710
1 Course Unit

CBE 4300 Introduction to Polymers
Polymer is one of the most widely used materials in our daily life, from the rubber tires to clothes, from photoresists in chip manufacturing to flexible electronics and smart sensors, from Scotch tapes to artificial tissues. This course teaches entry-level knowledge in polymer synthesis, characterization, thermodynamics, and structure-property relationship. Emphasis will be on understanding both chemical and physical aspects of polymers, polymer chain size and molecular interactions that drive the microscopic and macroscopic structures and the resulting physical properties. We will discuss how to apply polymer designs to advance nanotechnology, electronics, energy and biotechnology. Case studies include thermodynamics of block copolymer thin films and their applications in nanolithography, shape memory polymers, hydrogels, and elastomeric deformation and applications.
Fall
Also Offered As: MSE 4300
Prerequisite: (MSE 2600 OR CBE 2310) AND CHEM 2210 AND MEAM 2030
1 Course Unit

CBE 4470 Societally Significant Soft Matter Solutions
In this course, students will work on case studies for soft matter solutions to problems of societal significance. Examples will be drawn from the pharmaceuticals industry, emerging concepts in carbon capture, process intensification, clean energy, personal care and other fields that exploit our ability to design soft matter systems. The course will take the form of discussions to set societal context, lectures (including guest lecturers who are technical innovators in the field) to provide fundamental underpinnings, and student-led case studies of current approaches in which students critique current solutions and propose competing approaches. This course is designed with students in the junior or senior year in mind. The course is designed to be co-requisite with transport phenomena (CBE 3510 or equivalent), separations (CBE 3710 or equivalent), and thermodynamics (CBE 2310 or equivalent).
Fall
Mutually Exclusive: CBE 5470
1 Course Unit

CBE 4510 Chemical Reactor Design
Fall
Prerequisite: CBE 2310 AND CBE 3510
1 Course Unit

CBE 4590 Product and Process Design Projects
Design of chemical, biochemical, and materials products and processes based on recent advances in chemical and bioengineering technology. Design group weekly meetings with faculty advisor and industrial consultants. Comprehensive design report and formal oral presentation. Heat exchanger design and profitability analysis.
Spring
Prerequisite: CBE 4000
1 Course Unit
CBE 4790 Biotechnology and Biochemical Engineering
The objective of this course is to teach junior CBE students the application of chemical engineering principles to biological systems in order to design biochemical processes. At the end of the course, students should be able to describe a process to produce and isolate a protein from a host cell. Students will work in groups on a current biotechnology topic related to chemical engineering that will be presented to the class and written as a final report. One of the course goals is to prepare students for a successful biotechnology lab experience in CBE 4800. Problem solving, models, open-ended problems, technical communication skills, and teamwork will be emphasized.
Fall
Prerequisite: CBE 2310
1 Course Unit

CBE 4800 Laboratory in Biotechnology and Biochemical Engineering
The laboratory methods covered include CRISPR/Cas9, production of proteins from cells in a bioreactors, purification of proteins by chromatography, and immobilized enzyme reactions. The students write several individual technical memos and submit weekly data analysis assignments. A group presentation and report on a new biotechnology technique is the final assignment for the lab. Oral and written communication skills are emphasized to improve technical communication skills.
Spring
Prerequisite: CBE 4790
1 Course Unit

CBE 5000 Special Topics in Chemical and Biomolecular Engineering
This course will be offered when necessitated by demand and permitted by schedule. The topics covered by the course will vary depending on the particular interests and expertise of the instructor(s). Topics are generally subjects of contemporary concern in the discipline.
Not Offered Every Year
1 Course Unit

CBE 5050 Carbon Capture
Carbon dioxide capture and sequestration has recently emerged as one of the key technologies needed to meeting growing worldwide energy demand while simultaneously reducing carbon dioxide emissions into the atmosphere. The objective of this course is to provide a quantitative introduction into the science and technology of carbon dioxide capture and sequestration. The following topics will be covered. General CO2 chemistry as it applies to capture and sequestration. Applied thermodynamics including minimal work and efficiency calculations for separation. CO2 separation from syngas and flue gas for gasification and combustion processes and the potential for direct air capture. Transportation of CO2 in pipelines and sequestration in deep underground geological formations. Pipeline specifications, monitoring, safety engineering, and costs for long distance transport of CO2. Comparison of options for geological sequestration in oil and gas reservoirs, saline aquifers, and mineral formations. Environmental risk assessment and management. Life cycle analysis
Spring
1 Course Unit

CBE 5060 Introduction to High-Performance Scientific Computing
Research problems in the domain of physical, biological and biomedical sciences and engineering often span multiple time and length-scales from the molecular to the organ/organism, owing to the complexity of information transfer underlying biological mechanisms. Multiscale modeling (MSM) and high-performance scientific computing (HPC) have emerged as indispensable tools for tackling such complex problems. However, a paradigm shift in training is now necessary to leverage the rapid advances, and emerging paradigms in HPC — GPU, cloud, exascale supercomputing, quantum computing — that will define the 21st century. This course is a collaboration between Penn, UC Berkeley, and the Extreme Science and Engineering Discovery Environment (XSEDE) which administers several of the federally funded research purpose supercomputing centers in the US. It will be taught as a regular 1 CU course at Penn by adopting a flip-classroom/active learning format. The course is designed to teach students how to program parallel architectures to efficiently solve challenging problems in science and engineering, where very fast computers are required either to perform complex simulations or to analyze enormous datasets. The course is intended to be useful for students from many departments and with different backgrounds, e.g., scholar of Penn Institute for Computational Science, although we will assume reasonable programming skills in a conventional (non-parallel) language, as well as enough mathematical skills to understand the problems and algorithmic solutions presented.
Fall or Spring
Also Offered As: BE 5160
1 Course Unit

CBE 5080 Probability and Statistics for Biotechnology
The course covers topics in probability theories and statistical techniques, with emphasis placed on the practical problems relevant to the subject areas of biotechnology. The course provides a rigorous introduction to such topics as elements of probability, random variables and probability functions, random samples, parameter estimations, hypothesis testing, regression, analysis of variance, lifetime testing, and nonparametric tests.
Summer Term
1 Course Unit

CBE 5100 Introduction to Polymers
Polymer is one of the most widely used materials in our daily life, from the rubber tires to clothes, from photoresists in chip manufacturing to flexible electronics and smart sensors, from Scotch tapes to artificial tissues. This course teaches entry-level knowledge in polymer synthesis, characterization, thermodynamics, and structure-property relationship. Emphasis will be on understanding both chemical and physical aspects of polymers, polymer chain size and molecular interactions that drive the microscopic and macroscopic structures and the resulting physical properties. We will discuss how to apply polymer designs to advance nanotechnology, electronics, energy and biotechnology. Case studies include thermodynamics of block copolymer thin films and their applications in nanolithography, shape memory polymers, hydrogels, and elastomeric deformation and applications.
Fall
Also Offered As: MSE 5800
1 Course Unit
CBE 5110 Physical Chemistry of Polymers and Amphiphiles
This course deals with static and dynamic properties of two important classes of soft materials: polymers and amphiphiles. Examples of these materials include DNA, proteins, diblock copolymers, surfactants and phospholipids. The fundamental theories of these materials are critical of understanding polymer processing, nanotechnology, biomembranes and biophysics. Special emphasis will be placed on understanding the chain conformation of polymer chains, thermodynamics of polymer chains, thermodynamics of polymer solutions and melts, dynamics of polymer and statistical thermodynamic principles of self-assembly.
Fall
1 Course Unit

CBE 5140 Data Science and Machine Learning in Chemical Engineering
The main objective of this course is to teach concepts and implementation of deep learning techniques for scientific and engineering problems to advanced undergraduate and graduate students. This course entails various methods, including theory and implementation of deep learning techniques to solve a broad range of computational problems frequently encountered in solid mechanics, fluid mechanics, non-destructive evaluation of materials, systems biology, chemistry, and non-linear dynamics. At the end of the course participants will be able to: (1) Understand the underlying theory and mathematics of deep learning; (2) Analyze and synthesize data in order to model physical, chemical, biological, and engineering systems; (3) Apply physics-informed neural networks (PINNs) to model and simulate multiphysics systems. Students should have prior coursework in advanced calculus, linear algebra, probability, and computer programming in Python.
Spring
Prerequisite: MATH 2400 AND MATH 2410
1 Course Unit

CBE 5150 Chemical Product Design
Introduction to product design, molecular and mixture design, functional and formulated product design, design of device products, pharmaceutical product and process design, optimal batch process design strategies, batch process simulation, six-sigma design
1 Course Unit

CBE 5170 Principles of Genome Engineering
This course covers up-to-date techniques in genome engineering and its application in basic research and translational medicine. Genetic engineering techniques including site-directed DNA recombination (Cre-Lox, Phi31 integrase), genome editing (TALEN, CRISPR/Cas-9), next generation sequencing, and molecular imaging will be covered. Key concepts in genomics, epigenetics, gene regulation will be introduced, and application of genetic engineering techniques in the field of developmental biology, stem cell biology, and synthetic biology will be discussed.
Spring
1 Course Unit

CBE 5220 Polymer Rheology and Processing
This course focuses on applications of rheology to polymer process technologies. It includes a general review of rheological concepts, including viscoelasticity and the influence of shear rate, temperature and pressure on polymer flow properties. The course covers the elementary processing steps common in various types of polymer manufacturing operations including handling of particulate solids, melting, pressurizing and pumping, mixing and devolatilization. Specific polymer processing operations including extrusion, injection molding, compression molding, fiber spinning and wire coating are covered. Emerging polymer processing applications in microelectronics, biomedical devices and recycling are also discussed.
Fall or Spring
1 Course Unit

CBE 5250 Molecular Modeling and Simulations
Students will explore current topics in thermodynamics through molecular simulations and molecular modeling. The requisite statistical mechanics will be conveyed as well as the essential simulation techniques (molecular dynamics, Monte Carlo, etc.). Various approaches for calculating experimentally measurable properties will be presented and used in student projects. Students should have basic familiarity with statistical mechanics.
Fall
1 Course Unit

CBE 5300 Electrochemistry Fundamentals, Practices, and Analysis
This course is aimed at acquiring the necessary knowledge and skills to become an electrochemistry researcher. Basic principles of electrochemistry will be covered that include electrochemical thermodynamics and kinetics, mass transfer, and electric double layer. Those will be accompanied by experimental methods commonly used in electrochemistry such as linear sweep voltammetry, cyclic voltammetry, chronoamperometry, chronopotentiometry, rotating disk electrodes, and electrochemical impedance spectroscopy. The application of such knowledge in the existing and emerging areas of electrochemistry research will be looked at with real examples from the literature. This course is intended to provide students with a learning experience to help them become electrochemists and electrochemical engineers.
Spring
1 Course Unit

CBE 5350 Interfacial Phenomena
This course provides an overview of fundamental concepts in colloid and interface science. Topics include the thermodynamics of interfaces, interfacial interactions (e.g. van der Waals interactions, electrostatics, steric interactions), adsorption, the hydrodynamics and stability of interfacial systems, self-assembly, etc. Connections to self-assembly and directed assembly of nanomaterials and emerging topics are explored. Pre-requisites: undergraduate thermodynamics, some familiarity with concepts of transport phenomena (including fluid flow and mass transfer) and differential equations
Fall or Spring
1 Course Unit
CBE 5400 Principles of Molecular and Cellular Bioengineering
This course aims to provide theoretical and conceptual principles underlying biomolecular and biological systems. The course will start with basic and advanced concepts in physical chemistry and thermodynamics and introduce statistical mechanics as a tool to understand molecular interactions. The applications will be of relevance to bioengineering and biology disciplines. The course will not shy away from mathematical formulations and will stress the molecular perspective. This course explores physical biology of the cell across several length and timescales, while simultaneously emphasizing molecular specificity and clinical implications such as disease outcome or biomedical applications. The course emphasizes how the basic tools and insights of engineering, physics, chemistry, and mathematics can illuminate the study of molecular and cell biology to make predictive biomedicine models and subject them to clinical validation. Drawing on key examples and seminal experiments from the current bioengineering literature, the course demonstrates how quantitative models can help refine our understanding of existing biological data and also be used to make useful clinical predictions. The course blends traditional models in cell biology with the quantitative approach typical in engineering, in order to introduce the student to both the possibilities and boundaries of the emerging field of physical systems biology. While teaching physical model building in cell biology through a practical, case-study approach, the course explores how quantitative modeling based on engineering principles can be used to build a more profound, intuitive understanding of cell biology. Worksheets will be integral to this course. Recitation will comprise of biweekly illustrations of problems and concepts from the worksheets and biweekly quizzes
Fall or Spring
Also Offered As: BE 5400
1 Course Unit

CBE 5440 Computational Science of Energy and Chemical Transformations
Our theoretical and computational capabilities have reached a point where we can do predictions of materials on the computer. This course will introduce students to fundamental concepts and techniques of atomic scale computational modeling. The material will cover electronic structure theory and chemical kinetics. Several well-chosen applications in energy and chemical transformations including study and prediction of properties of chemical systems (heterogeneous, molecular, and biological catalysts) and physical properties of materials will be considered. This course will have modules that will include hands-on computer lab experience and teach the student how to perform electronic structure calculations of energetics which form the basis for the development of a kinetic model for a particular problem, which will be part of a project at the end of the course. Thermodynamics, Kinetics, Physical Chemistry, Quantum Mechanics. Undergraduates should consult and be given permission by the instructor.
Fall or Spring
1 Course Unit

CBE 5450 Electrochemical Energy Conversion and Storage
Fuel cells, electrolysis cells, and batteries are all electrochemical devices for the interconversion between chemical and electrical energy. These devices have inherently high efficiencies and are playing increasingly important roles in both large and small scale electrical power generation, transportation (e.g. hybrid and electric vehicles), and energy storage (e.g. production of H2 via electrolysis). This course will cover the basic electrochemistry and materials science that is needed in order to understand the operation of these devices, their principles of operation, and how they are used in modern applications. Prerequisite: Introductory chemistry and an undergraduate course in thermodynamics (e.g. CBE 2310, MEAM 2030)
Fall or Spring
1 Course Unit

CBE 5460 Fundamentals of Industrial Catalytic Processes
A survey of heterogeneous catalysis as applied to some of the most important industrial processes. The tools used to synthesize and characterize practical catalysts will be discussed, along with the industrial processes that use them.
Spring
1 Course Unit

CBE 5470 Societally Significant Soft Matter Solutions
In this course, students will work on case studies for soft matter solutions to problems of societal significance. Examples will be drawn from the pharmaceuticals industry, emerging concepts in carbon capture, process intensification, clean energy, personal care and other fields that exploit our ability to design soft matter systems. The course will take the form of discussions to set societal context, lectures (including guest lecturers who are technical innovators in the field) to provide fundamental underpinnings, and student-led case studies of current approaches in which students critique current solutions and propose competing approaches. This course is designed with students in the junior or senior year in mind. The course is designed to be co-requisite with transport phenomena (CBE 3510 or equivalent), separations (CBE 3710 or equivalent), and thermodynamics (CBE 2310 or equivalent).
Fall
Mutually Exclusive: CBE 4470
1 Course Unit

CBE 5470 Societally Significant Soft Matter Solutions
In this course, students will work on case studies for soft matter solutions to problems of societal significance. Examples will be drawn from the pharmaceuticals industry, emerging concepts in carbon capture, process intensification, clean energy, personal care and other fields that exploit our ability to design soft matter systems. The course will take the form of discussions to set societal context, lectures (including guest lecturers who are technical innovators in the field) to provide fundamental underpinnings, and student-led case studies of current approaches in which students critique current solutions and propose competing approaches. This course is designed with students in the junior or senior year in mind. The course is designed to be co-requisite with transport phenomena (CBE 3510 or equivalent), separations (CBE 3710 or equivalent), and thermodynamics (CBE 2310 or equivalent).
Fall
Mutually Exclusive: CBE 4470
1 Course Unit

CBE 5540 Engineering Biotechnology
Advanced study of re DNA techniques; bioreactor design for bacteria, mammalian and insect culture; separation methods; chromatography; drug and cell delivery systems; gene therapy; and diagnostics.
Spring
Also Offered As: BE 5540
1 Course Unit
CBE 5550 Nanoscale Systems Biology
Nano-science and engineering approaches to systems in biology are of growing importance. They extend from novel methods, especially microscopies that invite innovation to mathematical and/or computational modeling which incorporates the physics and chemistry of small scale biology. Proteins and DNA, for example, are highly specialized polymers that interact, catalyze, stretch and bend, move, and/or store information. Membranes are also used extensively by cells to isolate, adhere, deform, and regulate reactions. In this course, students will become familiar with cell & molecular biology and nanobiotechnology through an emphasis on nano-methods, membranes, molecular machines, and ‘polymers’ - from the quantitative perspectives of thermodynamics, statistical physics, and mechanics. We specifically elaborate ideas of energetics, fluctuations and noise, force, kinetics, diffusion, etc. on the nano- thru micro-scale, drawing from very recent examples in the literature. Laboratory experiments will provide hands-on exposure to microscopies in a biological context (eg. fluorescence down to nano-scale, AFM), physical methods (eg. micromanipulation, tracking virus-scale particles or quantum dots), and numerical problems in applied biophysics, chemistry, and engineering. A key goal of the course is to familiarize students with the concepts and technology (plus their limitations) as being employed in current research problems in nanoscale systems biology, extending to nanobiotechnology. Prerequisite: Background in Biology, Physics, Chemistry or Engineering with coursework in Thermodynamics or permission of the instructor. Fall
Also Offered As: BE 5550, MEAM 5550
1 Course Unit

CBE 5560 The Biochemical Engineering of Wine
This course surveys the biochemical and biochemical unit operations involved in the commercial production of modern wines. Topics will include grape growing, pressing, fermentation, filtration, and packaging/aging. Emphasis will also be placed on yeast microbiology and wine biochemistry. Lectures will be supported by wine tasting sessions to highlight the important characteristics of different wine types. Spring
1 Course Unit

CBE 5570 Stem Cells, Proteomics and Drug Delivery - Soft Matter Fundamentals
Lectures on modern topics and methods in cell and molecular biology and biomedicine from the perspective of soft matter science and engineering. Discussions and homeworks will cover soft matter related tools and concepts used to 1) isolate, grow, and physically characterize stem cells, 2) quantify biomolecular profiles, 3) deliver drugs to these cells and other sites (such as tumors with cancer stem cells) will be discussed. Skills in analytical and professiona presentations, papers and laboratory work will be developed. Background in Biology, Physics, Chemistry or Engineering.
Spring
1 Course Unit

CBE 5590 Multiscale Modeling of Chemical and Biological Systems
This course provides theoretical, conceptual, and hands-on modeling experience on three different length and time scales - (1) electronic structure (A, ps); (2) molecular mechanics (100A, ns); and (3) deterministic and stochastic approaches for microscale systems (um, sec). Students will gain hands-on experience, i.e., running codes on real applications together with the following theoretical formalisms: molecular dynamics, Monte Carlo, free energy methods, deterministic and stochastic modeling, multiscale modeling. Prerequisite: Undergraduate courses in numerical analysis and physical chemistry. Not Offered Every Year
Also Offered As: BE 5590, SCMP 5590
1 Course Unit

CBE 5620 Drug Discovery and Development
Intro to Drug Discovery; Overview of Pharmaceutical Industry and Drug Development Costs, Timelines; High Throughput Screening (HTS); Assay Design and Sensitivity Solid Phase Synthesis and Combinatorial Chemistry; Enzyme Kinetics; Fluorescence, Linearity, Inner-filter effect, quenching; Time dynamics of a Michaelis-Menton Reaction; Competitive Inhibitor; FLINT, FRET, TRF, FP, SPA, alpha-screen; Enzyme HTS (protease); Cell based screening; Fura-2 ratio, loading signaling; Gfpcalmodulin-gfp integrated calcium response; Estrogen/ERE-Luc HTS; Problems with cell based screening (toxicity, permeability, nonspecificity); Instrumentation, Robotics/Automation; Z-factor; SAR, Positioning Scanning; Microarray HTS; IC50, % Conversion in HTS and IC50, Assay Optimization.
Fall
Also Offered As: BE 5620
1 Course Unit

CBE 5640 Drug Delivery Systems: Targeted Therapeutics and Translational Nanomedicine
The topics include the need for new drug delivery systems (DDS), advantages and applications of biotherapeutic drugs, routes for drug transport in the body, pharmacokinetics and biodistribution, nanocarriers as DDS, targeted drug delivery, challenges with developing new DDS, and translational aspects of new DDS. Directors of the course are Miriam Wattenbarger and Vladimir Muzykantov (Pharmacology). In addition to lectures from the course directors, faculty from engineering and medicine will give guest lectures related to their research interests. The students read current journal articles on DDS. The major group assignment for the course is a written and oral group proposal on a new drug delivery system. Technical communication skills and working with students from different disciplines are an important aspects of the course. Spring
Also Offered As: PHRM 5640
1 Course Unit
CBE 5700 Experimental Methods for Polymer Science and Soft Matter - Theory and Practice
This course covers the relevant theory and practical application of experimental methods used to study the structure, dynamics and physico-chemical properties of soft matter and macromolecular materials. Systems of interest include self-assembled polymers and (macro)molecular materials, liquid crystals, colloidal suspensions, biological materials, gels, and other complex fluids. Particular emphasis is placed on the development of kinematic theory for X-ray scattering, methods of structure determination by (x-ray/electron) diffraction, microscopy (optical; atomic force; electron), dynamic scattering (light/ optical; x-ray, neutron) and rheology (bulk and microrheology). Thermomechanical, electronic, and optical property characterization are also addressed. Lectures are complemented by lab exercises and projects. The subject matter is particularly relevant for students conducting experimental research on macromolecular materials, soft matter and complex fluids. Senior standing or permission of the instructor.
Spring
1 Course Unit

CBE 5800 Masters Biotechnology Lab
This lab is an introduction to lab techniques in biochemical engineering and biotechnology for graduate students in SEAS. Students are assumed to have a background in cell and molecular biology or to be co-registered for CBE 5540. Labs will include E. coli gene editing with CRISPR, production of eGFP in E. coli cells and isolation by chromatography, a fed-batch bioreactor to grow yeast cells and determine the growth and yield parameters, analysis of immobilized and soluble enzyme kinetics in a stirred reactor. Each lab will include a data analysis assignment. Three individual technical memos will be assigned, and a group report and presentation will be due at the end of the semester. Oral and written communication skills are emphasized to improve technical communication skills.
Fall or Spring
1 Course Unit

CBE 5970 Master's Thesis Research
Fall or Spring
1-2 Course Units

CBE 5990 Master's Indep Study
Fall or Spring
1-4 Course Units

CBE 6010 Deep Learning for Scientists and Engineers
The main objective of this course is to teach concepts and implementation of deep learning techniques for scientific and engineering problems to advanced undergraduate and graduate students. This course entails various methods, including theory and implementation of deep learning techniques to solve a broad range of computational problems frequently encountered in solid mechanics, fluid mechanics, non-destructive evaluation of materials, systems biology, chemistry, and non-linear dynamics. At the end of the course participants will be able to: (1) Understand the underlying theory and mathematics of deep learning; (2) Analyze and synthesize data in order to model physical, chemical, biological, and engineering systems; (3) Apply physics-informed learning to model and simulate multiphysics systems. Recommended prerequisites (not mandatory): · Linear algebra: MATH 3120 ·Probability: MATH 1510/CIS 2610/ESE 3010/ENM 5030/STAT 5100 ·Experience with computer programming of Python
Spring
Prerequisite: MATH 2410
1 Course Unit

CBE 6020 Statistical Mechanics of Liquids
The course will focus on advanced concepts and methods in statistical mechanics with a particular emphasis on the liquid state, e.g. aqueous solutions, capillarity, polymers, colloids, glasses, amphiphilic self-assembly, etc. Principles of both equilibrium and non-equilibrium statistical mechanics will be discussed and connections to experimentally measurable quantities will be made wherever possible.
Fall or Spring
1 Course Unit

CBE 6180 Advanced Molecular Thermodynamics
This course begins with a brief review of classical thermodynamics, including the development of Maxwell relationships and stability analysis. The remainder of the course develops the fundamental framework of statistical mechanics, then reviews various related topics including ideal and interacting gases, Einstein and Debye models of crystals, lattice models of liquids, and the basis of distribution function theory.
Fall
Also Offered As: BE 6620, MEAM 6620
1 Course Unit

CBE 6210 Advanced Chemical Kinetics and Reactor Design
Fall
1 Course Unit

CBE 6400 Transport Processes I
This course provides a unified introduction to momentum, energy (heat), and mass transport processes. The basic mechanisms and constitutive laws for the various transport processes will be delineated, and the conservation equations will be derived and applied to internal and external flows. Examples from mechanical, chemical, and biological systems will be used to illustrate fundamental concepts and mathematical methods.
Fall
1 Course Unit

CBE 6410 Transport Processes II (Nanoscale Transport)
A continuation of CBE 6400, with additional emphasis on heat and mass transport. This course aims to teach transport concepts and methods useful in many current CBE laboratory settings. The emphasis will be on microscopic dynamics and transport in both hard and soft systems (e.g. colloids and polymers), of relevance to a variety of biological and biomolecular systems. Wherever possible, will make connections between classical, macroscopic transport, and what is happening microscopically. Will make use of a combination of analytic and algorithmic/numerical methods to facilitate understanding of the material. Physical topics will include stochastic, "single-molecule", non-ideal, hard sphere and frustrated systems, phase transitions, non-equilibrium statistical mechanics and optics. Concepts will include properties of stochastic functions (Gaussian statistics, correlation functions and power spectra), Fourier methods, Convolution, the Central Limit theorem, anomalous diffusion, percolation, and the Fluctuation/ Dissipation theorem. Computational methods will concentrate on Monte Carlo simulations of "toy" models.
Spring
1 Course Unit
CBE 8950 Teaching Practicum
This course provides training in the practical aspects of teaching. The students will work with a faculty member to learn and develop teaching and communication skills. As part of the course, students will participate in a range of activities that may include: giving lectures, leading recitations, supervising laboratory experiments, developing instructional laboratories, developing instructional material, preparing and grading homework assignments and solution sets, and preparing examinations. Feedback on the recitations will be provided to the student by the faculty responsible for the course. The course is graded on a Satisfactory/Unsatisfactory basis. The evaluation will be based on comments of the students taking the course and the impressions of the faculty.
Fall or Spring
0 Course Units

CBE 8990 Independent Study
Fall or Spring
1-4 Course Units

CBE 9950 Dissertation
Fall or Spring
0 Course Units

CBE 9990 Thesis/Dissertation Research
For students working on an advanced research program leading to the completion of master's thesis or Ph.D. dissertation requirements.
Fall or Spring
1-4 Course Units

Chemistry (CHEM)

CHEM 0240 First-Year Seminar: From Alchemy to Nanoscience
The imperative to transform matter, find its roots in alchemy and the search for the Philosopher’s Stone, which was thought to contain the secret of turning base metals into gold and also the secret of immortality. We will examine the evolution of the way in which people have thought about matter and its transformations; from the manufacturing of explosives to dyestuffs to pharmaceuticals and perfumes. We will do some simple experiments that demonstrate some of these principles. We will follow the development of the chemical sciences from the works of early alchemists to Renaissance (Newton and Boyle) scientists and modern thinkers (Priestly, Lavoisier, Dalton, Mendeleev and others). This class, which is designed for non-science as well as potential science majors, will involve discussions on readings, as well as field trips to some Philadelphia locations that are notable in the history of chemistry.
Fall
1 Course Unit

CHEM 1000 Academic Based Community Service-Chemistry Outreach
Chemistry service-learning course that provides undergraduate students with opportunities to improve their scientific communication abilities and teaching skills. Undergraduate students will work in groups to develop short science experiments and teaching materials, and students in grades 6-12 from urban public schools in West Philadelphia will visit the Penn campus to perform the experiments. There are typically 6 – 8 visits over the course of the semester, and during these visits, the undergraduates will serve as instructors, teaching their experiment to the visiting students. Undergraduate students will also analyze and discuss journal articles and publications to explore pedagogy and best practices in science communication, as well as develop and demonstrate skills in reflecting critically on issues that arise in your service learning experiences through written post-teaching reflections.
Fall
1 Course Unit

CHEM 1011 Introduction to General Chemistry I
CHEM 1011 is an introductory college-level course in chemistry intended for students with less preparation in high school chemistry and mathematics. The course content parallels that of CHEM 1012, but with emphasis placed on developing problem-solving strategies and developing the underlying chemical principles. The course will take an ‘atoms first’ approach to introductory chemistry, where topical coverage includes an overview of quantum theory, atomic structure, the periodic table, chemical bonding, elementary chemical reactions, stoichiometry, ideal gases, and intermolecular interactions. Topics from mathematics and physics that are necessary to chemical problem-solving will be included as needed. Prerequisite: Students with credit for CHEM 1012 may not enroll in CHEM 1011. Credit will not be awarded for both CHEM 1011 and 1012.
Fall
1 Course Unit

CHEM 1012 General Chemistry I
Basic concepts and principles of chemistry and their applications in chemistry and closely-related fields. The first term emphasizes the understanding of chemical reactions through atomic and molecular structure. This is a university level course, treating the material in sufficient depth so that students can solve chemical problems and understand the principles involved in their solution. It includes an introduction to condensed matter. This course is suitable for majors or non-majors and is recommended to satisfy either major or pre-professional requirements for general chemistry. This course is presented for students with high school chemistry and calculus. Students with a lesser background than this should take CHEM 1011. Prerequisite: Students with credit for CHEM 1011 may not enroll in CHEM 1012. Credit is not awarded for both CHEM 1011 and CHEM 1012.
Fall or Spring
1 Course Unit

CHEM 1020 Introduction to General Chemistry II
CHEM 1020 is the second term of a two-term sequence of general chemistry courses. It is intended for students with a substantial background in high school chemistry and calculus. The course will continue the development of the chemical concepts presented in the first term, with a focus on the quantitative aspects of chemical reactions. Topics include equilibrium, acid-base reactions, rate laws, and chemical kinetics. Prerequisite: CHEM 1011 or equivalent.
Spring
1 Course Unit

CHEM 1025 Structural Biology
This course will explore how biological properties are determined by the microscopic chemical properties of proteins and biomacromolecules. We will discuss how research results, especially those of structural biology, are presented to its various audiences.
Fall or Spring
0.5 Course Units
CHEM 1021 Introduction to General Chemistry II
CHEM 1021 will be the second course in a two-semester sequence in general chemistry, where an introductory foundation in the energetic and dynamic nature of chemical reactivity will be developed. The course will survey general principles of thermodynamics, phase transitions, equilibrium, acid/base chemistry, and chemical kinetics as applied to elementary chemical reactions. Using this foundation, structure and function of organic compounds and solid-state structure will be surveyed upon which the former fundamental principles will be deployed to predict reactivity/stability.
Spring
Prerequisite: CHEM 1011 AND MATH 1300
1 Course Unit

CHEM 1022 General Chemistry II
Continuation of CHEM 1012: General Chemistry I. The second term stresses the thermodynamic approach to chemical reactions, electrochemical processes, and reaction rates and mechanisms. It includes special topics in chemistry.
Fall or Spring
Prerequisite: CHEM 1012 AND MATH 1300
1 Course Unit

CHEM 1101 General Chemistry Laboratory I
A general laboratory course covering aspects of qualitative and quantitative analysis, determination of chemical and physical properties, and chemical synthesis.
Fall or Spring
.5 Course Units

CHEM 1102 General Chemistry Laboratory II
Continuation of CHEM 1101: General Chemistry Laboratory I
Fall or Spring
.5 Course Units

CHEM 1151 Honors Chemistry I
This course will focus on introducing students to the following topics: the nature of the chemical bond (forces, potentials, and quantum mechanics), covalent and non-covalent interactions, properties of gasses, liquids, and solids. Students in section 001 will be introduced to modern computational chemistry methods and section 002 introduces students to modern experimental techniques. Prerequisite: AP Chemistry exam score of 5.
Fall
Corequisite: MATH 1410
1 Course Unit

CHEM 1161 Honors Chemistry II
An advanced course for students who have had very strong background in Chemistry in High School (AP, IB, or equivalent). Advanced material from the general chemistry curriculum will be covered in the context topics selected from current research areas. A continuation of CHEM 1151: Honors Chemistry I, CHEM 1161: Honors Chemistry II will focus on topics in biochemistry and biophysical chemistry relating to thermodynamics, equilibrium, kinetics, and electrochemistry. Prerequisite: Advanced High School Chemistry (AP or equivalent).
Spring
Prerequisite: CHEM 1151
1 Course Unit

CHEM 1200 Environmental Chemistry
The course aims to teach chemical content and principles in the context of significant environmental issues. Topics to be covered include: composition of the atmosphere; protecting the ozone layer; chemistry of global warming; traditional hydrocarbon fuels and energy utilization; water supply, its contaminants, and waste water treatment; acid rain; nuclear energy; and new energy sources. Students will develop critical thinking ability, competence to better assess risks and benefits, and skills that will lead them to be able to make informed decisions about technology-based matters.
Fall or Spring
1 Course Unit

CHEM 2210 Physical Chemistry I
Introductory quantum mechanics, atomic and molecular structure, chemical bonding, and microscopic understanding of physical and chemical properties of molecules.
Fall
Prerequisite: CHEM 1021 AND MATH 1410 AND PHYS 0150
1 Course Unit

CHEM 2220 Physical Chemistry II
Continuation of CHEM 2210: Physical Chemistry I. Principles and applications of thermodynamics, and a molecular-based understanding of macroscopic properties.
Spring
Prerequisite: CHEM 2210 AND PHYS 0151
1 Course Unit

CHEM 2230 Experimental Physical Chemistry I
Important methods, skills, and apparatus used for the acquisition and interpretation of quantitative information about chemical systems will be discussed in principle and used in the laboratory. Students are required to have completed Chem2210 prior to enrolling in Chem2230.
Spring
Prerequisite: CHEM 2210
1 Course Unit

CHEM 2410 Principles of Organic Chemistry I
Fundamental course in organic chemistry based upon the modern concepts of structure and mechanism of reactions.
Fall or Spring
Prerequisite: CHEM 1021 OR CHEM 1022
1 Course Unit

CHEM 2411 Principles of Organic Chemistry I with Laboratory
Fundamental course in organic chemistry based upon the modern concepts of structure and mechanism of reactions. Laboratory included.
Prerequisite: CHEM 1021 OR CHEM 1022 OR CHEM 1161
Corequisite: CHEM 2412
1.5 Course Unit

CHEM 2412 Principles of Organic Chemistry I Laboratory
Lab for CHEM 2411: Principles of Organic Chemistry I with Laboratory
Corequisite: CHEM 2411
0 Course Units

CHEM 2420 Principles of Organic Chemistry II
Continuation of CHEM 2410: Principles of Organic Chemistry I.
Fall or Spring
Prerequisite: CHEM 2410
1 Course Unit
CHEM 2421 Principles of Organic Chemistry II with Laboratory
Continuation of CHEM 2411: Principles of Organic Chemistry I with Laboratory
Prerequisite: CHEM 2411
Corequisite: CHEM 2422
1.5 Course Unit

CHEM 2422 Principles of Organic Chemistry II Laboratory
Lab for CHEM 2421: Principles of Organic Chemistry II with Laboratory
Prerequisite: CHEM 2411
Corequisite: CHEM 2421
0 Course Units

CHEM 2425 Organic Chemistry II: Principles of Organic Chemistry with applications in Chemical Biology
This course is functionally equivalent to CHEM 2420: Principles of Organic Chemistry II as the second term of CHEM 2410: Principles of Organic Chemistry I, placing the content in the context of biology and medicine. Topics include: 1) alkyl compounds, ethers, epoxides and sulfides in lipids; 2) carboxylic acids and amines in amino acids; 3) aromatic compounds and heterocycles in nucleic acids; and 4) ketones and aldehydes in carbohydrates. The synthesis and mechanism of action of pharmaceuticals that feature these functional groups will also be discussed. Additionally, this course makes use of 3D structure tutorials, recitation sections and visits from biomedical scientists who make use of chemistry in their work.
Spring
Prerequisite: CHEM 2410
1 Course Unit

CHEM 2451 Experimental Organic Chemistry A
A basic laboratory course in which both the theoretical and practical aspects of a variety of organic reactions and multistep syntheses are emphasized. Modern chromatographic, instrumental, and spectroscopic techniques are applied to experimental organic chemistry. CHEM 2410 is a required co-requisite for CHEM 2451 for Penn undergraduate students. LPS students may take CHEM 2410 as a pre-requisite or a co-requisite to CHEM 2451.
Fall
.5 Course Units

CHEM 2452 Experimental Organic Chemistry B
A basic laboratory course in which both the theoretical and practical aspects of a variety of organic reactions and multistep syntheses are emphasized. Modern chromatographic, instrumental, and spectroscopic techniques are applied to experimental organic chemistry. CHEM 2420 is a required co-requisite for CHEM 2452 for Penn undergraduate students. LPS students may take CHEM 2420 (or equivalent) as a pre-requisite or a co-requisite to CHEM 2452.
Spring
.5 Course Units

CHEM 2460 Advanced Synthesis and Spectroscopy Laboratory
Advanced laboratory work on the synthesis, structure, and properties of organic and inorganic compounds. Infrared, ultraviolet, and nuclear magnetic resonance spectroscopy. Lectures cover the theoretical basis and applications of modern spectroscopic methods.
Fall
Prerequisite: (CHEM 2420 OR CHEM 2425) AND CHEM 2450 AND CHEM 2610
Corequisite: CHEM 2610
1 Course Unit

CHEM 2510 Principles of Biological Chemistry
Fundamentals of biological chemistry, including the structure of biological macromolecules and their mechanism of action, intermediary metabolism, and the chemical basis of information transfer. Course can be taken concurrently with CHEM 2420 or CHEM 2425.
Fall or Spring
Prerequisite: CHEM 1021 AND CHEM 2410 AND (CHEM 2420 OR CHEM 2425)
1 Course Unit

CHEM 2610 Inorganic Chemistry I
An introductory survey of the bonding, structure, and reactions of important metal and nonmetal compounds.
Fall
Prerequisite: CHEM 2410 AND (CHEM 2420 OR CHEM 2425)
1 Course Unit

CHEM 2999 Directed Study and Seminar
Independent project under the direction of a faculty member conducting chemistry research.
Fall or Spring
1 Course Unit

CHEM 3999 Independent Research
Independent project under the direction of a faculty member conducting chemistry research.
Fall or Spring
1 Course Unit
CHEM 4950 High Throughput Discovery: A Multidisciplinary Approach to Cancer
The newly developed massively parallel technologies have enabled the simultaneous analysis of many pathways. There are several large scale international efforts to probe the genetics and drug sensitivity of cancer cell lines. However, there are some rare cancers that have not been analyzed in depth. One of these rare cancers is malignant peripheral nerve sheet tumors (MPNST). MPNST, although a rare cancer, are common in patients with neurofibromatosis type. In the course, students will take part in a high throughput discovery effort in two phases. Phase 1 is a training phase, which will consist of quantitative profiling the sensitivity of MPNST cell lines to a library of >120 common and experimental cancer drugs. These will be conducted in the UPenn High Throughput Screening Core. (http://www.med.upenn.edu/cores/High-ThroughputScreeningCore.shtml). While we call this a training phase, the data from this will be subject to rigorous quality control for eventual publication and development of a public database for rare tumors. Phase 2 is an independent research project. Examples of projects include, but are not limited to: Combinatorial screens (synthetic lethal); siRNA screens; novel compound screens; determining mechanisms of cell death; developing tools for data analysis and database development. During phase 2, students will also modify compounds of interest using the Penn Chemistry: Upenn/Merck High Throughput Experimentation Laboratory (https://www.chem.upenn.edu/content/penn-chemistry-upennmerck-high-throughput-experimentation-laboratory), and then retest them for activity to determine structure activity relationships. We will sponsor phase 2 projects relevant to neurofibromatosis. However, in phase two students can also research other areas if they develop sponsorships from professors. We expect the course to be a hypothesis engine that generates ideas for further research. Prerequisites include a strong foundation in biology and chemistry. Students will prepare an abstract proposal by week three on their phase 2 project, and a report, in scientific paper style, due on the last day of the semester.
Spring
Also Offered As: PHRM 4950
1 Course Unit

CHEM 5210 Statistical Mechanics I
Principles of statistical mechanics with applications to systems of chemical interest.
Fall
Prerequisite: CHEM 2220
1 Course Unit

CHEM 5220 Statistical Mechanics II
A continuation of CHEM 5210. The course will emphasize the statistical mechanical description of systems in condensed phases.
Spring
Prerequisite: CHEM 5210
1 Course Unit

CHEM 5230 Quantum Chemistry I
The principles of quantum theory and applications to atomic systems.
Fall
Prerequisite: CHEM 2210
1 Course Unit

CHEM 5240 Quantum Chemistry II
Approximate methods in quantum theory and applications to molecular systems. Topics may include: electronic structure, configuration interaction, DFT, TD-DFT and response theory, electronic dynamics, semiclassical dynamics, vibrational density of states.
Spring
Prerequisite: CHEM 5230
1 Course Unit

CHEM 5250 Molecular Spectroscopy
This course is broken into two sections: (1) optics, and (2) theory of spectroscopy including the discussion of techniques and examples. In the first section you will be introduced to both linear and nonlinear optics, through thinking about how to design optical components in the laboratory setting. the second part of the course is a more traditional spectroscopy course, where different spectroscopies in the visible and infrared spectral region will be discussed. This part of the course will focus on understanding what we can learn from using spectroscopy and what sort of dynamical processes can be observed with different spectroscopic techniques. Topics to be covered include, but are not limited to: optics, time-dependent perturbation theory, lineshapes, density matrix, group theory, selection rules.
Fall or Spring
0.5 Course Units

CHEM 5260 Chemical Dynamics
Theoretical and experimental aspects of important rate processes in chemistry.
Spring
1 Course Unit

CHEM 5410 Chemical Kinetics
This course a high level overview of methods for the study of organic, organometallic, and inorganic reaction mechanism. CHEM 4410 (Mechanisms) or CHEM 5640 (Organometallics) is required. The course will survey thermodynamic and kinetic measurements used in understanding chemical reactions. Topics include kinetic measurements and interpretation, Arrhenius theory, Eyring theory, kinetic isotope effects, Hammett analyses, and electronic structure calculations. Articles discussing these techniques in delineating the reaction mechanisms for problems of current interest will be analyzed. The focus will be on experiments that can be accomplished with readily available analytical tools (NMR, IR, UV, GC, HPLC) and how an understanding of mechanism can be used to optimize reaction yields and selectivities.
Spring
0.5 Course Units
CHEM 5411 Physical Organic Chemistry
CHEM 5411 is a high level overview of classical physical organic chemistry. Undergraduate organic chemistry is a prerequisite. The course is divided into three parts. The first part will be an overview of organic bonding (basic molecular orbital theory, anomic effect), structure (bond lengths, bond angles, conformational analysis), and properties (electronenegativity, nucleophilicity, electrophilicity, acidity, basicity). The second part will be a brief overview of current computational methods including molecular mechanics, Hartree Fock, and density functional calculations. The focus will be on practical applications rather than the theory behind the calculations; students will be able to assess which calculations are most appropriate for a given task. The last part of the course will survey thermodynamic and kinetic measurements used in understanding organic chemical reactions. Topics include Hammett analyses, kinetic measurements and interpretation, the Hammond postulate, Arrhenius theory, Eyring theory, and kinetic isotope effects. Articles discussing these techniques in delineating the organic reaction mechanisms for problems of current interest will be analyzed. The focus will be on experiments that can be accomplished with readily available analytical tools (NMR, IR, UV, GC, HPLC) and how simple physical organic analyses can be used to optimize reaction yields and selectivities.
1 Course Unit

CHEM 5412 Physical Organic Chemistry I
Physical Organic I is an introduction to advanced physical organic chemistry. Mechanism drawing with arrows to denote the movement of an electron density will be a unifying theme. The course will overview organic bonding (basic molecular orbital theory, anomic effect), structure (bond lengths, bond angles, delocalization and resonance, conformational analysis), and reactivity (electronenegativity, nucleophilicity, electrophilicity, acidity, basicity, stereoelectronics).
0.5 Course Units

CHEM 5413 Physical Organic 2
This course a high level overview of methods for the study of organic, organometallic, and inorganic reaction mechanism. The preceding course Chem 5412 or its equivalent must be taken before this course. The course will briefly review basic mechanistic conventions (arrows, radical intermediates, etc.) and then move onto a survey thermodynamic and kinetic measurements used in understanding chemical reactions. Topics include kinetic measurements and interpretation, Arrhenius theory, Eyring theory, kinetic isotope effects, Hammett analyses, and electronic structure calculations. Articles discussing these techniques in delineating the reaction mechanisms for problems of current interest will be analyzed. The focus will be on experiments that can be accomplished with readily available analytical tools (NMR, IR, UV, GC, HPLC) and how an understanding of mechanism can be used to optimize reaction yields and selectivities.
0.5 Course Units

CHEM 5430 Modern Organic Synthesis
Introduction to advanced organic synthesis. Study of important synthetic reactions including: oxidations, reductions, and methods for the formation of carbon-carbon bonds, with an emphasis in chemoselectivity, stereoselectivity and asymmetric synthesis. Survey of modern methods for the synthesis of small, medium and large ring systems. Analysis of modern synthetic strategies, with illustrative examples from total synthesis of natural and unnatural products.
Fall
Prerequisite: CHEM 5440
1 Course Unit

CHEM 5431 Advanced Organic Chemistry 1
This course focuses on organic reactions, reaction mechanisms, and the strategic applications of these reactions in organic synthesis. Topics include symmetry, stereochemistry, stereoselectivity, olefination, olefin metathesis, transition-metal catalyzed cross couplings, cycloadditions, electrocyclizations, sigmatropic rearrangements, and other pericyclic reactions. The material will be illustrated by applications in multistep chemical synthesis. Based on this course, students should be able to read the modern literature, develop independent research proposals in organic chemistry, and succeed in graduate school.
Prerequisites: A basic understanding of Lewis structures, molecular orbitals, hybridization, arrow pushing, stability, and reactivity.
0.5 Course Units

CHEM 5432 Advanced Organic Chemistry 2
This half-semester course continues to emphasize organic reactions, reaction mechanisms, and their strategic applications in complex molecule synthesis. Topics covered include oxidations, reductions, carbon-carbon bond formations, and strategic applications of protecting groups.
Prerequisite: CHEM 5412 AND CHEM 5431
0.5 Course Units

CHEM 5440 Organic Reaction Mechanisms
Study of important types of reactions and functional groups, with emphasis on synthetic usefulness, mechanisms, and stereo electronic principles.
Fall
Prerequisite: CHEM 2420
1 Course Unit

CHEM 5450 Chemical Neuroscience
Natural products, such as tetrodotoxin, kainic acid and morphine, have played a crucial role in the development of neuroscience. Using selected chemical syntheses as a framework, I will provide an introduction to neuroscience for chemists blended with an intense course in synthetic design ("Syntheseplanung"). The structure, function and synthesis of the following molecules will be analyzed: tetrodotoxin, saxitoxin, kainic acid, nicotine, epibatidine, conine, tubocurarine, histrionicotoxin, ibotenic acid, strychnine, picotamine, chrysanthemic acid, ivermectin, muscarine, morphine, salvinorin A, THC, lysergic acid, forskolin, staurosporin, eglumegad, physostigmine, huperzin A, galanthamine, cocaine, reserpine, thapsigargin, ouabagenin, ryanodine, capsaicin, resiniferatoxin, retinal, carotene, menthol, santalol, camphor, and the prostaglandins. The structure and function of important ion channels, GPCRs, transporters and enzymes and their ligands will be discussed using PyMol files.
The goal of this course is to get as many synthetic chemists excited about neuroscience as possible (and a few neuroscientists stoked about synthesis). The importance of structural and pharmacological databases (PDB and IUPHAR, respectively) and the usefulness of the Reaxys database (and SciFinder) for synthetic planning will be demonstrated. Requirements: A familiarity with synthetic organic chemistry and (named) chemical reactions, a mastery of the Nernst equation, and a willingness to learn more about one of the greatest, if not the greatest scientific challenges of our times: to figure out how the human brain work.
0.5 Course Units
CHEM 5510 Biological Chemistry I
Structure, dynamics, and function of biological macromolecules. Properties of macromolecular assemblies, membranes and their compartments. (Formerly, CHEM 450-I).
Fall
Prerequisite: (CHEM 2420 OR CHEM 2425) AND CHEM 2210 AND CHEM 2510
1 Course Unit

CHEM 5520 Biological Chemistry II
Physical and chemical description of macromolecular information transfer. Gene organization, replication, recombination, regulation and expression. (Formerly, CHEM 450-II).
Spring
Prerequisite: (CHEM 2420 OR CHEM 2425) AND CHEM 2220 AND CHEM 2510
1 Course Unit

CHEM 5530 Methods for in vivo biochemical discovery
The course surveys the chemical machinery of the cell, post-translational modifications of proteins and catalytic machinery of enzymes. Through this survey, students will become familiar with the cellular proteome and its fascinating functions and dysfunctions that drive normal physiology and disease states of the cell. Current technologies for in vivo function assignment and unbiased drug-target discovery will be reviewed. Example topics include gene editing, protein profiling, targeted degradation, high-throughput drug screening and quantitative analysis of proteomes/metabolomes from native biological systems. The course couples in-class lecture and discussion with research demonstrations of select methods used for discovery.
Fall or Spring
0.5 Course Units

CHEM 5550 Macromolecular Crystallography: Methods and Applications
This is an introductory course on methods and applications of macromolecular structure determination using X-ray crystallography. The course will be broken up into three parts: 1) Principles of X-ray crystallography involving didactic lectures on the technique with weekly problem sets; 2) Workshops on macromolecular structure determination involving hands-on experience with the technology; 3) Student "journal club" presentations on current high impact publications involving X-ray crystal structure determination. Prerequisite: Undergraduate calculus and trigonometry.
Fall
Also Offered As: BMB 5540
1 Course Unit

CHEM 5570 Mechanisms of Biological Catalysis
Reaction mechanisms in biological (enzymes, abzymes, ribozymes) and biomimetic systems with emphasis on principles of catalysis, role of coenzymes, kinetics, and allosteric control.
Fall or Spring
Prerequisite: CHEM 2420 AND (CHEM 2510 OR BIOL 2810)
1 Course Unit

CHEM 5580 Biomolecular Spectroscopy and Microscopy
CHEM 5580 covers basic fluorescence spectroscopy and microscopy, as well as advanced topics such as single molecule spectroscopy and nonlinear and super-resolution microscopies. There are weekly homework assignments that include problems based on the lectures as well as journal club style reports on by pairs of students on papers relevant to the course material.
Fall
Also Offered As: BMB 5580
0.5 Course Units

CHEM 5620 Inorganic Chemistry II
A detailed treatment of the theory and application of modern physical methods for the elucidation of structure and mechanism in inorganic and organometallic chemistry. An introduction to symmetry and group theory is followed by the application of these concepts to vibrational and electronic spectroscopy of inorganic complexes. Magnetic resonance is discussed in detail, including topics such as EPR, fourier transform methods, dynamic systems, and 2-dimensional NMR.
Fall or Spring
Prerequisite: CHEM 2610
1 Course Unit

CHEM 5640 Organometallics
This course is focused on molecular species that contain metal-carbon bonds, and the role of these compounds in catalytic processes and organic synthesis. Aspects of the synthesis, structure and reactivity of important classes of organometallic compounds such as metallo alkyl, aryl, alkene, alkylidene and alkylidyne complexes are surveyed for the d and f block metals. Emphasis is placed on general patterns of reactivity and recurring themes for reaction mechanisms.
Fall or Spring
1 Course Unit

CHEM 5650 Main Group Chemistry
This course encompasses a comprehensive survey of the chemistry and properties of the p-block elements of the periodic table. Topics include synthesises, structures and reactivities of important compounds. In addition, alternative bonding theories which have been used to explain the unique properties of these compounds are critically examined.
Fall or Spring
1 Course Unit

CHEM 5670 Bio-inorganic Chemistry
The course covers selected topics in bioinorganic chemistry; special emphasis is placed on dioxygen chemistry and electron transfer processes. Course topics include: (i) oxygen uptake and utilization; (ii) diatomic oxygen transport; (iii) diatomic and monatomic oxygen incorporation into substrates; (iv) metalloenzyme-catalyzed C-C bond formation; (v) the metallo-biochemistry of DNA; (vi) metal-sulfide proteins; (vii) manganese-containing metalloproteins; (viii) Photosystem II: light-driven electron transfer and the biological water-splitting reaction; (ix) biological electron transfer; (x) electron transfer theory; (xi) mechanisms of energy storage and release; and (xii) long-distance electron transfer reactions.
Fall or Spring
Also Offered As: BMB 5670
1 Course Unit

CHEM 5680 Bioinorganic Chemistry
This course examines the structure and organization of the chemical literature and introduces techniques of searching this literature, focusing on the logic and thought processes necessary for effective information retrieval. Each technique is illustrated using information tools available at the University of Pennsylvania, and we take an "under the hood" look at the organization and functionality of each tool introduced. Students should choose a course section based on their preferred area of chemistry research: organic, inorganic, biological, and physical chemistry; all four sections are taught at a level appropriate for graduate students and advanced undergraduates. Topics vary by section, but all students learn the basics of subject, author, structure, and reaction searching, and a unit on ethics in publication and scholarly communication completes the course.
Fall or Spring
0.5 Course Units
CHEM 6011 Chemical Information for Biological Chemists
This course examines the structure and organization of the chemical literature in the field of biological chemistry and introduces techniques used to search this literature, focusing on the logic and thought processes necessary for effective information retrieval. The course takes an "under the hood" look at the organization and functionality of a variety of different databases and search systems, and, while learning information retrieval skills, students gradually become familiar with the structure of the chemical literature, the purposes of each genre, and the steps of the scientific publication process. Search skills are taught using a combination of lecture and laboratory activities, and students learn advanced text-based search techniques, protein and nucleotide sequence and structure similarity search strategies, basic substructure and reaction search strategies, and methods of retrieving property information and profiling substances by their properties. Students will also undertake a detailed examination protein and small molecule crystal structure databases. In addition to search skills, the students are exposed to strategies for choosing a publication venue; the use and limitations of citation information when evaluating authors, institutions, and journals; and the basic principles behind peer review. The semester closes with a brief introduction to personal data management and an in-depth discussion of the ethics surrounding scientific communication. The course is taught at a level appropriate for graduate students and advanced undergraduates and requires permission of the instructor to register. Undergraduate students should have taken two semesters of organic chemistry prior to enrolling. Students should have an interest in biochemistry or molecular biology research.
Fall
1 Course Unit

CHEM 6012 Chemical Information for Inorganic and Materials Chemists
This course examines the structure and organization of the chemical literature in the field of inorganic and materials chemistry and introduces techniques used to search this literature, focusing on the logic and thought processes necessary for effective information retrieval. The course takes an "under the hood" look at the organization and functionality of a variety of different databases and search systems, and, while learning information retrieval skills, students gradually become familiar with the structure of the chemical literature, the purposes of each genre, and the steps of the scientific publication process. Search skills are taught using a combination of lecture and laboratory activities, and students learn advanced text-based search techniques; advanced substructure and composition searches, with an emphasis on organometallic and inorganic substances and crystal structure data; reaction search techniques, focusing on catalyzed reactions; and methods of retrieving property information and profiling substances and materials by their properties. In addition to search skills, the students are exposed to strategies for choosing a publication venue; the use and limitations of citation information when evaluating authors, institutions, and journals; and the basic principles behind peer review. The semester closes with a brief introduction to personal data management and an in-depth discussion of the ethics surrounding scientific communication. The course is taught at a level appropriate for graduate students and advanced undergraduates and requires permission of the instructor to register. Undergraduate students should have taken two semesters of organic chemistry prior to enrolling. Students should have an interest in organometallic, inorganic, or materials chemistry.
Spring
1 Course Unit

CHEM 6013 Chemical Information for Organic Chemists
This course examines the structure and organization of the chemical literature in the field of organic chemistry and introduces techniques used to search this literature, focusing on the logic and thought processes necessary for effective information retrieval. The course takes an "under the hood" look at the organization and functionality of a variety of different databases and search systems, and, while learning information retrieval skills, students gradually become familiar with the structure of the chemical literature, the purposes of each genre, and the steps of the scientific publication process. Search skills are taught using a combination of lecture and laboratory activities, and students learn advanced text-based search techniques, complex substructure and reaction search techniques, methods of using the literature for retrosynthetic analysis, and methods of retrieving property information and profiling substances by their properties. In addition to search skills, the students are exposed to strategies for choosing a publication venue; the use and limitations of citation information when evaluating authors, institutions, and journals; and the basic principles behind peer review. The semester closes with a brief introduction to personal data management and an in-depth discussion of the ethics surrounding scientific communication. The course is taught at a level appropriate for graduate students and advanced undergraduates and requires permission of the instructor to register. Undergraduate students should have taken two semesters of organic chemistry prior to enrolling. Students should have an interest in organic chemistry research.
Spring
1 Course Unit

CHEM 6014 Chemical Information for Physical Chemists
This course examines the structure and organization of the chemical literature in the fields of physical and theoretical chemistry chemistry and introduces techniques used to search this literature, focusing on the logic and thought processes necessary for effective information retrieval. The course takes an "under the hood" look at the organization and functionality of a variety of different databases and search systems, and, while learning information retrieval skills, students gradually become familiar with the structure of the chemical literature, the purposes of each genre, and the steps of the scientific publication process. Because of the diversity of research foci in physical and theoretical chemistry, the course is survey in nature, devoting time to a wide variety of tools and search strategies and demonstrating Penn's collections in chemistry, mathematics, physics, materials science, and engineering. In addition to teaching search skills, we briefly examine methods of choosing a publication venue and the use and limitations of citation information when evaluating authors, institutions, and journals. The semester closes with a brief introduction to personal data management and a discussion of the ethics surrounding scientific communication. The course is taught at a level appropriate for graduate students and advanced undergraduates and requires permission of the instructor to register. Undergraduate students should have taken two semesters of organic chemistry prior to enrolling. Students should have an interest in physical or theoretical chemistry research.
Fall
0.5 Course Units

CHEM 6520 Proposal Writing for Biological and Physical Chemists
Students will learn the key components in proposal writing and develop the skills needed to prepare a compelling and original graduate research proposal. The course involves significant writing, in-class discussions and presentations.
Fall
0.5 Course Units
CHEM 6620 Proposal Writing for Inorganic and Organic Chemists
The ability to communicate original, written research proposals is essential to the modern chemist. This course, for graduate students in the organic and inorganic divisions, will promote development of proposal writing skills. Students will develop original ideas, practice written work, graphic design and peer review. Outcomes of the course will include writing (and submission, when eligible) of an NSF GRFP application and a ‘proposed work’ section of a candidacy exam report.
Fall
0.5 Course Units

CHEM 7210 Mathematics for Chemistry
This course examines the basic mathematics needed for physical chemistry, including (but not limited to) a brief review of linear algebra, Fourier transforms, delta functions, optimization, and the residue theorem. Depending on the year, selected other topics will also be included.
Fall or Spring
0.5 Course Units

CHEM 7230 Dynamics of Polymers
This course discusses the structure of polymers from a statistical physics point of view as well as dynamical response of polymeric systems such as mechanical response of polymer melts, polymer glass transition, properties of polymers in solutions, and properties of block copolymers and ionomers.
Fall or Spring
0.5 Course Units

CHEM 7240 Special Topics in Physical Chemistry
will vary based on semester
0.5-1 Course Unit

CHEM 7410 Spectroscopy
The course will provide a continuation of material covered in CHEM 5440 and CHEM 5410, as well as spectroscopy of organic compounds focused mainly on NMR. Topics will include advanced organic mechanisms, electronic structure calculations of organic molecules related to their structure, reactivity, and spectroscopic properties, and Organic Spectroscopic methods for the determination of structure using NMR.
Spring
Prerequisite: CHEM 5440 AND CHEM 5410
0.5 Course Units

CHEM 7412 NMR Spectroscopy
The course will focus on Essential Practical NMR for Chemistry. Topics will include structure elucidation with 1D and 2D NMR spectra, how to obtain high quality NMR spectra on spectrometers, data processing with NMR software such as MNova and TOPSPIN, multi-nuclei NMR including 31P, 19F, 11B, 15N and 2H etc., dynamic and kinetic NMR, and some techniques to provide high resolution 2D NMR spectra.
Spring
Prerequisite: CHEM 5440 AND CHEM 5410
0.5 Course Units

CHEM 7420 Medicinal Chemistry and Drug Design
This course focuses on concepts and strategies in medicinal chemistry, and how it is applied to modern drug discovery and development. Topics include the drug discovery process, drug targets (GRCR?s, enzymes, channels etc.), physical chemistry of molecular interactions between drug and target, drug design, methods for hit and lead identification, lead optimization, chemical biology, natural products chemistry and combinatorial and diversity oriented synthesis. This course is geared to upper level undergraduate students in chemistry or biochemistry, and first year chemistry graduate students. A strong understanding of organic chemistry is required.
Fall or Spring
0.5 Course Units

CHEM 7430 Heterocyclic Chemistry
The course deals with topics in Heterocyclic Chemistry. It covers nitrogen-containing monocyclic hetero rings, examining the most recent syntheses, the reactions and their mechanisms. The course will focus on recent variations and improvements of known heterocycles as well as their synthetic utility. Students will be expected to read critically a recent article on heterocyclic chemistry and do a presentation to the class.
Fall or Spring
0.5 Course Units

This class will discuss selected topics related to Bioinspired synthesis, methods, tactics and strategies. Target molecules, methods and strategies are designed by using biological systems as models.
Fall or Spring
0.5 Course Units

CHEM 7450 Total Synthesis
The focus of this course comprise the development of two synthetic strategies to access architecturally complex natural products of biological significance exploiting innovative chemistry. Lectures towards this end are given. As a project, each student is given a different complex natural product and expected at the end of the course to develop two strategies, one based on asymmetric induction to provide the absolute stereochemical structure, the second where the absolute stereochemistry derives from commercially available starting materials.
Fall or Spring
0.5 Course Units
CHEM 7460 Intermediate Organic Chemistry
This course will include a review of basic reaction mechanisms, stereoelectronic effects, functional groups and acid-base chemistry. The course will emphasize the writing of mechanisms using the curved-arrow notation and organic reactions. Bonding and electronic structure theories and more involved mechanisms will be discussed. Students are expected to have a good working knowledge of reactions, functional groups, stereochemistry and mechanisms from undergraduate organic chemistry. Students will be expected to review basic concepts in Organic Chemistry and spectroscopy. The course will include lectures and recitations, and students are expected to attend and participate.
Fall or Spring
1 Course Unit

CHEM 7470 Bioanalytical Chemistry
This course will provide an introduction to methods and applications of contemporary biochemical techniques and instrumentation used for analysis of biomolecules, including proteins, DNA/RNA and metabolites. Topics covered will include chromatographic and electrophoresis, mass spectrometry, fluorescence microscopy for the detection, characterization and structural analysis of proteins, antibodies and nucleic acids. The focus of the course will be applications in bioanalysis, biopharmaceuticals and biotechnology.
Spring
Prerequisite: CHEM 5510
1 Course Unit

CHEM 7510 Chemical Biology
This course focuses on current topics in Chemical Biology, particularly experiments in which 1) chemical synthesis enables one to probe or control biological systems, or 2) manipulation of biological systems facilitates novel chemical syntheses. The course is broadly divided into two sections, one dealing with the study of individual proteins and nucleic acids, and one dealing with complex cellular systems. As the goal of the course is to familiarize students with innovative recent experimental approaches and to stimulate them to conceive of their own new methodology, students will be responsible for delivering presentations on topics selected from the literature, designing experiments to address currently unsolved problems in Chemical Biology (in take-home examinations), and generating several novel research proposal ideas, one of which will be elaborated into a full proposal.
Fall or Spring
Also Offered As: BMB 7510
1 Course Unit

CHEM 7620 X-ray I
An introduction to the theory and practice of structure determination by X-ray crystallography. Topics discussed include point group and space group symmetry, structure factor theory, data collection methods and a survey of solution methods. The course culminates with a series of real-world structure determinations worked through in-class using the XSeed program package.
Fall or Spring
0.5 Course Units

CHEM 7630 X-ray II
Continuation of X-ray I course, CHEM 7410: Spectroscopy
Fall or Spring
Prerequisite: CHEM 7620
0.5 Course Units

CHEM 7640 Materials Chemistry
This course will provide an introduction of structure-property relationships in materials chemistry on length scales from atomic dimension up to the microscale and then draw on examples of Chemical design for "Energy and Environmental Sustainability." We will introduce the "12 Principles of Green Chemistry" and "12 Principles of Green Engineering" as a guide to modern materials chemistry design and follow a trajectory that proceeds with increasing length scales of ordering in the solid state. We will introduce techniques of x-ray, neutron, electron, and ion beam based scattering, real space imaging and spectroscopies and use these to explore non-crystalline materials (amorphous, glasses, and time permitting quasicrystals and aperiodic systems) and crystalline solids. Studies will proceed from atomic scales through nanoscale, mesoscale, and micro-scale discussing the emergence of band structure and delocalized electronic and optical properties that emerge due to the finite scale of ordering and influence of the surface. Select examples will be drawn from advances in materials for in solar energy utilization with photochemistry and photoelectrochemistry and materials for photovoltaic and enabling advances electrochemical energy conversion and storage.
Spring
1 Course Unit

CHEM 7650 Chemistry of the f-Block Elements
The course encompasses the descriptive chemistry, and topics related to, the f-block including the rare earth metals and actinides. Coverage includes coordination chemistry and periodic trends, electronic structure and magnetism, and modern applications of f-block chemistry including lanthanide ions as spectroscopic probes, separations chemistry, materials chemistry and applications, organo-f-element chemistry, the chemistry of the actinides and transactinides, and reactivity/catalysis with f-block compounds.
Fall or Spring
0.5 Course Units

CHEM 7670 Coordination Chemistry
Ligands have a remarkable ability to alter the properties of metal ions, and the study of this coordination chemistry underlies many modern advances in science, including energy harvesting and storage, chemical catalysis, and sustainability. This course explores the relationships between the identities of ligands and the physical manifestations that result from their binding to metal centers. Topics to be covered include: symmetry and chirality in molecular complexes, variations in coordination number, ligand field effects, recent advanced in bonding theory, and inorganic reaction mechanisms.
Fall or Spring
0.5 Course Units
CHEM 7660 Electrochemistry: Methods and Chemical Applications
The goal of this course is for students to gain an understanding of the principles of electrochemistry along with some practical experience. Potentiometric methods will be discussed in the context of electrochemical equilibrium. Amperometric analytical methods—chronoamperometry, chronocoulometry, stripping voltammetry, cyclic voltammetry, pulse polarography, AC impedance, and hydrodynamic methods—will be described from the perspective of mathematical models of mass transport and electrode kinetics. As time permits, special topics and applications, such as electrochemical energy conversion, spectrophotometry, photoelectrochemistry, ultramicroelectrodes, microfluidics, corrosion, electrochemical synthesis, and scanning electrochemical microscopy, will be covered. To complement and reinforce the material learned in class, students will fabricate electrodes, perform cyclic voltammetry and other experiments, and analyze electrochemical data. Equipment will be available in the instructor’s research laboratory to do these experiments in small groups on students’ own time outside of class. The instructor will provide out-of-class assistance to students who are not yet familiar with the use of electrochemical equipment.
1 Course Unit

CHEM 7670 Applications of Group Theory
This course will provide a fundamental understanding of symmetry, the character tables, how to derive these, and apply them in spectroscopy, and molecular orbital diagrams. The course will require some fundamental understanding of matrix algebra, and apply concepts of symmetry to derive character tables, predict spectroscopic properties of molecules, and derive molecular orbitals diagrams including hybridized orbitals.
0.5 Course Units

CHEM 9999 Independent Study and Research
(1) Advanced study and research in various branches of chemistry. (2) Seminar in current chemical research. (3) Individual tutorial in advanced selected topics.
Fall or Spring
0.5-4 Course Units

Chichewa (CHIC)

CHIC 0100 Elementary Chichewa I
The main objective of this course is to allow students to study an African language of their choice, depending on the availability of the instructor. The course will provide students with linguistics tools which will facilitate their research work in the target country. Cultural aspects of the speakers of the language will be introduced and reinforced.
Fall or Spring
1 Course Unit

CHIC 0200 Elementary Chichewa II
Continuation of AFST 490.
Fall or Spring
1 Course Unit

CHIC 0300 Intermediate Chichewa I
Intermediate level courses in a variety of African languages: Igbo, Shona, Wolof, Malagasy, Chichewa, Setswana, Manding, Afrikaans, Setswana. Focus on oral proficiency and productive language skills. All course are language specific and follow ACTFL proficiency guidelines.
Fall
1 Course Unit

CHIC 0400 Intermediate Chichewa II
Continuation of AFST 492.
Spring
1 Course Unit

Chinese (CHIN)

CHIN 0100 Beginning Chinese I
Along with Beginning Modern Chinese II, Beginning Chinese III (Non-Intensive) and Beginning Chinese IV, this is the first course of a four-semester sequence. By completing all four semesters, students fulfill the College language requirement. The sequence starts each fall. Students cannot begin their study in the spring. This course is designed primarily for students who have little or no prior exposure to Chinese. The objective of the course is to help students build a solid foundation of the four basic skills—listening, speaking, reading, and writing in an interactive and communicative learning environment. The emphasis is on correct pronunciation, accurate tones, and mastery of basic grammatical structures, laying the foundation needed to be able to manage social situations such as relating one’s personal life and experiences, expressing preferences and feelings, ordering meals, purchasing goods, and asking for directions. In order to achieve these goals, students are expected to thoroughly preview and review the materials according to the weekly lesson plan (on course website) prior to attending class. Regular attendance is mandatory and strictly monitored.
Fall
1 Course Unit

CHIN 0105 Spoken Chinese I
This course is designed for students who have little or no previous exposure to Chinese. The main objective of the course is to help students develop their listening and speaking skills. The emphasis is on correct pronunciation, accurate tones and mastery of basic grammatical structures. Chinese characters will not be taught.
Fall
1 Course Unit

CHIN 0131 Beginning Cantonese I
Beginning Cantonese is a preliminary course for spoken Cantonese. The course provides fundamental aspects of the dialect as experienced in daily life situations and lays the foundation which will enable students to communicate in Cantonese for daily life needs, such as making phone calls, making purchases, getting around by various means of transportation, seeing a doctor, being a guest or a host at dinner, talking about the weather, talking about sports and entertainment, etc. It is strongly recommended that students continue to Beginning Cantonese II to become conversational.
Fall
1 Course Unit

CHIN 0133 Beginning Taiwanese I
Beginning Taiwanese I is designed to help students learn enough to enable them to handle basic social interactions when visiting Taiwan, such as greeting others, introducing yourself, ordering food, asking directions, etc. You will also learn to listen and understand the oral language typically heard in locations such as the grocery store, train station, bus stop, and restaurants.
Fall
1 Course Unit
CHIN 0160 Beginning Business Chinese I
The course is designed for juniors and seniors, and Penn working professionals who have no prior exposure to Chinese, and are interested in learning basic Chinese language and culture for the preparation of a business trip to China. The objective of this course is to build a foundation of basic Chinese in the business context, with a main focus on speaking and listening, and minimal reading. Upon completion, students are expected to be able to converse and interact with people in a variety of traveling settings and in company visits. Topics include meeting people, talking about family, introducing companies, making inquiries and appointments, visiting companies, introducing products, initiating dining invitations, and practicing dining etiquette.
Not Offered Every Year
1 Course Unit

CHIN 0200 Beginning Chinese II
This course is the continuation of Beginning Chinese I and is the second course of a four-semester sequence. By completing all four semesters, students fulfill the College language requirement. The objective of the course is to help students build a solid foundation of the four basic skills—listening, speaking, reading, and writing—in an interactive and communicative learning environment. The emphasis is on correct pronunciation, accurate tones and mastery of basic grammatical structures. By the end of the semester, students will be able to manage many situations that have immediate concern to them, such as relating one’s personal life and experiences, expressing preferences and feelings, ordering meals, purchasing goods and asking for directions. In order to achieve these goals, students are expected to thoroughly preview and review the materials according to the weekly lesson plan (on course website) prior to attending class. Regular attendance is mandatory and strictly monitored.
Spring
Prerequisite: CHIN 0100 AND CHIN 0300 AND CHIN 0400
1 Course Unit

CHIN 0205 Spoken Chinese II
A continuation of Spoken Chinese I, this course is to help students develop their listening and speaking skills. The emphasis is on correct pronunciation, accurate tones and mastery of basic grammatical structures. By the end of the semester, students will be able to manage many situations that have immediate concern to them, such as relating one’s personal life and experiences, expressing preferences and feelings, ordering meals, purchasing goods, asking for directions. To achieve this goal, the class is to be conducted in Chinese as much as possible. Chinese characters will also be introduced, but will not be the focus of the class.
Spring
Prerequisite: CHIN 0105
1 Course Unit

CHIN 0210 Intensive Beginning Chinese I & II
Along with Intensive Beginning Chinese III & IV, this is the first course of a two-semester sequence. By completing both semesters, students fulfill the College language requirement. The sequence starts each fall. Students cannot begin their study in the spring. This course covers the same material as Beginning Chinese I & II. The main objective is to help students build a solid foundation of the four basic skills—listening, speaking, reading, and writing. By the end of this course, students should achieve a solid foundation in: 1) pronouncing all the sounds in Mandarin Chinese accurately and comfortably with a good command of the 4 tones; 2) carry out basic conversations in daily activities; 3) recognize and reproduce approximately 600-650 characters; and 4) read edited simple stories and write short notes or letters. Grammatical and cultural issues are discussed during lecture hours. Oral communication tasks are given every week.
Fall
2 Course Units

CHIN 0231 Beginning Cantonese II
A continuation of Beginning Cantonese I, this class is a preliminary course for spoken Cantonese. The course provides fundamental aspects of the dialect as experienced in daily life situations and will enable students to communicate in Cantonese for daily life needs, such as making phone calls, making purchases, getting around by various means of transportation, seeing a doctor, being a guest or a host at dinner, talking about the weather, talking about sports and entertainment, etc.
Spring
Prerequisite: CHIN 0131
1 Course Unit

CHIN 0233 Beginning Taiwanese II
A continuation of Beginning Taiwanese I, this course will cover language training as well as cultural topics including history and political aspects of Taiwan. Conversation topics range from daily conversation to professional and formal situations.
Spring
Prerequisite: CHIN 0133
1 Course Unit

CHIN 0260 Beginning Business Chinese II
A continuation of Beginning Business Chinese I, this course is for those wishing to improve their language skills in a business setting, as well as an understanding of Chinese social development since 1976. The emphasis is on current business development, correct pronunciation, accurate tones and mastery of basic grammatical structures. The main focus is on speaking and listening, with minimal reading. Upon completion, students are expected to be able to converse and interact with people in a variety of traveling settings and company visits. Topics include meeting people, talking about family, introducing companies, making inquiries and appointments, visiting companies, introducing products, initiating dining invitations and practicing dining etiquette.
Spring
Prerequisite: CHIN 0160
1 Course Unit
CHIN 0300 Intermediate Chinese I
This is the third course in a four-semester sequence. By completing all four semesters, students fulfill the College language requirement. The objective of the course is to continue building a solid foundation of the four basic skills—listening, speaking, reading and writing. By the end of this course, students should achieve the following goals: 1) pronounce all the sounds in Mandarin accurately and comfortably with a good command of the four tones; 2) carry out simple dialogues of familiar topics; 3) recognize and reproduce approximately 450-500 characters; and 4) read short textbook stories and write simple notes. In order to develop students’ listening and speaking ability, oral communication tasks are given on each lesson.
Fall
Prerequisite: CHIN 0200
1 Course Unit

CHIN 0301 Intermediate Chinese I
This is the third course in a four-semester sequence. By completing all four semesters, students fulfill the College language requirement. The objective of the course is to continue building a solid foundation of the four basic skills—listening, speaking, reading and writing. By the end of this course, students should achieve the following goals: 1) pronounce all the sounds in Mandarin accurately and comfortably with a good command of the four tones; 2) carry out simple dialogues of familiar topics; 3) recognize and reproduce approximately 450-500 characters; and 4) read short textbook stories and write simple notes. In order to develop students’ listening and speaking ability, oral communication tasks are given on each lesson.
Fall
Prerequisite: CHIN 0200
1 Course Unit

CHIN 0305 Spoken Chinese III
This course is designed for students who have completed one year of college level Chinese classes or equivalent. The main objective of the course is to improve students’ conversational ability in Chinese in order to accomplish day-to-day tasks. These tasks include relating one’s personal life and experiences, expressing preference, feeling and opinion, ordering a meal, purchasing goods, asking for directions, making travel plans, visiting a doctor, attending a social functions etc. Short Chinese movies or television shows will be integrated into the course curriculum. Chinese characters will not be taught.
Fall, even numbered years only
Prerequisite: CHIN 0205
1 Course Unit

CHIN 0320 Reading and Writing in Chinese I (for Fluent Speakers)
The course is designed for students who can speak Chinese but cannot read and write in Chinese characters. The major purpose of this course is to help students develop the ability to use written Mandarin Chinese in linguistically and socially appropriate ways. The literacy goal is to master 350 to 1000 Chinese characters and to reach an intermediate-low level of ACTFL literacy proficiency. The key teaching approach is to holistically read a prodigious amount of materials. Students’ reading abilities will be developed through reading short stories under instructions, and eventually through reading long stories and news independently.
Fall
1 Course Unit

CHIN 0331 Intermediate Cantonese I
Intermediate Cantonese is a course for students who are able to communicate in the dialect in basic survival situations. Through this course, the students will acquire a better understanding of Cantonese and its related culture, and can confidently cope with a wide range of situations. Classes will be conducted through Cantonese textbooks, discussions of various topics, and composition and presentation of students’ own dialogues so that in time they may express more complex ideas and feelings. Continuation to Intermediate Cantonese II is strongly encouraged.
Fall
Prerequisite: CHIN 0231
1 Course Unit

CHIN 0333 Intermediate Taiwanese I
Students will further develop their speaking and listening skills and will be able to communicate with ease and confidence when dealing with everyday routine tasks. Students will also gain skills to process and seek information in Taiwanese. Conversation topics include New Year, folk songs, and Tang poetry. Authentic materials are used for enhancing reading, listening, and speaking practices.
Fall
Prerequisite: CHIN 0233
1 Course Unit

CHIN 0400 Intermediate Chinese II
This is the fourth course in a four-semester sequence. By completing all four semesters, students fulfill the College language requirement. The objective of the course is to continue building a solid foundation of the four basic skills—listening, speaking, reading and writing. By the end of this course, students should achieve the following goals: 1) pronounce all the sounds in Mandarin accurately and comfortably with a good command of the four tones; 2) carry out simple dialogues of familiar topics; 3) recognize and reproduce approximately 600-650 characters; and 4) read short textbook stories and write simple notes. In order to develop students’ listening and speaking ability, oral communication tasks are given every other week.
Spring
Prerequisite: CHIN 0300
1 Course Unit

CHIN 0405 Spoken Chinese IV
This course is the continuation of Spoken Chinese III. The primary goal of the course is to improve students’ conversational ability in Chinese. By the end of the semester, students will reach the survival level, namely, they can accomplish basic day to day tasks. These tasks include relating one’s personal life and experiences, expressing preference, feeling and opinion, ordering a meal, purchasing goods, asking directions, making travel plans, visiting a doctor, attending a social function, etc. Short Chinese movies or television shows will be integrated into the course curriculum. Chinese characters will not be taught.
Spring
Prerequisite: CHIN 0305
1 Course Unit
CHIN 0410 Intensive Intermediate Chinese I & II
Along with Intensive Beginning Chinese I & II, this is the second course of a two-semester sequence. By completing both semesters, students fulfill the College language requirement. This course covers the same material as Intermediate Chinese I & II. The main objective is to help students build a solid foundation of the four basic skills—listening, speaking, reading, and writing. By the end of this course, students should achieve the following goals: 1) pronounce all the sounds in Mandarin Chinese accurately and comfortably with a good command of the 4 tones; 2) carry out basic conversations in daily activities; 3) recognize and reproduce approximately 600-650 characters; and 4) read edited simple stories and write short notes or letters. Grammatical and cultural issues are discussed during lecture hours. Oral communication tasks are given every week. Designed for students who have had limited prior exposure to some form of Chinese (Mandarin or other dialects), but inadequate to advance to the intermediate level. The language practiced in this class will be more formal oral and written style, including more authentic materials reading, listening and viewing.

Spring
Prerequisite: CHIN 0210
2 Course Units

CHIN 0420 Reading and Writing in Chinese II (for Fluent Speakers)
A continuation of Reading/Writing Chinese I, this course is designed for students who can speak Chinese and have reading ability of about 1000 Chinese characters. It is specifically designed for students at the ACTFL intermediate-low reading and writing level. The literacy goal is to master 1000 to 2000 Chinese words and reach the intermediate-mid proficiency level. Reading material covers topics that are meaningful to students not only to increase engagement and confidence in their Chinese reading skills, but also foster students' appreciation and understanding of the Chinese culture.

Spring
Prerequisite: CHIN 0320
1 Course Unit

CHIN 0431 Intermediate Cantonese II
A continuation of Intermediate Cantonese I. Intermediate Cantonese is a course for students who are able to communicate in the dialect in basic survival situations. Through this course, the students will acquire a better understanding of Cantonese and its related culture, and can confidently cope with a wide range of situations. Classes will be conducted through Cantonese textbooks, discussions of various topics, and composition and presentation of students’ own dialogues so that in time they may express more complex ideas and feelings.

Spring
Prerequisite: CHIN 0331
1 Course Unit

CHIN 0432 Intermediate Taiwanese II
This is a continuation of Intermediate Taiwanese I. Students will further develop their speaking and listening skills and will be able to communicate with ease and confidence when dealing with everyday routine tasks. Students will also gain skills to process and seek information in Taiwanese. Conversation topics include the New Year, folk songs and Tang poetry. Authentic materials are used for enhancing reading, listening, and speaking practices.

Spring
Prerequisite: CHIN 0333
1 Course Unit

CHIN 0500 High Intermediate Chinese I
This course aims to develop students’ overall linguistic skills in listening, speaking, reading, and writing Chinese. The specially designed textbook gives introduction to various topics on Chinese culture. Students can expect to gain knowledge about China while they are learning the language. By completion of the course, students are expected to be able to master 1200 most frequently used characters in common reading materials, and to communicate in Chinese.

Fall
Prerequisite: CHIN 0400
1 Course Unit

CHIN 0520 Reading and Writing Chinese III (for Fluent Speakers)
An intermediate reading and writing course designed for students at the ACTFL intermediate-mid reading and writing proficiency. The goal of this course is to reach the intermediate-high level of proficiency. This course concentrates on writing of multi-paragraph essays through the use of conventional rhetorical modes and standard grammatical structures. Students will be given ample time to think and to discuss (the crucial "brainstorming" phase) before writing. The course stresses content, culture and comparison and draws its content from assigned readings and evidence-based argument from texts and other stimuli such as Internet, newspapers and films.

Fall
Prerequisite: CHIN 0420
1 Course Unit

CHIN 0600 High Intermediate Chinese II
This course is the continuation of High Intermediate Chinese I. It aims to further develop students’ overall language skills. The textbook will introduce various topics related to Chinese culture, society, economy, people and their everyday life as well as China’s development since Deng Xiaoping's reform and opening-up policies in 1978. In class, current issues in China will be integrated to provide a new perspective for discussion. The emphasis is not only to consolidate students’ foundation, but also enhance their understanding and distinguish different levels of language. Over the semester, students will have many opportunities to express and share their opinions on various topics related to China via communicative activities, presentations, and written assignments.

Spring
Prerequisite: CHIN 0500
1 Course Unit

CHIN 0620 Reading and Writing Chinese IV (for Fluent Speakers)
This is an intermediate language class presuming basic fluency in speaking and listening and focusing on reading and writing abilities. By the end of the semester students are expected to have mastered the 1200 most commonly used characters and to have the ability to read basic Chinese texts. Students will be prepared for Advanced Modern Chinese, Media Chinese and Business Chinese.

Spring
Prerequisite: CHIN 0520
1 Course Unit
CHIN 0700 Advanced Chinese I
Students learn to work on materials which were written or produced for native speakers, instead of the classroom materials that were written for the non-native speakers. The reading materials include a larger vocabulary with more idioms. Students will also learn how to understand and use certain oral expressions in conversation. They will learn ways to narrate, to describe, and to comment in native Chinese ways. Reading and audio materials are provided and discussed in the classes. Writing and oral presentations in Chinese are required in classroom under instruction. Students will be encouraged to practice oral communication with each other.
Fall
Prerequisite: CHIN 0600
1 Course Unit

CHIN 0701 Advanced Chinese I
Students learn to work on materials which were written or produced for native speakers, instead of the classroom materials that were written for the non-native speakers. The reading materials include a larger vocabulary with more idioms. Students will also learn how to understand and use certain oral expressions in conversation. They will learn ways to narrate, to describe, and to comment in native Chinese ways. Reading and audio materials are provided and discussed in the classes. Writing and oral presentations in Chinese are required in classroom under instruction. Students will be encouraged to practice oral communication with each other.
Fall
Prerequisite: CHIN 0600
1 Course Unit

CHIN 0705 Advanced Spoken Chinese I
This course is designed for students who have completed at least the intermediate level Chinese language course, or have studied the language for at least three years. The objective of this course is to consolidate the knowledge and skills students have acquired from their previous Mandarin Chinese classes and to enhance their oral expressive skills. By the end of the semester, students are expected to be able to carry on a conversation with a native Mandarin speaker on various common topics, including the current issues in China on education, society, politics, culture and history. Students will also learn how to gather information necessary for conducting oral presentations and speeches.
Fall
Prerequisite: CHIN 0600
1 Course Unit

CHIN 0800 Advanced Chinese II
A continuation of Advanced Chinese I, this course continues training in speaking, listening, reading and writing skills so as to reach the advanced-low or advanced-mid level of proficiency. Major topics of the course include Chinese food culture, Chinese architecture, Confucianism in modern China, "educated youth", democracy and relations with Taiwan. Spring
Prerequisite: CHIN 0700
1 Course Unit

CHIN 0805 Advanced Spoken Chinese II
A continuation of Advanced Spoken Chinese I, this class follows the same format, with more discussions on current issues in both China and the US. Examples of topics range from race, religion and gender issues to the internet, cinema and pop cultures. The objective of this course is to consolidate the knowledge and skills students have acquired from their previous Mandarin Chinese classes and to enhance their oral expressive skills. By the end of the semester, students are expected to be able to carry on a conversation with a native Mandarin speaker on various common topics, and to gather information necessary for conducting oral presentations and speeches.
Spring
1 Course Unit

CHIN 0840 Chinese Short Stories
This course is designed for students with advanced level Chinese language training but who need some further refinements on pronunciation, grammar, and vocabulary usage, this course stresses oral discussion, composition, and accuracy of language performance. By reading texts written by contemporary writers, students will also gain knowledge of China from an analytical and comparative perspective.
Fall or Spring
Prerequisite: CHIN 0800
1 Course Unit

CHIN 0860 Business Chinese I
This aim of this course is to enhance students' language skills in a business context and to promote their understanding about business environment and culture in contemporary China. The text is developed from real business cases from real multinational companies that have successfully dealt on the Chinese market. Classes include lectures, drills on vocabulary and sentence patterns, and discussions. Class will be conducted in Chinese. In addition to the course textbook, students will learn to read business news in Chinese selected from the Wall Street Journal.
Fall
Prerequisite: CHIN 0620 AND CHIN 0800
1 Course Unit

CHIN 0865 Business Chinese II
A continuation of Business Chinese I, this course continues language training for business oriented subjects. This course will provide an overview of China's changing macro-environment, while real business cases let us look into individual Chinese companies and their development in the new millennium. By the end of the semester, students are expected to 1) enhance the cultural awareness of contemporary China and the Chinese business world; 2) gain vocabulary and fluency in Chinese to function more confidently and comfortably in real business settings; 3) access business news and information in Chinese; 4) give business presentation in Chinese.
Spring
Prerequisite: CHIN 0800 AND CHIN 0870 AND CHIN 0860
1 Course Unit
CHIN 0870 Media Chinese
This course aims to help students improve their language skills and enlarge their vocabulary through reading online news on Chinese internet. Students will learn formal vocabulary and enhance their grammatical accuracy. Students are encouraged to explore Chinese government and company websites and Baidu Baike, in order to learn how to conduct their own online searches for both professional and academic purposes. Linguistic features in news headlines, accuracy of online translation tools, media censorship, social media usage will also be discussed in this class. The course goal is to help students gain Chinese media literacy by reading, browsing and viewing online materials.
Fall or Spring
Prerequisite: CHIN 0620 AND CHIN 0700 AND CHIN 0840
1 Course Unit

CHIN 1040 Readings in Modern Chinese: Literature I
This course is designed for students who have completed three years of college level Mandarin classes or equivalent. This course may be used to fulfill the language or elective requirement for the EALC or EAST major or minor in the Chinese concentration. The objectives of the course are 1) to help students gain an in-depth, multi-faceted and critical understanding of the Chinese people, Chinese society and Chinese culture; 2) to facilitate students' acquisition of formal or written language; and 3) to develop students' analytical and critical thinking skills. These objectives are achieved primarily through 1) close reading and discussion of original literary texts by 20th century Chinese writers; and 2) regular writing exercises. Students will also view several Chinese films that are related to the topics of the reading text. The class is to be conducted exclusively in Chinese.
Spring
Mutually Exclusive: CHIN 6040
Prerequisite: CHIN 0840 AND CHIN 0870 AND CHIN 0865
1 Course Unit

CHIN 1045 Readings Modern Chinese: Literature II
This course is structured the same as Readings in Modern Chinese Literature I; however, the reading materials and topics are different. This course is designed for students who have completed a minimum of three years of college level Mandarin classes or equivalent. This course may be used to fulfill the language or elective requirement for the EALC or EAST major or minor in the Chinese concentration. The objectives of the course are 1) to help students gain an in-depth, multi-faceted and critical understanding of the Chinese people, Chinese society and Chinese culture; 2) to facilitate students' acquisition of formal or written language; and 3) to develop students' analytical and critical thinking skills. These objectives are achieved primarily through 1) close reading and discussion of original literary texts by 20th century Chinese writers; and 2) regular writing exercises. Students will also view several Chinese films that are related to the topics of the reading text. The class is to be conducted exclusively in Chinese.
Spring
Mutually Exclusive: CHIN 6045
Prerequisite: CHIN 0840 AND CHIN 0870 AND CHIN 0865
1 Course Unit

CHIN 1048 Readings in Modern Chinese: Documents
The main purpose of this content-based course is to promote advance-level language proficiency in reading, writing, speaking and listening. Through the use of modern Chinese documents, the secondary purpose of this course is to facilitate your understanding of the changes of Chinese society in the 20th century. Topics will include the Constitution of China, China's legal system, speeches by Mao Zedong, Deng Xiaoping, Sun Yet-sen and Qiu Jin.
Not Offered Every Year
Mutually Exclusive: CHIN 6048
Prerequisite: CHIN 0870 AND CHIN 0860 AND CHIN 1040
1 Course Unit

CHIN 1050 Introduction to Classical Chinese I
Introduction to the classical written language, beginning with Shadick, First Course in Literary Chinese. Students with a background in Japanese, Korean, Cantonese, Taiwanese, and other East Asian languages are welcome; it is not necessary to know Mandarin. The course begins from scratch, and swiftly but rigorously develops the ability to read a wide variety of classical and semi-classical styles. Original texts from the 6th century BC to the 20th century AD are studied. This course is taught in English and there are no prerequisites.
Fall
Also Offered As: EALC 3621
1 Course Unit

CHIN 1055 Introduction to Classical Chinese II
Continuation of Intro to Classical Chinese I, which is the only prerequisite for this course. Upon completion of Shadick, readings in a wide selection of texts with Chinese commentaries may be taken up. These readings are in part chosen to reflect student interest. This is the second half of a year-long course. Those who enroll must take both semesters.
Spring
Also Offered As: EALC 3622
Mutually Exclusive: EALC 7622
Prerequisite: EALC 3621
1 Course Unit

CHIN 1060 Advanced Business Chinese I
This content-based course provides students with the conceptual framework to understand issues China has been facing since its economic reform in 1978. Topics include WTO principles, the change of China's state-owned enterprises, China's economy in Mao's period, and the pros and cons of globalization. Students will be trained in reading financial articles, discussing international trades, conducting online research and giving business presentations. After the course, students will become more sophisticated in their understanding of China's economic development and in using Chinese business terminology in professional settings. The course assumes basic background in business and advanced level proficiency in Chinese language. The course is NOT open to first-year students with no undergraduate business course.
Fall
Mutually Exclusive: CHIN 6060
Prerequisite: CHIN 0860
1 Course Unit
CHIN 1065 Advanced Business Chinese II
This course is a continuation of Advanced Business Chinese I and follows the same format. Topics include Eastern and Western management styles, the global financial market, China’s financial market reforms, and mergers and acquisitions in China. At the end of the semester, students will submit a business proposal for the final project.
Spring
Mutually Exclusive: CHIN 6065
Prerequisite: CHIN 1060
1 Course Unit

CHIN 1140 Advanced Readings in Chinese Culture
The objective of this advanced level content-based course is to extend and refine students’ language and analytical skills while enhancing an appreciation of Chinese culture. The course is for students with native or near-native competency in Mandarin. Each class will include reading, reflection and interpretation, and the exchange of ideas. All reading materials are in Chinese with no glossary and all are written by scholars whose expertise are either in the contemporary and traditional culture of China, or in comparative study of Chinese and Western thoughts. Topics include: 1) the shared beliefs and behaviors of Chinese people; 2) traditional values and new values in the technological and business society; 3) how affection and love are manifested in Chinese culture; 4) what influenced the surge of popularity of Chinese wuxia fiction; (5) what it means to be descendants of Chinese (huayi) living outside China. The class is conducted exclusively in Mandarin Chinese.
Spring
Mutually Exclusive: CHIN 6140
Prerequisite: CHIN 1040 AND CHIN 1060
1 Course Unit

CHIN 1147 Advanced Readings in Modern Chinese Literature
This course surveys the literary movements of the post-Cultural Revolution era (1978-present). The readings consists of fictional works representative of each literary movement. Students will write four short (1-2 pages, double spaced) "responding" papers and two longer critical essays (5-7 pages double spaced). Each student will also give one oral presentation to the class on an assigned story. This course is designed for students who have achieved native or a near-native level of reading and writing proficiency in Chinese. The class is conducted exclusively in Chinese.
Not Offered Every Year
Prerequisite: CHIN 1040 AND CHIN 1045 AND CHIN 1048 AND CHIN 1060 AND CHIN 1065
1 Course Unit

CHIN 1148 Chinese for Specific Purposes: Legal Chinese
Legal Chinese (CHIN 6148/6149) is a superior-level content-based course providing students with a brief overview of Chinese state laws, legal business cases and the study of legal Chinese terminologies. Through text reading and legal business case discussion, the class engages Penn professional school students and undergraduate social science majors in legal case study, encouraging them to reflect on what they read, as well as giving them the opportunity to experience a course that brings together Chinese legal content and Chinese professional literacy training. The goal of the course is to help students better understand the legal language and content in order to prepare them for specific careers of interest.
Spring
Mutually Exclusive: CHIN 6148
1 Course Unit

CHIN 1150 Advanced Classical Chinese I
Close reading and interpretation of texts in various styles of classical Chinese drawn from the Han, Wei, Tang, and Song periods. Focus on strengthening students’ reading ability in classical Chinese. Attention to questions of style, rhetoric, and syntax.
Fall
Also Offered As: EALC 3623
Mutually Exclusive: EALC 8621
1 Course Unit

CHIN 1155 Advanced Classical Chinese II
Close reading and interpretation of texts in various styles of classical Chinese drawn from the Han, Wei, Tang, and Song periods. Focus on strengthening students’ reading ability in classical Chinese. Attention to questions of style, rhetoric, and syntax. It is preferred, but not required, that students take Advanced Classical Chinese I first.
Spring
Also Offered As: EALC 3624
Mutually Exclusive: EALC 8622
1 Course Unit

CHIN 5065 Advanced Business Chinese II
This course is a continuation of Advanced Business Chinese I and follows the same format. Topics include Eastern and Western management styles, the global financial market, China’s financial market reforms, and mergers and acquisitions in China. At the end of the semester, students will submit a business proposal for the final project.
Spring
Mutually Exclusive: CHIN 1065
Prerequisite: CHIN 1060
1 Course Unit

CHIN 6040 Readings in Modern Chinese: Literature I
This course is designed for students who have completed three years of college level Mandarin classes or equivalent. This course may be used to fulfill the language or elective requirement for the EALC or EAST major or minor in the Chinese concentration. The objectives of the course are 1) to help students gain an in-depth, multi-faceted and critical understanding of the Chinese people, Chinese society and Chinese culture; 2) to facilitate students’ acquisition of formal or written language; and 3) to develop students’ analytical and critical thinking skills. These objectives are achieved primarily through 1) close reading and discussion of original literary texts by 20th-century Chinese writers; and 2) regular writing exercises. Students will also view several Chinese films that are related to the topics of the reading text. The class is to be conducted exclusively in Chinese.
Fall
Mutually Exclusive: CHIN 1040
Prerequisite: CHIN 0840 AND CHIN 0870 AND CHIN 0865
1 Course Unit
CHIN 6045 Readings Modern Chinese: Literature II
This course is structured the same as Readings in Modern Chinese Literature I; however, the reading materials and topics are different. This course is designed for students who have completed a minimum of three years of college level Mandarin classes or equivalent. This course may be used to fulfill the language or elective requirement for the EALC or EAST major or minor in the Chinese concentration. The objectives of the course are 1) to help students gain an in-depth, multi-faceted and critical understanding of the Chinese people, Chinese society and Chinese culture; 2) to facilitate students' acquisition of formal or written language; and 3) to develop students' analytical and critical thinking skills. These objectives are achieved primarily through 1) close reading and discussion of original literary texts by 20th-century Chinese writers; and 2) regular writing exercises. Students will also view several Chinese films that are related to the topics of the reading text. The class is to be conducted exclusively in Chinese.
Spring
Mutually Exclusive: CHIN 1045
Prerequisite: CHIN 0840 AND CHIN 0870 AND CHIN 0865
1 Course Unit

CHIN 6048 Readings in Modern Chinese: Documents
The main purpose of this content-based course is to promote advanced-level language proficiency in reading, writing, speaking and listening. Through the use of modern Chinese documents, the secondary purpose of this course is to facilitate your understanding of the changes of Chinese society in the 20th century. Topics will include the Constitution of China, China's legal system, speeches by Mao Zedong, Deng Xiaoping, Sun Yet-sen and Qiu Jin.
Not Offered Every Year
Mutually Exclusive: CHIN 1048
Prerequisite: CHIN 0870 AND CHIN 0860 AND CHIN 1040
1 Course Unit

CHIN 6060 Advanced Business Chinese I
This content-based course provides students with the conceptual framework to understand issues China has been facing since its economic reform in 1978. Topics include WTO principles, the change of China's state-owned enterprises, China's economy in Mao's period, and the pros and cons of globalization. Students will be trained in reading financial articles, discussing international trades, conducting online research and giving business presentations. After the course, students will become more sophisticated in their understanding of China's economic development and in using Chinese business terminology in professional settings. The course assumes basic background in business and advanced level proficiency in Chinese language. The course is NOT open to first-year students with no undergraduate business course.
Fall
Mutually Exclusive: CHIN 1060
Prerequisite: CHIN 0865
1 Course Unit

CHIN 6065 Advanced Business Chinese II
This course is a continuation of Advanced Business Chinese I and follows the same format. Topics include Eastern and Western management styles, the global financial market, China's financial market reforms, and mergers and acquisitions in China. At the end of the semester, students will submit a business proposal for the final project.
Spring
Mutually Exclusive: CHIN 1065
Prerequisite: CHIN 1060
1 Course Unit

CHIN 6140 Advanced Readings in Chinese Culture
The objective of this advanced level content-based course is to extend and refine students' language and analytical skills while enhancing an appreciation of Chinese culture. The course is for students with native or near-native competency in Mandarin. Each class will include reading, reflection and interpretation, and the exchange of ideas. All reading materials are in Chinese with no glossary and all are written by scholars whose expertise are either in the contemporary and traditional culture of China, or in comparative study of Chinese and Western thoughts. Topics include: 1) the shared beliefs and behaviors of Chinese people; 2) traditional values and new values in the technological and business society; 3) how affection and love are manifested in Chinese culture; 4) what influenced the surge of popularity of Chinese wuxia fiction; and 5) what it means to be descendants of Chinese (huayi) living outside China. The class is conducted exclusively in Mandarin Chinese.
Spring
Mutually Exclusive: CHIN 1140
Prerequisite: CHIN 1040 AND CHIN 1060
1 Course Unit

CHIN 6148 Chinese for Specific Purposes: Legal Chinese
Legal Chinese (CHIN 1148/6148) is a superior-level content-based course providing students with a brief overview of Chinese state laws, legal business cases and the study of legal Chinese terminologies. Through text reading and legal business case discussion, the class engages Penn professional school students and undergraduate social science majors in legal case study, encouraging them to reflect on what they read, as well as giving them the opportunity to experience a course that brings together Chinese legal content and Chinese professional literacy training. The goal of the course is to help students better understand the legal language and content in order to prepare them for specific careers of interest.
Spring
Mutually Exclusive: CHIN 1148
1 Course Unit

CHIN 6149 Advanced Classical Chinese I
Close reading and interpretation of texts in various styles of classical Chinese drawn from the Han, Wei, Tang, and Song periods. Focus on strengthening students' reading ability in classical Chinese. Attention to questions of style, rhetoric, and syntax.
Not Offered Every Year
Also Offered As: EALC 8621
Mutually Exclusive: EALC 3623
1 Course Unit

CHIN 8621 Advanced Classical Chinese II
Close reading and interpretation of texts in various styles of classical Chinese drawn from the Han, Wei, Tang, and Song periods. Focus on strengthening students' reading ability in classical Chinese. Attention to questions of style, rhetoric, and syntax. It is preferred, but not required, that students take Advanced Classical Chinese I first.
Not Offered Every Year
Also Offered As: EALC 8622
Mutually Exclusive: EALC 3624
Prerequisite: EALC 8621
1 Course Unit

Cinema (CINM)
The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-
CIMM 3200 Screenwriting

Students are required to complete and revise the first 30 pages of a feature-length screenplay. In place of introductory lectures on story and cinema, an interactive presentation provides multimedia lectures that include sample text, images, and audio and video clips. In addition to two rounds of individual student workshop sessions, students have one-on-one meetings with the instructor conducted through video, audio, or text chat. The final grade is a cumulative assessment of student performance over the course of the term, factoring in all assignments, participation in discussion threads and progress made in the revision of 30 screenplay pages.

1 Course Unit

Cinema and Media Studies (CIMS)

CIMS 0021 Study of a Theme in Cinema

This introduction to literary study examines a compelling theme central to a set of cinematic texts. The theme's function within specific historical contexts, within varying media technologies, and within contemporary culture, will all be emphasized. In presenting a range of materials and perspectives, this course is an ideal introduction to literary study. See the English Department's website at www.english.upenn.edu for a description of the current offerings.

Fall or Spring
Also Offered As: COML 0021, ENGL 0021
1 Course Unit

CIMS 0024 Study of a Theme: Monsters in Film and Literature

This course studies literature and film featuring a wide assortment of monsters across a range of genres, cultures, and time periods. It also serves as an introduction to film analysis and readings in cultural studies and literary theory. See the English Department's website at www.english.upenn.edu for a description of the current offerings.

Also Offered As: ENGL 0024
1 Course Unit

CIMS 0041 Study of a Period in Cinematic History

This is an introduction to the study of cinema and culture through a survey of works from a specific historical period. This course is ideal for students wishing to explore a significant era, and it presents a range of films and contexts for understanding the cultural products of a period. See the English Department's website at www.english.upenn.edu for a description of the current offerings.

Fall or Spring
Also Offered As: COML 0041, ENGL 0041
1 Course Unit

CIMS 0050 In Dark Times: The Dystopian Imagination in Literature and Film

This CWiC course will offer a guided introduction to the one of the most resilient genres of the human imagination: dystopian and apocalyptic fiction. Like a group of survivors huddled around a campfire, we will turn to literature and cinema to debate some of the big questions about the future of science, technology, religion, and capitalism. This course is designed as a Critical Speaking Seminar, and the majority of class assignments will be devoted to oral presentations: including a Parliamentary-style debate and a video essay. We will begin by reading some of the early, influential works in the dystopian genre by authors like Mary Shelley, H.G. Wells, and Aldous Huxley. Next, we will explore the paranoid, schizophrenic world of Cold-War-era dystopias by J.G. Ballard, Philip K. Dick and Octavia Butler. We will conclude by reading contemporary climate fiction by the likes of Margaret Atwood and Kim Stanley Robinson. Alongside the literary material, we will also track the changing nature of dystopian cinema— from classics like Metropolis (1927) and La Jetée (1962) to the latest Zombie film. By the end of course, students will have a firm grasp of the history of the genre and will be able to draw on this knowledge to effectively debate issues related to privacy, big business, animal rights, climate change, migration etc.

Also Offered As: ENGL 1521
1 Course Unit

CIMS 0080 Laughter and Tricky Topics

This course takes a comparative approach to studying the philosophy and praxis of laughter in a variety of artistic media — texts, films, performances and memes. We will seek to develop a critical apparatus to answer the following questions: How does laughter unite us? How does it divide us? How does it contribute to identity and community formation? We will focus on humoristic expression produced in contexts considered too serious for lightheartedness, such as death, race and gender-related oppression, and disenfranchisement. Together, we will wonder whether everything can be a laughing matter, if irony is even funny (and what does it mean anyway?), and whether humor has the potential to effect meaningful sociopolitical change. Our theoretical corpus will include works by Bakhtin, Baudelaire, Bergson, and Freud, who conceptualized laughter in wildly different ways—respectively as carnivalesque, satanic, social, and as a coping mechanism. In the 1940s, René Ménali, a Franco-Caribbean philosopher, synthesized these early theories and further developed them into a means of resistance for colonial subjects. To see these concepts in action, we will engage with materials spanning three centuries, from a short story written by Jonathan Swift to contemporary French comedies (subtitled in English). Should laughter occur throughout the semester, its causes will be dutifully analyzed and presented in diverse oral and written assignments.

Not Offered Every Year
Also Offered As: COML 0080, FREN 0080
1 Course Unit

CIMS 0088 First-Year Seminar: Italian Histories

Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.

Fall or Spring
Also Offered As: ITAL 0088
1 Course Unit
CIMS 0089 First-Year Seminar: Italian Music
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: ITAL 0089, MUSC 0810
1 Course Unit

CIMS 0090 First-Year Seminar: Italian American Studies
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: ENGL 1299, GSWS 0090, ITAL 0090
1 Course Unit

CIMS 0091 First-Year Seminar: Contemporary Italy
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: ITAL 0091
1 Course Unit

CIMS 0092 First-Year Seminar: Italian Film and Media Studies
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: GSWS 0092, ITAL 0092
1 Course Unit

CIMS 0093 First-Year Seminar: Race and Ethnicity in Italy
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: GSWS 0093, ITAL 0093
1 Course Unit

CIMS 0094 First-Year Seminar: Italian Gender Studies
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: GSWS 0094, ITAL 0094
1 Course Unit

CIMS 0095 First-Year Seminar: Italian Fashion
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: GSWS 0095, ITAL 0095
1 Course Unit

CIMS 0096 First-Year Seminar: Italian Visual Studies
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: GSWS 0096, ITAL 0096
1 Course Unit

CIMS 0097 First-Year Seminar: Italian Foods and Cultures
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: GSWS 0097, ITAL 0097
1 Course Unit

CIMS 0098 First-Year Seminar: Italian Literature
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: GSWS 0098, ITAL 0098
1 Course Unit

CIMS 0099 First-Year Seminar: Italian Innovations
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: GSWS 0099, ITAL 0099
1 Course Unit

CIMS 0180 Acting for the Camera
This class focuses on teaching students the creative and technical skills needed to excel in on-camera acting. Beginning by exploring theatre techniques to investigate character, relationship and conflict, this class will then focus on identifying the parameters of film & TV scripts of the last five years. Students will learn to identify the primary function of their character within that structure, and to imagine, create, and make playful choices that foster the story being told. By exploring acting techniques that bridge stage and screen, students will gain experience with producing professional self-tapes that reflect current industry standards, understanding the complexity of framing, vocal quality and eyelines in Zoom callbacks, and experimenting with the use of digital media in theatre.
Also Offered As: THAR 0180
1 Course Unit
CIMS 0201 Sci-Fi Cinema
Science Fiction has been a cinematic genre for as long as there has been cinema—at least since Georges Melies's visionary Trip to the Moon in 1902. However, though science fiction films have long been reliable box office earners and cult phenomena, critical acknowledgement and analysis was slow to develop. Still, few genres reflect the sensibility of their age so transparently—if often unconsciously—or provide so many opportunities for filmmakers to simultaneously address social issues and expand the lexicon with new technologies. Given budgetary considerations and the appetite for franchises, science fiction auteurs face a difficult negotiation between artistic expression and lowest common denominator imperatives, the controversy over Terry Gilliam's Brazil (1985) being perhaps the most infamous example. Nevertheless, many notable filmmakers have done their most perceptive and influential work in the scifi realm, including Gilliam, Ridley Scott, David Cronenberg, Paul Verhoeven, James Cameron and Alfonso Cuaron. This course will survey the scope of contemporary science fiction cinema, after looking first at seminal works like Metropolis (1927) and 2001: A Space Odyssey (1968) that continue to cast their shadow over the genre. We will then devote considerable time to a pair of more modern films, Scott's Alien (1979) and Blade Runner (1982), which drew from earlier movements (German expressionism, noir), influenced new ones (cyberpunk) and inspired a rare wave of academic discourse. Over the course of the term we will sample smaller, more independent-minded projects, such as Michel Gondry's Eternal Sunshine of the Spotless Mind (2004) and Spike Jonze's Her (2013) as well as higher profile but much more risky epics from filmmakers such as Steven Spielberg and Christopher Nolan.

Spring
1 Course Unit

CIMS 0240 Introduction to American and British Film and Media
This topic course explores multiple and different aspects of Cinema Studies. Specific course topics vary from year to year. See the Cinema Studies website at cinemastudies.sas.upenn.edu/courses for a description of the current offerings.
Not Offered Every Year
1 Course Unit

CIMS 0275 Montage and Revolution: Conceptual Cinema of Sergei Eisenstein
The 1917 Russian Revolution was to inaugurate a new epoch in human history. Working with and within this time of political and cultural upheaval, Sergei Eisenstein inaugurated a revolution in montage technique that would usher a new age of cinema, a new practice of art, and a new way of thinking in images. Eisenstein's cinematic techniques aimed at producing concepts in the language of film. It also sought modes of expression inaccessible to discursive thought. Navigating a tenuous line between art and politics, Eisenstein's works explore the social and political power of affectivity and expressivity, and the cinematic potential for both representing and eliciting emotion in individual viewers and masses alike. In conversation with the tumultuous political and cultural shifts of the Soviet society from the revolutionary 1920s to the age of Stalinism and the World War II, this course will follow Eisenstein's filmography, from his monumental reconstruction of the revolutionary Petersburg in October to the engagement with representations of history during the Stalinist era in Ivan the Terrible. We will engage with Eisenstein's theoretical writings, his cartoons and sketches, public speeches, and his lost and unrealized projects, such as his collaboration with Hollywood and a plan to film Marx's Capital. In this process, we will learn basic tenets of film and aesthetic theory, while practicing the analysis of film with attention to form and content. Following the lead of Eisenstein's artistic and theoretical production, we will engage with questions his work raises: How can cinematography elicit and manipulate the emotions of its viewers? What is expressivity? Can film represent philosophical concepts? What is cinema's relation to propaganda and politics? What is revolutionary about the medium of film, and what is film's role in the revolution? No prior knowledge of Russian history, culture or society is required, nor is specialized knowledge of film history or film analysis. All readings will be in English and all films will be subtitled in English.
Fall or Spring
Also Offered As: REES 0275
1 Course Unit

CIMS 0320 Modern Hebrew Literature and Film in Translation
This course is designed to introduce students to the rich art of Modern Hebrew and Israeli literature and film. Poetry, short stories, and novel excerpts are taught in translation. The course studies Israeli cinema alongside literature, examining the various facets of this culture that is made of national aspirations and individual passions. The class is meant for all: no previous knowledge of history or the language is required. The topic changes each time the course is offered. Topics include: giants of Israeli literature; the image of the city; childhood; the marginalized voices of Israel; the Holocaust from an Israeli perspective; and fantasy, dreams & madness.
Fall or Spring
Also Offered As: COML 0320, JWST 0320, NELC 0320
1 Course Unit
CIMS 0390 Penn-in-Cannes
Penn-in-Cannes is designed for students interested in the film industry and international cinema. Using the Cannes Film Festival as its focal point, the program examines the ways in which international film functions in the context of celebrity, marketing, and festivals. The scope and substance of the festival provide a unique opportunity, not only for students of cinema, but also for liberal arts students studying cultural diversity and international relations. In preparation for fieldwork at the Cannes Film Festival in May, two introductory lectures will be held in late March and April on Penn's campus to enable students to learn about the business and art of film festival, in particularly Cannes Film Festival, and contemporary international cinema.
Summer Term
Also Offered As: ENGL 1939
1 Course Unit

CIMS 0518 Benjamin Franklin Seminar: Cinema and Globalization
In this seminar, we will study a number of films (mainly feature films, but also a few documentaries) that deal with the complicated nexus of issues that have come to be discussed under the rubric of "globalization." See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 0518, ENGL 0518
1 Course Unit

CIMS 0578 Benjamin Franklin Seminar: The Contemporary Graphic Novel
This seminar explores the rise of Comics Studies through a focus on the contemporary graphic novel. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 0578
1 Course Unit

CIMS 0590 Benjamin Franklin Seminar: Film Studies
This course explores an aspect of film studies intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3890, COML 0590, ENGL 0590
1 Course Unit

CIMS 0596 Benjamin Franklin Seminar: Charles Chaplin’s Films and the Politics of Silence
This BFS seminar focuses on the variety pantomime inherited by twentieth-century film from the Commedia dell’Arte and European Music Hall stages. Emphasis will be placed on how pantomime was used by filmmaker Charles Chaplin between the years 1914–1940. We shall consider important moments in the history of European pantomime that preceded and influenced Chaplin, then concentrate on how the tradition coalesced in his silent films.
Also Offered As: ENGL 0596
1 Course Unit

CIMS 0610 Video I
In this studio based course, students are introduced to video production and postproduction as well as to selected historical and theoretical texts addressing the medium of video. Students will be taught basic camera operation, sound recording and lighting, as well as basic video and sound editing and exporting using various screening and installation formats. In addition to a range of short assignment-based exercises, students will be expected to complete three short projects over the course of the semester. Critiques of these projects are crucial to the course as students are expected to speak at length about the formal, technical, critical and historical dimensions of their works. Weekly readings in philosophy, critical theory, artist statements and literature are assigned. The course will also include weekly screenings of films and videos, introducing students to the history of video art as well as to other contemporary practices.
Fall or Spring
Also Offered As: FNAR 1010, VLST 2610
1 Course Unit

CIMS 0620 Video II
Video II offers opportunities to further explore the role of cinematic narrative technique, non-narrative forms, digital video cinematography, editing, and screen aesthetics. Through a series of several video projects and a variety of technical exercises, students will refine their ability to articulate technically and conceptually complex creative projects in digital cinema. In addition, one presentation on a contemporary issue related to the application of cinematic storytelling and/or the cultural context of digital video is required.
Fall or Spring
Also Offered As: FNAR 2020
Prerequisite: FNAR 1010
1 Course Unit

CIMS 0630 Documentary Video
Documentary Video is an intensive production course involving the exploration of concepts, techniques, concerns, and aesthetics of the short form documentary. Building on camera, sound, and editing skills acquired in Video I, students will produce a portfolio of short videos and one longer project over the course of the semester using advanced level camera and sound equipment. One short presentation on a genre, technique, maker, or contemporary concern selected by the student is required.
Fall
Also Offered As: FNAR 2030
Prerequisite: FNAR 1010
1 Course Unit

CIMS 0650 Cinema Production
This course focuses on the practices and theory of producing narrative based cinema. Members of the course will become the film crew and produce a short digital film. Workshops on producing, directing, lighting, camera, sound and editing will build skills necessary for the hands-on production shoots. Visiting lecturers will critically discuss the individual roles of production in the context of the history of film.
Fall
Also Offered As: FNAR 2030
Prerequisite: FNAR 1010
1 Course Unit
CIMS 0700 Iranian Cinema: Gender, Politics and Religion
This seminar explores Iranian culture, society, history and politics through the medium of film. We will examine a variety of cinematic works that represent the social, political, economic and cultural circumstances of contemporary Iran, as well as the diaspora. Along the way, we will discuss issues pertaining to gender, religion, nationalism, ethnicity, and the role of cinema in Iranian society and beyond. Discussions topics will also include the place of the Iranian diaspora in cinema, as well as the transnational production, distribution, and consumption of Iranian cinema. Films will include those by internationally acclaimed filmmakers, such as Rakhshan Bani-Etemad, Asghar Farhadi, Bahman Ghobadi, Abbas Kiarostami, Mohsen Makhmalbaf, Dariush Mehrjui, Tahmineh Milani, Jafar Panahi, Marjane Satrapi and others. All films will be subtitled in English. No prior knowledge is required.
Fall
Also Offered As: COML 0700, GSWS 0700, NELC 0700
1 Course Unit

CIMS 0750 Image and Sound Editing
This course presents an in-depth look at the storytelling power of image and sound in both narrative and documentary motion pictures. Students apply a theoretical framework in ongoing workshops, exploring practical approaches to picture editing and sound design. Students edit scenes with a variety of aesthetic approaches, and create story-driven soundtracks with the use of sound FX, dialogue replacement, foleys, music and mixing. Students not only learn critical skills that expand creative possibilities, but also broaden their understanding of the critical relationship between image and sound.
Spring
Also Offered As: FNAR 2050
Prerequisite: FNAR 1010
1 Course Unit

CIMS 0790 The Religion of Anime
Be it shrine maidens, gods of death, and bodhisattvas fighting for justice; apocalypse, the afterlife, and apotheosis... the popular Japanese illustrated media of manga and anime are replete with religious characters and religious ideas. This course uses popular illustrated media as a tool for tracing the long history of how media and religion have been deeply intertwined in Japan.
Fall
Also Offered As: EALC 1550, RELS 0790
1 Course Unit

CIMS 1000 Cinema and Revolution
Can cinema be revolutionary? From Sergei Eisenstein's Battleship Potemkin to Boots Riley's Sorry to Bother You, filmmakers have long grappled with political revolution. In this course we'll study films that take moments of revolutionary upheaval as their subject, and cinema made during times of revolution. Can cinematic techniques challenge the status quo? How do filmmakers navigate the complex politics of cinematic production and distribution in moments of censorship and repression? Are art and propaganda always different? Students will give two oral presentations: one will be a detailed analysis of a single scene, and another will consider the politics of a film of their choosing. Open to all, including those with no prior background in cinema studies.
Fall
Also Offered As: COML 1003
1 Course Unit

CIMS 1010 World Film History to 1945
This course surveys the history of world film from cinema's precursors to 1945. We will develop methods for analyzing film while examining the growth of film as an art, an industry, a technology, and a political instrument. Topics include the emergence of film technology and early film audiences, the rise of narrative film and birth of Hollywood, national film industries and movements, African-American independent film, the emergence of the genre film (the western, film noir, and romantic comedies), ethnographic and documentary film, animated films, censorship, the MPPDA and Hays Code, and the introduction of sound. We will conclude with the transformation of several film industries into propaganda tools during World War II (including the Nazi, Soviet, and US film industries). In addition to contemporary theories that investigate the development of cinema and visual culture during the first half of the 20th century, we will read key texts that contributed to the emergence of film theory. There are no prerequisites. Students are required to attend screenings or watch films on their own.
Fall or Spring
Also Offered As: ARTH 1080, COML 1011, ENGL 1900
1 Course Unit

CIMS 1020 World Film History 1945-Present
Focusing on movies made after 1945, this course allows students to learn and to sharpen methods, terminologies, and tools needed for the critical analysis of film. Beginning with the cinematic revolution signaled by the Italian Neo-Realism (of Rossellini and De Sica), we will follow the evolution of postwar cinema through the French New Wave (of Godard, Resnais, and Varda), American movies of the 1950s and 1960s (including the New Hollywood cinema of Coppola and Scorsese), and the various other new wave movements of the 1960s, 1970s and 1980s (such as the New German Cinema). We will then selectively examine some of the most important films of the last two decades, including those of U.S. independent film movement and movies from Iran, China, and elsewhere in an expanding global cinema culture. There will be precise attention paid to formal and stylistic techniques in editing, mise-en-scene, and sound, as well as to the narrative, non-narrative, and generic organizations of film. At the same time, those formal features will be closely linked to historical and cultural distinctions and changes, ranging from the Paramount Decision of 1948 to the digital convergences that are defining screen culture today. There are no prerequisites. Requirements will include readings in film history and film analysis, an analytical essay, a research paper, a final exam, and active participation.
Fall or Spring
Also Offered As: ARTH 1090, COML 1022, ENGL 1901
1 Course Unit

CIMS 1027 Sex and Representation
This course explores literature that resists normative categories of gender and sexuality. By focusing on figures writing from the margins, we will explore how radical approaches to narrative form and subject-matter invite us to think in new ways about desire and identity. We will read texts that blur the boundaries between fact and fiction, hybridizing the genres of poetry, drama, and autobiography to produce new forms of expression, such as the graphic novel, auto-fiction, and prose poetry. From Virginia Woolf's gender-bending epic, Orlando, to Tony Kushner's Angels in America, this course traces how non-normative desire is produced and policed by social and literary contexts - and how those contexts can be re-imagined and transformed.
Fall or Spring
Also Offered As: COML 1027, GSWS 1027, REES 1481
1 Course Unit
CIMS 1030 Television and New Media
How and when do media become digital? What does digitization afford and what is lost as television and cinema become digitized? As lots of things around us turn digital, have we started telling stories, sharing experiences, and replaying memories differently? What has happened to television and life after New Media? How have television audiences been transformed by algorithmic cultures of Netflix and Hulu? How have (social) media transformed socialities as ephemeral snaps and swiped intimacies become part of the "new" digital/phone cultures? This is an introductory survey course and we discuss a wide variety of media technologies and phenomena that include: cloud computing, Internet of Things, trolls, distribution platforms, optical fiber cables, surveillance tactics, social media, and race in cyberspace. We also examine emerging mobile phone cultures in the Global South and the environmental impact of digitization. Course activities include Tumblr blog posts and Instagram curations. The final project could take the form of either a critical essay (of 2000 words) or a media project.
Spring
Also Offered As: ARTH 1070, COML 1031, ENGL 1950
1 Course Unit

CIMS 1050 Metropolis: Culture of the City
An exploration of modern discourses on and of the city. Topics include: the city as site of avant-garde experimentation; technology and culture; the city as embodiment of social order and disorder; traffic and speed; ways of seeing the city; the crowd; city figures such as the detective, the criminal, the flaneur, the dandy; film as the new medium of the city. Special emphasis on Berlin. Readings by, among others, Dickens, Poe, Baudelaire, Rilke, Doeblin, Marx, Engels, Benjamin, Kracauer. Films include Fritz Lang's Metropolis and Tom Tykwer's Run Lola Run.
Not Offered Every Year
Also Offered As: GRMN 1050, URBS 1050
1 Course Unit

CIMS 1051 The City in Literature and Film
This course focuses on the central place of the city through the history of cinema. The city in question may change depending on the term this course is being offered. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 1951, URBS 1051
1 Course Unit

CIMS 1055 Books on Film: Adapting the Victorians
This course considers how stories are told differently through different media and to different audiences, and how such differences inform the many decisions involved in the translation of works across media and across time. To do so, we will consider key literary works (novels, stories, plays) from Victorian literature as well as their adaptations for film and television. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 1055
1 Course Unit

CIMS 1056 Sherlock in the Multiverse
This course will consider the transmedia phenomenon of Sherlock Holmes. We will begin with his detective antecedents, we'll then dive into Conan Doyle's Victorian-era Sherlock, and finally explore Sherlock's contemporary life in new novels, short stories, screenplays, tv series and computer games. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 1056
1 Course Unit

CIMS 1070 Fascist Cinemas
Cinema played a crucial role in the cultural life of Nazi Germany and other fascist states. As cinema enthusiasts, Goebbels and Hitler were among the first to realize the important ideological potential of film as a mass medium and saw to it that Germany remained a cinema powerhouse producing more than 1000 films during the Nazi era. In Italy, Mussolini, too, declared cinema "the strongest weapon." This course explores the world of "fascist" cinemas ranging from infamous propaganda pieces such as The Triumph of the Will to popular entertainments such as musicals and melodramas. It examines the strange and mutually defining kinship between fascism more broadly and film. We will consider what elements mobilize and connect the film industries of the Axis Powers: style, genre, the aestheticization of politics, the creation of racialized others. More than seventy years later, fascist cinemas challenge us to grapple with issues of more subtle ideological insinuation than we might think. Weekly screenings with subtitles.
Not Offered Every Year
Also Offered As: COML 1071, GRMN 1070, ITAL 1930
1 Course Unit

CIMS 1080 German Cinema
An introduction to the momentous history of German film, from its beginnings before World War One to developments following the fall of the Berlin Wall in 1989 and German reunification in 1990. With an eye to film's place in its historical and political context, the course will explore the "Golden Age" of German cinema in the Weimar Republic, when Berlin vied with Hollywood; the complex relationship between Nazi ideology and entertainment during the Third Reich; the fate of German film-makers in exile during the Hitler years; post-war film production in both West and East Germany; the call for an alternative to "Papa's Kino" and the rise of New German Cinema in the 1960s.
Not Offered Every Year
Also Offered As: COML 1080, GRMN 1080
1 Course Unit

CIMS 1092 Contemporary American Literature
The readings for this course expose students to a wide range of American fiction and poetry since World War II, giving considerable attention to recent work. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: AFRC 1092, ENGL 1092
1 Course Unit

CIMS 1110 Poetics of Screenplay: The Art of Plotting
This course studies screenwriting in a historical, theoretical and artistic perspective. We discuss the rules of drama and dialogue, character development, stage vs. script-writing, adaptation of nondramatic works, remaking of plots, auteur vs. genre theory of cinema, storytelling in silent and sound films, the evolvement of a script in the production process, script doctoring, as well as screenwriting techniques and tools.
Not Offered Every Year
Also Offered As: COML 1018, REES 0470
1 Course Unit
CIMS 1112 Religion and Cinema in India
This seminar examines key themes in the study of religion and Indian cinema. The aim of the seminar is to foreground discussions of performativity, visual culture, representation, and politics in the study of modern South Asian religions. Themes include mythological cinema, gender and sexuality, censorship and the state, and communalism and secularism. The films we will be deploying as case studies will be limited to those produced in Hindi, Telugu and Tamil (the three largest cinema cultures of India). No knowledge of any South Asian language is needed for this course however.
Not Offered Every Year
Also Offered As: RELS 1112, SAST 1112
1 Course Unit

CIMS 1130 Water Worlds: Cultural Responses to Sea Level Rise & Catastrophic Flooding
As a result of climate change, the world that will take shape in the course of this century will be decidedly more inundated with water than we're accustomed to. The polar ice caps are melting, glaciers are retreating, ocean levels are rising, polar bear habitat is disappearing, countries are jockeying for control over a new Arctic passage, while low-lying cities and small island nations are confronting the possibility of their own demise. Catastrophic flooding events are increasing in frequency, as are extreme droughts. Hurricane-related storm surges, tsunamis, and raging rivers have devastated regions on a local and global scale. In this seminar we will turn to the narratives and images that the human imagination has produced in response to the experience of overwhelming watery invasion, from Noah to New Orleans. Objects of analysis will include mythology, ancient and early modern diluvialism, literature, art, film, and commemorative practice. The basic question we'll be asking is: What can we learn from the humanities that will be helpful for confronting the problems and challenges caused by climate change and sea level rise?
Not Offered Every Year
Also Offered As: COML 1130, ENV 1040, GRMN 1130
1 Course Unit

CIMS 1146 Queer German Cinema
Taught in English. This course offers an introduction into the history of German-language cinema with an emphasis on depictions of lesbian, gay, bisexual, trans and queer themes. The course provides a chronological survey of Queer German Cinema from its beginnings in the Weimar Republic to its most recent and current representatives, accompanied throughout by a discussion of the cultural-political history of gay rights in the German-speaking world. Over the course of the semester, students will learn not only cinematic history but how to write about and close-read film. No knowledge of German or previous knowledge required.
Not Offered Every Year
Also Offered As: GRMN 1146, GSWS 1146
1 Course Unit

CIMS 1160 Screenwriting Workshop
This is a workshop-style course for those who have thought they had a terrific idea for a movie but didn't know where to begin. The class will focus on learning the basic tenets of classical dramatic structure and how this (ideally) will serve as the backbone for the screenplay of the aforementioned terrific idea. Each student should, by the end of the semester, have at least thirty pages of a screenplay completed. Classic and not-so-classic screenplays will be required reading for every class, and students will also become acquainted with how the business of selling and producing one's screenplay actually happens.
Fall or Spring
Also Offered As: ENGL 3600
1 Course Unit

CIMS 1170 Writing for Television
This is a workshop-style course for those who have an interest in writing for television. The course will consist of two parts: First, students will develop premise lines, beats sheets and outlines for an episode of an existing television show. Second, students will develop their own idea for a television series which will culminate in the writing of the first 30 pages of an original television pilot.
Fall or Spring
Also Offered As: ENGL 3603
1 Course Unit

CIMS 1180 The Short Film: Writing, Producing and Directing
In this class students will write and prepare a short film for production with the INTENT to direct it. The first half of class is devoted to coming up with an idea and writing a short film with a total run time of around 8-12 minutes. This is the ideal length for a short. The second half of the class is devoted to preparing to shoot the film which will include scheduling, budgeting, casting, crewing up, location scouting and creating a directorial look book for the film. At the end of class each student will have a short film script and all the necessary materials to start production of that film. The below documents are required to pass the class and presented as one all inclusive PDF document at the end of the semester.
Fall or Spring
Also Offered As: ENGL 3609
1 Course Unit

CIMS 1190 Introduction to Postcolonial Literature
English is a global language with a distinctly imperial history, and this course serves as an essential introduction to literary works produced in or about the former European colonies. The focus will be poetry, film, fiction and non fiction and at least two geographic areas spanning the Americas, South Asia, the Caribbean and Africa as they reflect the impact of colonial rule on the cultural representations of identity, nationalism, race, class and gender. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 1190, ENGL 1190
1 Course Unit

CIMS 1230 Masterpieces of French Cinema
This course will introduce students to key films of the French film canon, selected over a period ranging from the origins of French cinema to the present. Students will also be introduced to the key critical concepts (such as the notion of the "auteur" film genre) informing the discussion of films in France. The films will be studied in both a historical and theoretical context, related to their period styles (e.g. "le realisme poetique," "la Nouvelle Vague," etc.), their "auteurs," the nature of the French star system, the role of the other arts, as well to the critical debates they have sparked among critics and historians. Students will acquire the analytical tools in French to discuss films as artistic and as cultural texts. Please note: This course follows a Lecture/Recitation format. The Lecture (FREN 1230-401/CIMS 1230-401) is taught in English. For French credit: please register for both FREN 1230-401 (lecture) and FREN 1230-402 (recitation); the FREN 1230-402 recitation is conducted in French. For Cinema Studies credit: please register for CIMS 1230-401 (lecture) and CIMS 1230-403 (recitation); both are taught in English. Prerequisite: Two 200-level courses taken at Penn or equivalent.
Fall
Also Offered As: FREN 1230
1 Course Unit
CIMS 1271 American Musical Theatre
The American musical is an unapologetically popular art form, but many of the works that come from this tradition have advanced and contributed to the canon of theatre as a whole. In this course we will focus on both music and texts to explore ways in which the musical builds on existing theatrical traditions, as well as alters and reshapes them. Finally, it is precisely because the musical is a popular theatrical form that we can discuss changing public tastes, and the financial pressures inherent in mounting a production. Beginning with early roots in operetta, we will survey the works of prominent writers in the American musical theatre, including Kern, Berlin, Gershwin, Porter, Rodgers, Hart, Hammerstein, Bernstein, Sondheim and others. Class lecture/discussions will be illustrated with recorded examples.
Not Offered Every Year
Also Offered As: ENGL 1271, THAR 1271
Mutually Exclusive: THAR 0271
1 Course Unit

CIMS 1272 Nationalism and Ethnic Conflict in Film
This course studies the cinematic representation of civil wars, ethnic conflicts, nationalistic doctrines, and genocidal policies. The focus is on the violent developments that took place in Russia and on the Balkans after the collapse of the Soviet Bloc and were conditioned by the new geopolitical dynamics that the fall of communism had already created. We study media broadcasts, documentaries, feature films representing the Eastern, as well as the Western perspective. The films include masterpieces such as "Time of the Gypsies", "Underground", "Prisoner of the Mountains", "Before the Rain", "Behind Enemy Lines", and others.
Not Offered Every Year
Also Offered As: REES 1272
1 Course Unit

CIMS 1273 Dark Comedy in Theatre and Film
This course will examine the "troublesome genre" of dark comedy by looking at the ways in which theatre and film use comic and tragic structures and traditions to explore concepts and stories seemingly at odds with those traditions. Although not always organized chronologically in time, we will examine the formal and structural characteristics of tragicomedy by tracing its development, from some of its earliest roots in Roman comedy, to its manifestation in contemporary films and plays. Aside from close readings of plays and analysis of films, we will read selected critical essays and theory to enhance our understanding of how dark comedies subvert categories and expectations. We will look at how dark comedies affect audiences and read sections of plays aloud in class. Issues to be considered include comparing the way the genre translates across theatre and film (adaptation) and examining the unique placement of the genre at the heart of contemporary American culture. Students will have the opportunity to experiment with creating tragicomic effect through performance in their presentations. The class is a seminar, with required participation in discussions. Other assignments include an 8-10 page paper and a presentation. We will read plays by authors as diverse as Plautus, Anton Chekhov, and Lynn Nottage, and filmmakers including Charlie Chaplin, Sofia Coppola, and Bong Joon-ho.
Also Offered As: ENGL 1273, THAR 1273
1 Course Unit

CIMS 1274 The Musical Theatre of Stephen Sondheim
Just days before Stephen Sondheim died in November 2021, he attended a revival of Assassins at Classic Stage Company, as well as a radical rethinking of Company that had transferred from London to New York. A few days later, a public performance of the song "Sunday" was organized in Duffy Square by Lin-Manuel Miranda. A new production of Into the Woods is currently on Broadway, and another of Sweeney Todd is planned for February 2023. Though it’s been nearly 15 years since Sondheim’s final new musical, he is very much part of our theatrical present—through his own works, which continue to be produced internationally, and through his influence on several generations of composers, lyricists, and more. Still today, among theatre critics and a large sector of the public, Sondheim is generally considered the most significant composer and lyricist in the contemporary theatre; he is, in fact, accorded the kind of serious consideration generally reserved for "legitimate" playwrights. In this seminar, we will examine in detail Stephen Sondheim’s writing over six decades. We’ll begin with Sondheim’s earliest work as a lyricist, collaborating with composers Jule Styne (Gypsy), Leonard Bernstein (West Side Story), and later, Richard Rodgers (Do I Hear a Waltz?). Beginning in 1970, Sondheim – now both composer and lyricist – in partnership with director Harold Prince produced a series of musicals (including Company, Follies and Sweeney Todd,) still thought to be among the most innovative and substantial in the history of the genre. We will also focus on Sondheim’s musicals after his 1981 break with Prince. These later works, created with writers and directors including James Lapine (Sunday in the Park with George, Into the Woods, Passion), Jerry Zaks (Assassins), and John Doyle (Road Show) are often smaller in scale, intensely personal, and incorporate elements of performance art and popular culture. Finally, we will consider revival productions of Sondheim’s work, which often are reconceived from their original form, often with Sondheim’s involvement and occasional rewriting. This course is open to all students interested in theatre and musical theatre. The ability to read music is not required.
Also Offered As: ENGL 2874, THAR 1274
1 Course Unit

CIMS 1275 Broadway Musicals in the 21st Century
Wicked, Spring Awakening, Dear Evan Hansen, Hadestown. And of course, Hamilton. The innovations we see in Broadway musicals since 2000 are particularly fascinating in that they, so to speak, boldly go where no musicals have gone before—while at the same time honoring and building on the long-standing traditions of this beloved form. From the powerfully romantic Light in the Piazza, which nods to roots in European operetta, to the boundary-defying Black queerness of A Strange Loop... and everything in between. In this course, we will go year by year through musical theater from the quarter-century, to see where the form has gone recently... and where it’s headed. In addition to the works already mentioned, we’ll look at Caroline or Change, The Color Purple, In the Heights, Fun Home, and more. This course will also consider some recent “revisals,” like director Daniel Fish’s Oklahoma!, and Marianne Elliott’s gender-reassigned Company: reinterpretations of classic American musicals that imagine them in more contemporary light.
Also Offered As: ENGL 1891, THAR 1272
1 Course Unit

CIMS 1276 The Musical Theatre of Stephen Sondheim
Just days before Stephen Sondheim died in November 2021, he attended a revival of Assassins at Classic Stage Company, as well as a radical rethinking of Company that had transferred from London to New York. A few days later, a public performance of the song "Sunday" was organized in Duffy Square by Lin-Manuel Miranda. A new production of Into the Woods is currently on Broadway, and another of Sweeney Todd is planned for February 2023. Though it’s been nearly 15 years since Sondheim’s final new musical, he is very much part of our theatrical present—through his own works, which continue to be produced internationally, and through his influence on several generations of composers, lyricists, and more. Still today, among theatre critics and a large sector of the public, Sondheim is generally considered the most significant composer and lyricist in the contemporary theatre; he is, in fact, accorded the kind of serious consideration generally reserved for “legitimate” playwrights. In this seminar, we will examine in detail Stephen Sondheim’s writing over six decades. We’ll begin with Sondheim’s earliest work as a lyricist, collaborating with composers Jule Styne (Gypsy), Leonard Bernstein (West Side Story), and later, Richard Rodgers (Do I Hear a Waltz?). Beginning in 1970, Sondheim – now both composer and lyricist – in partnership with director Harold Prince produced a series of musicals (including Company, Follies and Sweeney Todd,) still thought to be among the most innovative and substantial in the history of the genre. We will also focus on Sondheim’s musicals after his 1981 break with Prince. These later works, created with writers and directors including James Lapine (Sunday in the Park with George, Into the Woods, Passion), Jerry Zaks (Assassins), and John Doyle (Road Show) are often smaller in scale, intensely personal, and incorporate elements of performance art and popular culture. Finally, we will consider revival productions of Sondheim’s work, which often are reconceived from their original form, often with Sondheim’s involvement and occasional rewriting. This course is open to all students interested in theatre and musical theatre. The ability to read music is not required.
Also Offered As: ENGL 2874, THAR 1274
1 Course Unit
CIMS 1301 Topics German Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at http://cinemastudies.sas.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 1300, GRMN 1300
1 Course Unit

CIMS 1302 Asian American Cinema Movement: Fighting For Representation
Providing a broad introduction to the history of persons of Asian descent living in the United States, this course will specifically examine the Asian American & Pacific Islander American experience as told through the cinematic lens. Equal parts socio-political history and media studies, this course will comprehensively assess factors contributing to the historical under representation of AAPIs in mainstream American media. By contrast, the media texts that we study will reveal a cinematic history that runs parallel to the mainstream, consisting of independently produced films created by and/or starring AAPIs that feature authentic portrayals of the community they represent. Topics will include economics of film production, broadcast television ratings, film festivals as a mechanism of distribution, negative stereotyping, Hollywood whitewashing, cultural appropriation, and media activism. The course will take place once a week and will consist of a brief discussion of the previous week's readings, followed by a lecture, and ending with a full or partial film screening relating to the current week's topic. Additional out of class assignments will be given that involve attending the Philadelphia Asian American Film Festival, tentatively scheduled November 8-18, 2018. Students will have the opportunity to engage with and learn from AAPI filmmakers in attendance at the festival, with additional volunteer opportunities available for extra credit.
Fall
Also Offered As: ASAM 1300
1 Course Unit

CIMS 1351 Contemporary Fiction & Film in Japan
This course will explore fiction and film in contemporary Japan, from 1945 to the present. Topics will include literary and cinematic representation of Japan's war experience and post-war reconstruction, negotiation with Japanese classics, confrontation with the state, and changing ideas of gender and sexuality. We will explore these and other questions by analyzing texts of various genres, including film and film scripts, novels, short stories, manga, and academic essays. Class sessions will combine lectures, discussion, audio-visual materials, and creative as well as analytical writing exercises. The course is taught in English, although Japanese materials will be made available upon request. No prior coursework in Japanese literature, culture, or film is required or expected; additional secondary materials will be available for students taking the course at the 600 level. Writers and film directors examined may include: Kawabata Yasunari, Hayashi Fumiko, Abe Kobo, Mishima Yukio, Oe Kenzaburo, Yoshimoto Banana, Ozu Yasujirō, Naruse Mikio, Kurosawa Akira, Imamura Shohei, Koreeda Hirokazu, and Beat Takeshi.
Not Offered Every Year
Also Offered As: COML 1351, EALC 1351, GSWS 1351
1 Course Unit

CIMS 1358 Histories of Egypt
This course will explore Egypt's impact on the world in several historical eras – the ancient past and its unparalleled legacy; the nineteenth century and nationalism; the twentieth century's wars, peace and music and the twenty-first centuries lessons in revolution. We will examine European Egyptomania and Orientalism in the 19th century, Afrocentrism's ambitions for Egypt, and Egypt's centrality to pan-Arabism and pan-Africanism. And we will explore the history as Egypt's writers, filmmakers, musicians and poets have imagined it from the nineteenth century to the present.
Also Offered As: AFRC 1358, HIST 1358
1 Course Unit

CIMS 1359 Filming the Middle East
This course will take us through the history of the modern Middle East as told by the region's many film-makers. We will explore how cinema developed and grew throughout countries like Egypt, Iran, Syria, Turkey, Lebanon, Israel and Palestine. Unusually for a typical course on the Middle East, we will also pay close attention to North Africa's film industry, with a deep exploration of the cinema of Algeria, Tunisia and Morocco. Sudanese films will be an important part of our study as well. What does it mean to have a national cinema? Many of these countries' film industries grew under European occupation and colonialism. With independence, were more markets available to Middle Eastern films? Where did directors and screenwriters train? Who were the intended audiences for these films? We will watchcanonical films from the region, many of which focus on or reflect the political turmoil and aftermath of wars. But we will also examine the lightness of comedies, which were usually much more popular with Middle Eastern audiences, and which reveal every bit as much about the region's histories. And we will watch and discuss a phenomenon not found in Western cinema - the Ramadan soap operas and historical reenactments that are unique to the Middle East.
Also Offered As: HIST 1359, NELC 1970
1 Course Unit

CIMS 1360 Arab/Israeli Conflict in Literature and Film
This course will explore the origins, the history and, most importantly, the literary and cinematic art of the struggle that has endured for a century over the region that some call the Holy Land, some call Eretz Israel and others call Palestine. We will also consider religious motivations and interpretations that have inspired many involved in this conflict as well as the political consequences of world wars that contributed so greatly to the reconfiguration of the Middle East after the fall of the Ottoman Empire, and after the revelations of the Holocaust in Western Europe. While we will rely on a textbook for historical grounding, the most significant material we will use to learn this history will be films, novels, and short stories. Can the arts lead us to a different understanding of the lives lived through what seems like unending crisis?
Fall or Spring
Also Offered As: HIST 1360, NELC 0675
1 Course Unit
CIMS 1371 New Korean Cinema
In 2019, Bong Joon-ho's Parasite won the Palme d'Or at the 72nd Cannes Film Festival. This event marked the apex of South Korean cinematic renaissance, having steadily become a tour de force in the international film festival scene since 1997 onwards. This course explores the major auteurs, styles, themes, and currents of the so-called “New Korean Cinema” that emerged in the mid-to-late 1990s to continue to this day. Drawing from texts on critical film and Korean studies, we will pay particular attention to how the selected works re-present, resist, and interweave the sociopolitical climate they concern and are born out of. Using cinema as a lens with which to see the society, we will touch upon major events of the twentieth century including national division, military dictatorship and democratization movements, IMF economic crisis, youth culture, hallyu (the Korean wave), and more. In so doing, we will closely examine how each cinematic medium addresses the societal power structure and the role of the “Other” it represents in terms of class, race, gender, and sexuality in the construction of contemporary Korean society. No prior experience of Korean studies courses necessary, all films will be screened with English subtitles.
Also Offered As: EALC 1371
Mutually Exclusive: EALC 6371
1 Course Unit

CIMS 1440 Film Music in Post 1950 Italy
An exploration of cinematic sound through the lens of specific composer/director collaborations in post-1950 Italy, examining scores, soundtracks, and the interaction of diegetic and non-diegetic music with larger soundscapes. Composers Nino Rota and Ennio Morricone serve as case studies, in partnership with directors Fellini, Visconti, Leone, Pontecorve, Pasolini, and Coppola. Highlights include several excerpts form the Fellini/Rota collaboration, including The White Sheik, I vitelloni, The Road, Nights of Cabiria, La dolce vita, 8 1/2, Juliet of the Spirits, Satyricon, The Clowns, Roma, Amarcord, Casanova, and Orchestra Rehearsal. Rota’s music for Visconti will be examined in Senso, the Leopard, and Rocco and his Brothers, along with his Transatlantic collaboration for The Godfather. Morricone’s work with various directors will be discussed in The Good, the Bad, and the Ugly, The Battle of Algiers, and Teorema, as well as for American films such as Malick’s Days of Heaven and Tarantino’s The Hateful Eight. Weekly screenings required. Open to all: music majors, minors, and non-majors; will count toward requirements for music minor. Knowledge of music and Italian helpful but not required. All readings and lectures in English.
Also Offered As: ITAL 1440, MUSC 1440
1 Course Unit

CIMS 1470 Chekhov: Stage & Screen
What’s so funny, Mr. Chekhov? This question is often asked by critics and directors who still are puzzled with Chekhov’s definition of his four major plays as comedies. Traditionally, all of them are staged and directed as dramas, melodramas, or tragedies. Should we cry or should we laugh at Chekhovian characters who commit suicide, or are killed, or simply cannot move to a better place of living? Is the laughable synonymous to comedy and the comic? Should any fatal outcome be considered tragic? All these and other questions will be discussed during the course. The course is intended to provide the participants with a concept of dramatic genre that will assist them in approaching Chekhov’s plays as comedies. In addition to reading Chekhov’s works, Russian and western productions and film adaptations of Chekhov’s works will be screened. Among them are, Vanya on 42nd Street with Andre Gregory, and Four Funny Families. Those who are interested will be welcome to perform and/or direct excerpts from Chekhov’s works.
Not Offered Every Year
Also Offered As: REES 1470
1 Course Unit

CIMS 1520 Forest Worlds: Mapping the Arboreal Imaginary in Literature and Film
The destruction of the world’s forests through wild fires, deforestation, and global heating threatens planetary bio-diversity and may even, as a 2020 shows, trigger civilizational collapse. Can the humanities help us think differently about the forest? At the same time that forests of the world are in crisis, the “rights of nature” movement is making progress in forcing courts to acknowledge the legal “personhood” of forests and other ecosystems. The stories that humans have told and continue to tell about forests are a source for the imaginative and cultural content of that claim. At a time when humans seem unable to curb the destructive practices that place themselves, biodiversity, and forests at risk, the humanities give us access to a record of the complex inter-relationship between forests and humanity. Forest Worlds serves as an introduction to the environmental humanities. The environmental humanities offer a perspective on the climate emergency and the human dimension of climate change that are typically not part of the study of climate science or climate policy. Students receive instruction in the methods of the humanities - cultural analysis and interpretation of literature and film - in relation to texts that illuminate patterns of human behavior, thought, and affect with regard to living in and with nature.
Spring
Also Offered As: COML 1054, ENVS 1550, GRMN 1132
1 Course Unit

CIMS 1640 Russian and East European Film from the October Revolution to World War II
The purpose of this course is to present the Russian and East European contribution to world cinema in terms of film theory, experimentation with the cinematic language, and social and political reflex. We discuss major themes and issues such as the invention of montage, the means of revolutionary visual propaganda and the cinematic component to the communist cultural revolutions, party ideology, and practices of social-engineering, cinematic response to the emergence of the totalitarian state in Soviet Russia before World War II.
Also Offered As: REES 1230
1 Course Unit
CIMS 1650 Russian and East European Film after World War II
The purpose of this course is to present the Russian and East European contribution to world cinema in terms of film theory, experimentation with the cinematic language, and social and political reflex. We discuss major themes and issues such as means of visual propaganda and the cinematic component to the communist cultural revolutions, party ideology and practices of social-engineering, cinematic response to the emergence of the totalitarian state in Russia and its subsequent installation in Eastern Europe after World War II.
Also Offered As: REES 1231
Mutually Exclusive: REES 6231
1 Course Unit

CIMS 1800 Film Culture in Residence
This flexible and immersive cinema experience introduces students to a wide range of films to learn about the art form. The list of movies will engage our viewers in such fundamental issues through many different film genres, narratives and cinematic experiences.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

CIMS 1900 Italian History on Screen: How Movies Tell the Story of Italy
How has our image of Italy arrived to us? Where does the story begin and who has recounted, rewritten, and rearranged it over the centuries? In this course, we will study Italy's rich and complex past and present. We will carefully read literary and historical texts and thoughtfully watch films in order to attain an understanding of Italy that is as varied and multifaceted as the country itself. Group work, discussions and readings will allow us to examine the problems and trends in the political, cultural and social history from ancient Rome to today. We will focus on: the Roman Empire, Middle Ages, Renaissance, Unification, Turn of the Century, Fascist era, World War II, post-war and contemporary Italy. Lectures and readings are in English.
Fall or Spring
Also Offered As: ITAL 1900
1 Course Unit

CIMS 1901 Topics in Portuguese, African and Brazilian Cultures
This course explores aspects of Luso-Brazilian culture and film in light of its social context and reception. For current course content, please see department's webpage: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc.
Fall or Spring
Also Offered As: LALS 1900, PRTG 1900
1 Course Unit

CIMS 1910 Sicily on Page and Screen
What images come to mind when we hear the words Sicily and Sicilians? Often our thoughts range from scenic vacation spots, delicious seafood and cannoli, and sweet grandmothers dressed in black, to mafia violence, vendettas, and the deep-rooted code of silence, omerta. But, how did these ideas get to us? Is there truth in them? Is there more to this island and its people? Through careful analysis of literary and cinematic representations of this Italian region, and those that do and have inhabited it, we will trace and analyze how Sicilians have represented themselves, how mainland Italians have interpreted Sicilian culture, how outsiders have understood these symbols, how our own perceptions shaped what we thought we knew about this place and, finally, how our own observations will have evolved throughout our studies. We will watch films such as Tornatore's Cinema paradiso and Coppola's The Godfather II, and read texts such as Lampedusa's The Leopard and Maraini's Bagheria. This course aims to increase students' understanding and knowledge of the Sicilian socio-cultural system. It will help students develop their ability to understand and interpret Sicilian culture through close analysis of its history, values, attitudes, and experiences, thereby allowing them to better recognize and examine the values and practices that define their own, as well as others', cultural frameworks.
Summer Term
Also Offered As: ITAL 1910
1 Course Unit

CIMS 2000 Virtual Reality Lab
In this collaboration between Penn and the Philadelphia Museum of Art (PMA), students will work with curators to create virtual reality projects connected to the museum's collections. This course mixes virtual reality theory, history, and practice. We will read a wide range of scholarship, manifestoes, and memoirs that examine virtual reality and other immersive technologies, stretching from the 18th century to today. We will explore virtual reality projects, including narrative and documentary films, commercial applications, and games. We will work with many different virtual reality systems. And we will learn the basics of creating virtual reality, making fully immersive 3-D, 360-degree films with geospatial soundscapes. Finally, we will take what we have learned out of the classroom, working with the Philadelphia Museum of Art curators to create virtual reality experiences based around the museum's objects and exhibits. Students will gain an understanding of the unique approaches needed to appeal to museum visitors in a public setting, so we can make viable experiences for them. No previous knowledge of VR or experience is necessary.
Not Offered Every Year
Also Offered As: ENGL 2951
1 Course Unit
CIMS 2001 Modern Science Fiction Cinema
Science Fiction has been a cinematic genre for as long as there has been cinema—at least since Georges Melies's visionary Trip to the Moon in 1902. However, though science fiction films have long been reliable box office earners and cult phenomena, critical acknowledgement and analysis was slow to develop. Still, few genres reflect the sensibility of their age so transparently—if often unconsciously—or provide so many opportunities for filmmakers to simultaneously address social issues and expand the lexicon with new technologies. Given budgetary considerations and the appetite for franchises, science fiction auteurs face a difficult negotiation between artistic expression and lowest common denominator imperatives, the controversy over Terry Gilliam's Brazil (1985) being perhaps the most infamous example. Nevertheless, many notable filmmakers have done their most perceptive and influential work in the sci-fi realm, including Gilliam, Ridley Scott, David Cronenberg, Paul Verhoeven, James Cameron and Alfonso Cuaron. This course will survey the scope of contemporary science fiction cinema, after looking first at seminal works like Metropolis (1927) and 2001: A Space Odyssey (1968) that continue to cast their shadow over the genre. We will then devote considerable time to a pair of more modern films, Scott's Alien (1979) and Blade Runner (1982), which drew from earlier movements (German expressionism, noir), influenced new ones (cyberpunk) and inspired a rare wave of academic discourse. Over the course of the term we will sample smaller, more independent-minded projects, such as Michel Gondry's Eternal Sunshine of the Spotless Mind (2004) and Spike Jonze's Her (2013) as well as higher profile but much more risky epics from filmmakers such as Steven Spielberg and Christopher Nolan. Spring
1 Course Unit

CIMS 2010 Film Festivals
This course is an exploration of multiple forces that explain the growth, global spread and institutionalization of international film festivals. The global boom in film industry has resulted in an incredible proliferation of film festivals taking place all around the world, and festivals have become one of the biggest growth industries. A dizzying convergence of cinephilia, media spectacle, business agendas and geopolitical purposes, film festivals offer a fruitful ground on which to investigate the contemporary global cinema network. Film festivals will be approached as a site where numerous lines of the world cinema map come together, from culture and commerce, experimentation and entertainment, political interests and global business patterns. To analyze the network of film festivals, we will address a wide range of issues, including historical and geopolitical forces that shape the development of festivals, festivals as an alternative marketplace, festivals as a media event, programming and agenda setting, prizes, cinephilia, and city marketing. Individual case studies of international film festivals—Cannes, Berlin, Venice, Rotterdam, Karlovy Vary, Toronto, Sundance among others—will enable us to address all these diverse issues but also to establish a theoretical framework with which to approach the study of film festival. For students planning to attend the Penn-in-Cannes program, this course provides an excellent foundation that will prepare you for the on-site experience of the King of all festivals.
Not Offered Every Year
Also Offered As: ARTH 3910, ENGL 2901
1 Course Unit

CIMS 2011 American Independents
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3911, ENGL 2911
1 Course Unit

CIMS 2012 Transnational Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3912, COML 2012, ENGL 2930
1 Course Unit

CIMS 2013 Documentary Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3913, ENGL 2940
1 Course Unit

CIMS 2014 Contemporary American Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3914, ENGL 2910
1 Course Unit

CIMS 2015 Contemporary European Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3915, COML 2020, ENGL 2920
1 Course Unit

CIMS 2016 Bollywood and Beyond
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3916, COML 2032, ENGL 2932
1 Course Unit

CIMS 2020 Historical Films
This topic course explores aspects of Film Practice intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3900, ENGL 2941
1 Course Unit
CIMS 2021 Romantic Comedy
This topic course explores aspects of Film Practice intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3901, ENGL 2942
1 Course Unit

CIMS 2022 World Cinema
This topic course explores aspects of Film Practice intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3902, COML 2931, ENGL 2931
1 Course Unit

CIMS 2073 Modernist Animals: How to Rethink the Human-Animal Divide
This course explores literary modernism through the lens of Animal Studies. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 2073, ENGL 2073
1 Course Unit

CIMS 2080 20th-Century Literature Seminar
The course explores an aspect of 20th-century literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2080, JWST 2080
1 Course Unit

CIMS 2083 Faking it: Liars, Imitators and Cheats in Literature and Film
Deception and lies are a constant theme and a mechanism of narrative art. For a genre literally synonymous with falsehood, fiction has always been touchy about its relationship to truth. Does the novel neutrally represent reality or does it recreate it? Are characters like living, breathing real people, or are they mere simulations? And if they’re just words on a page (or images on a screen), why are we so moved by their adventures, loves and misfortunes? In this class, we will explore and expand on these questions by focusing on novels and films that deal explicitly and exclusively with fakers, shape-shifters and dopplegangers, lies of necessity and of opportunity, as well as with works that revel in exposing their own manipulative artificiality. We will read psychoanalysts, sociologists, philosophers, and postcolonial thinkers and ask, What does it mean to be authentic? How malleable are our individual identity, race, gender and sexuality? What forces shape it, and how constant is this shape? Are we the same selves when we have a conversation as when we give a presentation? Do we remain ourselves when we talk to customers at our service jobs, to teachers, to students? When we “pass” as a different race? When we speak in a different accent? How do we reconcile the conflicting demands of “be yourself” and “fake it till you make it”? What is the relation between our presentation of ourselves and our selves? Novels and shorts stories for discussion might include classics like Nella Larsen’s Passing, Vladimir Nabokov’s Despair and Patricia Highsmith’s The Talented Mr. Ripley, as well as movies like Gaslight, The Battle of Algiers, The Yes Men, and American Psycho. While much of the weekly work in this class will be reading-and-discussion based, oral presentations – keenly aware of their own artifice – will count toward half of the final grade. A final oral presentation will be based on a creative project in conversation with class materials. The course would satisfy those interested in fulfilling the Advanced Film and Literature and Global Literature and Film requirements. This is a CWiC course, Communication Within the Curriculum.
Spring, even numbered years only
Also Offered As: COML 2083, ENGL 2083
1 Course Unit

CIMS 2145 Failure to Communicate (SNF Paideia Program Course)
This seminar examines “failure to communicate” in a variety of cultural areas, among them literature, romance, politics, theater, law, science, war, and education. Materials will include literary fiction, plays, poetry, film, TV, and assorted nonfiction, journalism and scholarship. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2145
1 Course Unit

CIMS 2155 Gender History and American Film
More than any other medium, the motion pictures fostered new ideals and images of modern womanhood and manhood in the United States. Throughout the twentieth century, gender representations on the screen bore a complex relationship to the social, economic, and political transformations marking the lives and consciousness of American men and women. This course explores the history of American gender through film. It treats the motion pictures as a primary source that, juxtaposed with other kinds of historical evidence, opens a window onto gendered work, leisure, sexuality, family life, and politics. We will view a wide range of Hollywood motion pictures since 1900, as well as films by blacklisted artists, feminists, and independent producers.
Spring
Also Offered As: GSWS 2155, HIST 2155
1 Course Unit
CIMS 2270 Contemporary Russia Through Film
This course continues developing students' advanced skills in Russian and offers intensive study of Russian film, arguably the most powerful medium for reflecting changes in modern society. This course will examine Russia's transition to democracy and market economy through the eyes of its most creative and controversial cinematographers. The course will focus on the often agonizing process of changing values and attitudes as the country moves from Soviet to Post-Soviet society. Russian films with English subtitles will be supplemented by readings from contemporary Russian media sources. The course provides an excellent visual introduction to the problems of contemporary Russia society.
Not Offered Every Year
Also Offered As: REES 2270
Mutually Exclusive: REES 5296
Prerequisite: RUSS 1200
1 Course Unit

CIMS 2271 Post-Soviet Russia in Film
This course is intended for students who have spoken Russian at home and seek to improve their capabilities in formal and professional uses of the Russian language. Film is arguably the most powerful medium for reflecting changes in modern society. This course will examine Russia's transition to democracy and market economy through the eyes of its most creative and controversial cinematographers. The course will focus on the often agonizing process of changing values and attitudes as the country moves from Soviet to Post-Soviet society. Russian films with English subtitles will be supplemented by readings from contemporary Russian media sources. The course provides an excellent visual introduction to the problems of contemporary Russia society.
Not Offered Every Year
Also Offered As: REES 2271
Mutually Exclusive: REES 5297
Prerequisite: RUSS 0401
1 Course Unit

CIMS 2355 Classic Icons, Cinematic Images: Popular Culture in the Middle East
The meaning of culture can sometimes best be understood through a look at its popular traditions and the routines of everyday life. This course will grapple with issues of ethnicity, political conflict, and identity in the Middle East by analyzing the culture produced for and consumed by a wide spectrum of the general public in different countries. Political cartoons, photography, novels, film, music, dance, and other modes of cultural expression will be used to explore the historical roots of the political anxieties and social conventions common to many modern Middle Eastern communities. In this way, we will recast studies of politics through an understanding of identity and culture.
Also Offered As: HIST 2355
1 Course Unit

CIMS 2420 Cultural Studies Seminar
This course explores an aspect of cultural studies intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 2930, COML 2420, ENGL 2420
1 Course Unit

CIMS 2430 Twentieth-Century Russian Literature, Film and Culture: Utopia, Revolution and Dissent
This course continues developing students' advanced skills in Russian, and introduces students to major movements and figures of twentieth-century Russian literature and culture. We will read the works of modern Russian writers, and watch and discuss feature films. The course will introduce the first Soviet films and works of the poets of the Silver Age and beginning of the Soviet era as well as the works from later periods up to the Perestroika and Glasnost periods (the late 1980s).
Not Offered Every Year
Also Offered As: REES 2430
Prerequisite: RUSS 1200
1 Course Unit

CIMS 2440 Law and Literature Seminar
This course explores an aspect of law and literature intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2460
1 Course Unit

CIMS 2500 Cultura E Letteratura
Please check the website for a current course description at: http://www.sas.upenn.edu/italians/courses
Fall or Spring
Also Offered As: ITAL 2500
1 Course Unit

CIMS 2501 Andrei Tarkovsky: Cinema, Spirit and the Art of the Long Take
Andrei Tarkovsky is universally acknowledged to be the greatest Soviet filmmaker of the last half of the twentieth century. Kurosawa claimed that Tarkovsky had "no equal among film directors alive now." Bergman called his work "a miracle." His films are beautiful, intellectually challenging, and spiritually profound. They also represent a prolonged exploration of the potential of the long take - unusually extended, continuous shots. Tarkovsky's works range from "Ivan's Childhood", a study of wartime experience through the eyes of a child; to "Solaris", a philosophical essay in the form of a science-fiction thriller; to "Andrei Rublev", an investigation of the power of art and spirituality. In this course, we will study Tarkovsky's films and life, with attention to his formal and artistic accomplishments, his thought and writings, and the cultural and political contexts of his work. Each student will learn to analyze film form and content and write two short and one longer paper on some longstanding aspect of Tarkovsky's work of the student's choice.
Not Offered Every Year
Also Offered As: REES 0280
1 Course Unit

CIMS 2506 Ecocritical Seminar: Remediating the Environment
In this course, we will interrogate the term "remediation" as meaning both environmental restoration and media representation. Students will be introduced to the fields of ecocriticism and ecocinema by examining a variety of materials—from bestselling books to billboards, documentaries, and websites—have informed the cultural imagination of the environment. Students will also discover how media communications and publications can help to remediate the environment in the face of climate catastrophe. This course can be counted as an elective toward the Environmental Humanities minor and as fulfilling the minor's public engagement component. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2596
1 Course Unit
CIMS 2512 Introduction to Italian Cinema
Topics vary. Please check the department's website for a current course description at: http://www.sas.upenn.edu/italians/courses
Fall or Spring
Also Offered As: GSWS 2512, ITAL 2512
1 Course Unit

CIMS 2522 Modern Italian Culture
Please check the website for a current course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 2522, ITAL 2522
1 Course Unit

CIMS 2500 Italian Theater
Please check the website for a current course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ITAL 2500
1 Course Unit

CIMS 2665 Fakes, Forgeries and Forensics in Digital Media
Fake images on social media are just one of the latest examples of fabrications and modifications that have taken media into dubious territory throughout history. This course will analyze the history of fakes and forgeries and consider whether they devalue the original or not, or even have value in themselves. Along the way, students will learn how fakes and forgeries have been created, what tools can be used to counter the onslaught of illicit creations, and the arts and humanities debates that have arisen surrounding them. After evaluating the ways various media have been modified over time, this course will show students how to use photo manipulation tools to modify digital media. It will also show students how to perform various detailed analyses of digital media to determine their legitimacy. A final project will bring these tools together, as groups of students create a fake or forgery, consider its implications and evaluate a tool's ability to detect it.
Fall
Also Offered As: ENGL 2665
1 Course Unit

CIMS 2670 Computer Animation
Through a series of studio projects this course introduces techniques of 2D and 3D computer animation. Emphasis is placed on time-based design and storytelling through animation performance and montage. Students will develop new sensitivities to movement, composition, cinematography, editing, sound, color and lighting.
Fall or Spring
Also Offered As: FNAR 2100
1 Course Unit

CIMS 2705 Media and Culture in Contemporary Iran
This course offers a comprehensive introduction to the culture and media of modern Iran, with a critical perspective on issues such as identity formation, ethnicity, race, and nation-building. It focuses on how these issues relate to various aspects of modern Iranian culture -- such as religion, gender, sexuality, war, and migration -- through the lens of media, cinema, and literature.
Not Offered Every Year
Also Offered As: GSWS 2705, NELC 2705, RELS 2180
1 Course Unit

CIMS 2740 Facing America
This course explores the visual history of race in the United States as both self-fashioning and cultural mythology by examining the ways that conceptions of Native American, Latino, and Asian identity, alongside ideas of Blackness and Whiteness, have combined to create the various cultural ideologies of class, gender, and sexuality that remain evident in historical visual and material culture. We also investigate the ways that these conceptions have subsequently helped to launch new visual entertainments, including museum spectacles, blackface minstrelsy, and early film, from the colonial period through the 1940s.
Not Offered Every Year
Also Offered As: AFRC 2740, ARTH 2740, LALS 2740
Mutually Exclusive: ARTH 6740
1 Course Unit

CIMS 2750 Russian History in Film
This course draws on fictional, dramatic and cinematic representations of Russian history based on Russian as well as non-Russian sources and interpretations. The analysis targets major modes of imagining, such as narrating, showing and reenacting historical events, personae and epochs justified by different, historically mutating ideological postulates and forms of national self-consciousness. Common stereotypes of picturing Russia from "foreign" perspectives draw special attention. The discussion involves the following themes and outstanding figures: the mighty autocrats Ivan the Terrible, Peter the Great, and Catherine the Great; the tragic ruler Boris Godunov; the brazen rebel and royal impostor Pugachev; the notorious Raspoutine, his uncanny powers, sex-appeal, and court machinations; Lenin and the October Revolution; images of war; times of construction and times of collapse of the Soviet Colossus.
Not Offered Every Year
Also Offered As: REES 0270
Mutually Exclusive: REES 5270
1 Course Unit

CIMS 2810 Method Acting: From Self to Stage and Screen
What, exactly, is “method acting”? Jeremy Strong became notorious on television's Succession for “staying in character” while filming, to the great irritation of his castmates. Jared Leto “transformed” himself by gaining sixty pounds for a role in Chapter 27, then losing another thirty for a role in Dallas Buyer's Club. Are such approaches really “method” acting? Are they healthy and sustainable? And do they produce truly compelling performances? This course aims to demystify “the method” through a combination of historical inquiry and hands-on acting work. We will explore the cultural phenomenon of “the method” by tracing its historical, theatrical roots, from the core theories and practices of Russian actor-director Konstantin Stanislavsky through the American Group Theatre experiments of the 1930s, the heyday of New York's Actors Studio in the 1950s, and its culmination in iconic stage and film performances. (One prime example is Marlon Brando's famed portrayal of Stanley in Tennessee Williams's A Streetcar Named Desire, as directed by Elia Kazan). Our studies will involve reading historical, theoretical, and dramatic texts, viewing selected films, and practicing acting exercises. Course assessment will comprise participation, facilitation, short responses, and a final project that can take the form of a research paper, presentation, or performance.
Also Offered As: ENGL 2882, THAR 2810
1 Course Unit
CIMS 2830 Backstage Drama in Theatre and Film
Inviting audiences into a special relationship with illusion, backstage dramas (whether on film or on stage) and plays-within-plays reach beyond and alongside traditional plot-driven narratives, to reflect on the process of representation itself. Drawing from classical debates about the relationships between reality, illusion, representation, and imitation (mimesis), we will examine a variety of plays and films as we articulate the complex network of responses and underlying assumptions (whether cultural, political, or social), about art and life, that these works engage.

Fall, odd numbered years only
Also Offered As: ENGL 1896, THAR 2830
1 Course Unit

CIMS 2840 Icons in Performance: Actors and Others Who Have Shaped the Arts
Many talented performers bring works to life on a stage or in film. But a select few artists are so distinctive they become icons, defining for audiences—often for many years beyond their careers—the art they serve. Marlon Brando defined a new kind of American acting. Sidney Poitier broke the color barrier for leading man movie stars. Maria Callas showed that opera was equal parts theatre and music. Greta Garbo helped us understand the visual power of a film image. This seminar course will focus on iconic performers, directors and others, and the roles they play in defining their art forms. It is part analysis (interpreting in detail what it is these artists do) and part cultural study (why it matters, and also seeking to understand the larger circumstances at play in forging an icon). In addition to the performers mentioned above, we'll also study Mae West, Fred Astaire, Marilyn Monroe, Elvis Presley, Judy Garland, Frank Sinatra, and more. We will also look at a handful of iconic directors—including Alfred Hitchcock, Douglas Sirk, and others—whose style makes a definitive mark on American film and theater. And we will also look at how critics (in addition to popular audiences) assess performers through comparisons, and by understanding the evolution and tradition of the art. To support our work, we will use film, audio recordings, scripts, criticism and analytical essays, biography, and more.

Also Offered As: ENGL 2890, THAR 2840
1 Course Unit

CIMS 2850 Art and Business of Film
The course will explore how a screenplay is conceptualized and developed, the role of agency relationships in the film business, and -casting as wide a net as possible - the financing, production, direction, distribution, exhibition and marketing of both independent and studio films. A combination of lectures by instructors and practitioners, case studies, film screenings, and consulting projects with independent and Hollywood creators, packagers, financiers, exhibitors, distributors and publicists will illustrate the relationship between the art of film and the business of film. Guests will include screenwriters, agents, producers, directors, distributors, film festival curators and film critics. In short, we will try to cover all aspects of making a film, and explore that often-tricky intersection of art and commerce.

Fall or Spring
1 Course Unit

CIMS 2890 Mixed Media Animation
Mixed Media Animation is a contemporary survey of stop-motion animation concepts and techniques. Students use digital SLR cameras, scanners and digital compositing software to produce works in hand-drawn animation, puppet and clay animation, sand animation, and multiplane collage animation. Screenings and discussions in the course introduce key historical examples of animation demonstrating how these techniques have been used in meaningful ways. Students then learn how to composite two or more of these methods with matte painting, computer animation or video.

Fall or Spring
Also Offered As: FNAR 1050
1 Course Unit

CIMS 2900 Post War Japanese Cinema
Mizoguchi Kenji, Ozu Yasujiro, and Kurosawa Akira are recognized today as three of the most important and influential directors in Japanese cinema. In their films of the late 1940s and 1950s, these directors focused upon issues surrounding the human condition and the perception of truth, history, beauty, death, and other issues of the postwar period. This lecture course places their films in period context, and pays particular attention to the connections to other visual media, and to how “art” and “history” are being defined in the cinematic context. How other directors also took up these issues, and referred to the “big three” is also be discussed.

Not Offered Every Year
Also Offered As: ARTH 2900, EALC 1340
1 Course Unit

CIMS 2910 East Asian Cinema
This survey course introduces students to major trends, genres, directors, and issues in the cinemas of East Asian countries/regions, including Japan, Korea, China, Hong Kong, and Taiwan. Charting key developments over more than a hundred years from the early twentieth century to the present, this course examines films as aesthetic objects, asking questions about film form, narrative, and style. It also pays attention to the evolution of cinema as an institution (e.g. modes of production, circulation, and exhibition) in different cultural and political contexts. Weekly course materials will include both films (primary sources) and analytical readings (secondary sources). By the end of the course, students are expected to gain broad knowledge of East Asian cinema, develop skills of film analysis, and apply these skills to perform historically informed and culturally sensitive analysis of cinema. Prior knowledge of East Asian languages is NOT required.

Also Offered As: ARTH 2910, EALC 1116
Mutually Exclusive: ARTH 6910, EALC 5116
1 Course Unit

CIMS 2935 Culture on Trial: Race, Media & Intellectual Property
This course explores the US intellectual property regime's impact on the production, distribution and consumption of media and art. By the end of the class, students will come away with historical, theoretical, and practical understandings of how media technology changes the law and how the law has subsequently responded to changes in media technology. This course is affiliated with CWIC (Communication Within the Curriculum). See the English Department's website at www.english.upenn.edu for a description of the current offerings.

Also Offered As: ENGL 2935, SOCI 2973
1 Course Unit
CIMS 2950 Global Film Theory
This course will provide an introduction to some of the most important film theory debates and allow us to explore how writers and filmmakers from different countries and historical periods have attempted to make sense of the changing phenomenon known as "cinema," to think cinematically. Topics under consideration may include: spectatorship, authorship, the apparatus, sound, editing, realism, race, gender and sexuality, stardom, the culture industry, the nation and decolonization, what counts as film theory and what counts as cinema, and the challenges of considering film theory in a global context, including the challenge of working across languages. There will be an asynchronous weekly film screening for this course. No knowledge of film theory is presumed.
Not Offered Every Year
Also Offered As: ARTH 2950, ARTH 2950, COML 2950, ENGL 2900, GSWS 2950
Mutually Exclusive: ARTH 6950
1 Course Unit

CIMS 2951 Digital and New Media Seminar
This course explores a particular topic in the study of digital and new media in an intensive and in-depth manner. See the English Department's website at: www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 2920, COML 2960, ENGL 2950
1 Course Unit

CIMS 2952 Mobile Phone Cultures
Over the years, the cellphone or the mobile phone ceased to be just an extension of the landline telephone as a range of locative, social and networked media converged into it. Even as they have global impact, mobile media technologies influence and are influenced by socio-cultural factors in specific places, and so mobile phone cultures are both global and local at the same time. In this course, we will be studying the revolutions in youth culture, desire, gender norms, and political propaganda that are emerging as new hardware, apps, and internet services are being added to mobile media. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2952
1 Course Unit

CIMS 2953 Digital Infrastructures & Platforms
Platforms ranging from ride-hailing and food delivery apps (Uber and Swiggy) to subscription based audiovisual content providers (Netflix and SonyLIV) mediate multisided transactions (markets) and operate based on algorithmic collection, circulation, and monetization of user data. In this course, we will engage with a variety of readings about multi-situated study of apps, paying attention to both app interfaces as well as their connection to backend systems and infrastructures like content delivery networks and software development kits. In what ways do processes of data storage/distribution, content encryption/decryption and encoding/decoding make "seamless" streaming on Hulu/Prime Video and instantaneous digital payments on Venmo and PayTM possible? We will begin with how infrastructures have been studied in the past, and then in particular focus on media infrastructures such as satellite systems, optical fiber cables, cell antennas, and data centers. The course readings will consider the varied definitions of platforms and examine the socio-political effects of the proliferation of platforms in different regions of the world. In studying superapps and platforms like WeChat (China), LINE (Japan), and Jio (India), we will try to comprehend in what ways have discourses of platformization been shaped by governmental regulation, cultural practices, and socio-politics of regions. We will explore questions like: in what ways are infrastructures and apps related? How do content creators and SVoD audiences navigate algorithmic opacity? Why do BigTech companies float competing discourses about platforms? What are the connections between infrastructural investments and platform capitalism? What does it mean to have digital lives in a platform society? In what ways do digital infrastructures and platforms create the foundations for smart cities and Internet of Things? Course assignments include a final research paper (2000 words) as well as project-based case studies of platform companies and socio-material assessments of infrastructures.
Not Offered Every Year
Also Offered As: ENGL 2953
1 Course Unit

CIMS 3010 French Identity in the Twentieth Century
Topics vary. Please see the department's website for a description of the current offerings: https://www.sas.upenn.edu/french/pc
Fall or Spring
Also Offered As: FREN 3010, GSWS 3010
1 Course Unit
**CIMS 3030 Queer Cinema**

Queer Cinema, in Theory: This course explores the role of cinema in shaping the history of gender and sexuality, at the same time introducing students to some of the most relevant texts in the field of queer, gender and trans studies. While the last decades have been characterized by increasing acceptance of gays, lesbians and trans people into mainstream society, this process has no doubt reproduced new inequalities and asymmetries – in terms of race, class, and gender presentation. Does “queer” still pose a threat to the mainstream or is it now part of the “normal”? Should one welcome the progressive acceptance or queer lives within the mainstream or should one reject it in the name of an indissoluble difference? How do whiteness and homonormativity participate in the structural marginalization of black and trans people? Some of the topics addressed by this course are the "closet" in classical Hollywood cinema and its critique in 1990s queer films such as Happy Together (Wong Kar-wai, 1997); the intersection of sexuality and race in black feminist films such as Born in Flames (Lizzie Borden,1983) and Watermelon Woman (Cheryl Dunye, 1996); the treatment of reproductive labor in experimental feminist films such as Jeanne Dieiman (Chantal Akerman, 1975); the representation of the AIDS crisis in new queer films such as The Living End (Gregg Araki,1992); sex reassignment politics in 2000s Iranian films such as Sex My Life (Bahman Motemedian).

Not Offered Every Year
Also Offered As: GSWS 3020, ITAL 3030
1 Course Unit

**CIMS 3040 Japanese Cinema**

This course is a survey of Japanese cinema from the silent period to the present. Students will learn about different Japanese film genres and histories, including (but not limited to) the benshi tradition, jidaigeki (period films), yakuza films, Pink Film, experimental/arthouse, J-horror, and anime. Although the course will introduce several key Japanese auteurs (Mizoguchi, Ozu, Kurosawa, Oshima, Suzuki, etc), it will emphasize lesser known directors and movements in the history of Japanese film, especially in the experimental, arthouse, and documentary productions of the 1960s and 1970s. Finally, in addition to providing background knowledge in the history of Japanese cinema, one of the central goals of the course will be to interrogate the concept of “national” cinema, and to place Japanese film history within a international context. Fall or Spring
Also Offered As: ENGL 2933
1 Course Unit

---

**CIMS 3050 Rome in Cinema: Representations of The Eternal City**

In this course we will look at the different ways in which Rome's cityscape has been represented in 20th and 21st century Italian and American cinemas, intersecting with historical events such as the rise of Italian fascism, WWII, the 1960s economic boom, as well as the political impact of the current migratory crisis in the Mediterranean Sea. Why is Rome often referred to as "The Eternal City"? In what ways has the myth of Rome's eternality been politically exploited throughout Italy's modern history? Students will acquire technical vocabulary to improve their visual interpretation skills, as well as knowledge of some of the most impactful historical and cultural events of last century. Requirements will include readings in cultural and film history, an analytical essay, a research paper, weekly blog posts, and active participation in class discussion. Films may include Roman Holiday (William Wyler, 1953), La Dolce Vita (Federico Fellini, 1960), Accattone (Pier Paolo Pasolini, 1961), The Talented Mr. Ripley (Anthony Minghella, 1999), The Great Beauty (Paolo Sorrentino, 2013).

Not Offered Every Year
Also Offered As: ITAL 3050
1 Course Unit

**CIMS 3100 Cinema and Socialism**

Films from socialist countries are often labeled and dismissed as “propaganda” in Western democratic societies. This course complicates this simplistic view, arguing for the value in understanding the ties between socialist governments, the cinematic arts, and everything in between. We will examine films from past and present socialist countries such as the Soviet Union, China, North Korea, and Cuba, as well as films made with socialist aspirations. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.

Not Offered Every Year
Also Offered As: ARTH 3100, EALC 2314, ENGL 2934, REES 3770
1 Course Unit

**CIMS 3200 The History of American Animation**

This course will look at American animation as an art form, a technology and an industry. We will explore the ways in which artistic, technical, historical, and cultural conditions shape the development of animation and in turn, how animation impacts viewers. Topics will include trends in animation and their relation to contemporary popular culture, issues of art versus commerce in the creation of cartoons, the intersection of animation and politics, and shifts in style and technique throughout the years. We will look at the personalities in animation who have shaped the art form and continue to influence it, the rise in animation’s popularity, and current-day applications of animated imagery. Case studies will include Pixar, Walt Disney, UPA, television cartoons, stop motion animation, and the movie, Who Framed Roger Rabbit.

Not Offered Every Year
Also Offered As: ARTH 3870, FNAR 3181
1 Course Unit
CIMS 3201 The History Computer Animation
This course will look at computer animation as an art form, a series of technological innovations and an industry. We will explore the way in which artistic, technical, historical, and cultural conditions have shaped the development of computer animation. Topics will include the impact of early motion graphics experiments in the sixties, the contributions of university- and corporation-funded research, commercial production, and the rise of Pixar. We will consider the companies and personalities in computer animation who have shaped the art form and continue to influence it, the contributions to computer animation from visionaries around the world, and current day applications of animated imagery. Throughout the course, we will screen important works from the canon of computer animation, including the earliest computer-animated shorts, scenes from Beauty and the Beast, the first Pixar shorts, Toy Story, Final Fantasy and works done internationally to forward the art and the industry.
Not Offered Every Year
Also Offered As: ARTH 3871, ENGL 0591, FNAR 3182
1 Course Unit

CIMS 3203 The Animation Of Disney
No organization has exerted as much influence on popular culture and the art form of animation as The Walt Disney Company. For decades, Disney films were the standard by which all other animated films were measured. This course will examine the biography and philosophy of founder Walt Disney, as well as The Walt Disney Company's impact on animation art, storytelling and technology, the entertainment industry, and American popular culture. We will consider Disney's most influential early films, look at the 1960s when Disney's importance in popular culture began to erode, and analyze the films that led to the Disney renaissance of the late 1980s/early 1990s. We will also assess the subsequent purchase of Pixar Animation Studios and the overall impact Pixar has had on Disney. The class will also look at recent trends and innovations, including live-action remakes and Disney+.
Not Offered Every Year
Also Offered As: ARTH 3873, ENGL 0593, FNAR 3184
1 Course Unit

CIMS 3204 History Children's TV
This course will survey the history of children's television from the invention of television through the present, with an emphasis on series development and production, artistry, and the colorful personalities who built this industry. We'll consider important figures including Fred Rogers, Bill Hanna and Joe Barbera, Joan Ganz Cooney, Jim Henson and Walt Disney. We will discuss the history of animated cartoons that were made specifically for television, Saturday morning production, the rise of Japanese cartoons from the 1960s through Pokemon, and the growth of children's cable channels in the 90s, as well as other landmark moments. We'll also assess the impact of streaming platforms on television and the future of children's media.
Not Offered Every Year
Also Offered As: ARTH 3874, ENGL 0594, FNAR 3185
1 Course Unit

CIMS 3328 The Holocaust in Italian Literature and Film
Please check the website for a current course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ITAL 3328
1 Course Unit

CIMS 3329 The Rise of Japanese Animation
This course will introduce students to the historical and cultural context of the rise of Japanese animation, focusing on the growth of the anime industry in the late 20th and early 21st centuries. We will explore the development of Japanese animation from the 1960s through the 2000s, examining key works such as Astro Boy, Ghost in the Shell, and Spirited Away. Students will also consider the economic and cultural factors that have shaped the anime industry, including the influence of globalization, cross-cultural exchange, and the role of anime in Asian American identity.
Not Offered Every Year
Also Offered As: ARTH 3876, ENGL 0596, FNAR 3186
1 Course Unit

CIMS 3400 Italian American Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ENGL 2299, ITAL 3400
1 Course Unit

CIMS 3401 Contemporary Italy
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3401, ITAL 3401
1 Course Unit

CIMS 3402 Italian Film and Media Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3402, ITAL 3402
1 Course Unit

CIMS 3403 Race and Ethnicity in Italy
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3403, ITAL 3403
1 Course Unit

CIMS 3404 Italian Gender Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3404, ITAL 3404
1 Course Unit

CIMS 3405 Italian Fashion
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3405, ITAL 3405
1 Course Unit

CIMS 3406 Italian Visual Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3406, ITAL 3406
1 Course Unit

CIMS 3407 Italian Foods and Cultures
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3407, ITAL 3407
1 Course Unit

CIMS 3408 Italian Literature
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3408, ITAL 3408
1 Course Unit
CIMS 3409 Italian Innovations
Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ITAL 3409
1 Course Unit

CIMS 3410 Italian Renaissance Studies
Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3410, ITAL 3410
1 Course Unit

CIMS 3411 Mediterranean Studies
Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3411, ITAL 3411
1 Course Unit

CIMS 3412 Italian Performance Studies
Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3412, ITAL 3412
1 Course Unit

CIMS 3413 Italian Science and Philosophy
Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3413, ITAL 3413
1 Course Unit

CIMS 3414 Italian Material Studies
Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ITAL 3414
1 Course Unit

CIMS 3415 Italian Digital Humanities
Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ITAL 3415
1 Course Unit

CIMS 3502 Italian Film and Media Studies
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ITAL 3502
1 Course Unit

CIMS 3503 Race and Ethnicity in Italy
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ITAL 3503
1 Course Unit

CIMS 3505 Italian Fashion
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ITAL 3505
1 Course Unit

CIMS 3506 Italian Visual Studies
Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ITAL 3506
1 Course Unit

CIMS 3512 Duchamp Is My Lawyer
This course examines the impact of copyright law on artists and creative industries. Looking at publishing, music, film, and software, we will ask how the law drives the adoption of new media, and we will consider how regulation influences artistic decisions. A mix of the theoretical with the practical, we will be using UbuWeb (the largest and oldest site dedicated to the free distribution of the avant-garde) as our main case study. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Spring
Also Offered As: ENGL 3512
1 Course Unit

CIMS 3600 Studies in Spanish, Latin American and Latinx Cinema
This course explores fundamental aspects of Spanish, Latin American, and Latinx cinema. Course content may vary. Please see the department website for current course offerings: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies.
Fall or Spring
Also Offered As: SPAN 3600
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

CIMS 3602 Cyborgs, Robots, Gadgets: Technologies in Contemporary Hispanic Cinema
Contemporary Latin American and Spanish Cinema offer a great reflection on the role that new technologies have in the film industry, and in our lives, in the digital era. Often, we find that technologies are used in an original way to overcome financial shortages in times of crisis, or when resources are limited. In this context, sometimes it is actually thanks to the new technologies that the work of new directors can be produced or distributed. Some recent Latin American and Spanish sci-fi movies find genuine ways to bring about social and political commentary through the use of technological narratives. Reflections on technology are often found in many other film genres too. Our aim in this course will be to explore the use of technology in film in the present and in the past, as well as to study narratives that place technology at the center. We will focus our study on films where technology is a key factor and will reflect on the impact of technologies in our experience as spectators as well.
Fall or Spring
Also Offered As: LALS 3602, SPAN 3602
1 Course Unit
CIMS 3620 Contemporary Spanish Cinema
A survey of Spanish cinema from the 1940’s to the present. Special attention will be paid to the political, cultural, and social discourses that the films reproduce, adapt or question. This will allow an understanding of the implicit or explicit social dialogues that shaped cinematographic production in Spain from the post-civil war years, through Franco’s dictatorship, the advent of the democratic state in the 1970’s, and the economic and political crisis of the 21st century. At the same time films will be analyzed from the standpoint of their rhetorical construction, examining the specificity of cinematic language and its particular case.
Fall or Spring
Also Offered As: SPAN 3620
1 Course Unit

CIMS 3652 Crossing Borders in Latin American Cinema
Through the lens of border crossing this course will explore various current topics in Contemporary Latin American Cinema such as immigration, exile and travel narratives, gender crossing, social and political transgressions, transnationalism, and co-productions. The concept of the border will be fluid and central to the course, and through it we will reflect upon what separates and unites people at an individual, sexual, social, cultural, political, national, and geographical level. This focus will help us explore a wide variety of “movements”, negotiations, and transgressions taking place in the Latin American Cinema of the last three decades.
Fall or Spring
Also Offered As: LALS 3652, SPAN 3652
1 Course Unit

CIMS 3622 Spanish Non-Fictional Film
This course will explore the flourishing of the genre of documentary and non-fiction film in the last decades in Spain. We will study poetic, experimental, and social documentaries in their socio-historical context. For this we will need to engage not only films and film theory texts, but also historical recounts of contemporary Spain. We will also analyze the limits between non-fiction and fiction film, focusing on some recent works that have critically blurred the distinction between both genres.
Fall or Spring
Also Offered As: SPAN 3622
1 Course Unit

CIMS 3624 Crossing Borders in Spanish Cinema
Through the lens of border crossing, we will explore various current topics in Contemporary Spanish Cinema, such as immigration and emigration narratives in times of globalization and economic crisis, cinematic transgressions, and the emergence of global vs. national films. A fluid conceptualization of the border will guide our exploration on how Contemporary Spanish Cinema talks about gender, race, nationalisms, migration, history, and psychology.
Fall or Spring
Also Offered As: SPAN 3624
1 Course Unit

CIMS 3626 The Films of Pedro Almodóvar
One of the most acclaimed filmmakers of the world, Almodóvar is unquestionably the most international of today’s Spanish filmmakers. The aim of the course is to familiarize students with Pedro Almodóvar’s films and to shed some light to the intricacies of its themes, cultural background, and visual style. Together with primary and secondary texts, we will offer an overview of Almodóvar’s career from his early iconoclastic Post Franco films of the late 1970’s and early 1980’s to his most recent work that has gained him a reputation as an international auteur. Some of the topics covered will include questions of national identity, gender, sexuality, as well as Almodóvar’s original use of genre, visual style, and the director’s relationship to the postmodern concepts of performance and parody.
Fall or Spring
Also Offered As: SPAN 3626
1 Course Unit

CIMS 3650 Latin American Cinema
This course aims to familiarize students with the major achievements and cultural moments of Latin American cinematography. We will cover a broad set of themes, nations and time periods employing multiple theoretical positions.
Fall or Spring
Also Offered As: LALS 3650, SPAN 3650
1 Course Unit

CIMS 3656 Documentary Ethnography for Museum of Exhibition practices
This course will investigate research modalities that center around documentary storytelling in the museum context. During the semester, we will examine research strategies that collaborate with curatorial experts. The class will utilize cinematic techniques that investigate cultural narratives revolving around cultural heritage sites, rituals and ceremonies, artifacts, materials and living traditions. Students will engage Solomor’s process of her creation of the new digital and in-gallery content that will reframe the Metropolitan Museum’s African art galleries. Each semester will culminate in students creating their own short film content that will screen publicly in the gallery at the end of the semester.
Not Offered Every Year
Also Offered As: ANTH 3664, FNAR 3664
1 Course Unit

CIMS 3781 Global TV
This course explores a broad media landscape through new critical and conceptual approaches. It is designated as a Benjamin Franklin Seminar. This course maps the footprints of television at a global scale. Adopting comparative approaches, we will be studying TV’s formation of national and global discourses, and thereby recognizing not only television’s impact on processes of globalization, but also the ability of television to matter globally. Working through concepts of “broadcasting,” “flow,” “circulation,” and “circumvention,” the course examines the movement of (and blocks encountered by) television programs and signals across national borders and cultures. The course particularly focuses on how global television cultures have been transformed due to shifts from broadcasting technologies to (Internet) streaming services? Navigating from United States and Cuba to India and Egypt, the readings in the course illuminate how particular televisual genres, institutions, and reception practices emerged in various countries during specific historical periods. We shall be addressing a range of questions: what kind of global phenomenon is television? Can we study television in countries where we do not know the existing local languages? In what different ways (through what platforms, interfaces, and screens) do people in different continents access televisual content? What explains the growing transnational exports of Turkish and Korean TV dramas? What is the need to historically trace the infrastructural systems like satellites (and optical fiber cables) that made (and continue to make) transmission of television programming possible across the world? How do fans circumvent geo-blocking to watch live sporting events? Assignments include submitting weekly discussion questions and a final paper. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: ENGL 0595
1 Course Unit
CIMS 3806 Representations of Dictatorship in Latin America
This course explores the phenomenon of Latin American dictatorship through literature, film, graphic novels, and visual and public art, asking how these different media and genres depict and respond to state violence, censorship, and trauma.
Not Offered Every Year
Also Offered As: LALS 3806, SPAN 3806
1 Course Unit

CIMS 3810 Film Exhibition and Moviegoing
Cinema has always had an audience. From its first appearances in cafes, tea houses, and variety shows to today's fragmented, digital consumption, cinema continues to exist in relation to different ways of looking and experiencing. This course examines how films have been shown and how audiences have watched films in diverse historical and cultural contexts. We will explore how the ways in which film screenings were organized shape both the films being shown and audiences' moviegoing experiences. Based on historical and site-specific investigations, we will also reflect on how our modes of engaging with cinema impact conceptions of what cinema is, what it will be, and what it can be. Unlike most film courses, this course does not focus on analyzing films, but look into the operations of cinema as an institution. There will be field trips to local movie theaters and a final collective project that asks students to curate a special film screening (in-person or online) using innovative formats.
Also Offered As: ARTH 3820
1 Course Unit

CIMS 3820 Horror Cinema
The purpose of this course is to provide an introduction to the history and main themes of the supernatural/horror film from a comparative perspective. Films considered will include: the German expressionist masterworks of the silent era, the Universal classics of the 30’s and the low-budget horror films produced by Val Lewton in the 40’s for RKO in the US, the 1950’s color films of sex and violence by Hammer studios in England, Italian Gothic horror or giallo (Mario Brava) and French lyrical macabre (Georges Franju) in the 60’s, and on to contemporary gore. In an effort to better understand how the horror film makes us confront our worst fears and our most secret desires alike, we will look at the genre's main iconic figures (Frankenstein, Dracula, Dr. Jekyll and Mr. Hyde, etc.) as well as issues of ethics, gender, sexuality, violence, spectatorship through a variety of critical lenses (psychoanalysis, socio-historical and cultural context, aesthetics...).
Not Offered Every Year
Also Offered As: FREN 3820
1 Course Unit

CIMS 3830 French & Italian Modern Horror
This course will consider the horror genre within the specific context of two national cinemas: France and Italy. For France, the focus will be almost exclusively on the contemporary period which has been witnessing an unprecedented revival in horror. For Italy, there will be a marked emphasis on the 1960s-1970s, i.e. the Golden Age of Gothic horror and the giallo craze initiated by the likes of Mario Bava and Dario Argento. Various subgenres will be examined: supernatural horror, ghost story, slasher, zombie film, body horror, cannibalism, etc. Issues of ethics, gender, sexuality, violence, spectatorship will be examined through a variety of critical lenses (psychoanalysis, socio-historical and cultural context, aesthetics, politics, gender, etc.).
Fall or Spring
Also Offered As: COML 3830, FREN 3830, ITAL 3830
1 Course Unit

CIMS 3860 Paris in Film
Latter-day examples like Christophe Honore’s Dans Paris, Cedric Klapisch’s Paris or the international omnibus Paris, je t’aime (with each director paying homage to a distinctive “arrondissement” of the capital), not to mention American blockbusters like The Da Vinci Code and Inception or Woody Allen’s Midnight in Paris, are there to remind us that there is something special – indeed, a special kind of magic – about Paris in and on film. Despite the extreme polarization between Paris and provincial France in both cultural and socio-economic terms, cultural historians have argued that Paris is a symbol of France (as a centralized nation), more than Rome is of Italy and much more than Madrid is of Spain or Berlin of Germany, for example. The prevalence of the City of Lights on our screens, Gallic and otherwise, should therefore come as no surprise, be it as a mere backdrop or as a character in its own right. But how exactly are the French capital and its variegated people captured on celluloid? Can we find significant differences between French and non-French approaches, or between films shot on location that have the ring of "authenticity" and studio-bound productions using reconstructed sets? Do these representations vary through time and perhaps reflect specific historical periods or zeitgeists? Do they conform to genre-based formulas and perpetuate age-old stereotypes, or do they provide new, original insights while revisiting cinematic conventions? Do some (sub)urban areas and/or segments of the Parisian population (in terms of gender, race, or class, for example) receive special attention or treatment? These are some of the many questions that we will seek to address…with a view to offering the next best thing to catching the next non-stop flight to Paris! For French credit: Please register for both FREN 3860-401 (lecture) and FREN 3860-402 (recitation). The FREN 3860-402 recitation is conducted in French. For Cinema and Media Studies credit: Please register for CIMS 3860-401 (lecture) and CIMS 3860-403 (recitation). Both lecture and recitation are taught in English.
Spring
Also Offered As: FREN 3860
1 Course Unit

CIMS 3912 Labor in Contemporary Latin American Literature and Film
This course studies different forms of cultural production (film, novel, short story, critical essay) as entry-points into new settings and conditions for work in Latin America, in four sectors that have become especially salient in the region: services, finance, agro-industry and the informal economy (particularly drug trafficking). We will pay particular attention to how cultural production allows us to envision the coordinates of the larger, indeed global, economy into which workers are inserted. We will examine how cultural production allows us to map shifting class structures; we will also track how gender and race shape national and international divisions of labor.
Not Offered Every Year
Also Offered As: LALS 3912, SPAN 3912
1 Course Unit
CIMS 3930 Cinema and Civil Rights
This undergraduate seminar will examine key moments in the history of civil rights through a cinematic lens. Over the course of the semester, we will explore how filmmakers have depicted the lives, aspirations, and struggles of those who have struggled for equal rights; how different strategies have intersected with each other; what aesthetic strategies have been adopted to represent freedom and the denial of it; and how effective cinematic efforts to contribute to increased freedom have been as well as what criteria we use to evaluate success or failure in the first place. Each week, we will watch a film and read a series of texts that will be drawn from a variety of arenas, including histories of civil rights; civil rights pamphlets and speeches; filmmaker interviews; film and media theory; memoirs; and theories of race, gender and sexuality. Course requirements: mutual respect; completion of all readings and screenings; participation in class discussion; weekly online responses; a final project that can be a research paper, film, art project, or community-based initiative.
Not Offered Every Year
Also Offered As: AFRC 3930, ARTH 3930, ENGL 0599, GSWS 3930
1 Course Unit

CIMS 3931 Participatory Community Media, 1970-Present
What would it mean to understand the history of American cinema through the lens of participatory community media, collectively-made films made by and for specific communities to address personal, social and political needs using a range of affordable technologies and platforms, including 16mm film, Portapak, video, cable access television, satellite, digital video, mobile phones, social media, and drones? What methodologies do participatory community media makers employ, and how might those methods challenge and transform the methods used for cinema and media scholarship? How would such an approach to filmmaking challenge our understanding of terms like “authorship,” “amateur,” “exhibition,” “distribution,” “venue,” “completion,” “criticism,” “documentary,” “performance,” “narrative,” “community,” and “success”? How might we understand these U.S.-based works within a more expansive set of transnational conversations about the transformational capacities of collective media practices? This course will address these and other questions through a deep engagement with the films that make up the national traveling exhibition curated by Louis Massiah and Patricia R. Zimmerman, We Tell: Fifty Years of Participatory Community Media, which foregrounds six major themes: Body Publics (public health and sexualities); Collaborative Knowledges (intergenerational dialogue); Environments of Race and Place (immigration, migration, and racial identities unique to specific environments); States of Violence (war and the American criminal justice system); Turf (gentrification, homelessness, housing, and urban space); and Wages of Work (job opportunities, occupations, wages, unemployment, and underemployment). As part of that engagement, we will study the history of a series of Community Media Centers from around the U.S., including Philadelphia’s own Scribe Video Center, founded in 1982 by Louis Massiah, this course’s co-instructor. This is an undergraduate seminar, but it also available to graduate students in the form of group-guided independent studies. The course requirements include: weekly screenings, readings, and seminar discussions with class members and visiting practitioners, and completing both short assignments and a longer research paper.
Also Offered As: AFRC 3932, ARTH 3931, COML 3931, ENGL 2970, GSWS 3931
Mutually Exclusive: ARTH 6931
1 Course Unit

CIMS 3940 Chinese and Sinophone Cinemas
This course is a survey of Chinese and Sinophone cinemas from the silent era to the present. The Sinophone refers to Sinitic film cultures both inside and outside the People’s Republic of China that have been in relatively marginalized positions against the Han-Chinese mainstream, such as Taiwanese, Hong Kong, Tibetan, and transpacific cinemas. One major goal of the course is to interrogate the national cinema framework and to show how the meaning of “Chineseness” has been problematized by filmmakers and critics throughout modern history. Students will learn about important film movements and trends such as leftist cinema from the 1930s, socialist cinema, Taiwanese and Hong Kong New Waves, the Fifth and Sixth Generation filmmakers, and contemporary transnational productions. Attention will be paid to both films known for awards and artistic achievements and popular genres including thrillers, horror, and wuxia (martial art).
Also Offered As: ARTH 3940, EALC 1331
1 Course Unit

CIMS 3999 Independent Study
Independent Study provide a way for well-motivated students to pursue a topic of interest that is not listed into our CIMS academic curriculum. In an independent study, students essentially create their own course on a topic of theirs choice, working in concert with our CIMS faculty advisor.
Fall or Spring
1 Course Unit

CIMS 4000 Blacks in American Film and Television
This course is an examination and analysis of the changing images and achievements of African Americans in motion pictures and television. The first half of the course focuses on African-American film images from the early years of D.W. Griffith’s “renegade bucks” in The Birth of a Nation (1915); to the comic servants played by Stepfin Fetchit, Hattie McDaniel, and others during the Depression era; to the post-World War II New Negro heroes and heroines of Pinky (1949) and The Defiant Ones (1958); to the rise of the new movement of African American directors such as Spike Lee (Do the Right Thing), Julie Dash (Daughters of the Dust), Charles Burnett, (To Sleep With Anger) and John Singleton (Boyz N the Hood). The second half explores television images from the early sitcoms “Amos ‘n Andy” and “Beulah” to the "Cosby Show," "Fresh Prince of Bel Air," and "Martin." Foremost this course will examine Black stereotypes in American films and television—and the manner in which those stereotypes have reflected national attitudes and outlooks during various historical periods. The in-class screenings and discussions will include such films as Show Boat (1936), the independently produced "race movies" of the 1930s and 1940s, Cabin in the Sky (1943), The Defiant Ones (1958), Imitation of Life (the 1959 remake) & Super Fly (1972).
Fall
Also Offered As: AFRC 4000
1 Course Unit

CIMS 4516 One Series--Major Film
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major film regardless of origin. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department’s website at www/english.upenn.edu for a description of current offerings.
Also Offered As: ENGL 4516
1 Course Unit
CIMS 4998 Cinema Studies Honor Thesis
Majors in Cinema & Media Studies have the option to write a Senior Honors Thesis. CIMS 498 is a year-long Independent Study course students have to complete under the supervision of a CIMS Faculty advisor. 1 CU will be awarded upon completion of the year-long CIMS Honors Thesis.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

CIMS 4999 Independent Study
Independent Study provide a way for well-motivated students to pursue a topic of interest that is not listed into our CIMS academic curriculum. In an independent study, students essentially create their own course on a topic of theirs choice, working in concert with our CIMS faculty advisor.
Fall or Spring
1 Course Unit

CIMS 5000 Food and Film
Are you intrigued by the role food plays in our lives and our world? Have you noticed that the food film has become one of cinema’s most durable subgenres not only in the US but in global cinema as well? Are you willing to test the proposition that the food film is more than entertainment? That the food film, in fact, provides us unique access to a range of fundamental questions about passion and desire, family, survival, art, gender, race, and ethnicity? This seminar explores numerous aspects of the food/film nexus, starting with the classics (Babette’s Feast and Tampopo), and grazing across a menu of Hollywood, independent, and international documentaries and feature films that throw light on food production and global warming; chefs and the restaurant business; the eroticism of food; and cinematic representations of food and film alike, this course will introduce you to the art of film analysis and the pleasures of cuisine.
Not Offered Every Year
1 Course Unit

CIMS 5001 Cinema and Globalization
In this course, we will study a number of films (mainly feature films, but also a few documentaries) that deal with a complicated nexus of issues that have come to be discussed under the rubric of "globalization." Among these are the increasingly extensive networks of money and power, the transnational flow of commodities and cultural forms, and the accelerated global movement of people, whether as tourists or migrants. At stake, throughout, will be the ways in which our present geographical, economic, social, and political order can be understood and represented. What new narrative forms have arisen to make sense of contemporary conditions? Films will include: The Year of Living Dangerously, Perfumed Nightmare, Dirty Pretty Things, Monsoon Wedding, Babel, Y Tu Mama Tambien, Maria Full of Grace, In This Word, Darwin’s Nightmare, Black Gold, Life and Debt, The Constant Gardener, Syriana, and Children of Men. In addition to studying the assigned films carefully, students will also be expected to read a selection of theoretical works on globalization (including Zygmunt Baumann’s Globalization: The Human Consequences) and, where appropriate, the novels on which the assigned films are based. Advance viewing of the films is required. (It is best to place films on reserve for students’ use, or to ask that students get their own DVDs from Amazon or Netflix, but screenings can certainly be arranged.) Writing requirements: either a mid-term and final paper, or an in-class power point presentation and final paper.
Not Offered Every Year
Also Offered As: ENGL 5001
1 Course Unit

CIMS 5002 Hollywood Film Industry
This is a course on the history of Hollywood. It seeks to unravel Hollywood’s complex workings and explains how the business and politics of the film industry translate into the art of film. We will trace the American film industry from Edison to the internet, asking questions such as: What is the relationship between Hollywood and independent film? How has the global spread of Hollywood since the 1920s changed the film industry? How has Hollywood responded to crises in American politics (e.g., world wars, the cold war, terrorism)? And how have new technologies such as synchronized sound, color cinematography, television, home video, computer graphics, and other digital technologies changed film and Hollywood? We will look closely at representative studios (Paramount, Disney, and others), representative filmmakers (Mary Pickford, Frank Capra, and George Lucas, among many others), and we will examine the impact of industrial changes on the screen.
Not Offered Every Year
Also Offered As: ENGL 5002
1 Course Unit

CIMS 5003 Copyright and Culture
In this course, we will look at the history of copyright law and explore the ways that copyright has both responded to new media and driven art and entertainment. How, for example, is a new medium (photography, film, the Internet, etc.) defined in relation to existing media? What constitutes originality in collage painting, hip hop music, or computer software? What are the limits of fair use? And how have artists, engineers and creative industries responded to various changes in copyright law? A major focus of the course will be the lessons of history for the current copyright debates over such issues as file sharing, online video, and remix culture. In this course, we will look at the history of copyright law and explore the ways that copyright has both responded to new media and driven art and entertainment. How, for example, is a new medium (photography, film, the Internet, etc.) defined in relation to existing media? What constitutes originality in collage painting, hip hop music, or computer software? What are the limits of fair use? And how have artists, engineers and creative industries responded to various changes in copyright law? A major focus of the course will be the lessons of history for the current copyright debates over such issues as file sharing, online video, and remix culture.
Not Offered Every Year
Also Offered As: ENGL 5003
1 Course Unit

CIMS 5004 Horror Cinema
The course will explore European Horror Cinema from the 1970s to the present time, focusing on a number of cult films that have helped rejuvenate and redefine the genre in a radically modern sense by pushing the envelope in terms of subversive representation of gore, violence and sex. We will look at various national cinemas (primarily Western Europe – Italy, France, Spain, Germany, Belgium, The Netherlands – with the occasional foray into Eastern Europe and Scandinavia) and at a range of subgenres (giallo, mondo, slasher, survival, snuff, ...) or iconic figures (ghosts, vampires, cannibals, serial killers, ...) Issues of ethics, ideology, genre, sexuality, violence, spectatorship will be discussed through a variety of critical lenses (psychoanalysis, socio-historical and cultural context, aesthetics, politics...). The class will be conducted entirely in English. Be prepared for provocative, graphic, transgressive film viewing experiences. Not for the faint of heart!
Not Offered Every Year
Also Offered As: ENGL 5004
1 Course Unit
CIMS 5005 Sex/Love/Desire In Art Cinema
This topic course explores multiple and different aspects of Cinema Studies. Specific course topics vary from year to year. See the Cinema Studies website at cinemastudies.sas.upenn.edu/courses for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 5005
1 Course Unit

CIMS 5030 Transnational TV
How are television and nation historically related, and how has television been part of new kinds of nationalization and globalization projects? Television content like telenovelas or BBC news have often transnationally moved and television infrastructures like satellites and optical fiber cables have had a global footprint. We will discuss both the local situatedness of televisual production and reception cultures as well as their ability to impact global issues and discourses. The course is interested in how television schedules historically have been part of everyday lives of people and how more recently, on-demand TV content shapes and is shaped by quotidian rhythms of people’s lives in different countries with specific socio-cultural contexts. The course particularly focuses on how global television cultures have been transformed due to shifts from broadcasting technologies to (Internet) streaming services: In what ways has the television landscape changed and remained the same with the emergence of global subscription TV platforms like Netflix and Prime Video as they commission and develop content in collaboration with local and national artists and practitioners? How are regional streamers competing with and resisting the expansion of Netflix? What explains the growing transnational exports of Turkish dizi and Korean TV dramas? We will attend to both emerging genres of content and trace the new distribution circuits of transnational television.
Not Offered Every Year
Also Offered As: ENGL 5030
1 Course Unit

CIMS 5050 Religion & Cinema
This course looks at religion in film. As we will see, this is not just a question of how religion is represented onscreen, but how cinematic objects make religious subjects. We’ll explore the ways films are crafted through technique, performance, and distribution, then consider how these components shape religious bodies and religious traditions in turn.
Spring
Also Offered As: RELS 5050
1 Course Unit

CIMS 50501 Digital Humanities Studies
This course is designed to introduce advanced undergraduate and graduate students to the range of new opportunities for literary research afforded by Digital Humanities and recent technological innovation. Digital Humanities: you’ve heard of it. Maybe you’re excited about it, maybe you’re skeptical. Regardless of your primary area of study, this course will give you the critical vocabularies and hands-on experience necessary to understand the changing landscape of the humanities today. Topics will include quantitative analysis, digital editing and bibliography, network visualization, public humanities, and the future of scholarly publishing. Although we will spend a good portion of our time together working directly with new tools and methods, our goal will not be technological proficiency so much as critical competence and facility with digital theories and concepts. We will engage deeply with media archaeology, feminist technology studies, critical algorithm studies, and the history of material texts; and we will attend carefully to the politics of race, gender, and sexuality in the field. Students will have the opportunity to pursue their own scalable digital project. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: COML 5050, ENGL 5050
1 Course Unit

CIMS 5110 Topics in Cinema Studies
Please see the department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: FREN 5110
1 Course Unit

CIMS 5120 Film Noir
Topics vary. Please see the department’s website for the current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: COML 5120, FREN 5120
1 Course Unit

CIMS 5250 Queer Francophone Cinema
Taught in English. This course will survey queer cinema in French from around the world, examining cult classics beside established masterpieces and avant-garde aesthetics alongside more mainstream productions in order to probe how film participates in both the representation and the formation of LBGT epistemologies and identities. Tracing the lineage of queer French cinema from Jean Genet’s and Jean Cocteau’s A Song of Love (Un Chant d’amour, 1950) to Christophe Honore’s Love Songs (Les Chansons d’amour, 2007), the course will cover a variety of films from France (by Francois Ozon, for example), Belgium (Chantal Akerman), Morocco (Abdellah Taia), Quebec (Xavier Dolan and Lea Pool) and elsewhere. Theoretical and critical perspectives will be provided by Judith Butler, Eve Kosofsky Sedgwick, Jose Esteban Munoz, Jack Halberstam and others. No previous knowledge of cinema studies, queer studies or Francophone cultures is assumed. The course will meet for two and a half hours weekly by Zoom, complemented by asynchronous discussion of assigned film excerpts, which students will annotate online.
Also Offered As: GSWS 5150
1 Course Unit
CIMS 5272 Nationalism and Ethnic Conflict in Film
This course studies political violence, terrorism, civil wars, ethnic conflicts, and genocidal policies as represented in the social media, cable news, documentaries, feature films. We discuss various techniques and strategies of the propaganda wars, post-truth media environment, etc. The regions of interest are Former Soviet Union, Russia, the Caucasus, and the Balkans, US homegrown political violence, and the Middle East. The students are expected to develop and demonstrate a critical approach to different aspects of the cinematic, news, and social media representation of ethnic conflict. We focus on the violent developments that took place in Russia and the Balkans after the collapse of the Soviet Bloc, conditioned by the geopolitical dynamics that the fall of communism had created. We study media broadcasts, documentaries, feature films representing both, the Eastern and the Western perspective. Not Offered Every Year
Also Offered As: REES 5272
1 Course Unit

CIMS 5296 Contemporary Russia Through Film
This course continues developing students’ advanced skills in Russian and offers intensive study of Russian film, arguably the most powerful medium for reflecting changes in modern society. This course will examine Russia’s transition to democracy and market economy through the eyes of its most creative and controversial cinematographers. The course will focus on the often agonizing process of changing values and attitudes as the country moves from Soviet to Post-Soviet society. Russian films with English subtitles will be supplemented by readings from contemporary Russian media sources. The course provides an excellent visual introduction to the problems of contemporary Russia society. Not Offered Every Year
Also Offered As: REES 5296
Mutually Exclusive: REES 2270
Prerequisite: RUSS 1200
1 Course Unit

CIMS 5390 Penn-in-Kenya
Undergrads produced documentary and virtual-reality films with residents of the Kakuma Refugee Camp.
Summer Term
1 Course Unit

CIMS 5550 Terrorism
This course studies the emergence of organized terrorism in nineteenth-century Russia and its impact on public life in the West, the Balkans, and America. We investigate the political and cultural origins of terrorism, its conspiratorial routine, structures, methods, manuals, and manifestoes. Historical and cultural approaches converge in the discussion of intellectual movements that forged the formula of terrorism and influenced the professionalization of the underground, such as nihilism, anarchism, and populism. We discuss the stern terrorist personality, self-denial, revolutionary martyrdom, and conspiratorial militancy. The theatricals of terrorism are of particular interest, its bombastic acts, mystification, and techniques of spreading disorganizing fear in the global media environment. We trace the creation of counterterrorism police in late imperial Russia and its methods to infiltrate, demoralize, and dismantle the terrorist networks, and reengineer their social base. First Red Scare and the formation of the FBI constitutes a unique case of managing rampant political violence and countering the asymmetrical threat of terrorism.
Fall or Spring
Also Offered As: REES 5550
1 Course Unit

CIMS 5730 Topics in Criticism & Theory: Object Theory
Topics vary annually
Not Offered Every Year
Also Offered As: ARTH 5730, COML 5730, ENGL 5730, GRMN 5730, REES 6683
1 Course Unit

CIMS 5750 Russian History in Film
The course draws on the cinematic/fictional representation of the Russian/Soviet history based on Russian as well as non-Russian sources. The analysis targets major modes of imagining, staging and reenacting history, construction of images that satisfy dominant political, cultural and ideological stereotypes, and help create national identities. Bias, eye-witness accounts, propaganda uses and abuses of history, forgeries and the production of alt-facts become topics of particular interest. The discussions involve nation builders, iconic heroes and charismatic antiheroes, great commanders and revolutionaries such as Alexander Nevsky, Ivan the Terrible, Rasputin and the Fall of the Romanovs, Lenin and the October Revolution, Stalin and the construction of the Soviet Colossus, the Storming of the Winter Palace, the Civil War, the Great Purge, the Red Scare in the US, etc.
Also Offered As: REES 5270
Mutually Exclusive: REES 5270
1 Course Unit

CIMS 5792 Biography and Art History
Beginning with the ancient Greeks, people have created specific biographical structures as a way to understand and explain the artistic process. Artists have often been labeled as natural prodigies possessing creative powers on par with the divine. This seminar will examine the role that biography plays in the assessment of visual art and the creative process over time and across European and American culture. During the semester we will read art historical texts, watch biographical films, and debate the historical and post-structuralist critical theory that has helped to shape the current cultural construction of the artist. Throughout the seminar we will discuss the underlying debates around these various approaches to biography. This course is open to graduate students and undergraduate students with permission of the instructor.
Not Offered Every Year
Also Offered As: AFRC 5792, ARTH 5792, GSWS 5792, LALS 5792
1 Course Unit

CIMS 5793 Fake!
This seminar explores issues of fakery, forgery, reproduction, magic, and authenticity in history, art, literature, and film. Students will gain an understanding of these issues within both a historical and contemporary context by reading works of criticism, non-fiction, and fiction; watching both avant grade and popular film; and examining works of art and visual culture. This course is open to graduate students and undergraduate students with permission of the instructor.
Not Offered Every Year
Also Offered As: ARTH 5793
1 Course Unit

CIMS 5820 Topics: Literature and Film
Please see department website for a current course description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
Also Offered As: COML 5821, ITAL 5820
1 Course Unit
CIMS 5821 Fantastic Literature 19th/20th Centuries
This course will explore fantasy and the fantastic in short tales of 19th- and 20th-century French literature. A variety of approaches – thematic, psychoanalytic, cultural, narratological – will be used in an attempt to test their viability and define the subversive force of a literary mode that contributes to shedding light on the dark side of the human psyche by interrogating the "real," making visible the unseen and articulating the unsaid. Such broad categories as distortions of space and time, reason and madness, order and disorder, sexual transgressions, self and other will be considered. Readings will include "recits fantastiques" by Merimee, Gautier, Nerval, Maupassant, Breton, Pieyre de Mandiargues, Jean Ray and others.
Not Offered Every Year
Also Offered As: COML 5840, FREN 5820
1 Course Unit

CIMS 5830 Art, Sex and the Sixties
With a distinct emphasis on performance, film, installation art, video and painting, this course explores the explosion of body-based, nude and erotic work from the 1950 to the 1970s, with particular focus on the 1960s. And it seeks to explore this dynamic not only within the familiar confines of North America and Europe but within Latin America and Asia, too, in what was a nearly simultaneous international emergence of the erotic as a political force in the art world. Reading a range of key voices from Frankfurt School philosopher Herbert Marcuse, to performance artists Carolee Schneemann and Yoko Ono, Neo-Freudian theorist Norman O. Brown and Brazilian theorist and poet Oswald de Andrade, we will examine how and why sexuality became a privileged form of politics at this historical juncture in a range of different contexts across the globe. We will pay particular attention to how and why an art about sex became a camouflaged form of political dissidence in the confines of repressive political dictatorships, as were then rising in Brazil, Argentina, and ultimately Chile. Students interested in feminist, gender or queer theory, Latin American Studies, social revolution, performance studies, post war art and Frankfurt School thought should find the course particularly appealing, but it assumes no background in any of these fields.
Fall or Spring
Also Offered As: ARTH 5830, GSWS 5200, LALS 5830
1 Course Unit

CIMS 5840 20th-Century Italian Fiction and Film
Please see department website for current description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
Also Offered As: ITAL 5840
1 Course Unit

CIMS 5850 Italian Thought
What is Italian philosophy? Does Italian philosophy have a peculiar character? Can we speak of "Italian philosophy" if Italy became a unified country only recently, and its history is complex and fragmented? Yet "Italian Thought" and its genealogy are central to today's theoretical debates on concepts such as biopolitics, reproductive labor and "empire" among others. This course will offer a diachronic review of the most important Italian thinkers, highlighting the political vocation of Italian philosophy, and its engagement with history and science, while discussing the modern supporters and opponents of the "Italian Thought" category. Readings might include Dante, Machiavelli, Bruno, Vico, Beccaria, Gramsci, Cavavero and Agamben among others.
Fall or Spring
Also Offered As: COML 5850, ITAL 5850
1 Course Unit

CIMS 5910 Cinema and the Museum
Cinema and the museum are both important modern cultural institutions that have global relevance. How do cinema and the museum interact with each other conceptually, artistically, and spatially? In this graduate seminar, we will cross the disciplinary boundaries between film and media studies, museum studies, visual studies, and art history. A wide range of phenomena at the intersection of cinema and the museum will be considered, including the museum in films, the museum as an institution of cinema, video arts and moving images in museums, museum exhibitions that interrogate the cinematic medium, and film museums. Examples will be drawn from diverse historical periods and cultural contexts. This course is supported by Spiegel-Wilks funding and will include at least one class field trip.
Also Offered As: ARTH 5910
1 Course Unit

CIMS 5930 Classical Film Theory
At a moment when contemporary film and media theory has become increasingly interested in how earlier film theories can help us understand our moment of transition, this course will give students the opportunity to read closely some of those key early texts that are preoccupied with questions and problems that include: the ontology of film, the psychology of perception, the transition to sound, the politics of mass culture, realism, and ethnography. Course requirements: completion of all readings and screenings; participation in class discussion; weekly online responses; 20-25 page paper.
Not Offered Every Year
Also Offered As: ARTH 5930, COML 5930, ENGL 5930, GSWS 5930
1 Course Unit

CIMS 5931 Contemporary Film Theory
In this course, we will dig in to a variety of contemporary film theory debates in the context of earlier texts with which they engage or against which they define themselves. We will also watch films weekly and consider the relationship between theory and practice. Course requirements: completion of all readings and screenings; participation in class discussion; weekly online responses; 20-25 page paper.
Not Offered Every Year
Also Offered As: ARTH 5931, ENGL 5931, GSWS 5931
1 Course Unit

CIMS 5932 The Place of Film and Media Theory
Taking its title from a recent special issue in the journal Framework, this seminar will engage the where of film and media theory. At a moment when this discourse, often presumed to have roots in Anglo and Western European traditions, is purportedly undergoing a global turn, we will consider how some of film and media theory's key terms and preoccupations including realism, documentary, genre, identity, sound, spectatorship, nation, auteur, and screens are being inflected by expanded geographic, linguistic, aesthetic and cultural frames. We will grapple with some of the logistical challenges, motivations, resistances, and questions that scholars encounter as they attempt to shift film and media theory's borders; compare contemporary efforts to broaden the discourse's geographic horizon with earlier efforts to do the same; and consider what happens to the viewer's sense of space and place in different media environments. Course requirements: full participation in readings, screenings, discussion, and class presentations; 20-25 page research paper + annotated bibliography.
Not Offered Every Year
Also Offered As: ARTH 5932, ENGL 5932, GSWS 5932
1 Course Unit
CIMS 5933 Cinema and Media Studies Methods
This proseminar will introduce a range of methodological approaches (and some debates about them) informing the somewhat sprawling interdisciplinary field of Cinema and Media Studies. It aims to equip students with a diverse—though not comprehensive—toolbox with which to begin conducting research in this field; an historical framework for understanding current methods in context; and a space for reflecting on both how to develop rigorous methodologies for emerging questions and how methods interact with disciplines, ideologies, and theories. Students in this class will also engage scholars participating in the Cinema and Media Studies colloquium series in practical discussions about their methodological choices. The course’s assignments will provide students with opportunities to explore a particular methodology in some depth through a variety of lenses that might include pedagogy, the conference presentation, grant applications, the written essay, or an essay in an alternative format, such as the graphic or video essay. Throughout, we will be trying to develop practical skills for the academic profession. Although our readings engage a variety of cinema and media objects, this course will be textually based. No prior experience needed. The course is open to upper-level undergraduates with relevant coursework in the field by permission of instructor only. Course Requirements: Complete assigned readings and actively participate in class discussion: 20%; Reading responses: 10%; Annotated bibliography or course syllabus on a particular methodology: 20%; SCMS methodology-focused conference paper proposal according to SCMS format: 10%; Research paper, grant proposal, or essay in an alternative format using the methodology explored in the syllabus or bibliography: 40%.
Fall
Also Offered As: ARTH 5933, COML 5940, ENGL 5933, GSWS 5933
1 Course Unit

CIMS 5940 Media, Platform, Experience
This graduate seminar explores processes and sites of production, distribution, and consumption of audio-visual contents in the contemporary media environment with a focus on both platform logics and user interaction experiences. While "new" media, such as social media, cellphone apps, streaming platforms, video games, and drones increasingly dominate everyday life, "old" media including film, television, and books do not disappear but continue to be consumed and transformed in a new media ecology. Crossing the old/new divide, this course seeks to delineate a fuller picture of the choices, constraints, and experiences available for contemporary media users situated in both the Global North and South. We will attend to both the infrastructures and platforms shaping the circulatory dynamics of the current global media landscape as well as the phenomenological dimensions of media consumption by combining broad discussions of interface, algorithms, temporality, screen, and post-cinema, etc., with case studies that examine specific platforms (e.g. Netflix, Bilibili) and media forms (e.g. GIFs, reaction videos, etc.).
Not Offered Every Year
Also Offered As: ARTH 5940, ENGL 5991
1 Course Unit

CIMS 5999 Independent Study
Independent Study provide a way for well-motivated students to pursue a topic of interest that is not listed into our CIMS academic curriculum. In an independent study, students essentially create their own course on a topic of theirs choice, working in concert with our CIMS faculty advisor. Fall or Spring
1 Course Unit

CIMS 6371 New Korean Cinema
In 2019, Bong Joon-ho’s Parasite won the Palme d’Or at the 72nd Cannes Film Festival. This event marked the apex of South Korean cinematic renaissance, having steadily become a tour de force in the international film festival scene since 1997 onwards. This course explores the major auteurs, styles, themes, and currents of the so-called “New Korean Cinema” that emerged in the mid-to-late 1990s to continue to this day. Drawing from texts on critical film and Korean studies, we will pay particular attention to how the selected works re-present, resist, and interweave the sociopolitical climate they concern and are born out of. Using cinema as a lens with which to see the society, we will touch upon major events of the twentieth century including national division, military dictatorship and democratization movements, IMF economic crisis, youth culture, hallyu (the Korean wave), and damunhwa (multiculturalism initiative). In so doing, we will closely examine how each cinematic medium addresses the societal power structure and the role of the “Other” it represents in terms of class, race, gender, and sexuality in the construction of contemporary Korean society. We will also briefly survey the history of South Korean cinema that has evolved hand-in-hand with the history of modern Korea itself, walking through its five different phases (1945-Korean War era; 1955-1972 "Golden Age"; 1973-1979 censorship era; 1980-1996 democratization era; and 1997 onwards). No prior experience of Korean studies courses necessary; all films will be screened with English subtitles.
Not Offered Every Year
Also Offered As: EALC 6371
Mutually Exclusive: EALC 1371
1 Course Unit

CIMS 6664 Documentary Ethnography for Museum of Exhibition practices
This course will investigate research modalities that center around documentary storytelling in the museum context. During the semester, we will examine research strategies that collaborate with curatorial experts. The class will utilize cinematic techniques that investigate cultural narratives revolving around cultural heritage sites, rituals and ceremonies, artifacts, materials and living traditions. Students will engage Solomon’s process of her creation of the new digital and in-gallery content that will reframe the Metropolitan Museum’s African art galleries. The semester will culminate in students creating their own short film content that will screen publicly in the gallery at the end of the semester.
Not Offered Every Year
Also Offered As: ANTH 6664, FNAR 6664
Mutually Exclusive: ANTH 3664
1 Course Unit
CIMS 6942 Impossible Innocence: the Films of Luis Buñuel
This seminar provides an overview and introduction to the cinema of Luis Buñuel with a particular focus on the Spanish filmmaker's engagement with Surrealism. Drawing on the expertise of Professors Ignacio Javier López and Michael Solomon, each seminar session will unfold in two parts: first, Solomon will offer a general introductory lecture and discussion covering various aspects of Buñuel's filmography including technical and formal analyses that touch on cinematic form, montage, and adaptation, and a contextualization of Buñuel's cinema within the Spanish, Mexican, Latin American, and European (inter) national cinemas and cinematic movements; second, López will offer a close examination of individual films focusing on Buñuel's longstanding ties with the ideas of Surrealism from the movement's initial moment of scandal and provocation—understood by its participants as a new philosophy, a new way of seeing in an endless process of discovery—to a second moment in which Surrealism admits its failure to enact its revolutionary goals. Films covered in the seminar include Buñuel's Un Chien Andalou (1929), L'Age d'or (1930) Menjant garotes, Las Hurdes/Terre sans pain (1933/36) Los Olvidados (1950) Susana (1951) Ensayo de un crimen (1955), Death in the Garden (1956), Nazarin (1959), Viridiana (1961) The Exterminating Angel (1962), Belle de jour (1967), Tristana (1970), and Obscure Object of Desire (1977). Students will start working early on a final project (seminar paper), reworking the draft several times during the semester.
Fall or Spring
Also Offered As: COML 6942, SPAN 6942
1 Course Unit

CIMS 7920 Reading Against Racism
This course takes as its starting point Audre Lorde's 1981 Keynote presentation at the National Women's Studies Association Conference, "The Uses of Anger: Women Responding to Racism." Lorde, critiquing white feminists, states, "I cannot hide my anger to spare you guilt, nor hurt feelings, nor answering anger; for to do so insults and trivializes all our efforts. Guilt is not a response to anger; it is a response to one's own actions or lack of action. If it leads to change then it can be useful, since it is then no longer guilt but the beginning of knowledge. Yet all too often, guilt is just another name for impotence, for defensiveness destructive of communication; it becomes a device to protect ignorance and the continuation of things the way they are, the ultimate protection for changelessness." Eschewing defensiveness, ignorance, and innocence, and opening to meaningful change by engaging the writings of anti-racist and anti-imperialist thinkers, including those focused on the transformation of higher education, this course examines the responsibilities scholars take on when we affirm that "Black Lives Matter," and acknowledges that higher education, including the humanities, is actively implicated in the structures and operations of white privilege. Eschewing defensiveness, ignorance, and innocence, and opening to meaningful change by engaging the writings of anti-racist and anti-imperialist thinkers, including those focused on the transformation of higher education, this course examines the responsibilities scholars take on when we affirm that "Black Lives Matter," and acknowledges that higher education, including the humanities, is actively implicated in the structures and operations of white privilege and anti-black racism as well as in other intersectional modes of exclusion, including all forms of discrimination based on race, ethnicity, national original, ability, class, sexuality, gender, and beliefs. The course aims to approach these urgent but longstanding issues in ways that help us to understand some of the complexities, practicalities, and temporalities of the work of change; to grapple with what Rosalyn Deutsche in Hiroshima After Iraq (2011) describes as "the inseparability of the social and the psychic"; and to seek out effective alternatives to the tendency of politicized academic writing in time of conflict to regress to what Deutsche calls "heroic masculinism." "Reading Against Racism" is imagined as a way of catalyzing active, collective, and long-term anti-racist, anti-imperialist intellectual work. It seeks to participate in the development of more just and inclusive academic modes and spaces by fostering time and structure for thought and self-reflection, by generating ideas for implementation, and by learning from our readings as well as from each other. All students, white and BIPOC, are welcome to participate, but we will begin this course by working together to establish a community agreement that takes account of the different ways in which such a course is likely to be experienced by white and BIPOC people. For example, recognizing that discussions about race and racism require immense emotional labor from BIPOC people in particular, BIPOC students should not be asked to use their personal experiences to frame questions under discussion or to represent any group. We will establish together other guidelines to create as safe and supportive a space (or spaces) for reading, thinking, and acting against racism as we can muster, including deciding how we would like to include in our process tools like trigger warnings, opt-out mechanisms, smaller subgroups, etc. Requirements: Weekly reading; weekly journal for self-reflection (required, but not for submission); participation in discussion; design a syllabus for an introductory course in your field. Thanks to all the students who have generously participated in developing this course and to the scholars who have written the materials we will read.
Also Offered As: ARTH 7920
1 Course Unit
CIMS 8999 Independent Study
Independent Study provide a way for well-motivated students to pursue a topic of interest that is not listed into our CIMS academic curriculum. In an independent study, students essentially create their own course on a topic of theirs choice, working in concert with our CIMS faculty advisor.
Not Offered Every Year
1 Course Unit

City and Regional Planning (CPLN)

CPLN 5000 Introduction to City Planning: History, Theory and Practice
This course introduces students to the history, theories, and contemporary practice of city and regional planning. Readings, lectures, class discussion, and walking tours focus on: - The evolution of planning ideas, strategies, institutions, and powers, and of planning's influence on cities and regions around the world; - The structure and dynamics of urban change; - The ways planners and social and environmental scientists have understood, theorized, and responded to social, economic, political, and environmental conditions and change over time; and - The development of the planning profession and its relationships with allied fields, examining various types of planning, urban development, and design.
Fall
1 Course Unit

CPLN 5010 Quantitative Planning Analysis Methods
Introduction of methods in analyzing demographic conditions, population and housing trends, employment and business changes, community and neighborhood development. Focus on using spreadsheet models, data analysis, and basic statistical analysis for local and neighborhood planning.
Fall or Spring
1 Course Unit

CPLN 5020 Urban Economics and Public Finance
This core course first covers the basic concepts of urban economics: central place theory, gravity models, agglomeration economies, bid rent curves, and regional settlement patterns. The course takes the theory and applies it to metropolitan outcomes: central business districts, edge cities, edgeless cities, the favored suburban quarter, and megaregions. And the impact of the COVID-19 pandemic. The second half of the course connects the community facilities section and the future land use map of the comprehensive plan with a city's capital improvements program to focus on how to pay for public infrastructure. Financing techniques include: bonds, pay-as-you-go, user fees, tax increment financing, impact fees, adequate public facilities ordinances, sales taxes, property taxes, and land value taxation. Cost-benefit analysis and other infrastructure finance practices are discussed. Applications of public finance include: (a) Financing affordable housing projects; (b) Financing economic development and redevelopment projects; (c) Financing transportation projects; (d) Structuring public-private partnership deals; (e) Financing environmental and green infrastructure projects; and (f) Issues in school finance.
Spring
1 Course Unit

CPLN 5030 Modeling Geographical Objects
This course offers a broad and practical introduction to the acquisition, storage, retrieval, maintenance, use, and presentation of digital cartographic data with vector-oriented (i.e. drawing-based) geographic information systems (GIS) for a variety of environmental science, planning, and management applications. Previous experience in GIS is not required.
Fall
Also Offered As: MUSA 5030
1 Course Unit

CPLN 5040 Site Planning
This course introduces students to the practice of site planning. Skills and methods examined in the course include observation of the physical environment; site analysis; development of alternative site programming and uses; site design processes and strategy; and the creation of site plans and development standards. Methods of community participation and collaboration with other disciplines will be explored. There are two sections of this class- one for urban designers and/or those with prior design backgrounds and skills, one for those who do not. Note: Non-designers should enroll in CPLN 504-002 section
Spring
1 Course Unit

CPLN 5050 Planning by Numbers
This course will use planning and policy data and applications to introduce you to a variety of useful techniques of inferential statistics and unstructured data learning techniques. Each of the techniques will be introduced and developed through the use of commonly available planning and urban policy data in order to address a planning problem or question. Applications and examples may include: (i) analyzing population, economic, and settlement patterns across MSAs; (ii) understanding the determinants of housing and real estate prices; (iii) understanding infrastructure investment needs in the US; (iv) identifying the characteristics that explain travel behavior and mode choice; and (v) explaining land use change. Class sessions will involve a mixture of lecture and in-class statistical modeling. Students will make extensive use of R, a free, open source statistical programming language. This course is especially appropriate for students whose future professional and academic work will involve the design and testing of planning and policy analysis models using quantitative data.
Spring
Mutually Exclusive: MUSA 5000
1 Course Unit

CPLN 5060 Negotiation and Conflict Resolution
This course is designed to introduce graduate students to the theory and practice of negotiation, conflict resolution and community engagement. We will start by looking at basic approaches to interpersonal negotiation and then move to considering contemporary approaches to understanding and addressing public disputes using negotiation, facilitation and public involvement. Design professionals - architects, construction managers, planners and others - face a variety of kinds of problems and challenges in their work. Some problems and challenges, whether simple or complex, are amenable to technical solutions based solely on the expertise of planners, managers, architects and others. There are, however, other problems and challenges that require adaptive work, primarily because technical expertise alone is insufficient to address the problems or challenges being faced. In this course, we’ll focus on perspectives and methods for working through those later sorts of problems and challenges.
Spring
1 Course Unit
CPLN 5080 Urban Research Methods
This course is designed for graduate students completing original urban research. For students in Penn's Master of City Planning (MCP) program, it is the first class in a two-semester sequence in which students research and write their thesis. In the fall semester, this course takes students from the point of scoping and refining research questions through producing an in-depth literature review, research design, and initial fieldwork. In the spring, students completing an MCP thesis will complete the research and writing of the thesis. This fall class involves regular readings, orientation to research design, and a variety of methods exercises that students will help lead (for the methods they are employing in their own research). Students outside of the MCP program are welcome to take this class as long as they have a substantial urban research project to pursue. * To take this course, each student must submit a research proposal – either for an MCP thesis or a similarly substantial, original research project – and receive permission from the instructors of the MCP thesis classes (fall and spring). The Department of City and Regional Planning will hold a proposal-writing workshop later this spring for students who express interest in pursuing an MCP thesis.
1 Course Unit

CPLN 5090 Law of Planning and Urban Development
The central focus will be on selected aspects of the field of the law of planning and development, a field that embraces a range of legal doctrines that are particularly relevant to cities and suburbs. We will study the principles that govern the regulation of land use and management of urban growth (through land use controls and other techniques for regulating new development) and, to a limited extent, environmental planning laws.
Fall
1 Course Unit

CPLN 5200 Introduction to Housing, Community and Economic Development
Introduction to the theories, institutions, and practices of housing, community and economic development with a focus on improving opportunity and building wealth in disadvantaged communities. Provides foundation for advanced courses in housing policy, downtown and neighborhood revitalization, real estate and economic development finance, and local and international community development.
Spring
1 Course Unit

CPLN 5280 Research Seminar 21st Century Urbanism
A seminar run in conjunction with the Institute for Urban Research at Penn, students will learn about the range of cutting-edge topics in urbanism that Penn faculty are working on and work closely with a faculty member on current research. Students will learn about new topics and methods in interdisciplinary urban research, and get first hand experience collecting urban data under the close supervision of an experienced researcher. Students and faculty jointly will present their findings for discussion. This course is a good introduction for how to frame and conduct an urban research project. For more information, visit https://penniur.upenn.edu/instruction/uurc
Spring
1 Course Unit

CPLN 5300 Introduction to Land Use Planning
Exploration of the methods and tools for managing land use and shaping the built environment. Presents how to create a successful Comprehensive Plan, Zoning Ordinance, Subdivision Regulations, Capital Improvements Program, and design guidelines. Also, presents functional area, regional, and state-level plans.
Fall
1 Course Unit

CPLN 5310 Sustainability and Environmental Planning
This course will identify and evaluate the application of planning tools and strategies to enhance sustainability and environmental conditions, and to promote the wise use of natural resources. Students will understand the causes and effects of air, water, and land pollution, and how to evaluate and implement responses to pollution through regulations, financial incentives, infrastructure, and design techniques. Emphasis is on planning to create sustainable communities. The course provides an overview of federal programs for protecting air quality, water quality, and endangered species along with managing climate change, solid waste, toxics, energy, transportation, and remediating brownfields in an overall sustainability framework. State-level, local government, and NGO efforts to protect the environment are also explored as are green infrastructure and green cities.
Fall
1 Course Unit

CPLN 5350 Topics in Energy Policy
This seminar will explore a collection of ideas influencing energy policy development in the U.S. and around the world. Our platform for this exploration will be seven recent books to be discussed during the semester. These books each contribute important insights to seven ideas that influence energy policy: Narrative, Transition, Measurement, Systems, Subsidiarity, Disruption, Attachment. Books for 2018 will be chosen over the summer; the 2017 books are listed here as examples: Policy Paradox (2011) by Stone, Climate Shock (2015) by Wagner and Weitzman, Power Density (2015) by Smil, Connectography (2016) by Khanna, Climate of Hope (2017) by Bloomberg and Pope, Utility of the Future (2016) by MIT Energy Initiative, Retreat from a Rising Sea (2016) by Pilkey, Pilkey-Jarvis, Pilkey.
Spring
Also Offered As: ENMG 5030
1 Course Unit

CPLN 5310 Sustainability and Environmental Planning
This course will identify and evaluate the application of planning tools and strategies to enhance sustainability and environmental conditions, and to promote the wise use of natural resources. Students will understand the causes and effects of air, water, and land pollution, and how to evaluate and implement responses to pollution through regulations, financial incentives, infrastructure, and design techniques. Emphasis is on planning to create sustainable communities. The course provides an overview of federal programs for protecting air quality, water quality, and endangered species along with managing climate change, solid waste, toxics, energy, transportation, and remediating brownfields in an overall sustainability framework. State-level, local government, and NGO efforts to protect the environment are also explored as are green infrastructure and green cities.
Fall
1 Course Unit

CPLN 5350 Topics in Energy Policy
This seminar will explore a collection of ideas influencing energy policy development in the U.S. and around the world. Our platform for this exploration will be seven recent books to be discussed during the semester. These books each contribute important insights to seven ideas that influence energy policy: Narrative, Transition, Measurement, Systems, Subsidiarity, Disruption, Attachment. Books for 2018 will be chosen over the summer; the 2017 books are listed here as examples: Policy Paradox (2011) by Stone, Climate Shock (2015) by Wagner and Weitzman, Power Density (2015) by Smil, Connectography (2016) by Khanna, Climate of Hope (2017) by Bloomberg and Pope, Utility of the Future (2016) by MIT Energy Initiative, Retreat from a Rising Sea (2016) by Pilkey, Pilkey-Jarvis, Pilkey.
Spring
Also Offered As: ENMG 5030
1 Course Unit

CPLN 5400 Introduction to Property Development
This course is designed to acquaint students with the fundamental skills and techniques of real estate property development. It is designed as a first course for anyone interested in how to be a developer, and as a foundation for further courses in urban development and real estate.
Fall
1 Course Unit

CPLN 5500 Introduction to Transportation Planning
This course provides an overview and introduction to urban transportation planning and policy. Although the focus is on US transportation, the course also puts an emphasis on transportation issues in the fast-growing cities of the developing world. The course is organized around: (1) histories and theories of transportation and travel behavior; (2) transportation policy and project evaluation; (3) transportation demand modeling; and (4) multimodal transportation planning and policy. Particular attention is given to interactions between transportation and land use systems.
Fall
1 Course Unit
CPLN 5510 Transport Justice
This course will explore the concept of transport justice and how this idea can inform changes to public transit infrastructure. The first half of the course will set theoretical foundations through close reading and discussion of spatial and social justice theories, emphasizing questions of transportation and mobility. The second half of the course will feature a project-based application of these theories. Students will develop analyses to inform a planning at the intersection of Broad/Germantown/Erie in North Philadelphia. Students will be encouraged to explore multiple analytic approaches including: interviews and qualitative data collection; GIS and spatial analysis; quantitative analysis and predictive modeling, and more. The course will culminate in written and oral presentations given to partners from SEPTA, OTIS, and other planning agencies in Philadelphia.
Fall
1 Course Unit

CPLN 5600 Introduction to Graphics for Urban Design
The purpose of this class is to give urban design students basic visual skills and proficiency, including the ability to: 1. Understand and critique drawings and drawing types 2. Work in: Adobe Illustrator, Photoshop, and InDesign, and McNeel Rhino3D. 3. Understand workflow between software packages This is an introductory skills class that operates on three levels: software proficiency, design proficiency, and critical visual analysis. The class requires regular weekly effort and completion of assignments as skills are cumulative. Students with a design background are discouraged from taking this class.
Spring
1 Course Unit

CPLN 5710 Sensing the City
This course will teach you to design and build sensing installations that engage with real-time urban environmental stimuli. Using the Arduino microcontroller as a prototyping platform, you will write code and wire circuits, learn to select and implement available sensors, and generate raw environmental data. You will populate databases and interpret data streams, and then create responsive urban interventions. Following the model of hackerspaces around the globe, we will collaboratively pose problems and find solutions, teaching and learning from one another. No background in coding or electronics is required, but a desire to learn is absolutely necessary. Also, this course is hands-on. You are a maker! Be prepared to build, design, and create.
Fall
1 Course Unit

CPLN 5720 Modern Architectural Theory Seminar
A survey of architectural theory from the mid-eighteenth century to the present. The discussion of original writings will be emphasized. Open to undergraduate and graduate students.
Not Offered Every Year
Also Offered As: ARTH 5710
1 Course Unit

CPLN 5770 Topics in International Development
Course examines current trends and topics pertaining to international development. See MCP website for current offerings: Graduate City and Regional Planning, Weitzman School (upenn.edu)
Fall
1 Course Unit

CPLN 5771 Topics in International Development
Course examines current trends and topics pertaining to international development.
1 Course Unit

CPLN 5800 The Penn Experience: Racism, Reconciliation, and Engagement
This new non-credit asynchronous course, consisting of six Modules, aims to establish common basic language and concepts for incoming graduate and professional students to facilitate subsequent difficult conversations about race, racism and difference in the classroom and beyond. Using video interviews, presentations, short readings and podcasts, the course highlights the significance of Penn and Philadelphia’s history of racism and other forms of oppression, Penn’s evolving relationship to West Philadelphia, and Penn’s efforts toward greater engagement and inclusion. Modules also focus on implicit bias, intercultural communication, gender identity, and disparities in healthcare. A final module was designed primarily to address the antiracist work that must be done to dismantle white supremacy. All incoming SP2 master’s students are expected to spend 20 or more hours reviewing the six modules and completing short assessments prior to starting the fall semester. Other graduate and professional schools will assign modules to be completed based on their schools requirements.
0 Course Units

CPLN 5820 Place, Taste and Neighborhood Change: Frameworks for Integrating Aesthetics, Equity and Creativity
Places provide a sense of identity and orientation to the world for its users in ways that go beyond the traditional practice areas that urbanists are trained to understand (i.e. housing, economic development, transportation). The popularization of artistic, cultural, and “creative interventions” in redevelopment has added to that complexity in hybrid ways require new tools, languages, and frameworks to meaningfully participate in the development process. By taking a humanistic and scientific views of the longstanding arts-based community development field now known as “creative placemaking”, the class will help learners formulate critical, evaluative answers pressing, emergent questions for urban practitioners. In particular, learners will explore the various state-sponsored meanings of creative placemaking, artistic excellence, and artistic merit. During the course we will interrogate, compare, and articulate the power dynamics embedded in those definitions with new, alternate, and stakeholder-centric definitions. The course aims to invite conversation, reflection, and sharing of best practices alongside community-based leaders with the promise that learners will be able to apply equity-based frameworks to these debates. Learners will emerge from this guided journey with a sharpened ability to identify, generate, and extend authentic, inclusive arts-based neighborhood change.
Spring
1 Course Unit
CPLN 5830 Coloring Climates: Race, Stories, Environments
Why is the Green New Deal not talked about as a "Black Agenda"? Why are Black people not employed in 90% of the leadership positions in environmental organizations? Do Black folks resist environmentalism as a "white" issue? Why are cannabis farmers, once arrested by cities for growing hemp, now being priced out of the regulated industry in legalized states? These questions may also be asked for people of color broadly. Since the "Manifest Destiny" days of John Muir, white spatial imaginaries have shaped how environmentalism is branded; planning has been in lock-step. These persistent myths motivate the basis of historical reflection and contemporary re-constitution of what it means to be "green" while Black in place. This seminar that proposes to "Blacklight" urban space: bare visible the oft-hidden Black Geographies in urban and environmental history on the margins. By drawing on texts in critical ecology, we will elucidate how primarily Black people imagine attachment to rural, pastoral, and urban spaces. This decentering of the colonial history of environmentalism is especially urgent in environmental and land use planning. Readings will include popular literature from Camille T. Dungy's Black Nature: Four Centuries of African American Nature Poetry, The Green Collar Economy by Van Jones, The Good Food Revolution by Will Allen; sociology from Dorceta Taylor's The Rise of the American Conservation Movement: Power, Privilege, and Environmental Protection, . Ron Finley's "Ganstga Gardening" videos, environmental planning from Mabel O. Wilson's "Black & Green" in Begin with the Past: Building the National Museum of African American History & Culture, and Richard Westmacott's African-American Gardens and Yards in the Rural South, Majora Carter's Sustainable South Bronx: A Model For Environmental Justice; memoirs by The Cooking Gene by chef Michael Twitty, Unbowed by Wangari Maathai. Articles will also include voices from BIPOC geographers, psychologists, and planners with relevant views. While being primed with these histories, students will identify a mode of environmental action and land use engagement for a "Blacklight" case study in either their hometown or current place of residence. Students will contribute to a Wikipedia page on eco-poetics or ecocitizenship to build public consciousness around Black, indigenous, and people of color (BIPOC) sensibilities in these places.
1 Course Unit

CPLN 5910 Introduction to Smart Cities
This course reviews the infrastructure, data, algorithms, and implementation of emerging digital technologies in cities. We ask: what makes a city smart? We discuss challenges and opportunities, critically evaluating what technology has and has not been able to offer cities. We contrast utopian visions of technology with the possible buggy and brittle realities. Finally, we consider projects that could be implemented in Philadelphia to make the city smarter. What are the qualities of a good smart city project?
Fall or Spring
1 Course Unit

CPLN 5920 Public Policy Analytics
This course teaches advanced spatial analysis and an introduction to data science/machine learning in the urban planning and public policy realm. The class focuses on real-world spatial analysis applications and, in combination with introductory machine learning, provides students a modern framework for efficiently allocate limited resources across space. Unlike its private sector counterpart, data science in the public or non-profit sector isn't strictly about optimization - it requires understanding of public goods, governance, and issues of equity. We explore use cases in transportation, housing, public health, land use, criminal justice, and other domains. We will learn novel approaches for understanding and avoiding risks of "algorithmic bias" against communities/people of color as well as communities of different income levels. The format of the class includes weekly lectures/in-class demos and labs. There are seven required assignments, including two projects. Prerequisites include either CPLN 503, the summer GIS course or prior experience with GIS in a formal setting. The class is conducted entirely in R. Having experience in R and the 'tidyverse' is helpful but not strictly required.
Fall
Also Offered As: MUSA 5080
1 Course Unit

CPLN 6000 Studio I
Planning Workshop builds on the background knowledge and skills learned in the fall semester to produce team-based neighborhood/ corridor plans. Workshop is where you learn to make plans—a skill that is foundational to being an urban planner, which is why we are all here! This course walks through each step of the typical plan-making process, each step building on the previous. This generally includes:
- Assembling and summarizing existing conditions
- Identifying issues and opportunities
- Developing plan goals
- Creating alternatives or strategic directions
- Setting a course for plan implementation
In addition to completing the steps of the plan, this course also helps students learn skills for working in groups, graphic design and presentation, verbal presentation, project and workflow management, understanding community dynamics, and overall professionalism. These are skills that every planner needs, and will rely on heavily in their professions, so Workshop is also helpful in preparing each student for work readiness, regardless of concentration.
Spring
0-2 Course Units

CPLN 6200 Techniques of Urban Economic Development
This course is an introduction to the theory and practice of economic development planning. We will explore theories of economic growth and development as well as explore pressing questions regarding income and wealth inequality and labor markets. Economic development practice in the US is the result of decades of work from local and state governments and hybrid entities (community development institutions, hospitals, redevelopment authorities, commerce departments) attempting to make their respective places more "sticky" with respect to economic activity. While economic development may seem secondary, or worse, actively harmful in addressing some of the many pressing problems facing planners today, this course is designed to highlight why economic development remains central to questions about how regions can and should grow. The economic organization of our regions is a central actor in debates concerning global warming, displacement through gentrification or decline and social inequality.
Spring
1 Course Unit
CPLN 6210 Metropolitan Food System
This course introduces students to the planning and development of metropolitan food systems. Major topics include regional planning and policy; sustainable agriculture; food access and distribution; and markets. The class includes a mix of lectures, discussion, and field trips; and students will work on real-world projects in Philadelphia. Ultimately, the course aims to develop students' broad knowledge of food systems planning in the global North and South, with an emphasis on community and economic development strategies for sustainable food systems and food security.
Spring, even numbered years only
1 Course Unit

CPLN 6220 Healthy People/Healthy Places
In Healthy People/Healthy Places we will explore the role of space and place in the social construction of health. Pulling from the urban planning, geography and public health literatures, we will explore the role of the built environment in shaping individual and community health. We will explore questions behind why, and how, some groups of people die, or are injured, at greater rates than others and the role that planning and broader spatial policy play in these outcomes.
1 Course Unit

CPLN 6230 The Carceral State
This course examines the period of mass incarceration that began in the US in the 1970s, its impact on communities and its connection to economic development. We'll look specifically at policies that fostered mass incarceration, the financialization of the criminal justice system, the militarization of policing, and grassroots organizing movements that challenge the carceral state. We will examine the ways in which policies and practices have had disparate impacts on people of color and women, and we will also pay attention to space and place, endeavoring to understand differences at the local, county and state levels. Students will read books and articles from a range of disciplines including sociology, law, political science, and planning. We will also read poetry and memoir, and study places that have instituted policies and practices that go against the grain. This is a heavy reading course that relies on student engagement and discussion. We will also take a couple of field trips to local reentry organizations, and students will be required to do courtroom observations.
Spring, even numbered years only
1 Course Unit

CPLN 6240 Race, Poverty and Place
In recent years, long-disinvested cities have become the site of renewed investment, population growth, and economic development in a phenomenon often described as gentrification. Nonetheless, socioeconomic inequality between races, ethnicities, genders, and places within the larger metropolitan area continue to persist, suggesting that a rising tide does not raise all boats. Planners must grapple with these issues of inequality and inequity, particularly the implementation of plans and policies that may in theory provide benefits to all, but in practice continue to accumulate benefits for a select few. This course examines the construction of race, the making of a place, and the persistence of poverty in racialized places in the city. This course will engage in a critical discussion of the aforementioned themes, such that the normative notions of race, capitalism, urbanism, gender, power, and space are upended to privilege more marginalized perspectives of these processes.
Spring
1 Course Unit

CPLN 6270 Social Impact in Practice
The course will be an opportunity for students across PennDesign (and other schools) to meaningfully engage with community partners and practitioners working in Philadelphia and the surrounding region, and to grapple with the complex issues necessary for understanding community perspective, thereby influencing the approach when planning and designing as professionals. The course intends to reverse common perceptions and practices of community engagement ("beyond the theater of engagement") and discuss how to productively and sensitively work with communities of all types, on projects of all scales, to work towards common goals and high aspirations. The organization of the course, will be a combination of readings and discussions, guest lecturers, and tours in the immediate community. The primary assignments will be reflection pieces, case studies, a collaborative group project, and a implementation project proposal. The group project(s) would partner students with a current, ongoing, or new community project that is funded and actionable. Students will work together, with the partner, and with community members to complete a project (could be built, a printed deliverable, evaluation, or other). The final assignment would ask students to brainstorm and present a potential "Phase II" implementation project, thinking through the mechanics of funding partnerships, academic research, etc, that could carry forward the work.
Fall
1 Course Unit

CPLN 6280 Migration and Development
International migration is one of the most important phenomena driving urban, community, economic, and human development. This course focuses on the ways that migrants and community, government, and private institutions work to influence development around the world. We explore a range of large- and small-scale economic development, human and community development. After a brief introduction to histories and theories of migration and development, our major themes include: 1) the work of institutions, governments, and private sector firms in sending and receiving nations that influence migration and development; 2) diaspora-led transnational development, including remittances, hometown and country associations, and transnational advocacy and community organizing; and 3) local revitalization, labor and housing markets, workforce and enterprise development in migrant-receiving settings. Readings are drawn from a variety of social sciences, planning and development studies, including from academia and practice. Guests from local and transnational development organizations will visit the class. Assignments include short papers on the readings and a research paper or project designed by each student in consultation with the instructor. Ultimately, the course aims to help students develop: 1) a broad knowledge of migration and development in geographic and institutional settings around the world; 2) an in-depth understanding of community and economic development practices in migrant sending and receiving communities; and 3) familiarity with social science approaches to evaluating the dynamics and impacts of migration and development.
Spring, even numbered years only
Also Offered As: SOCI 6280
1 Course Unit

CPLN 6290 Housing, Community & Economic Development Topics Class
Elective classes for the Housing, Community and Economic Development concentration.
Not Offered Every Year
1 Course Unit
CPLN 6300 Innovations in Growth Management
The US population is expected to grow by more than 85 million from now to 2050. This course evaluates the tools and techniques for managing growth in America, especially to control sprawl in metropolitan regions. The course analyzes the form and functions of the central cities, suburbs, edge cities, ex-urbs, and megaregions. Federal, state, and local programs that influence metro change are evaluated. Regional planning approaches are analyzed in case studies.
Spring
Prerequisite: CPLN 5300 OR CPLN 5310
1 Course Unit

CPLN 6310 Planning for Land Conservation
Land preservation is one of the most powerful, yet least understood planning tools for managing growth and protecting the environment. This course provides an introduction to the tools and methods for preserving private lands by government agencies and private non-profit organizations (e.g., land trusts). Topics include purchase and donation of development rights (also known as conservation easements), transfer of development rights, land acquisition, limited development, and the preservation of urban greenways, trails, and parks. Preservation examples analyzed: open space and scenic areas, farmland, forestland, battlefields, and natural areas.
Spring
1 Course Unit

CPLN 6320 Modeling Geographic Space
This course explores the nature and use of raster-oriented geographic information systems (GIS) for the analysis and synthesis of spatial patterns and processes. Students will learn about the principles of raster data, image processing, and spatial analysis using ArcGIS Pro. By the end of the course, students will have a strong understanding of how to work with raster data and will have the skills and knowledge to apply these techniques to their own research or professional projects.
Also Offered As: LARP 7410
1 Course Unit

CPLN 6330 Topics in Land Use & Environmental Planning
Various topics in Land Use & Environmental Planning will be examined
Fall
1 Course Unit

CPLN 6340 Climate Change: Planning for Mitigation and Adaptation
This course will present the science of climate change, the impacts of climate change, and the opportunities and obstacles for avoiding climate disasters. We will identify and evaluate the application of planning tools and strategies to achieve the mitigation of climate change and adaptations to climate change. Students will understand the causes and effects of climate change and how to implement and evaluate mitigation and adaptation responses through regulations, financial incentives, infrastructure investment, design techniques, and technology. Emphasis is on climate action planning to create resilient communities.
Not Offered Every Year
1 Course Unit

CPLN 6350 Water Policy
Aging infrastructure, urbanization, climate change, and limited public funds are contributing to urban water management crises in cities around the globe. This course examines the systems and policies that comprise urban water. We begin with the infrastructures that underlie drinking water, wastewater, and stormwater services. Then, we review innovative management technologies and strategies, focusing on case studies of infrastructure shifts in Philadelphia and Melbourne. Finally, we undertake a global investigation of water management challenges and opportunities.
Spring
1 Course Unit

CPLN 6410 Progressive Development
This course will examine approaches to real estate development as a policy tool, and specifically a tool to achieve traditional progressive policy objectives linked to social welfare and environmental sustainability—reducing poverty, improving health and education outcomes, lowering greenhouse gas emissions etc. The course will focus on the practice of this work, examining financial, regulatory, and land use tools that are regularly utilized to achieve policy objectives via real estate development. The course will utilize Philadelphia as a primary case study, drawing on the work of guest speakers working as practitioners in the field to illustrate how these tools are implemented. The goal will be to give students a working knowledge of the field. Prerequisite: CPLN 5400: Introduction to Property Development
Spring
Prerequisite: CPLN 5400 OR REAL 8210
1 Course Unit

CPLN 6420 Downtown Development
The course will provide an overview of the changing role of downtowns and commercial centers, how and why they have evolved, diversified and been redeveloped and who are the various public and private actors that are helping them reposition themselves in a new regional and global context. There will be a strong focus on implementation, on how things get done, on the role of business improvement districts, not-for-profit development corporations and local government in the United States, Canada and a few international cities.
Fall
1 Course Unit
CPLN 6430 Design and Development
This course provides an overview of the real estate development business looked at in relationship to urban design, city planning, and architectural design. It provides exposure to the many real-world considerations of private sector development as well as an introduction to the language of real estate. The class focuses on various commercial building types and product offerings with examples of how planning, architectural and other design professions fit into creation of real estate value and the development process. This will cover the practical considerations and typical trade-offs of commercial business practices and real estate investment parameters and how these influence the ways developers and designers work. Industry sectors may include housing (single, multifamily and affordable), office, retail, hospitality, and industrial, with project types ranging from greenfield, adaptive reuse, downtown development, mixed-use projects, and planned communities. Through exercises, lectures and case studies, we'll address what drives the decisions designers and non-designers make in the development process, and provide insight to help designers understand what makes developers tick. Visiting lecturers (typically architects and developers) will provide real-world examples. Weekly written exercises, case studies and presentation assignments stress critical thinking, evaluating projects by how well they do their job and analyzing how that job is defined.
Spring
Also Offered As: ARCH 7620
1 Course Unit

CPLN 6440 Housing Policy
The government intervenes in housing markets in different ways and for different reasons. This course is designed to explore why the federal and local government in the U.S. intervene in housing markets and what forms these interventions take. Specifically, students will learn about: the mechanisms that drive both the supply and demand for housing; how U.S. housing policy has changed over time; factors that affect the production, distribution, and location of housing; the social and economic impact of housing on households and neighborhoods; the equity implications of housing policies. This course will place particular emphasis on low-income rental housing. By the end of this class students will have a firm understanding of U.S. housing policy and be able to engage in a meaningful debate about future challenges and opportunities in the U.S. housing market and the implications of different policy interventions. Ultimately, this course will provide students the conceptual tools necessary to evaluate, formulate, and implement housing policy.
Fall
1 Course Unit

CPLN 6500 Transportation Planning Methods
This course introduces students to the development and uses of the 4-step urban transportation model (trip generation-trip distribution-mode choice-traffic assignment) for community and metropolitan mobility planning. Using the VISUM transportation desktop planning package, students will learn how to build and test their own models, apply them to real projects, and critique the results. Prerequisite: CPLN 5050 or other planning statistics course.
Spring
Also Offered As: ESE 5480
Prerequisite: CPLN 5050
1 Course Unit

CPLN 6520 Topics in Infrastructure
Course examines current trends and topics pertaining to the nation's infrastructure.
Fall
1 Course Unit

CPLN 6540 The Practice of Trans.Plng:Crafting Policies & Bldg. Infrastructure
As the first woman and planner to serve as Secretary of the Pennsylvania Department of Transportation (PennDOT), Leslie Richards has over 20 years of leadership experience working on the planning and delivery of transportation projects, including overseeing one of the largest and most innovative transportation agencies in the U.S. She is recognized for her ability to find common ground among bi-partisan boards, as well as her commitment to engage local communities before the implementation of transportation projects to incorporate quality of life issues in all decisions. Her experience gives her a unique perspective on understanding operational, financial and stakeholder issues of transportation planning. In this seminar-style course, Leslie Richards will explore the planning, development and delivery of multimodal projects and policies at the state and regional level, including national influences and an awareness of the many actors and processes involved. Topics to be discussed include: funding and implementation processes through the levels of government (municipal, county, region, state, national); challenges and opportunities working with different sectors, politics, and contexts; current issues and emerging technologies (e.g. Pennsylvania’s policies and advocacy related to Automated Vehicles); and best practices for individuals pursuing careers in planning or public administration. Presentations and lectures will be supplemented by guest presentations from transportation leaders, policymakers, and planning consultants offering local, regional, and state perspectives. Students will have the opportunity to learn directly from leaders in the field and develop the skills and knowledge to work effectively with federal, state, and local entities.
Spring
1 Course Unit

CPLN 6550 Multimodal Transport
The purpose of this course is to explore contemporary multimodal transportation systems, policy, planning, and practice through a series of comparative international case studies. Topics include innovative parking management in San Francisco, congestion charging in London, Metro investments in Mexico City, informal transportation in Indonesia, Bus Rapid Transit in Bogota, and bicycle infrastructure investments in Copenhagen. The course will also include one or more site visits to innovative multimodal transportation projects in the Philadelphia or New York City regions. By analyzing contemporary planning challenges and best practices, students will develop a better understanding of how the transportation system works and how to design and employ specific multimodal interventions and policies effectively.
Spring
1 Course Unit

CPLN 6600 Fundamentals of Urban Design
CPLN6600 is a two-course unit studio. It is intended as the first comprehensive exposure to the principles and processes of urban design for MCP students, and it is a required course for students in Urban Design concentration. This studio uses an incremental approach to explore contemporary practice of urban design. The semester consists of three sections: a site survey, an individual design project, and a group design project. The projects are organized around several themes associated with different scales and different dimensions of urban design: 1) street/block; 2) open space; 3) mobility and walkability; 4) urban form and ecology. This cross-scale method draws on essential theories of urbanism to investigate the interrelation between built environment and community development, and to address the issues of environmental and social sustainability of a postindustrial metropolis.
Spring
Also Offered As: LARP 6600
2 Course Units
CPLN 6620 Topics in Urban Design & Development
Topics in Urban Design & Development will be examined
Fall, odd numbered years only
1 Course Unit

CPLN 6650 Case Studies and Urban Design Explorations
Participants in this course will become familiarized with a diversity of iconic urban references from all continents, while acquiring skills that will facilitate planning and design processes, appreciating the value of interdisciplinary, multi-scalar initiatives, and the transformative contributions of city planning and urban design/placemaking. It is a dynamic class in which each session is centered on a particular topic (see list below), combining class discussions on case studies presented by the instructor, guest lecturers, and teams of students. Interdisciplinary groups also are asked to deliver short planning/design exercises - without the pressure of the studios-, allowing to rapidly identify existing site conditions, design opportunities, delivering their proposals with compelling narratives, strategic moves, graphics, models, and verbal communication. Course topics include: From territory to site-specific; On the public realm; The rehabilitation of historic districts; Mobility/infrastructure and public space; The self-constructed city; Community and urban design; Contending forces of nature; Ecological urbanism; New town planning; Urban art. The class also organizes walking tours in Philadelphia. A final exhibit of the work delivered by the students will be held in Meyerson's Lower Gallery.
1 Course Unit

CPLN 6710 Statistical and Data Mining Methods for Urban Data Analysis
This hands-on course will cover a wide range of methods frequently used for analyzing urban and spatial data. These methods are drawn from a variety of fields, including traditional statistics, spatial econometrics, and machine learning, and include 1) regression analysis (OLS, ridge/lasso, logistic, multinomial logit); 2) measures of spatial autocorrelation; 3) spatial regression (spatial lag, spatial error, geographically weighted regression); 4) point pattern analysis; 5) an introduction to clustering methods (k-means, hierarchical clustering, DBSCAN); and 6) big data and GIS. Students will learn the assumptions and limitations of each method, and assignments will focus on the implementation, presentation and interpretation of the analyses. Students will use R and GeoDa in this course.
Fall
Also Offered As: MUSA 5000
Mutually Exclusive: CPLN 5050
1 Course Unit

CPLN 6720 Geospatial Data Science in Python
This course will provide students with the knowledge and tools to turn data into meaningful insights, with a focus on real-world case studies in the urban planning and policy realm. Focusing on the latest Python software tools, the course will outline the "pipeline" approach to data science. It will teach students the tools to gather, visualize, and analyze datasets, providing the skills to effectively explore large datasets and transform results into understandable and compelling narratives. The course is organized into five main sections: Exploratory Data Science; Introduction to Geospatial Data Science; Data Ingestion & Big Data; Geospatial Machine Learning; Data Visualization & Storytelling.
Fall
Also Offered As: MUSA 5500
1 Course Unit

CPLN 6741 Curricular Practical Training: Academic Year
This course provides international Master of City Planning students the opportunity for practical training in architecture in the United States (CPT). The course develops critical thinking about the organization, operation, and ethics of professional practice in city planning. This course will allow international MCP students to work in an internship in the United States during the academic year without shortening their limited OPT time. The course is offered for .20 course units. The employment must relate to the major and the experience must be part of the program of study. Course enrollment is by permit only.
0.2 Course Units

CPLN 6750 Land Use and Environmental Modeling
Planners at every scale and of every type are increasingly using spatial data and models to analyze existing patterns, identify and parameterize key trends and urban processes, visualize alternative futures, and evaluate development impacts. In the first half of the course, students will gain experience using various GIS-based environmental planning models, including McHargian Overlay; landscape fragmentation (FRAGSTATS), ArcHydro, Air pollution monitoring, flood inundation prediction, among others. The second half of the course focuses on land-use applications including gentrification simulation and urban growth modeling. A basic familiarity with ArcGIS is required.
Spring
1 Course Unit

CPLN 6800 Capstone Project/Advanced Topics in GIS
This course offers students an opportunity to work closely with faculty, staff, local practitioners, and each other on a capstone project that involves the development of a GIS and/or urban data management application.
Spring
Also Offered As: LARP 7450
1 Course Unit

CPLN 6830 Material Histories and Ethnographic Methods
What does it mean for students in the spatial disciplines (outside of anthropology, sociology, and history) to engage human subjects as primary sources of evidence? How can students in design, planning, and preservation both learn from the social sciences and transform classic ethnographic and historical methods to address the unique contexts of buildings, landscapes, and cities? This class focuses on how to conduct built environment research that views human subjects as repositories of knowledge and critical sources of primary evidence. We will explore research on the history of the built environment (dependent on maps, plans, documentation of sites) and human centered research as we design—collectively—best practices and spatially oriented interview and observation techniques. We will address multiple scales (sidewalks, commercial store fronts, post offices, neighborhoods) as we problematize human experience, perception, and knowledge of the built world.
Fall
Also Offered As: HSPV 6500
1 Course Unit
CPLN 6850 Environmental Readings
In this seminar, we will explore this green thread and analyze its influence on how we shape our environments through design and planning. The course has three parts. Throughout, the influence of literature on design and planning theory will be explored. The first part will focus on three most important theorists in environmental planning and landscape architecture: Frederick Law Olmstead Sr., Charles Eliot and Ian McHarg. The second part of the course will critically explore current theories in environmental planning and landscape architecture. The topics include: frameworks for cultural landscape studies, the future of the vernacular, ecological design and planning, sustainable and regenerative design, the languages of landscapes, and evolving views of landscape aesthetics and ethics. In the third part of the course, students will build on the readings to develop their own theory for ecological planning or, alternatively, landscape architecture. While literacy and critical inquiry are addressed throughout the course, critical thinking is especially important for this final section.
Fall
Also Offered As: ARCH 6850, LARP 6850
1 Course Unit

CPLN 6870 Topics in Historic Preservation
This seminar concentrates on a selected topic in the social and cultural history of the built environment. Past themes have included photography and the American city and the relationship between cities and sound. For our current offering, please visit: https://www.design.upenn.edu/historic-preservation/courses
Spring
Also Offered As: HSPV 6380
1 Course Unit

CPLN 6920 JavaScript Programming for Planners and Designers
This course will introduce City Planning, MUSA and design graduate students to JavaScript. Students will learn the logic and syntax of the JavaScript programming language for use in simple web applications, as well as how to program data and map-oriented web applications using Javascript. The "hands-on" uses of JavaScript in urban planning applications will be emphasized. Students will hone their skills through a series of complete application projects.
Fall
Also Offered As: MUSA 6110
1 Course Unit

CPLN 7010 Planning Studio
Intensive study of a selected planning topic. Teams of students work with clients to develop alternative scenarios and produce plan and implementation strategies. Multiple presentations required.
Spring
2 Course Units

CPLN 7020 Planning Studio
Intensive study of a selected planning topic. Teams of students work with clients to develop alternative scenarios and produce plan and implementation strategies. Multiple presentations required.
Spring
2 Course Units

CPLN 7030 Planning Studio
Intensive study of a selected planning topic. Teams of students work with clients to develop alternative scenarios and produce plan and implementation strategies. Multiple presentations required.
Fall
2 Course Units

CPLN 7040 Planning Studio
Intensive study of a selected planning topic. Teams of students work with clients to develop alternative scenarios and produce plan and implementation strategies. Multiple presentations required.
Spring
2 Course Units

CPLN 7050 Planning Studio
Intensive study of a selected planning topic. Teams of students work with clients to develop alternative scenarios and produce plan and implementation strategies. Multiple presentations required.
Fall
2 Course Units

CPLN 7060 Planning Studio
Intensive study of a selected planning topic. Teams of students work with clients to develop alternative scenarios and produce plan and implementation strategies. Multiple presentations required.
2 Course Units

CPLN 7070 Planning Studio
Intensive study of a selected planning topic. Teams of students work with clients to develop alternative scenarios and produce plan and implementation strategies. Multiple presentations required.
Spring
1 Course Unit

CPLN 7080 Planning Studio
Intensive study of a selected planning topic. Teams of students work with clients to develop alternative scenarios and produce plan and implementation strategies. Multiple presentations required.
Spring
2 Course Units

CPLN 7090 Planning Studio
Second year planning studio
Fall
2 Course Units

CPLN 7200 Housing, Community and Economic Development Practicum
This reading and writing-intensive discussion seminar reviews and debates what it means to develop sustainably, primarily focusing on cities in the United States. We examine the theory behind the sustainable cities movement from healthy cities, to green cities, to smart growth, to just cities, low-carbon cities, and resilient cities. We critically evaluate examples of sustainability planning. We discuss regulation, incentives, technological advances, and social norms. Finally, we evaluate contemporary urban sustainability plans. The class meetings leave room for students to raise and debate their own ideas of sustainability—in past semesters, students have driven conversation everywhere from cricket-based foods, to battery technology, to building community trust. By the end of the course, you will have a more nuanced and comprehensive view on how to create sustainable cities and you be able to article those ideas clearly through writing.
Spring
1 Course Unit
CPLN 7500 Advance Transportation Seminar
Air transportation is a fascinating multi-disciplinary area of transportation bringing together business, planning, engineering, and policy. In this course, we explore the air transportation system from multiple perspectives through a series of lessons and case studies. Topics will include airport and intercity multimodal environmental planning, network design and reliability, air traffic management and recovery from irregular operations, airline operations, economics, and fuel, air transportation sustainability, and land use issues related to air transportation systems. This course will introduce concepts in economics and behavioral modeling, operations research, statistics, environmental planning, and human factors that are used in aviation and are applicable to other transportation systems. The course will emphasize learning through lessons, guest lectures, case studies of airport development and an individual group and research project.
Spring
Also Offered As: ESE 5500
Prerequisite: CPLN 5500
1 Course Unit

CPLN 7600 Public Realm Studio
This intensive foundation studio focuses on the physical planning and design skills necessary in shaping the public realm. Students will undertake a series of targeted exercises that introduce them to project conceptualization, context analysis, programming, site planning, technical issues, and detailed design of public space in cities. Focusing on issues pertinent to local municipalities, students will work collaboratively and individually over the semester on design elements that cover a range of scales. Intellectual objectives within the studio include: the links between theory and practice, the development of principles to guide design, understanding associations between design and stakeholder-user interests, and exploring larger issues of sustainability and participation in design practice. Emphasis on the pragmatics of problem solving and implementation will be balanced with essential skills in visioning, critical thinking and design leadership.
Fall
2 Course Units

CPLN 7700 MUSA/Smart Cities Practicum
The purpose of this course is for students to work with city and non-profit clients on data science that convert government data into actionable public policy intelligence. Groups of 2-3 students will work with the client to understand the business process, wrangle data, develop spatial and aspatial analytics and serve these outputs to non-technical decision makers through the medium of data visualization. Students will be mentored by MUSA Faculty and advised by someone from the partnering agency. Prerequisites: students must have a working knowledge of R and experience building both spatial and statistical models including machine-learning models. Prerequisites include MUSA-5080/CPLN-5920 and either CPLN-5050 or MUSA-5000. Students without these specific prerequisites are asked to contact the instructor. Interested students are asked to contact the instructor to learn about specific projects and how to apply for the course.
Spring
Also Offered As: MUSA 8010
Prerequisite: (CPLN 5050 OR MUSA 5000) AND (MUSA 5080 OR CPLN 5920)
1 Course Unit

CPLN 7900 MUSA/Smart Cities Practicum
Excel for Planners: use of Excel to develop simple planning indicators (e.g., location quotients), simple planning models (e.g., fiscal impact models), and database operations. Course enrollment is by permit only. Please contact Roslynne Carter (CPLN Dept.) at at roslynnem@design.upenn.edu.
Summer Term
0 Course Units
CPLN 7920 CPLN Summer Institute: Statistics
Basic Statistics for Planners: review of descriptive and basic inferential statistics, including z-scores, confidence intervals, t-tests, and chi-squared. Course enrollment is by permit only. Please contact Roslynne Carter (CPLN Dept.) at roslynne@design.upenn.edu.
Summer Term
0 Course Units

CPLN 7930 CPLN Summer Institute: Urban Design
Introduction to Presentation and Report Graphics for Planners: including one day each on Photoshop, Illustrator, Sketchup, and InDesign Course enrollment is by permit only. Please contact Roslynne Carter (CPLN Dept.) at roslynne@design.upenn.edu.
Summer Term
0 Course Units

CPLN 7940 CPLN Summer Institute: Microeconomics Review
Micro-econ Review: review of principles of supply and demand, elasticities, equilibrium prices and quantities. Course enrollment is by permit only. Please contact Roslynne Carter (CPLN Dept.) at roslynne@design.upenn.edu.
Summer Term
0 Course Units

CPLN 7950 CPLN Summer: Introduction To GIS
The summer GIS Bootcamp prepares students for the intermediate GIS classes that begin in the fall semester. It begins with a discussion of GIS in planning and the social sciences and then moves on to topics related to spatial data, geocoding, projection, vector and raster-based geoprocessing, 3D visualization and more. Each class includes a brief lecture and a walk through involving actual planning related data. Course enrollment is by permit only. Please contact Roslynne Carter (CPLN Dept.) at roslynne@design.upenn.edu.
Summer Term
0 Course Units

CPLN 7970 CPLN Summer Institute: Writing Lab
Summer Term
0 Course Units

CPLN 7980 CPLN Summer Institute: Success Strategies
Summer Term
0 Course Units

CPLN 7990 CPLN Summer Institute: Introduction to the R Statistical System
This one-week short course will introduce students to the basics of the R statistical programming language, including importing and setting up data, using the R interface to conduct descriptive data analysis, and basic model-building procedures.
Summer Term
0 Course Units

CPLN 8000 Doctoral Seminar
Open to PhD students, this scholar-oriented seminar explores how academic researchers from different disciplines define researchable questions, craft research designs, and contribute to knowledge through an examination of important and/or recently published books and monographs with an urban focus. Required of all first- and second-year CPLN doctoral students and those doctoral students enrolled in the Urban Studies Graduate Certificate Program, enrollment is limited to 15 students. Other doctoral students may enroll on a space available basis. Course requirements include completion of a major research paper on a topic selected in consultation with the instructor.
Spring
1 Course Unit

CPLN 8200 Readings in Urban Planning & History
Reading and discussion course on selected topics in urban and planning history, with an emphasis on the United States, 1820-2000. We will sample both canonical and more recent scholarship. Masters students interested in an intensive reading course are also welcome. All students will read at least one book per week, and the final written assignment can be tailored to individual student interests and needs. Spring, odd numbered years only
Also Offered As: HSPV 8200
1 Course Unit

CPLN 9950 Dissertation
Dissertation course.
Fall or Spring
0 Course Units

CPLN 9990 Independent Study and Research
Independent Study supervised by a faculty member.
Fall or Spring
0-1 Course Units

Classical Studies (CLST)

CLST 0010 Archaeology & Technology
This seminar explores how humans apply and modify technologies in contexts as diverse as everyday life, major politico-economic undertakings, or scholarly research. We investigate this through a comparison of technologies of the past with technologies of the present used to study the past. We will dig into the details of topics like building pyramids and tombs, the function of ancient astronomical devices, pre-telegraph long-distance communication, tools for cutting and carving stone, and kilns for firing pottery. Archaeologists study these issues by examining the material remains of past societies: the cut-marks on stone blocks, extant tomb structures, the debris of manufacturing activities, and much more. Today's technologies enable the detailed scientific examination of the evidence, improving our understanding of the past. Thus, in parallel with our investigation of past technologies, we will also study the history of the application of present technologies to research on the archaeological record. We will dig into topics like the first uses of computers and databases, the development of statistical methods, early digital 3D modeling of objects and architecture, the adoption of geophysical prospection and geographic information systems, and the emerging uses of machine learning. In some cases, we can even compare old and new technologies directly, such as with land measurement and surveying techniques. Throughout the class we will engage in readings and discussions on the theory of humans and technology, to gain a better understanding of how processes such as innovation function in all time periods.
1 Course Unit
CLST 0014 Rome & America
This course explores a range of social structures and contexts, cultural understandings and intellectual practices where the influence of Roman exemplars is discernible in both historical and present-day America. It presents students with Roman and American materials placed in explicit or implicit dialog with one another: e.g., descriptions and discussions of political processes and structures; attitudes towards games, public entertainments, and communal cohesion; rhetorics and vocabularies of public space. Among other tasks and projects, students will stage a 'reimagination' of the Constitutional (Philadelphia) Convention of 1787, which resulted in the United States Constitution. They will also emulate ancient moralists and satirists, who attacked Rome's 'Bread and Circuses' culture, by focusing their attention upon comparable practices in modern America.
Not Offered Every Year
1 Course Unit

CLST 0015 First Year Seminar--Emotions
The field known as "History of the Emotions" has gained tremendous prominence in literary and cultural studies. But do emotions have a history? If so, what methods do we use for discovering and recounting that history? To what extent does history of the emotions borrow from other fields? These include all the fields that relate to what we call "emotions studies": psychology, sociology, political theory, philosophy, and neuroscience. In this seminar we will explore some key methodologies and subject matters for history of the emotions. We'll look at some philosophical reflections on emotion (including Plato, Aristotle, and the Stoics, as well as more recent moral philosophers); we'll also look at political theorists, including Thomas Hobbes; we'll explore psychoanalytic perspectives, historical research, and some of the work of neuroscientists; and we will take these ideas into explorations of art, literature, and music. See the English Department's website at www.english.upenn.edu for a description of the current offerings
Not Offered Every Year
Also Offered As: ENGL 0301
1 Course Unit

CLST 0016 The Iliad and its Afterlife
As the first work in the western tradition, Homer's Trojan War epic, the Iliad, has been a constant point of reference for thinking about heroism, friendship, the search for meaning in the face of mortality, and the effects of war on individuals and societies. We will begin with a close reading of the Iliad in English translation, paying attention both to the story of its hero Achilles as he experiences disillusionment, frustration, anger, triumph, revenge, and reconciliation and to the poem's broader portrait of a society at war; this portrait incorporates the diverse perspectives of invaders and defenders, men and women, old and young, gods and mortals, along with tantalizing glimpses of peacetime life. We will then consider how later writers and artists have drawn on the Iliad to present a range of perspectives of their own -- whether patriotic, mock heroic, romantic, or pacifist -- with particular attention to 20th and 21st century responses by such figures as W.H. Auden, Simone Weil, Jonathan Shay, C. Y. Twombly, David Malouf, Alice Oswald, and Adrienne Rich. No previous knowledge of the Iliad is required. The course is intended for anyone who is interested in how cultures use their shared myths both to affirm and to question their central values.
1 Course Unit

CLST 0017 Private Life in Ancient Rome
What was it like to live in the Roman world? What did that world look, taste and smell like? How did Romans raise their families, entertain themselves, understand death, and interact with their government? What were Roman values and how did they differ from our own? This course takes as its subject the everyday lives of individuals and explores those lives using the combined tools of archaeology, art and written sources. In doing so, it seeks to integrate the well-known monuments of Roman civilization into a world of real people. Some of the topics explored will include Roman houses, diet, leisure, gender and sexuality, slavery, and poverty.
Not Offered Every Year
1 Course Unit

CLST 0018 Classical Antiquity and the Modern World
The ancient Greek and Roman civilizations, whether individually, together, or in relation to other ancient civilizations, have frequently been seen as ancestors of the modern world. This ancestry has been seen both as a common and unifying heritage and as one that divides. This course will consider the relationship between Classical Antiquity and the modern world in the light of different themes, including those of Civilization, Empire, Race, Ethnicity, Simplicity and Complexity, Morality, Religion, and Universality. Classes will focus on discussion of readings with an emphasis on coming to grips with multiple and conflicting points of view. Students will write a research paper related to one of the themes mentioned above or to another one of similar importance.
1 Course Unit

CLST 0019 Town and Country in Ancient Greece
The ancient city of Athens, Greece, is renowned as the birthplace of democracy; Sparta is famous for its warlike society; Olympia for the Olympic Games; and Delphi for its famed oracle. But the Greek landscape was dotted with hundreds of other cities, towns, villages, sanctuaries, and hamlets. This seminar is a journey through town and country in ancient Greece, from dense urban spaces to vast forests and agro-pastoral countrysides. We will examine many lines of evidence: (1) ancient texts (e.g., Homeric epics, Hesiod's depiction of rural life, the histories of Herodotus and Thucydides, the tragedies and comedies of the great playwrights, the geography of Strabo, the travel writing of Pausanias); (2) inscriptions that record details of life and death; and (3) archaeology (site discovery and excavation, recovery of the material remains of everyday life). These sources will reveal much information about how urban and rural life were organized. A central aim of this seminar is to address this question: is the past a foreign country, or is there nothing new under the sun?
1 Course Unit

CLST 0020 Travel and Ethnography
In this class we will read a broad selection of travel narratives, from Herodotus to Ibn Battuta and from the Jesuit Relations describing New France up to the 20th century writers such as Lawrence Durrell, Robyn Davidson and Rory Stewart. Our focus will be on exploring how travel and travel writing create exotic cultures. The journey also becomes a discovery of self by an encounter with the Other. In the process, entire worlds of wonder open up for the viewer. How material is selected for recording reflects the priorities, anxieties and worldview of the writer, reflecting travel's ability to focus our attention and stimulate thoughtful reflection.
Not Offered Every Year
Also Offered As: ANCH 0020
1 Course Unit
CLST 0021 Percy Jackson and Friends: Ancient Greece and Rome in Children's and Young Adult Culture
Most modern people first encounter the ancient world, not in the classroom, but in early pleasure reading and other forms of play, whether in myth collections like D'Aulaires' Book of Greek Myths or fantasies like the Percy Jackson series or video games like Apotheon. This seminar will examine the presence of classical myth and ancient history in young people's culture from the nineteenth century, when classical myth was turned into children's literature by Nathaniel Hawthorne and Charles Kingsley, to the present day, both in traditional literary forms and in newer media such as cartoons, video games, and fan fiction. Topics to be considered include: how stories not originally intended for children have been made suitable for child audiences; the construction of ancient counterparts for modern children; what kinds of children - in terms of class, race, and gender - adult authors envision as the natural audience for classical material and what they hope those children will get out of it; the ways in which young people have claimed that same material and made it their own; and the role of mythical figures in the development of modern identities. Along with the material that we read and discuss together, each student will have the opportunity to present and write about a classically-inspired work for children or young adults that is of particular interest to them.
Not Offered Every Year
1 Course Unit

CLST 0101 Ancient Greece
The Greeks enjoy a special place in the construction of western culture and identity, and yet many of us have only the vaguest notion of what their culture was like. A few Greek myths at bedtime when we are kids, maybe a Greek tragedy like Sophokles' Oidipous when we are at school: these are often the only contact we have with the world of the ancient Mediterranean. The story of the Greeks, however, deserves a wider audience, because so much of what we esteem in our own culture derives from them: democracy, epic poetry, lyric poetry, tragedy, history writing, philosophy, aesthetic taste, all of these and many other features of cultural life enter the West from Greece. The oracle of Apollo at Delphi had inscribed over the temple, "Know Thyself." For us, that also means knowing the Greeks. We will cover the period from the Late Bronze Age, c. 1500 BC, down to the time of Alexander the Great, concentrating on the two hundred year interval from 600-400 BC.
Fall
Also Offered As: ANCH 0101, HIST 0720
1 Course Unit

CLST 0102 Ancient Rome
At its furthest extent during the second century CE, the Roman Empire was truly a "world empire", stretching from northern Britain to North Africa and Egypt, encompassing the whole of Asia Minor, and bordering the Danube in its route from the Black Forest region of Germany to the Black Sea. But in its earliest history it comprised a few small hamlets on a collection of hills adjacent to the Tiber river in central Italy. Over a period of nearly 1500 years, the Roman state transformed from a mythical Kingdom to a Republic dominated by a heterogeneous, competitive aristocracy to an Empire ruled, at least notionally, by one man. It developed complex legal and administrative structures, supported a sophisticated and highly successful military machine, and sustained elaborate systems of economic production and exchange. It was, above all, a society characterized both by a willingness to include newly conquered peoples in the project of empire, and by fundamental, deep-seated practices of social exclusion and domination. This course focuses in particular upon the history of the Roman state between the fifth century BCE and the third century CE, exploring its religious and cultural practices, political, social and economic structures. It also scrutinizes the fundamental tensions and enduring conflicts that characterized this society throughout this 800-year period.
Spring
Also Offered As: ANCH 0102, HIST 0721
1 Course Unit

CLST 1100 Ancient Mediterranean Empires
What constituted an empire in antiquity and how was imperialism legitimized? Which measures were used to maintain and organize imperial power? How did foreign rule affect the daily life of people all over the Mediterranean? In this course we will discuss and compare ancient empires from Achaemenid Persia to Alexander the Great and the Hellenistic kingdoms of his successors to the emergence of Rome as one of the most influential empires in world history. Topics that will be discussed include ancient ideas and concepts of imperial rule, patterns of political, economic and cultural power and their interrelations as well as imperial crises and local resistance. All texts will be discussed in translation. There are no prerequisites.
Fall
Also Offered As: ANCH 1100
1 Course Unit

CLST 1102 The Decline and Fall of the Roman Empire?
The Roman Empire, teetering under the weight of its bureaucracy, oppressed by the demands of its soldiers, weakened by wave after wave of barbarian invasions, and, with the rise of Christianity, confronted by its own immorality, finally fell when the last Roman emperor, Romulus Augustulus, was sent into exile in 476 CE. That, at least, is one version of the story. In truth, there are many stories that can be told of the period between the apogee of the Roman empire in the 2nd c. AD and the rise of Christianity and Islam and origins of the so-called Barbarian Kingdoms in the 7th and 8th centuries AD. This course will explore this period of 600 years, using methodologies from history, archaeology, social science and the sciences to understand the complex problem of empire and its evolutions. No previous knowledge of ancient or medieval history required.
Also Offered As: ANCH 1102
1 Course Unit
CLST 1200 Sex and Gender in Ancient Greece and Rome
What is being a man, being a woman, being masculine, being feminine, being neither, being both? Is sex about pleasure, domination, identity, reproduction, or something else? Are sexual orientation and gender identity innate? How can words, myths and stories inform cultural assumptions about sex and gender? Did people in ancient times have a concept of sexuality? How do gendered English terms (like "girlie", "effeminate", or "feisty") compare to gendered ancient Greek and Latin terms, like virtus, which connotes both "virtue" and "masculinity"? Why did the Roman and English speaking worlds have to borrow the word "clitoris" from the ancient Greeks? How did people in antiquity understand consent? Can we ever get access to the perspectives of ancient women? In this introductory undergraduate course, we will learn about sex and gender in ancient Greece and Rome. We will discuss similarities and differences between ancient and modern attitudes, and we will consider how ancient texts, ancient art, ancient ideas and ancient history have informed modern western discussions, assumptions and legislation. Our main readings will be of ancient texts, all in English translation; authors studied will include Ovid, Aristophanes, Plato, Euripides, and Sappho. Class requirements will include participation in discussion as well as quizzes, reading responses, and a final exam.
Also Offered As: COML 1200, GSWS 1200
1 Course Unit

CLST 1201 The Ancient Economy
This class presents an introduction to economies before economics, a study of economic activity in the Greco-Roman world. Ancient Greece and Rome have been called some of the first "global" economies - they engaged in long-distance trade, introduced the first coinage systems, and built and manufactured at large scales. At the same time, they remained agrarian societies, with majority peasant populations, high levels of inequality and social systems that often placed social capital ahead of profit. Using textual sources, archaeology and techniques from the natural and social sciences, this class will not only look at basic elements of economic activity in the ancient world - demographics, trade, monetization, industry - but also ask critical questions about how - or if -modern economic methods can be applied to the distant past. No previous knowledge of the ancient world or economics is necessary.
Fall or Spring
1 Course Unit

CLST 1202 The Ancient Economy
This class presents an introduction to economies before economics, a study of economic activity in the Greco-Roman world. Ancient Greece and Rome have been called some of the first "global" economies - they engaged in long-distance trade, introduced the first coinage systems, and built and manufactured at large scales. At the same time, they remained agrarian societies, with majority peasant populations, high levels of inequality and social systems that often placed social capital ahead of profit. Using textual sources, archaeology and techniques from the natural and social sciences, this class will not only look at basic elements of economic activity in the ancient world - demographics, trade, monetization, industry - but also ask critical questions about how - or if -modern economic methods can be applied to the distant past. No previous knowledge of the ancient world or economics is necessary.
Fall or Spring
Also Offered As: ANCH 1202
1 Course Unit

CLST 1205 Race and Ethnicity in the Ancient World
Modern political and artistic movements often appeal to an ancient past in order to construct their own social and racial identities. But how did ancient peoples understand themselves and others? How should we understand race and ethnicity in the ancient past? And how are perceptions of the past used today to construct or dismantle structures of power? This course explores both ancient and modern representations of race and ethnicity in antiquity. We will investigate both how ancient peoples around or near the Mediterranean (e.g. Greeks, Romans, Egyptians, Persians, and Nubians) understood difference and also how modern eras have appropriated ancient identities. Our dialogues will include ancient ethnographies, literature, and visual arts as well as modern theories and media, with an emphasis on active learning and collaboration. Students will be encouraged to produce both analytical and creative responses to our materials.
Not Offered Every Year
Also Offered As: ANCH 1205
1 Course Unit

CLST 1206 Citizenship, Belonging and Exclusion in the Roman World
What did it mean to be a citizen in the Roman world? What did citizens do in order to support their claims to belong in the civic community? Conversely, what about those members of the community who were judged not to belong? What limitations acted upon them, and what were the terms of their exclusion? This course will begin by exploring practices of citizenship in the Roman Republic and Empire: voting, serving in the military, running for office, and so on. It will then examine the experiences of those who, for some reason, were excluded from one or more of these roles. Fundamentally, our question is: "To what extent was Roman society diverse and inclusive?" No prior knowledge of Roman History is required. Texts will be discussed in translation.
Not Offered Every Year
Also Offered As: ANCH 1206
1 Course Unit

CLST 1207 Greek Parties, Speech, and Identity
The ancient Greek symposium existed as a stylized elite drinking party from the Archaic period until the end of the Roman Empire a millennium later, inspiring many works of literature and philosophical debates. Conversation and correct behavior were key at these parties to form social bonds and indicate one's belonging to Greek elite society while simultaneously excluding certain demographics from the group. In this course we will learn about the ancient Greek world through the institution of the symposium and will complicate our understanding of the ancient world by putting it in dialog with our modern cultural expectations. We will read from a selection of authors in translation including Plato, Plutarch, and Athenaeus, focusing on the conversational and presentational aspects of the texts. Students will also develop personalized techniques for public speaking and will practice several varieties of public speaking inspired by the symposium. This course is a CWIC Critical Speaking Seminar, in which most of the course grade will be based on oral assignments. No prior experience with the ancient world or with public speaking is required.
Not Offered Every Year
Also Offered As: ANCH 1207
1 Course Unit
CLST 1300 Introduction to Mediterranean Archaeology
The cultures of Greece and Rome, what we call classical antiquity, span over a thousand years of multicultural achievement in the Mediterranean. This course tells the story of what it was like to live in the complex societies of ancient Greece and Rome. This story is told principally using the art, architecture, pottery and coins produced by these societies. We will examine both the bold and sexy, and the small and humble, from the Parthenon to wooden huts, from the Aphrodite of Knidos to the bones of a fisherman named Peter.
Fall
Also Offered As: ANTH 1300
1 Course Unit

CLST 1301 Great Discoveries in Archaeology
In this course, we examine famous (Pompeii, Troy, Machu Picchu) and not-so-famous (Uluburun, Kalamianos) archaeological sites, mainly in the Old World of the Mediterranean, Near East, and Asia, but also in the New World of North and South America. We adopt a thematic and comparative approach to delve deeper to explore these societies and examine cultural similarities and differences across the ancient world. A typical sequence of meetings will begin with lecture on a particular theme, such as Writing Systems or Sacred Spaces and Places, followed by the presentation of relevant monuments, sites, or regions from different parts of the world, with discussion and assessment of the cross-cultural similarities and differences. In this way, both the great diversity of culture in our world, as well as our underlying similarities, can be revealed. How different are we from our ancestors who lived hundreds or thousands of years ago? Museum visits and exercises will allow students to engage with the material creations of these civilizations. CLST 123 is a non-technical introduction for students interested in archaeology, history, art history, anthropology, or related subjects. There are no prerequisites. The course fulfills the Cross Cultural Analysis foundational requirement.
1 Course Unit

CLST 1302 Food and Fire: Archaeology in the Laboratory
This course will let students explore the essential heritage of human technology through archaeology. People have been transforming their environment from the first use of fire for cooking. Since then, humans have adapted to the world they created using the resources around them. We use artifacts to understand how the archaeological record can be used to trace breakthroughs such as breaking stone and bone, baking bread, weaving cloth and firing pottery and metals. The seminar will meet in the Penn Museum’s Center for the Analysis of Archaeological Materials. Students will become familiar with the Museum’s collections and the scientific methods used to study different materials. Class sessions will include discussions, guest presentations, museum field trips, and hands-on experience in the laboratory.
Fall or Spring
Also Offered As: ANTH 1480, NELC 0910
1 Course Unit

CLST 1303 The Material Past in a Digital World
The material remains of the human past - objects and spaces - provide tangible evidence of past people's lives. Today's information technologies improve our ability to document, study, and present these materials. But what does it mean to deal with material evidence in a virtual context? In this class, students will learn basic digital methods for studying the past while working with objects, including those in the collections of the Penn Museum. This class will teach relational database design and 3D object modeling. As we learn about acquiring and managing data, we will gain valuable experience in the evaluation and use of digital tools. The digital humanities are a platform both for learning the basic digital literacy students need to succeed in today's world and for discussing the human consequences of these new technologies and data. We will discuss information technology's impact on the study and presentation of the past, including topics such as public participation in archaeological projects, educational technologies in museum galleries, and the issues raised by digitizing and disseminating historic texts and objects. Finally, we will touch on technology's role in the preservation of the past in today's turbulent world. No prior technical experience is required, but we hope students will share an enthusiasm for the past.
Also Offered As: ANTH 1303, ARTH 0127, HIST 0871
1 Course Unit

CLST 1500 Greek & Roman Mythology
Myths are traditional stories that have endured many years. Some of them have to do with events of great importance, such as the founding of a nation. Others tell the stories of great heroes and heroines and their exploits and courage in the face of adversity. Still others are simple tales about otherwise unremarkable people who get into trouble or do some great deed. What are we to make of all these tales, and why do people seem to like to hear them? This course will focus on the myths of ancient Greece and Rome, as well as a few contemporary American ones, as a way of exploring the nature of myth and the function it plays for individuals, societies, and nations. We will also pay some attention to the way the Greeks and Romans themselves understood their own myths. Are myths subtle codes that contain some universal truth? Are they a window on the deep recesses of a particular culture? Are they entertaining stories that people like to tell over and over? Are they a set of blinders that all of us wear, though we do not realize it? We investigate these questions through a variety of topics creation of the universe between gods and mortals, religion and family, sex, love, madness, and death.
Spring
Also Offered As: COML 1500
1 Course Unit
CLST 1501 Ancient Greek Philosophy

What is philosophy? How does it differ from science, religion, literature, and other modes of human discourse? This course traces the origins of philosophy as a discipline in the Western tradition, looking to thinkers of Ancient Greece and Rome. We will examine how natural philosophers such as Thales, Anaximander, and Heraclitus distinguished their inquiries from the teachings of poets such as Homer and Hesiod; how ancient atomism had its origins in a response to Parmenides’ challenge to the assumption that things change in the world; how Socrates reoriented the focus of philosophy away from the natural world and toward the fundamental ethical question, how shall I live? We will also examine how his pupil, Plato, and subsequently Aristotle, developed elaborate philosophical systems that address the nature of reality, knowledge, and human happiness. Finally, we will examine the ways in which later thinkers such as the Epicureans and Stoics transformed and extended the earlier tradition.

Fall
Also Offered As: PHIL 1110
1 Course Unit

CLST 1502 Greek and Roman Moral Philosophy

A survey of ethical philosophy in the Ancient Greek and Roman tradition. Works studied will include those of Plato, Aristotle, Epicurus, and the Stoics, including writings of later Roman authors such as Cicero, Seneca, Epictetus, and Marcus Aurelius. The class will be run as a seminar. All works will be read in English translation.

Not Offered Every Year
Also Offered As: PHIL 1111
1 Course Unit

CLST 1503 Ancient Political Thought

Through reading texts of Plato (Socrates), Aristotle, Augustine and Aquinas, the student encounters a range of political ideas deeply challenging to—and possibly corrosive of—today’s dominant democratic liberalism. Can classical and medieval thinking offer insight into modern imasses in political morality? Is such ancient thinking plausible, useful, or dangerous?

Not Offered Every Year
Also Offered As: PSCI 0600
1 Course Unit

CLST 1600 Dangerous Books of Antiquity

All books, even those regarded by some as “classics”, are potentially dangerous. This course will survey a selection of ancient books that got their authors in trouble, were censored, inspired rebellion, or enabled social (and antisocial) movements, down to the present moment. Most of the books read will come from ancient Greece or Rome, but some will come from other ancient cultures, such as Egypt, the Near East, and China. Issues involved will include atheism, race and ethnicity, sex and gender, nationalism, magic, and mysticism. The course will make use of brief lectures and presentations but leave as much time as possible for seminar-style discussion.

Not Offered Every Year
1 Course Unit

CLST 1601 Ancient Drama

This course will introduce students to some of the greatest works of dramatic literature in the western canon. We will consider the social, political, religious and artistic functions of drama in ancient Greece and Rome, and discuss both differences and similarities between ancient drama and modern art forms. The course will also pursue some broader goals: to improve students skills as readers and scholarly critics of literature, both ancient and modern; to observe the implications of form for meaning, in considering, especially, the differences between dramatic and non-dramatic kinds of cultural production: to help students understand the relationship of ancient Greek and Roman culture to the modern world; and to encourage thought about some big issues, in life as well as in literature: death, heroism, society, action and meaning.

Not Offered Every Year
Also Offered As: COML 1601
1 Course Unit

CLST 1602 World Literature

How do we think ‘the world’ as such? Globalizing economic paradigms encourage one model that, while it connects distant regions with the ease of a finger-tap, also homogenizes the world, manufacturing patterns of sameness behind simulations of diversity. Our current world-political situation encourages another model, in which fundamental differences are held to warrant the consolidation of borders between Us and Them, “our world” and “theirs.” This course begins with the proposal that there are other ways to encounter the world, that are politically compelling, ethically important, and personally enriching—and that the study of literature can help tease out these new paths. Through the idea of World Literature, this course introduces students to the appreciation and critical analysis of literary texts, with the aim of navigating calls for universality or particularity (and perhaps both) in fiction and film. “World literature” here refers not merely to the usual definition of “books written in places other than the US and Europe, ”but any form of cultural production that explores and pushes at the limits of a particular world, that steps between and beyond worlds, or that heralds the coming of new worlds still within us, waiting to be born. And though, as we read and discuss our texts, we will glide about in space and time from the inner landscape of a private mind to the reaches of the farthest galaxies, knowledge of languages other than English will not be required, and neither will any prior familiarity with the literary humanities. In the company of drunken kings, botanical witches, ambisexual alien lifeforms, and storytellers who’ve lost their voice, we will reflect on, and collectively navigate, our encounters with the faraway and the familiar—and thus train to think through the challenges of concepts such as translation, narrative, and ideology. Texts include Kazuo Ishiguro, Ursula K. LeGuin, Salman Rushdie, Werner Herzog, Jamaica Kincaid, Russell Hoban, Hiroshi Teshigahara, Arundhati Roy, and Abbas Kiarostami.

Fall or Spring
Also Offered As: COML 1191, ENGL 1179
1 Course Unit
CLST 1603 Hercules Ancient & Modern
The mythical hero Hercules, one of the most well-known figures to emerge from the ancient Mediterranean, has remained popular around the world in one form or another to the present day, from Asia to America. What explains the enduring fascination? Hercules is a figure of multiples: myriad labors, multiple wives, multiple fathers, and multiple identities. In this course, like ancient writers and artists, we will use Hercules to explore questions of mortality, divinity, masculinity, madness, and contradiction. To that end, we will read Hercules in different ancient genres—Tragedy, Comedy, and Philosophy—and also in modern poetry, comics, television, and film. How do works erase or problematize the contradictory nature of our hero? How do other American “heroes” embody Herculean contradictions?
Not Offered Every Year
1 Course Unit

CLST 1700 Classical Traditions
A broad consideration of the ways in which writers and artists from the early modern era to the present day have responded to the classical tradition, borrowing from, imitating, questioning, and challenging their classical predecessors. Through modern reworkings of ancient epic, tragedy, biography, and lyric by authors ranging from Shakespeare and Racine to contemporary poets, painters, and filmmakers, we will ask what the terms “classical” and “tradition” might mean and will track the continuities and differences between antiquity and the modern world. Should we see ancient Greek and Roman culture as an inheritance, a valuable source of wealth bequeathed to the modern age? Or is there something wrong with that picture? How do ancient texts have to be adapted and transformed if they are to speak to modern conditions and concerns? This is an introductory-level course open to anyone who cares about the relationship between the present and the past.
Not Offered Every Year
Also Offered As: ENGL 1009
1 Course Unit

CLST 1701 Scandalous Arts in Ancient and Modern Communities
What do the ancient Greek comedian Aristophanes, the Roman satirist Juvenal, have in common with rappers Snoop Dogg and Eminem? Many things, in fact, but perhaps most fundamental is their delight in shocking audiences and upending social norms. This course will examine the various arts (including literary, visual and musical media) that transgress the boundaries of taste and convention in ancient Greco-Roman culture and our own era. We will consider, among other topics, why communities feel compelled to repudiate some forms of scandalous art, while turning others - especially those that have come down to us from remote historical periods - into so-called classics.
Not Offered Every Year
Also Offered As: COML 1701
1 Course Unit

CLST 1999 Independent Study
Coursework and/or research undertaken independently by the student, at a level equivalent to other 1000-level (introductory) courses, supervised by a faculty member.
1 Course Unit

CLST 3101 Periclean Athens
Athens in the 5th Century BCE is often viewed as a high point of human civilization. We will assess this claim by looking at the period’s cultural achievements (in such areas as drama, architecture, and oratory) within their social and political contexts. Topics for discussion include: the structure and workings of the Athenian democracy; the interplay between pro-democratic and anti-democratic positions in Athenian political life; the connections between democracy and imperialism; conceptions of citizenship and relations between citizens and non-citizens (women, slaves, and resident foreigners); the role of the law courts in both dispute resolution and elite competition; sexual politics; and the civic significance of religious ritual.
Not Offered Every Year
Also Offered As: ANCH 3101
1 Course Unit

CLST 3102 The Rise and Decline of Macedonia
In this course, we will study the rise and development of Macedonia from a tiny kingdom on the northern fringes of the Greek world to one of the major powers of the region and beyond. Regarded by the Greeks as an at least semi-barbarian culture on the periphery, Macedonia became the dominant power in the Greek world during the fourth century BC and its king Alexander the Great set out to conquer the world. After his death, Macedonia was one of the Hellenistic kingdoms competing for power and influence in the Mediterranean until it finally came under Roman control. Topics that will be discussed include questions of ethnicity and identity, Macedonian kingship, culture and society (including the role of women) and the role of Macedonian traditions in the Hellenistic era in general. Special emphasis will therefore be laid on critical reading and interpretation of ancient literary texts, documentary evidence and archaeological material. that will be discussed include questions of ethnicity and identity, Macedonian kingship, culture and society (including the role of women) and the role of Macedonian traditions in the Hellenistic era in general.
Not Offered Every Year
Also Offered As: ANCH 3102
1 Course Unit

CLST 3103 The Hellenistic and Roman Near East
In this course we will study the history of the Hellenistic and Roman period from a Near Eastern perspective. From the conquests of Alexander the Great to the end of Roman rule in late antiquity, this region was the scene of conflicts, but also of peaceful and fruitful interactions between Greeks, Romans, Egyptians, Jews, Syrians, Arabs and many other societies. What was the impact of Greek and Roman rule and how did the peoples of the region react to these fundamental changes? On the other hand, how did they influence the culture and worldview of their conquerors? We will use historical texts, documents and archaeological evidence to discuss these political, cultural and religious encounters that made the Near East to a key region of Greco-Roman history. All texts will be discussed in translation. No prerequisites, although it would be useful to have some background in Hellenistic and/or Roman history.
Also Offered As: ANCH 3103, NELC 3060
1 Course Unit
CLST 3104 Greek World After Alexander the Great
This class is designed as a detailed investigation of the world created by Alexander the Great. We will cover the three hundred year period known as the Hellenistic Age from the career of Alexander the Great (354-323 BC) until the defeat of Antony and Cleopatra at the Battle of Actium (31 BC). This was a period during which the world of the Greeks underwent extraordinary and far-reaching changes, as Greek culture was established as far afield as northwestern India, central Asia and Egypt. In the same period kingdoms controlled by Alexander’s Successors used Greek culture to define their rule, establishing a Greek culture of the elite in regions which previously had been dominated by the Persians. As Greek and non-Greek worlds collided, a new interpretation of Greek culture emerged, giving rise, among other things, to universities and professional schools, state subsidized health care, triumphantist architecture, the heroization of the noble savage, coinage with royal portraits, the deification of men and a multitude of other social, artistic and political forms familiar to us. It was an age of radical change, dislocation, as Greek populations colonized regions previously unknown to them.
Not Offered Every Year
Also Offered As: ANCH 3104
1 Course Unit

CLST 3105 The Etruscans
The Etruscans, who spoke a language unlike any others known, were cast by their Greek and Roman rivals as outsiders and enemies: pirates, lovers of luxury, loose women. Today we must rely on the archaeological evidence of painted tombs, decorated Tuscan temples and massive engineering works to correct the picture. The course will survey a millennium (1st millennium BCE) of Etruscan culture through archaeological sites, shipwrecks and trading posts, works of art and everyday material culture, including the landscape and built environment, technology, seafaring and war, womens world, and the unique religion for which Etruria was famous, ending with a surprising array of examples of Etruscan heritage embraced by society from the time of Augustus to the present day.
Not Offered Every Year
1 Course Unit

CLST 3107 Age of Caesar
A course on Roman culture and society in a period of tumultuous political change, the lifetime of Julius Caesar (100-44BCE). Focuses on the interplay between shifting political and military realities and developments in social organization and literary production at Rome and in the wider Mediterranean world. The reception of Caesar in later ages will also be considered. Readings (all in translation) will include Catullus, Cicero, Lucretius, Plutarach, Sallust, Suetonius, and, of course, Caesar himself.
Not Offered Every Year
Also Offered As: ANCH 3107
1 Course Unit

CLST 3109 Living and Dying in Ancient Athens
This class is designed to explore the experience of daily life in ancient Athens, with special attention to the values and practices that constitute the habits of life in the classical period. Methodologically the class will attempt a bottom-up reconstruction of lived experience by focusing on those features of ordinary life that were taken for granted by the Greeks but which strike us as either alien, odd or hard to understand. Topics covered include: settlement and resource extraction; crops and risk mitigation; trade and manufacturing; slavery; sex work; the symposium; military service; and burial.
Not Offered Every Year
Also Offered As: ANCH 3109
1 Course Unit

CLST 3110 The Age of St. Augustine
Augustine of Hippo lived from 354 until 430 CE. This was a period of enormous political and social change, and also a period of profound intellectual discovery. Growing up in the Roman provinces of North Africa, Augustine was formed by late Roman culture and education, and absorbed and loved the greatest examples of classical Latin poetry and prose. In his youth he was a professional rhetorician, a teacher as well as a successful orator. Yet after his conversion to Christianity at the age of 31, he renounced much of his early formation, at least in name. He became a preacher and a priest, a bishop, an expositor of Christian thought, and a fierce polemicist. But he was never able to leave behind his early classical formation; as an adult he looks back on his childhood, poignantly remembering how he “wept for Dido” when he read the Aeneid at school. His life embodies the contradictions of the age. Augustine’s life and his writings give us a keen perspective on that tumultuous, fractured period of late Roman antiquity, when the empire was disintegrating through internal divisions and external threats. Central readings of our course will be Augustine’s Confessions and his City of God. We will also read works by his contemporaries, including philosophers, rhetoricians, and religious adversaries. We will explore his views on such issues as empire, slavery, childhood, sex and sexuality, Jews and Judaism, pedagogy, and free will. Assignments will involve regular posting of questions and ideas for discussion, one oral research presentation, and one final longer paper.
Not Offered Every Year
1 Course Unit
CLST 3201 Disasters in the Ancient Mediterranean World
Natural disasters occupy a powerful place in our imagination. Stories of floods, plagues, earthquakes, and storms excite and horrify us, and communities mobilize their resources quickly in response to these events. In the ancient Mediterranean world, natural disasters could take on potent meaning, indicating the anger or disfavor of the gods, acting as warnings against certain courses of action, or confirmations of individuals’ fears or suspicions about the world in which they lived. In this course, we explore the evidence for some disasters in the ancient Mediterranean world, the ways in which contemporaries reacted to those disasters and interpreted their causes. This project is, of necessity, multidisciplinary, involving textual, archaeological, geological, and comparative materials and drawing on methodologies from history, political and archaeological science, and the emerging field of disaster studies. In the process, we will gain an appreciation of the social structures of communities in the period, the thought-world in which they operated, and the challenges and opportunities that attend a project of this sort. No prior knowledge of Ancient History is required, although it would be useful to have taken ANCH 0100, ANCH 0101, or ANCH 0102. Texts will be discussed in translation.
Not Offered Every Year
Also Offered As: ANCH 3201, ANTH 3101
1 Course Unit

CLST 3203 Power and Peril: The Paradox of Monarchy among Ancient Greeks, Romans, and Jews
We imagine ancient Greece and Rome as the cradles of democracy and republicanism, early Judea as a pious theocracy, but monarchy was the most common and prevalent form of government in antiquity (and the premodern world in general). In this class, we will take a special look at kinship among the Jews, Greeks, and Romans to assess and discuss similarities, differences, and mutual influences. In all these cultures, the king was a polarizing figure in reality and in conception. On the one hand, some revered the monarch as ideal leader, and monarchy provided the language with which to describe and even imagine the very gods. On the other, monarchs were widely reviled in both theory and practice, from the Greek tyrants to biblical Saul. The Emperor Augustus loudly denied his own affinity to the office of king, even as he ruled alone and was revered as a god. In other words, kings stood both for the ideal and the worst form of government. This class confronts the paradox of monarchical rule and will, through the lens of the king, explore ideas of god, government, human frailty, and utopianism.
Not Offered Every Year
Also Offered As: ANCH 3203, JWST 3203, RELS 3203
1 Course Unit

CLST 3204 Lies My Ancient History Teacher Told Me
The neat, comforting narratives that we construct of the histories of ancient Greece and Rome cover up a collection of controversies and debates that continue to rage in contemporary scholarship. Can we use the Homeric epics as sources of early Greek history? Who was responsible for the Peloponnesian War? How can we best explain Rome’s acquisition of empire? How new was the political revolution of Augustus? What were the main reasons for the rise of Christianity? In this course, we explore these and other controversies, focusing on both modern scholarship and the ancient sources. All texts will be discussed in translation. No prior knowledge of Ancient History is required, although it would be useful to have taken ANCH 0101 and/or ANCH 0102.
Not Offered Every Year
Also Offered As: ANCH 3204
1 Course Unit

CLST 3205 Religion and the Polis
This class is designed to introduce students to the study of Greek religion with particular attention to the notion of polis religion, a recent model used to understand the function and structure of Greek religion. In this class we will look at the major institutions of Greek religion, notably sacrifice, festivals, and processions, but will also examine the importance of sanctuaries and temples in the heart of the city, on the edges of its territory and in the countryside. We will also examine religion as a system of belief and action, and will consider the intersection of local, state and international religious institutions.
Not Offered Every Year
Also Offered As: ANCH 3205
1 Course Unit

CLST 3206 Jewish Diaspora in the Roman Empire
Under the Roman Empire, Jewish communities developed and flourished especially in the cities of the Eastern Mediterranean, in Egypt, Syria, Asia Minor, Greece, Northern Africa, and Italy proper. In many of these cities, the Jews formed a considerable part of the population; they influenced the cultural, social, and political communal life and developed an identity that was distinctively different from that in Judea. In this seminar, we will trace Jewish life in the Diaspora under Roman rule. How did Jews and non-Jews interact? What was the legal status of Jewish communities under the Roman Empire? What caused conflicts and how were they solved? What can the history of Jewish Diaspora communities tell us about minorities in the Roman Empire in general? We will use literary texts, inscriptions, papyri, and archaeological material to answer these questions and many more.
Also Offered As: ANCH 3206, JWST 3206
1 Course Unit

CLST 3209 Foreigners in Rome
According to the stories the Romans told about the origins of their city, Rome began as a community of immigrants. As a growing metropolis and, eventually, the center of an empire, the city remained a magnet for people from other parts of the Empire and beyond. Foreigners came to the city as merchants and travelers, they settled here seeking a different and better life, pursuing a career, or escaping hardships in their home communities. Others were brought to Rome against their will, as prisoners or slaves. In this seminar, we will explore the different communities of foreigners and immigrants that shaped Rome. How and why did they move to the city? How did they experience their new home? How did they adapt to life in Rome and how, in turn, did they influence what we define as “Roman” today? Finally, what can the legal, social, political, and social status of immigrants tell us about Roman society in general? To answer these questions (and more), we will look at a wide array of primary sources, including literary texts, inscriptions, and material culture.
Also Offered As: ANCH 3209
1 Course Unit
CLST 3301 Excavating Ancient Cities: Troy & Gordion
The instructor has spent the last 30 years excavating the Turkish sites of Troy and Gordion, the latter of which has been explored under Penn sponsorship. The former was famous in antiquity as the site of the Trojan War; the latter served as the capital of the Phrygian Kingdom, ruled by Midas. Both of these are multi-period sites, with nine settlements built above each other during more than four millennia, and determining the chronology and appearance of each settlement has consistently been controversial. In this course we will examine the history of both sites, focusing on the problems of archaeological interpretation. Students will be placed in the position of the archaeologist and charged with re-interpreting the existing archaeological evidence.
1 Course Unit

CLST 3302 Material World in Archaeological Science
By focusing on the scientific analysis of inorganic archaeological materials, this course will explore processes of creation in the past. Class will take place in the Center for the Analysis of Archaeological Materials (CAAM) and will be team taught in three modules: analysis of lithics, analysis of ceramics and analysis of metals. Each module will combine laboratory and classroom exercises to give students hands-on experience with archaeological materials. We will examine how the transformation of materials into objects provides key information about past human behaviors and the socio-economic contexts of production, distribution, exchange and use. Discussion topics will include invention and adoption of new technologies, change and innovation, use of fire, and craft specialization.
Not Offered Every Year
Also Offered As: ANTH 2221, ARTH 0221, NELC 2960
1 Course Unit

CLST 3303 Living World in Archaeological Science
By focusing on the scientific analysis of archaeological remains, this course will explore life and death in the past. It takes place in the Center for the Analysis of Archaeological Materials (CAAM) and is team taught in three modules: human skeletal analysis, analysis of animal remains, and analysis of plant remains. Each module will combine laboratory and classroom exercises to give students hands-on experience with archaeological materials. We will examine how organic materials provide key information about past environments, human behavior, and cultural change through discussions of topics such as health and disease, inequality, and food.
Not Offered Every Year
Also Offered As: ANTH 2267, NELC 2950
Mutually Exclusive: ANTH 5267
1 Course Unit

CLST 3305 Topography and Monuments of Ancient Rome
An intensive exploration of Rome’s urban topography during the Republican and Imperial periods (6th c. B.C. through 4th c. A.D.) Using archaeological and textual sources, including the Etruscan and Roman collections of the Penn Museum, the goal will be to reconstruct the built environment and decoration of Rome over the course of a millennium. Of interest to students of classics, archaeology, art history, and architecture. Some familiarity with Rome will be a plus, but is not required.
Not Offered Every Year
Also Offered As: ARTH 3305
Mutually Exclusive: CLST 5305
1 Course Unit

CLST 3306 Archaeology of Anatolia
This class is devoted to the archaeology and history of Anatolia (ancient Turkey) from the beginning of the Bronze Age (3000 BC) to the end of the Byzantine period (1453 AD). Emphasis will be placed on the great empires in Anatolia (Hittite, Phrygian, Lydian, Urartian, Persian, Roman, and Byzantine), and on the great cities (Troy, Sardis, Ephesus, Constantinople). The course is intended to complement the major exhibit on Gordion, the Phrygians, and Anatolian archaeology that will open at the Penn Museum in February of 2016 and run for 10 months. Not Offered Every Year
1 Course Unit

CLST 3307 Intro to Digital Archaeology
Students in this course will be exposed to the broad spectrum of digital approaches in archaeology with an emphasis on fieldwork, through a survey of current literature and applied learning opportunities that focus on African American mortuary landscapes of greater Philadelphia. As an Academically Based Community Service (ABCS) course, we will work with stakeholders from cemetery companies, historic preservation advocacy groups, and members of the African Methodist Episcopal Church to collect data from three field sites. We will then use these data to reconstruct the original plans, untangle site taphonomy, and assess our results for each site. Our results will be examined within the broader constellation of threatened and lost African American burial grounds and our interpretations will be shared with community stakeholders using digital storytelling techniques. This course can count toward the minor in Digital Humanities, minor in Archaeological Science and the Graduate Certificate in Archaeological Science.
Also Offered As: ANTH 3307, NELC 3950
1 Course Unit

CLST 3309 Introduction to Museums
This course introduces students to the history, theory and modern practices of museums. Using the resources of the Penn Museum and other Philadelphia museums, students will study curatorial practice, education, exhibition design and conservation, while exploring the theoretical and ethical issues confronted by museums. Particularly relevant for those interested in archaeology, anthropology, art history, cultural heritage and public education.
Fall or Spring
Also Offered As: ARTH 3030
1 Course Unit

CLST 3310 Kinship and Connectivity in the Roman World
An individual’s life course is often reflected, enhanced, and defined by their relations to other individuals. This course will investigate the concept of kinship in the Roman world through textual, visual, and archaeological evidence. We will explore relationships at all levels of society from the imperial family to the slaves and freedmen who were part of larger households, in order to understand how different relationships shaped and structured interactions in Roman society. Together, we will explore the following questions: how were relationships and bonds represented in the ancient world? What structures were in place for families to perpetuate themselves through biological or adoptive means? How could non-Roman citizens create family connections through formal and informal channels? How could relationships be celebrated in life and commemorated in death? We will use written evidence from ancient historians, visual evidence like the Altar of Peace, and archaeological evidence from cemeteries to examine how Roman notions of kinship shaped life and death in different social milieus.
1 Course Unit
CLST 3311 Penn Museum Curatorial Seminar: Reconfiguring the Classical World Galleries
The Greek galleries in the Penn Museum were opened in 1994, and the Etruscan and Roman galleries in 2003. The world was very different then, and many of the themes used to frame the artifacts in the galleries are not especially relevant to contemporary students, scholars, and visitors. In this course we will completely reorganize and reinstall the galleries digitally, creating a series of websites that will highlight the new layout and themes. We will work extensively with the Greek Etruscan, and Roman artifacts themselves to reconfigure the galleries, which will highlight the connections between antiquity and the contemporary world, focusing on themes such as armed conflict, trauma, migration, xenophobia, and wealth and poverty.
1 Course Unit

CLST 3312 Ages of Homer: An Archaeological Introduction to the Greek Bronze and Iron Ages
This illustrated lecture course surveys the prehistory and early history of the Greek world through texts and material remains, with the aim of bringing to life the society, economy, and politics of this ancient era. Among the topics are the rise and fall of the great Bronze Age civilizations of the Aegean area, the Minoans of Crete and the Mycenaean Greeks of the mainland; the cataclysmic volcanic eruption on the island of Thera and its long-term consequences; the possibly historical Trojan War; the Homeric world of the Dark Age that followed the collapse of the Mycenaean palaces; and the Greek renaissance of the eighth century B.C., including the adoption of the alphabet, the great colonizing movement, and the Panhellenic sanctuaries that laid the foundation for the Classical world to come. Ages of Homer is part of a sequence of introductory courses on the archaeology of the Greco-Roman world, which also includes Introduction to Greek Archaeology (CLS 275) and Introduction to Roman Archaeology (CLST 274). There are no prerequisites, and these courses need not be taken in a particular order.
Not Offered Every Year
1 Course Unit

CLST 3314 Mining Archaeology
In ancient times, materials such as stone and metals were used to produce artifacts including pigments, jewelry, tools, and weapons. This course is designed to introduce students to research on the early exploitation of mineral resources. Which techniques were used to access and process raw materials in antiquity? Which archaeological methods can be used to investigate these features and artifacts? The course will provide worldwide examples through time, ranging from Stone Age flint mining, Iron Age rock salt mining to Medieval silver mining. Ethnographic studies and hands-on activities will contribute to our understanding of mining in archaeology, and artifacts from the Museum’s collections will undergo scientific analysis in the Center for the Analysis of Archaeological Materials.
Spring
Also Offered As: ANTH 3219, NELC 4950
Mutually Exclusive: ANTH 5219
1 Course Unit

CLST 3315 The Past Preserved: Conservation In Archaeology
This course explores the scientific conservation of cultural materials from archaeological contexts. It is intended to familiarize students with the basics of artifact conservation but is not intended to train them as conservators. The course will cover how various materials interact with their deposit environments; general techniques for on-site conservation triage and retrieval of delicate materials; what factors need to be considered in planning for artifact conservation; and related topics. Students should expect to gain a thorough understanding of the role of conservation in archaeology and how the two fields interact.
Also Offered As: ANTH 3235, ARTH 0143, NELC 4955
Mutually Exclusive: ANTH 5235
1 Course Unit

CLST 3316 Plants and Society
Interactions between humans and the living landscape around us have played - and continue to play - a fundamental role in shaping our worldview. This course is designed to introduce students to the diverse ways in which humans interact with plants. We will focus on the integration of ethnographic information and archaeological case studies in order to understand the range of interactions between humans and plants, as well as how plants and people have profoundly changed one another. Topics will include the origins of agriculture; cooking and plant processing; human health and the world of ethnomedicine; and poisonous and psychoactive plants. We will examine ancient plant material firsthand at the Center for the Analysis of Archaeological Materials (CAAM) and will handle botanical ecofacts from the Penn Museum’s collections. Students will also carry out a substantial research project focused on an archaeological culture and plant species of their own interest.
Not Offered Every Year
Also Offered As: ANTH 3240
Mutually Exclusive: ANTH 5240
1 Course Unit

CLST 3317 Archaeologies of Subalternity
This course addresses the various areas and approaches to “otherness” in ancient Mediterranean archaeology, and the power dynamics of oppression. We’ll not only examine disempowerment around cultural identity, class, gender and sexuality, and race/ethnicity, but we’ll spend equal time pondering how those subjects have been studied - or ignored - by classical archaeologists. The power relationships both inherent in the subjugation of various kinds of people in the ancient world, and in the academic discourses around them, are the themes of the course. While this course will be focused on the Bronze Age through late antique Mediterranean, those with other period/interests are most welcome. Students will be asked to bring their own interests to the course, which help shape the course.
Not Offered Every Year
1 Course Unit
CLST 3319 World Heritage in Global Conflict
Heritage is always political. Such a statement might refer to the everyday politics of local stakeholder interests on one end of the spectrum, or the volatile politics of destruction and erasure of heritage during conflict, on the other. If heritage is always political then one might expect that the workings of World Heritage might be especially fraught given the international dimension. In particular, the intergovernmental system of UNESCO World Heritage must navigate the inherent tension between state sovereignty and nationalist interests and the wider concerns of a universal regime. The World Heritage List has almost 1200 properties has many such contentious examples, including sites in Iraq, Mali, Syria, Crimea, Palestine, Armenia and Cambodia. As an organization UNESCO was born of war with an explicit mission to end global conflict and help the world rebuild materially and morally yet has found its own history increasingly entwined with that of international politics and violence.

Fall or Spring
Also Offered As: ANTH 2840, NELC 2920
1 Course Unit

CLST 3320 Mycenae, Pylos and Troy
The Iliad of Homer recounts the tale of a great war fought by Greek and Trojan armies before the walls of Troy's lofty citadel. This epic tells of gods, heroes, and magical places already part of a deep past when Homer's work was set to writing, ca. 700 B.C. Does the Homeric story of the Trojan War have a basis in real events? Scholars have long pointed to the Mycenaean civilization, which flourished on the mainland of Greece in the Late Bronze Age (ca. 1600–1200 B.C.), as the inspiration for the Homeric stories. In this course, we will examine the archaeology of the great centers of the Late Bronze Age in Greece and Anatolia, particularly Mycenae, Pylos, and Troy. Our main aim will be to better understand the social, political, and economic context of this Late Bronze Age world, which may shed light on the possibility that a “Trojan War” of some kind actually occurred. The primary focus on archaeology is supplemented by readings from Homer's Iliad and Odyssey.

Not Offered Every Year
1 Course Unit

CLST 3318 Landscapes and Seascapes of the Ancient Mediterranean
The Mediterranean environment is both diverse and unique, and nurtured numerous complex societies along its shores in antiquity. This seminar offers a primer on theoretical and methodological approaches to studying landscapes and seascapes of the Mediterranean from the Bronze Age to the early modern era, at scales from local to international and on land and underwater. Concepts from processual, post-processual, and current archaeologies will be considered, and field techniques including excavation and surface survey, remote sensing and geophysics, GIS modeling, and ethnography/ethnoarchaeology are examined. Course content and discussion focus on case studies that illustrate how these tools are used to reconstruct the appearance and resources of the natural environment; overland and maritime routes; settlement location, size, function, and demography; social and economic networks; and agricultural, pastoral, and nomadic lifeways. Seminar participants will develop case studies of their own geographical and chronological interest.

Not Offered Every Year
Mutually Exclusive: AAMW 6130, CLST 5318
1 Course Unit

CLST 3321 Surface Archaeology
Non-invasive and non-destructive methods make up an ever-greater proportion of archaeological investigations, for both intellectual and practical reasons. These methods comprise collection of data from the surface (pedestrian surface survey, geophysical prospection, geoaarchaeology) and from above-ground platforms (drones, aircraft, balloons, kites, satellites), using a variety of sensors from human perception to multispectral scanning devices. The data acquired from these methods complement the contextual information drawn from traditional excavation, but also allow the archaeologist to address diverse research questions at a scale much greater than the excavated site. Aspiring archaeologists should have a good working knowledge of surface archaeological methods. In this course, we will delve deeply into these methods, and read and analyze case studies to expose strengths and weaknesses and to identify best practices. Students will have the opportunity for hands-on training in the Philadelphia area or elsewhere.

Not Offered Every Year
Also Offered As: ANTH 3221
Mutually Exclusive: CLST 5321
1 Course Unit

CLST 3401 Greek Art and Artifact
This lecture course surveys Greek art and artifacts from Sicily to the Black Sea from the 10th century BCE to the 2nd century BCE, including the age of Alexander and the Hellenistic Kingdoms. Public sculpture and painting on and around grand buildings and gardens, domestic luxury arts of jewelry, cups and vases, mosaic floors, and cult artefacts are discussed. Also considered are the ways in which heroic epic, religious and political themes are used to engaged viewers' emotions and served both domestic and the public aims. We discuss the relationships of images and things to space and structure, along with ideas of invention and progress, and the role of monuments, makers and patrons in Greek society.

Not Offered Every Year
Also Offered As: ARTH 2250
1 Course Unit

CLST 3402 Hellenistic and Roman Art and Artifact
This lecture course surveys the political, religious and domestic arts, patronage and display in Rome's Mediterranean, from the 2nd c. BCE to Constantine's 4th-c. Christianized empire. Our subjects are images and decorated objects in their cultural, political and socio-economic contexts (painting, mosaic, sculpture, luxury and mass-produced arts in many media). We start with the Hellenistic cosmopolitan culture of the Greek kingdoms and their neighbors, and late Etruscan and Republican Italy; next we map Imperial Roman art as developed around the capital city Rome, as well as in the provinces of the vast empire.

Not Offered Every Year
Also Offered As: ARTH 2260
1 Course Unit

CLST 3405 Roman Sculpture
Survey of the Republican origins and Imperial development of Roman sculpture - free-standing, relief, and architectural - from ca. 150 BC to 350 AD. We concentrate on sculpture in the capital city and on court and state arts, emphasizing commemorative public sculpture and Roman habits of decorative display; genres examined include relief, portraits, sarcophagi, luxury and minor arts(gems, metalwork, coinage). We evaluate the choice and evolution of styles with reference to the functions of sculptural representation in Roman culture and society.

Not Offered Every Year
Also Offered As: ARTH 4270
1 Course Unit
CLST 3406 Late Antique Arts
What is ‘Late Antiquity’? In 312 when Roman emperor Constantine inaugurated a Christian empire, ‘Roman’ culture was centuries old. The period ca. 200-650 CE saw profound transformations that launched Medieval, Byzantine and Islamic traditions. In this epoch of upheaval destruction was frequent but partial: Rome long survived, Constantine’s ‘new Rome’, Constantinople flourished, and around the Empire both proto-global visual culture and local forms prospered. Roman cultural models authorized both innovation and passion for tradition: we critique art-historical models for Late Antique ‘decline’, analyse habits of material reuse and curation, and look at new Christian and Jewish roles for Roman things as well as polytheist visual survival. Foreign allies and enemies interacted with Greco-Roman Late Antiquity; we visit them too, as in the early Islamic palaces. Media discussed include not just ‘monumental’ painting, mosaic, sculpture, but also silver, ceramic, ivory, figural textile, glass, painted books, jewelry, coins and more. We look too at Late Antique texts on art, objects, space and viewership. This is an advanced undergraduate lecture course.
Not Offered Every Year
Also Offered As: ARTH 4250
1 Course Unit

CLST 3409 Classical Mythology in the Western Tradition
How and why have artists and viewers, from the Middle Ages to the global present, so often confronted ancient Greek and Roman stories? This undergraduate seminar makes use of local museum collections.
Not Offered Every Year
Also Offered As: ARTH 3250
1 Course Unit

CLST 3410 Arts of the Roman House, Villa, and Palace Seminar
Private and public met in the elite Roman dwelling; this undergraduate seminar looks at the rich record of things and images, in multiple media, and in their spatial contexts, among which Romans chose to live.
Not Offered Every Year
Also Offered As: ARTH 3251
1 Course Unit

CLST 3411 Violence in Ancient Mediterranean Art Seminar
Violence, physical and emotional, pervades the images of the ancient Mediterranean. This undergraduate seminar asks why, how and to what end that occurred; in these and any cultures, why do people look at such images?
Not Offered Every Year
Also Offered As: ARTH 3252
1 Course Unit

CLST 3412 Narrative in Ancient Art
Cultures of the ancient Middle East and Mediterranean world were fascinated to make images and things tell stories and engage with time. Sometimes that implied a text - and sometimes, not. With case studies from the deep past, this interdisciplinary advanced undergraduate lecture course explores the capacity of visual language to narrate.
Not Offered Every Year
Also Offered As: ARTH 4260, NELC 4055
1 Course Unit

CLST 3413 Hellenistic Art and Spectacle
Hellenistic usually names art in the age of Mediterranean culture from the 4th century BCE and the rise of Alexander the Great’s Macedon, and the Greco-Macedonian conquest of the Persian Empire, to Cleopatra of Egypt’s defeat by Rome at the end of the Republic. Our course looks also at the age of Augustus and his successors, 1st century CE. While Greek and Macedonian practice in city-states and kingdoms is our launching point, this course also looks at international culture and cultural interaction among peoples from North Africa and Etrusco-Roman Italy, Egypt, Anatolia, the Mideast and Central Asia. We probe art, artifacts, and visual display from a range of settings, from sanctuary to house, palace and parade, and in all media, from marble monuments to pottery and jewelry. Our archaeology of Hellenistic visual culture also looks at the rich body of Hellenistic and Roman texts of art history, art criticism, and the description of objects and image, to better understand the Hellenistic maker, patron, and viewer. No prerequisites.
Not Offered Every Year
Also Offered As: ARTH 4280
1 Course Unit

CLST 3415 Roman Architecture and Urbanism
Architecture is the most striking legacy of Rome and the well-preserved remains of Roman buildings dominate our vision of the empire. Although Roman architecture has been studied since the Renaissance, it is only since the middle of the 20th century that it has come to be appreciated for the developments in concrete construction, which led to a revolution in the treatment of interior space and landscape architecture. Indeed, Rome’s architectural revolution radically changed both cities and countryside. Romans developed a wide range of new architectural forms and technological innovations in order to meet the increasingly sophisticated and diverse needs of their society. The purpose of the course is to shed light on Roman architectural and urban projects within their social, political, religious, and physical contexts. Throughout, the emphasis will be on concepts of organizing space, issues of structure, materials, decoration and proportion, the role of architecture in Roman society, and on the varied ways that architecture was employed by individuals and communities to express and enhance their status.
Not Offered Every Year
Also Offered As: ARTH 2290
1 Course Unit
CLST 3416 Classical Myth and the Image
The peoples of the ancient Greek and Roman worlds shared a vast body of stories about human and not-human beings set in a legendary deep past or supernatural present - "Classical myth." Even their neighbor cultures took up those stories (or, sometimes, gave them). The stories as spoken, read, or performed turn up in surviving ancient literature. But from the very point when Greek myth began to be written down, those stories were told with images also. Many arts of the Mediterranean world explored myth at temples and sanctuaries, in civic spaces, theaters, parks, houses and palaces, for tombs and trophies - and even on the body upon weapons, clothes and jewelry. Love and desire and hate, hope and fear and consolation, war and peace, pleasure and excitement, power and salvation, the nature of this world and the cosmos, justice and duty and heroism, fate and free will, suffering and crime: mythological images probed the many domains of being human in order to move the emotions and minds of people (and of gods). Our class samples this story art to ask about its makers and viewers and contexts. What, also, were relations between images and texts and language? What about religious belief vs invention, truth vs fiction? What might it mean to look at this ancient art today, and to represent the old stories in post-ancient cultures? The class introduces ways of thinking about what images and things do; we will read in some relevant literature (drama, epic, novels, etc); and our Penn Museum will be a resource. No prerequisites--no prior knowledge of art history, archaeology, myth or Mediterranean antiquity is assumed. Also Offered As: ARTH 2269
Mutually Exclusive: AAMW 6269, ARTH 6269, CLST 5416
1 Course Unit

CLST 3502 Greek and Roman Universe
This course covers the history of Greek and Roman exploration and mapping of the earth and the cosmos from the Bronze Age to Late Antiquity, together with advances in timekeeping and the measurement of time. Readings include poetic, historical, and scientific texts. Not Offered Every Year
1 Course Unit

CLST 3503 Greek & Roman Medicine
The history of Western medicine is remarkably recent; until the nineteenth century prevailing theories of the body and mind, and many therapeutic methods to combat disease, were largely informed by an elaborate system developed centuries earlier in ancient Greece, at a period when the lines between philosophy, medicine, and what we might consider magic, were much less clearly defined than they are today. This course will examine the ways in which the Greeks, and then the Romans, conceptualized the body, disease, and healing, and will compare these to medical culture of our time. We will consider sources from Hippocrates, Plato, and Aristotle to Galen and Soranus, and will juxtapose these writings with modern discourse about similar topics. We will also pay some attention to ancient pharmacology and religious healing, and will visit the Penn Museum to see their collection of ancient medical instruments. All readings will be in English and no previous background in Classical Studies is required. This course will be especially appealing (and useful) to Pre-med and Nursing students, and to students interested in the History of Science, Ancient Philosophy, and Classics. Not Offered Every Year
1 Course Unit

CLST 3508 Benjamin Franklin Seminar: History of Literary Criticism
This is a course on the history of literary theory, a survey of major debates about literature, poetics, and ideas about what literary texts should do, from ancient Greece to examples of modern European thought. See the English Department's website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year
Also Offered As: COML 0540, ENGL 0540
1 Course Unit

CLST 3509 Freud's Objects
How do we look at objects? And which stories can objects tell? These are questions that have been asked quite regularly by Art Historians or Museum Curators, but they take a central place within the context of psychoanalytic studies as well. The seminar "Freud's Objects" will offer an introduction to Sigmund Freud's life and times, as well as to psychoanalytic studies. We will focus on objects owned by Freud that he imbued with special significance, and on Freud's writings that focus on specific objects. Finally, we will deal with a re-interpretation of the "object" in psychoanalytic theory, via a discussion of texts by British psychoanalysts such as Melanie Klein and Donald Winnicott. Not Offered Every Year
Also Offered As: ARTH 3560, COML 2052, ENGL 1425, GRMN 1015
1 Course Unit

CLST 3602 Writing History in Greece and Rome
What constituted history in ancient Greece and Rome? What claims to knowledge did history make, and how did these differ from other forms of knowledge? How did historians envision their task, and how did they go about performing it? We will read the works of the major Greek and Roman historians in translation in an attempt to answer those questions. Other issues to consider include the origins and development of historical writing, the place of history within the ancient literary tradition, and the similarities and differences between the ancient and modern practice of history. Fall or Spring
Also Offered As: ANCH 3602
1 Course Unit

CLST 3603 Reading the Iliad
Homer's Iliad presents a dark and difficult vision of the world, but one that nonetheless inspires. Casual cruelty, divine caprice, and savage violence test heroes and lesser folk and provoke a reckoning with the stark realities of both human vulnerability and capability. It inspires kind of terror, but still also somehow provides a kind of comfort, albeit one whose character seems almost beyond comprehension. By a close and careful reading of Homer's text, along with some reflections and readings drawn from more contemporary wars, including the current ones, we will try to examine these issues with one eye on the past and one on the present. Our goal will be to achieve some further understanding of war and human experience. This course will be offered online. Summer Term
1 Course Unit
CLST 3604 Ancient Epic Poetry
Admission to this course is by application only. It is a collaboration between Penn and Yale-NUS in Singapore. It will require travel to study in Singapore during Penn's Spring Break 2019. Seminars on both campuses will focus on five complete epics, Gilgamesh, the Iliad, Odyssey, Ramayana, and Aeneid. In addition to regular class times, it will also require additional evening meetings for plenary sessions via teleconference with Singapore. We will work with a mix of lectures, discussions, and group work with teams drawn from both campuses. Yale-NUS will travel to Philadelphia to join Penn students in face-to-face class sessions, and in additional cultural of events, at Penn and in Philadelphia, including work in the Penn Museum. Penn students will also fly over to meet Yale-NUS students for a week that mirrors the Philadelphia experience, with attendance in classes, as cultural events, including the Asian Civilizations Museum. Part of the expectation for the class is that each group will help host the others as they visit. Course grades will consist in a combination of sole-authored papers and collaborative projects. There will be a limited amount of grant money available to subvene travel for students. We will work with financial aid to determine need. Up-to-date passports are required for the course.
1 Course Unit

CLST 3605 The Ancient Novel
The ancient Greek and Roman novels include some of the most enjoyable and interesting literary works from antiquity. Ignored by ancient critics, they were until fairly recently dismissed by classical scholars as mere popular entertainment. But these narratives had an enormous influence on the later development of the novel, and their sophistication and playfulness, they often seem peculiarly modern—or even postmodern. They are also an important source for any understanding of ancient culture or society. In this course, we will discuss the social, religious and philosophical contexts for the ancient novel, and we will think about the relationship of the novel to other ancient genres, such as history and epic. Texts to be read will include Lucian's parodic science fiction story about a journey to the moon; Longus' touching pastoral romance about young love and sexual awakening; Heliodorus' gripping and exotic thriller about pirates and long-lost children; Apuleius' Golden Ass, which contains the story of Cupid and Psyche; and Petronius' Satyricon, a hilarious evocation of an orgiastic Roman banquet.
Not Offered Every Year
1 Course Unit

CLST 3606 Africa and Roman Literature
In this course, we will explore race and ethnicity in the Roman world by focusing on the life and works of Roman Africans and the ways in which non-African Romans engaged with and presented the peoples of Africa. The course covers Roman literature in translation from the comedies of Plautus produced in the late 3rd - 2nd centuries BCE, to African Christian writing of the 5th century CE. It also covers a wide range of genres: we will examine how Roman writers articulate questions of race in comedy and satire, epic, history, biography, and elegy among others. We will read African writers (Apuleius, Augustine) and ask how their Africanness influences their works. We will read Roman accounts of journeys to Africa, wars with Africa, and encounters with Africans to ask how the Romans saw themselves as different from or similar to Africans. The course will also explore in more general terms how Romans talk about race: did racism exist? What aspects of different cultures and peoples did Romans choose to emphasize when they talked of non-Romans?
1 Course Unit

CLST 3607 Classics & American Government
Before the universities established public-service programs in the twentieth century, many Americans prepared themselves for public life by studying Greek and Latin authors in school and college. In this course, using English translations, students survey an eighteenth-century classical curriculum and trace its influence in the political activity of Madison and others who guided the development of American governmental institutions.
Fall
1 Course Unit
CLST 3708 Topics In Classicism and Literature: Epic Tradition
This advanced seminar will examine the classical backgrounds of western medieval literature, in particular the reception of classical myth and epic in the literature of the Middle Ages. Different versions of the course will have different emphases on Greek or Latin backgrounds and on medieval literary genres. Major authors to be covered include Virgil, Ovid, Chaucer, and the Gawain-poet.
Not Offered Every Year
Also Offered As: COML 2000, ENGL 2000, GSWS 2000
1 Course Unit

CLST 3710 Imagining Ancient Egypt: A History of Popular Fascination from Antiquity to the Present
Thousands of years after the pyramids were built and the last hieroglyphs were written, ancient Egypt remains a source of mystery and intense interest. Why are we so fascinated with ancient Egypt, and what does that fascination reveal about us? This course explores the reception history of ancient Egypt: how people in various periods and areas of the world have thought about ancient Egypt, what it has meant to them, why they were interested in it, and how they brought the ancient Egyptian past into the present. We will focus not on ancient Egypt itself, but on the history of perceptions of, ideas about, and interactions with ancient Egyptian culture. Our investigation will include how Egyptians of later periods thought about their ancient past, as well as European and American representations (and appropriations) of ancient Egypt. A major focus of the course will be the impact of political and cultural relations between Egypt and the West on perceptions and uses of ancient Egyptian culture. This interdisciplinary course will combine multiple areas of history—intellectual, cultural, and political—and multiple types of sources, including historical writing, literature, film, and opera. Beginning with ancient Greek and Roman visitors to Egypt, we will investigate changing modes of understanding, constructing, and representing ancient Egypt, from the medieval sultans of Egypt to Mozart to W. E. B. DuBois to protesters in Egypt’s 2011 revolution. Over the course of the semester, we will explore questions such as: - What does it mean to think of Egypt as African vs. Middle Eastern vs. Mediterranean? Is Egypt Western, Eastern, both, or neither? - To whom does ancient Egyptian heritage belong? How do colonialism and conceptions of race and ethnicity factor into this question? - How do the past and the present shape each other? What is the impact of modern politics and culture on perceptions of the past? What role does the past play in the formation of modern political, social, and cultural identities? - How can we learn about modern problems and concerns from representations of the past?
Not Offered Every Year
Also Offered As: NELC 2102
Mutually Exclusive: CLST 5710, NELC 5101
1 Course Unit

CLST 3702 Literary Translation
This course is for graduate students and undergraduates with permission of the instructor. All students enrolled must have knowledge of at least one language other than English. We will study the history, theory and practice of literary translation, and participate in it. Readings will include theoretical works in translation studies, using selections from Lawrence Venuti’s Translation Studies Reader and Schulte/Biguenet’s Translation Theory Reader, with some supplemental readings; we will also look at comparative cases of multiple translations of the same original, and analyze how different translators make different interpretative/formal/aesthetic choices. Course assignments will include both a research paper, on the history and/or theory of translation, and an extended practical translation exercise, to be worked over the course of the semester, consisting of a literary translation of a text of the student’s choice.
Also Offered As: COML 3802
1 Course Unit

CLST 3803 Curiosity: Ancient and Modern Thinking about Thinking
This course will examine two approaches to the still unanswered question of what happens when we humans come up with new knowledge. How should we describe the impulse, or set of impulses, that leads us to seek it? What is happening when we achieve it? And how do we describe the new state in which we find ourselves after we have it? We will study the work of contemporary physicists and cognitive scientists on these questions along side the approaches developed by the two most powerful thinkers from antiquity on the topic, Plato and Aristotle.
Not Offered Every Year
Also Offered As: EAS 2440, INTG 3440
1 Course Unit

CLST 3804 Ancient Dialogue Workshop
This course will focus on the history of dialogue as a method of creative social communication in ancient Greek and Roman cities. We will study ancient dialogue-forms of different kinds, surveying key moments in poetry, drama, philosophy, from Homer onward, as well as imagined dialogues between moderns and ancients. The course will operate as a research workshop, proceeding through a series of case-studies in which participants analyze and critique ancient dialogues and also develop their own dialogue models. The capstone assignment for each participant will be to propose a way to present an ancient dialogue in an innovative form that facilitates productive dialogue in modern culture, and to test it out. In addition to the main instructor, the course will host a series of three visiting speakers - experts in and/or practitioners of the main models of dialogue explored in the course. This course has no pre-requisites and is open to all undergraduates. It fulfills requirements for the major in Classical Studies and for the SNF Paideia program.
Not Offered Every Year
1 Course Unit
CLST 3805 Classical Studies in Philadelphia Schools
This course will focus on classical studies as a school resource, with a focus on present-day schools in the Philadelphia area. Our readings and discussions will focus on historical investigation, educational theory, and project-design. The course invites Penn undergraduates and graduate students to rethink how the field traditionally known as “classics” or “classical studies” (both in general and in specific sub-areas such as Latin language, ancient history, mythology, literature, etc.) is presented to school audiences and how classical studies itself must change to meet present social-justice concerns, with special attention given to diversity, equity, and inclusion. This is an Academically Based Community-Service Course (ABCS), in which students will be required to consult with one or more local school personnel (teachers and/or students) as part of the coursework. The main assignments will be several short papers and presentations and a longer paper or curriculum-development project. Undergraduates should register for CLST 204, graduate students for CLST 504.
Not Offered Every Year
1 Course Unit

CLST 3999 Independent Study
Coursework and/or research undertaken independently by the student, at a level equivalent to other 3000-level (introductory) courses, supervised by a faculty member.
Fall or Spring
1 Course Unit

CLST 5105 Etruscan Art & Archaeology in the Penn Museum
The Etruscans, who spoke a language unlike any others known, were cast by their Greek and Roman rivals as outsiders and enemies: pirates, lovers of luxury, loose women. Today we must rely on the archaeological evidence of painted tombs, decorated Tuscan temples and massive engineering works to correct the picture. The course will survey a millennium (1st millennium BCE) of Etruscan culture through archaeological sites, works of art and everyday material culture, especially illustrated with objects in the collection of the Penn Museum. An additional insight into Italic culture comes from tomb groups excavated for the Museum at the Faliscan settlement of Narce. Students will gain familiarity with the societies of pre-Roman Italy through close study of their vases, jewels, arms, armor, textiles and tools, and even their very bones, and discover a surprising amount of Etruscan heritage surviving today.
Not Offered Every Year
Also Offered As: AAMW 6300
1 Course Unit

CLST 5240 Penn Museum Curatorial Seminar: Reconfiguring the Classical World Galleries
The Greek galleries in the Penn Museum were opened in 1994, and the Etruscan and Roman galleries in 2003. The world was very different then, and many of the themes used to frame the artifacts in the galleries are not especially relevant to contemporary students, scholars, and visitors. In this course we will completely reorganize and reinstall the galleries digitally, creating a series of websites that will highlight the new layout and themes. We will work extensively with the Greek Etruscan, and Roman artifacts themselves to reconfigure the galleries, which will highlight the connections between antiquity and the contemporary world, focusing on themes such as armed conflict, trauma, migration, xenophobia, and wealth and poverty.
1 Course Unit

CLST 5303 Living World in Archaeological Science
By focusing on the scientific analysis of archaeological remains, this course will explore life and death in the past. It takes place in the Center for the Analysis of Archaeological Materials (CAAM) and is team taught in three modules: human skeletal analysis, analysis of animal remains, and analysis of plant remains. Each module will combine laboratory and classroom exercises to give students hands-on experience with archaeological materials. We will examine how organic materials provide key information about past environments, human behavior, and cultural change through discussions of topics such as health and disease, inequality, and food.
Not Offered Every Year
Also Offered As: ANTH 5267
Mutually Exclusive: ANTH 2267
1 Course Unit

CLST 5305 Topography and Monuments of Ancient Rome
An individual’s life course is often reflected, enhanced, and defined by their relations to other individuals. This course will investigate the concept of kinship in the Roman world through textual, visual, and archaeological evidence. We will explore relationships at all levels of society from the imperial family to the slaves and freedmen who were part of larger households, in order to understand how different relationships shaped and structured interactions in Roman society. Together, we will explore the following questions: how were relationships and bonds represented in the ancient world? What structures were in place for families to perpetuate themselves through biological or adoptive means? How could non-Roman citizens create family connections through formal and informal channels? How could relationships be celebrated in life and commemorated in death? We will use written evidence from ancient historians, visual evidence like the Altar of Peace, and archaeological evidence from cemeteries to examine how Roman notions of kinship shaped life and death in different social milieus.
1 Course Unit

CLST 5310 Kinship and Connectivity in the Roman World
An individual’s life course is often reflected, enhanced, and defined by their relations to other individuals. This course will investigate the concept of kinship in the Roman world through textual, visual, and archaeological evidence. We will explore relationships at all levels of society from the imperial family to the slaves and freedmen who were part of larger households, in order to understand how different relationships shaped and structured interactions in Roman society. Together, we will explore the following questions: how were relationships and bonds represented in the ancient world? What structures were in place for families to perpetuate themselves through biological or adoptive means? How could non-Roman citizens create family connections through formal and informal channels? How could relationships be celebrated in life and commemorated in death? We will use written evidence from ancient historians, visual evidence like the Altar of Peace, and archaeological evidence from cemeteries to examine how Roman notions of kinship shaped life and death in different social milieus.
1 Course Unit

CLST 5311 Penn Museum Curatorial Seminar: Reconfiguring the Classical World Galleries
The Greek galleries in the Penn Museum were opened in 1994, and the Etruscan and Roman galleries in 2003. The world was very different then, and many of the themes used to frame the artifacts in the galleries are not especially relevant to contemporary students, scholars, and visitors. In this course we will completely reorganize and reinstall the galleries digitally, creating a series of websites that will highlight the new layout and themes. We will work extensively with the Greek Etruscan, and Roman artifacts themselves to reconfigure the galleries, which will highlight the connections between antiquity and the contemporary world, focusing on themes such as armed conflict, trauma, migration, xenophobia, and wealth and poverty.
Also Offered As: AAMW 5630
1 Course Unit
CLST 5314 Mining Archaeology
In ancient times, materials such as stone and metals were used to produce artifacts including pigments, jewelry, tools, and weapons. This course is designed to introduce students to research on the early exploitation of mineral resources. Which techniques were used to access and process raw materials in antiquity? Which archaeological methods can be used to investigate these features and artifacts? The course will provide worldwide examples through time, ranging from Stone Age flint mining, Iron Age rock salt mining to Medieval silver mining. Ethnographic studies and hands-on activities will contribute to our understanding of mining in archaeology, and artifacts from the Museum’s collections will undergo scientific analysis in the Center for the Analysis of Archaeological Materials.
Spring
Also Offered As: ANTH 5219
Mutually Exclusive: ANTH 3219
1 Course Unit

CLST 5315 The Past Preserved: Conservation In Archaeology
This course explores the scientific conservation of cultural materials from archaeological contexts. It is intended to familiarize students with the basics of artifact conservation but is not intended to train them as conservators. The course will cover how various materials interact with their deposit environments; general techniques for on-site conservation triage and retrieval of delicate materials; what factors need to be considered in planning for artifact conservation; and related topics. Students should expect to gain a thorough understanding of the role of conservation in archaeology and how the two fields interact.
Also Offered As: ANTH 5235
Mutually Exclusive: ANTH 3235
1 Course Unit

CLST 5316 Plants and Society
Interactions between humans and the living landscape around us have played - and continue to play - a fundamental role in shaping our worldview. This course is designed to introduce students to the diverse ways in which humans interact with plants. We will focus on the integration of ethnographic information and archaeological case studies in order to understand the range of interactions between humans and plants, as well as how plants and people have profoundly changed one another. Topics will include the origins of agriculture; cooking and plant processing; human health and the world of ethnomedicine, and poisonous and psychoactive plants. We will examine ancient plant material firsthand at the Center for the Analysis of Archaeological Materials (CAAM) and will handle botanical ecofacts from the Penn Museum’s collections. Students will also carry out a substantial research project focused on an archaeological culture and plant species of their own interest.
Not Offered Every Year
Also Offered As: ANTH 5240
Mutually Exclusive: ANTH 3240
1 Course Unit

CLST 5317 Archaeologies of Subalternity
This course addresses the various areas and approaches to “otherness” in ancient Mediterranean archaeology, and the power dynamics of oppression. We’ll not only examine disempowerment around cultural identity, class, gender and sexuality, and race/ethnicity, but we’ll spend equal time pondering how those subjects have been studied - or ignored - by classical archaeologists. The power relationships both inherent in the subjugation of various kinds of people in the ancient world, and in the academic discourses around them, are the themes of the course. While this course will be focused on the Bronze Age through late antique Mediterranean, those with other period/interests are most welcome. Students will be asked to bring their own interests to the course, which help shape the course. Upper-level courses in archaeology, anthropology, or ancient history are recommended prior to enrollment.
Not Offered Every Year
Also Offered As: AAMW 5500
1 Course Unit

CLST 5318 Landscapes and Seascapes of the Ancient Mediterranean
The Mediterranean environment is both diverse and unique, and nurtured numerous complex societies along its shores in antiquity. This seminar offers a primer on theoretical and methodological approaches to studying landscapes and seascapes of the Mediterranean from the Bronze Age to the early modern era, at scales from local to international and on land and underwater. Concepts from processual, post-processual, and current archaeologies will be considered, and field techniques including excavation and surface survey, remote sensing and geophysics, GIS modeling, and ethnography/ethnoarchaeology are examined. Course content and discussion focus on case studies that illustrate how these tools are used to reconstruct the appearance and resources of the natural environment; overland and maritime routes; settlement location, size, function, and demography; social and economic networks; and agricultural, pastoral, and nomadic lifeways. Seminar participants will develop case studies of their own geographical and chronological interest.
Not Offered Every Year
Also Offered As: AAMW 6130
Mutually Exclusive: CLST 3318
1 Course Unit

CLST 5321 Surface Archaeology
Non-invasive and non-destructive methods make up an ever-greater proportion of archaeological investigations, for both intellectual and practical reasons. These methods comprise collection of data from the surface (pedestrian surface survey; geophysical prospection, geoarchaeology) and from above-ground platforms (drones, aircraft, balloons, kites, satellites), using a variety of sensors from human perception to multispectral scanning devices. The data acquired from these methods complement the contextual information drawn from traditional excavation, but also allow the archaeologist to address diverse research questions at a scale much greater than the excavated site. Aspiring archaeologists should have a good working knowledge of surface archaeological methods. In this course, we will delve deeply into these methods, and read and analyze case studies to expose strengths and weaknesses and to identify best practices. Students will have the opportunity for hands-on training in the Philadelphia area or elsewhere.
Not Offered Every Year
Also Offered As: AAMW 5239, ANTH 5231
1 Course Unit
CLST 5401 Greek Art and Artifact
This lecture course surveys Greek art and artifacts from Sicily to the Black Sea from the 10th century BCE to the 2nd century BCE, including the age of Alexander and the Hellenistic Kingdoms. Public sculpture and painting on and around grand buildings and gardens, domestic luxury arts of jewelry, cups and vases, mosaic floors, and cult artefacts are discussed. Also considered are the ways in which heroic epic, religious and political themes are used to engaged viewers’ emotions and served both domestic and the public aims. We discuss the relationships of images and things to space and structure, along with ideas of invention and progress, and the role of monuments, makers and patrons in Greek society.
Not Offered Every Year
Also Offered As: AAMW 6250, ARTH 6250
1 Course Unit

CLST 5402 Hellenistic and Roman Art and Artifact
This lecture course surveys the political, religious and domestic arts, patronage and display in Rome's Mediterranean, from the 2nd c. BCE to Constantine's 4th-c. Christianized empire. Our subjects are images and decorated objects in their cultural, political and socio-economic contexts (painting, mosaic, sculpture, luxury and mass-produced arts in many media). We start with the Hellenistic cosmopolitan culture of the Greek kingdoms and their neighbors, and late Etruscan and Republican Italy; next we map Imperial Roman art as developed around the capital city Rome, as well as in the provinces of the vast empire.
Not Offered Every Year
Also Offered As: AAMW 6260, ARTH 6260
1 Course Unit

CLST 5405 Roman Sculpture
Survey of the Republican origins and Imperial development of Roman sculpture - free-standing, relief, and architectural - from ca. 150 BC to 350 AD. We concentrate on sculpture in the capital city and on court and state arts, emphasizing commemorative public sculpture and Roman habits of decorative display; genres examined include relief, portraits, sarcophagi, luxury and minor arts(gems, metalwork, coinage). We evaluate the choice and evolution of styles with reference to the functions of sculptural representation in Roman culture and society.
Not Offered Every Year
Also Offered As: AAMW 6427, ARTH 6427
1 Course Unit

CLST 5406 Late Antique Arts
What is 'Late Antiquity'? In 312 when Roman emperor Constantine inaugurated a Christian empire, 'Roman' culture was centuries old. The period ca. 200-650 CE saw profound transformations that launched Medieval, Byzantine and Islamic traditions. In this epoch of upheaval destruction was frequent but partial. Rome long survived, Constantine's 'new Rome,' Constantinople flourished, and around the Empire both proto-global visual culture and local forms prospered. Roman cultural models authorized both innovation and passion for tradition: we critique art-historical models for Late Antique 'decline', analyse habits of material reuse and curation, and look at new Christian and Jewish roles for Roman things as well as polytheist visual survival. Foreign allies and enemies interacted with Greco-Roman Late Antiquity; we visit them too, as in the early Islamic palaces. Media discussed include not just 'monumental' painting, mosaic, sculpture, but also silver, ceramic, ivory, figural textile, glass, painted books, jewelry, coins and more. We look too at Late Antique texts on art, objects, space and viewership. This is an advanced undergraduate lecture course.
Not Offered Every Year
Also Offered As: AAMW 6425, ARTH 6425
1 Course Unit

CLST 5412 Narrative in Ancient Art
Art history, and its cousins in religious, social, political and literary studies, have long been fascinated with the question of narrative: how do images engage time, tell stories? These are fundamental questions for ancient Near Eastern, Egyptian and Mediterranean art history and archaeology, whose rich corpus of narrative images is rarely considered in the context of "Western" art. Relations between words and things, texts and images, were as fundamental to the ancient cultures we examine as they are to modern studies. As we weigh classic modern descriptions of narrative and narratology, we will bring to bear recent debates about how (ancient) images, things, monuments, and designed spaces engage with time, space, and event, and interact with cultural memory. We will ask "who is the story for, and why?" for public and private narratives ranging from political histories to mythological encounters. Our case studies will be drawn from the instructors’ expertise in Mesopotamian visual culture, and in the visual cultures of the larger Mediterranean world from early Greek antiquity to the Hellenistic, Roman, and Late Antique periods. One central and comparative question, for instance, is the nature of recording history in pictures and texts in the imperial projects of Assyria, Achaemenid Persia, the Hellenistic kingdoms, and Rome.
Also Offered As: AAMW 5230, ARTH 5230
1 Course Unit
CLST 5413 Hellenistic Art and Spectacle
Hellenistic usually names art in the age of Mediterranean culture from the 4th century BCE and the rise of Alexander the Great’s Macedon, and the Greco-Macedonian conquest of the Persian Empire, to Cleopatra of Egypt’s defeat by Rome at the end of the Republic. Our course looks also at the age of Augustus and his successors, 1st century CE. While Greek and Macedonian practice in city-states and kingdoms is our launching point, this course also looks at international culture and cultural interaction among peoples from North Africa and Etrusco-Roman Italy, Egypt, Anatolia, the Mideast and Central Asia. We probe art, artifacts, and visual display from a range of settings, from sanctuary to house, palace and parade, and in all media, from marble monuments to pottery and jewelry. Our archaeology of Hellenistic visual culture also looks at the rich body of Hellenistic and Roman texts of art history, art criticism, and the description of objects and image, to better understand the Hellenistic maker, patron, and viewer. No prerequisites.
Not Offered Every Year
Also Offered As: AAMW 6428, ARTH 6428
1 Course Unit

CLST 5416 Classical Myth and the Image
The peoples of the ancient Greek and Roman worlds shared a vast body of stories about human and not-human beings set in a legendary deep past or supernatural present - "Classical myth." Even their neighbor cultures took up those stories (or, sometimes, gave them). The stories as spoken, read, or performed turn up in surviving ancient literature. But from the very point when Greek myth began to be written down, those stories were told with images also. Many arts of the Mediterranean world explored myth at temples and sanctuaries, in civic spaces, theaters, parks, houses and palaces, for tombs and trophies - and even on the body upon weapons, clothes and jewelry. Love and desire and hate, hope and fear and consolation, war and peace, pleasure and excitement, power and salvation, the nature of this world and the cosmos, justice and duty and heroism, fate and free will, suffering and crime: mythological images probed the many domains of being human in order to move the emotions and minds of people (and of gods). Our class samples this story art to ask about its makers and viewers and contexts. What, also, were relations between images and texts and language? What about religious belief vs invention, truth vs fiction? What might it mean to look at this ancient art today, and to represent the old stories in post-anthropocene? The class introduces ways of thinking about what images and things do; we will read in some relevant literature (drama, epic, novels, etc); and our Penn Museum will be a resource. No prerequisites—no prior knowledge of art history, archaeology, myth or Mediterranean antiquity is assumed.
Also Offered As: AAMW 6269, ARTH 6269
Mutually Exclusive: ARTH 2269, CLST 3416
1 Course Unit

CLST 5620 Intro to Digital Archaeology
Students in this course will be exposed to the broad spectrum of digital approaches in archaeology with an emphasis on fieldwork, through a survey of current literature and applied learning opportunities that focus on African American mortuary landscapes of greater Philadelphia. As an Academically Based Community Service (ABCS) course, we will work with stakeholders from cemetery companies, historic preservation advocacy groups, and members of the African Methodist Episcopal Church to collect data from three field sites. We will then use these data to reconstruct the original plans, untangle site taphonomy, and assess our results for each site. Our results will be examined within the broader constellation of threatened and lost African American burial grounds and our interpretations will be shared with community stakeholders using digital storytelling techniques. This course can count toward the minor in Digital Humanities, minor in Archaeological Science and the Graduate Certificate in Archaeological Science.
Also Offered As: AAMW 5620, ANTH 5220
Mutually Exclusive: CLST 3307
1 Course Unit

CLST 5710 Imagining Ancient Egypt: A History of Popular Fascination from Antiquity to the Present
Thousands of years after the pyramids were built and the last hieroglyphs were written, ancient Egypt remains a source of mystery and intense interest. Why are we so fascinated with ancient Egypt, and what does that fascination reveal about us? This course explores the reception history of ancient Egypt: how people in various periods and areas of the world have thought about ancient Egypt, what it has meant to them, why they were interested in it, and how they brought the ancient Egyptian past into the present. We will focus not on ancient Egypt itself, but on the history of perceptions of, ideas about, and interactions with ancient Egyptian culture. Our investigation will include how Egyptians of later periods thought about their ancient past, as well as European and American representations (and appropriations) of ancient Egypt. A major focus of the course will be the impact of political and cultural relations between Egypt and the West on perceptions and uses of ancient Egyptian culture. This interdisciplinary course will combine multiple areas of history—intellectual, cultural, and political—and multiple types of sources, including historical writing, literature, film, and opera. Beginning with ancient Greek and Roman visitors to Egypt, we will investigate changing modes of understanding, constructing, and representing ancient Egypt, from the medieval sultans of Egypt to Mozart to W. E. B. DuBois to protesters in Egypt’s 2011 revolution. Over the course of the semester, we will explore questions such as: - What does it mean to think of Egypt as African vs. Middle Eastern vs. Mediterranean? Is Egypt Western, Eastern, both, or neither? - To whom does ancient Egyptian heritage belong? How do colonialism and conceptions of race and ethnicity factor into this question? - How do the past and the present shape each other? What is the impact of modern politics and culture on perceptions of the past? What role does the past play in the formation of modern political, social, and cultural identities? - How can we learn about modern problems and concerns from representations of the past?
Not Offered Every Year
Also Offered As: NELC 5101
Mutually Exclusive: NELC 2102
1 Course Unit
CLST 5800 MLA Proseminar: Reading the Iliad in an Age of War
Homer's Iliad presents a dark and difficult vision of the world, but one that nonetheless inspires. Casual cruelty, divine caprice, and savage violence test heroes and lesser folk and provoke a reckoning with the stark realities of both human vulnerability and capability. It inspires kind of terror, but still also somehow provides a kind of comfort, albeit one whose character seems almost beyond comprehension. By a close and careful reading of Homer's text, along with some reflections and readings drawn from more contemporary wars, including the current ones, we will try to examine these issues with one eye on the past and one on the present. Our goal will be to achieve some further understanding of war and human experience. This course will be offered online.
Summer Term
1 Course Unit

CLST 5805 Classical Studies in Philadelphia Schools
This course will focus on classical studies as a school resource, with a focus on present-day schools in the Philadelphia area. Our readings and discussions will focus on historical investigation, educational theory, and project-design. The course invites Penn undergraduates and graduate students to rethink how the field traditionally known as "classics" or "classical studies" (both in general and in specific sub-areas such as Latin language, ancient history, mythology, literature, etc.) is presented to school audiences and how classical studies itself must change to meet present social-justice concerns, with special attention given to diversity, equity, and inclusion. This is an Academically Based Community-Service Course (ABCS), in which students will be required to consult with one or more local school personnel (teachers and/or students) as part of the coursework. The main assignments will be several short papers and presentations and a longer paper or curriculum-development project.
Undergraduates should register for CLST 204, graduate students for CLST 504.
Not Offered Every Year
1 Course Unit

CLST 5901 Post-Baccalaureate Studies in Greek
Intensive Greek reading course for students in the Post-Baccalaureate Program in Classical Studies. Readings are chosen to expose students to a variety of prose and poetry texts during their program experience. The Fall course includes some grammar review and analysis as well as translation. Permission of instructor required for non-Post-Baccalaureate students.
Two Term Class, Student may enter either term; credit given for either 1 Course Unit

CLST 5902 Post-Baccalaureate Studies in Latin
Intensive Latin reading course for students in the Post-Baccalaureate Program in Classical Studies. Readings are chosen to expose students to a variety of prose and poetry texts during their program experience. The Fall course includes some grammar review and analysis as well as translation. Permission of instructor required for non-Post-Baccalaureate students.
Two Term Class, Student may enter either term; credit given for either 1 Course Unit

CLST 6000 Materials and Methods: Proseminar in Classical Studies and Ancient History
This is the required proseminar for first-year graduate students in Classical Studies and Ancient History. It offers an up-to-date orientation to the professional academic fields conventionally known as classical studies and ancient history. The course is responsive to present debates within, and about, these fields.
Fall
1 Course Unit

CLST 6230 The (Mostly) Latin Epigram
In this seminar we will explore the themes and aesthetics of the Latin epigram, a genre (or is it?) best known for its brevity and wit but one whose precise nature is tantalizingly elusive. After orienting ourselves in the epigrams of Hellenistic Greek epigrammatists and late Republican authors like the so-called Neoterics (Catullus, Cinna, Calvus, Caesar), we will turn our attention to the poetry of Martial, whose accounts of Rome, its inhabitants, and their foibles exerted a profound influence on subsequent epigrammatists. Among the themes we will engage are: epigram as a genre; persona in tessellated textual collections; the interaction of refined and obscene language; and the artistic and intellectual implications of replication, anthology, and remix.
1 Course Unit

CLST 6300 Material & Methods in Mediterranean Archaeology
This course is intended to provide an introduction to archaeological methods and theory in a Mediterranean context, focusing on the contemporary landscape. The class will cover work with museum collections (focusing on the holdings of the Penn Museum), field work and laboratory analysis in order to give students a diverse toolkit that they can later employ in their own original research. Each week, invited lecturers will address the class on different aspects of archaeological methodology in their own research, emphasizing specific themes that will be highlighted in readings and subsequent discussion. The course is divided into three sections: Method and Theory in Mediterranean Archaeology; Museum collections; and Decolonizing Mediterranean Archaeology. The course is designed for new AAMW graduate students, though other graduate students or advanced undergraduate students may participate with the permission of the instructor.
Fall
Also Offered As: AAMW 5260, ANTH 5026
1 Course Unit

CLST 6699 Graduate Reading Group in Greek and/or Latin
A student-selected course of reading proposed by two or more students, focusing on Greek and/or Latin texts and selected key topics in literary history. In forming the group, students are encouraged, where feasible, to recruit one or more advanced students to consult on an author or genre on which they are working, either as a regular or occasional group member, or as a visitor to one group meeting. Proposal and outcome subject to approval by graduate chair. Graded S / U.
1 Course Unit

CLST 7000 Graduate Seminar
Topics will vary
Fall or Spring
1 Course Unit

CLST 7102 The Flavian Era
The time of the Flavians (69-96 BCE) holds a special place in Roman history and culture as it marks the transition from the Julio-Claudian period to the High Empire. Historically, the rule of Rome's second dynasty saw a stabilization of the imperial power system, the consolidation of social and political hierarchies, and an increasing integration of the empire. Major construction projects reshaped the city of Rome, topographically and ideologically. The literary production in various genres reached a new peak, developed new forms, and explored new topics. The unusually high number of Greek and Latin texts and documents preserved allow us to analyze such changes closely; our focus will be on the interrelation and conjunction of these developments. Final projects will take the form of papers suitable for presentation at the SCS Annual Meeting.
1 Course Unit
CLST 7200 Roman Humor and Invective
This seminar will explore Roman humor in epigram, iambic, oratory, and satire as a method of constructing and policing norms of sexuality, the body, and social identity. We will read from a wide range of authors including Catullus, Martial, Cicero, Quintilian, Petronius, and Juvenal, as well as texts that discuss or depict laughter and ridicule. Beyond focused analysis of the works at hand, we will evaluate modern theories of humor and laughter according to the ancient evidence and develop models for understanding Roman humor. In addition to weekly readings, students will be responsible for class presentations, contributing to works-in-progress workshops, and a final research paper. Not Offered Every Year
Also Offered As: LATN 7203
1 Course Unit

CLST 7203 Ancient Economies
Scholars have long debated the nature of the ancient economy, the terms in which it can best be approached, and the decision-making processes that underpinned economic behavior in antiquity. In particular, controversy has surrounded the extent to which the economies of Greco-Roman antiquity can be modeled using contemporary tools of analysis. In recent scholarship, many of the tenets laid down by Moses Finley in his The Ancient Economy have been re-evaluated, with the result that the field is currently in a state of intellectual ferment. It is the purpose of this course to explore the terms in which contemporary debates over ancient economic systems are formulated, with reference to a variety of societies and periods, from the palace economies of the Mycenaean period to the system of taxation introduced in the early fourth century by the emperor Diocletian and his colleagues in the Tetrarchy. Fall or Spring
Also Offered As: ANCH 7203
1 Course Unit

CLST 7208 Biographical Approaches to Antiquity
Biographical approaches, long used and despised as a genre reducing history to the actions of a few protagonists, have gained prominence again in recent scholarship. Instead of focusing the historical analysis on the usual suspects (from emperors to canonical authors), more recent applications of biographical approaches have deliberately decentered the narrative, employed the perspective of those whose position has been marginalized, and revealed influences and patterns that otherwise would remain unnoticed. This course will explore the potential, variations, and pitfalls of approaches that focus on individuals, from biographies that follow a traditional format yet have shaped the field of ancient studies to microhistory and prosopographical studies. Using examples from the late Hellenistic to the High Imperial Period, we will discuss methodologies to reconstruct an individual life despite the general scarcity of sources, how such an approach can transform our understanding of the respective cultural, political, and social circumstances, and what insights into the broader historical processes such a focus offers or obscures. Graduate-level Latin and Greek required as pre-requisite for course. Not Offered Every Year
Also Offered As: ANCH 7208
1 Course Unit

CLST 7303 Archaeology of Troy
An introduction to the archaeology of Troy, in northwestern Turkey. The course will focus on the results of excavations at the site in 1988, although the earlier excavations of Schliemann, Dorpfeld, and Blegen will also be considered. The course will cover a broad chronological span--from the early Bronze age through the late Roman period, and will include Greek, Roman, and Medieval attitudes toward Troy and the Trojan legend. Not Offered Every Year
1 Course Unit

CLST 7304 The Archaeology of Greece and Asia Minor in the Archaic and Classical Periods
An examination of new discoveries and conflicting interpretations in the archaeology of Greece and Asia Minor between the seventh and fourth centuries B.C.E. Both sides of the Aegean will receive equal attention, and emphasis will be placed on sanctuaries, settlements, and cemeteries. Also Offered As: AAMW 7260
1 Course Unit

CLST 7305 Topics in Aegean Archaeology
Topics vary. This course explores current topics in Aegean archaeology. It is designed to inform and prompt debate and discussion on substantive, methodological, and theoretical matters of current interest, within a geographical and/or chronological framework. Spring 2017 topic TBA.
1 Course Unit

CLST 7306 Archaeology of the Hellenistic Period in Italy, Greece, and Asia Minor
A survey of the archaeology of the Hellenistic period (331-31 BCE) across the Mediterranean, with a focus on Rome, Magna Graecia, Greece, and western Asia Minor. The course will stress the interactions among cities and kingdoms during the Roman Republic and Greek Hellenistic periods, especially the second century B.C. Students will work with relevant objects in the Penn Museums Mediterranean Section.
1 Course Unit

CLST 7307 Ethnoarchaeology Greece
Ethnoarchaeology involves distinctive theoretical and methodological approaches to the study of living societies for the explicit purpose of shedding light on archaeological questions. In this seminar, we will review the intellectual history of ethnoarchaeology in North America and Europe, and explore case studies from Greece, the wider Mediterranean, and beyond. Among the topics will be analog, cross-cultural comparison, experimental archaeology, oral history research, and archaeologically oriented ethnographic fieldwork. Students will create a proposal for ethnoarchaeological fieldwork in their area of interest in NSF or Wenner-Gren format, to be critiqued by the instructor and their peers. Not Offered Every Year
Also Offered As: AAMW 7050
1 Course Unit

CLST 7308 Geoarchaeology
In this course, students will learn the basic concepts of earth systems and explore the ways that archaeologists use various environmental sciences (e.g., geomorphology, limnology, palynology, and dendroclimatology) and paleoecological modeling in their research. The course will include lectures and laboratory activities on the basics of geology, including surficial geology, rock and mineral identification, geomorphology and soils, sedimentation and stratigraphy, as well as a systematic review of depositional environments and their archaeological potential. A series of archaeological case studies will illustrate the application of these concepts in real-world field archaeology.
1 Course Unit
CLST 7310 Ancient Greek Colonies
This seminar examines the archaeology of Greek colonization from the Late Bronze Age to ca. 500 B.C. These colonies were highly diverse in their motivations, physical settings, and political and social structures, as well as in their relationships with mother cities and the new worlds they inhabited. Emphasis is placed on the colonial experience as a cross-cultural and negotiated process; several streams of the changing theoretical and conceptual approaches to Greek colonization are explored. In addition to archaeological and epigraphic evidence, literary and historical traditions are examined. Colonies from the southern Balkan peninsula, Black Sea, Ionia, northern Africa, and Magna Graecia will be the focus of reading and reports. Seminar meetings will consist of oral reports and discussion of these reports and other topics. Depending on the number of participants, each person will be responsible for two or three reports of approximately 30-45 minutes length. Accompanying the oral report will be a PowerPoint document (in most cases), a synopsis/summary of one to two pages, and a bibliography. These will all be posted on the course Canvas site. No later than one week before an oral presentation, the presenter will identify one or two key readings for all to read, in consultation with the instructor. These will be posted, in PDF format, on the Canvas site. One or more visits to the Penn Museum may be built into the course.
Not Offered Every Year
Also Offered As: AAMW 5190, ANCH 7310
1 Course Unit

CLST 7311 Petrography of Cultural Materials
Introduction to thin-section petrography of stone and ceramic archaeological materials. Using polarized light microscopy, the first half of this course will cover the basics of mineralogy and the petrography of igneous, metamorphic and sedimentary rocks. The second half will focus on the petrographic description of ceramic materials, mainly pottery, with emphasis on the interpretation of provenance and technology. As part of this course, students will characterize and analyze archaeological samples from various collections. Prior knowledge of geology is not required.
Not Offered Every Year
Also Offered As: AAMW 5120, ANTH 5211
1 Course Unit

CLST 7313 Archaeobotany Seminar
In this course we will approach the relationship between plants and people from archaeological and anthropological perspectives in order to investigate diverse plant consumption, use, and management strategies. Topics will include: archaeological formation processes, archaeobotanical sampling and recovery, lab sorting and identification, quantification methods, and archaeobotany as a means of preserving cultural heritage. Students will learn both field procedures and laboratory methods of archaeobotany through a series of hands-on activities and lab-based experiments. The final research project will involve an original in-depth analysis and interpretation of archaeobotanical specimens. By the end of the course, students will feel comfortable reading and evaluating archaeobotanical literature and will have a solid understanding of how archaeobotanists interpret human activities of the past.
Not Offered Every Year
Also Offered As: AAMW 5390, ANTH 5230, NELC 6930
1 Course Unit

CLST 7315 Geophysical Prospection for Archaeology
Near-surface geophysical prospection methods are now widely used in archaeology as they allow archaeologists to rapidly map broad areas, minimize or avoid destructive excavation, and perceive physical dimensions of archaeological features that are outside of the range of human perception. This course will cover the theory of geophysical sensors commonly used in archaeological investigations and the methods for collecting, processing, and interpreting geophysical data from archaeological contexts. We will review the physical properties of common archaeological and paleoenvironmental targets, the processes that led to their deposition and formation, and how human activity is reflected in anomalies recorded through geophysical survey through lectures, readings, and discussion. Students will gain experience collecting data in the field with various sensors at archaeological sites in the region. A large proportion of the course will be computer-based as students work with data from geophysical sensors, focusing on the fundamentals of data processing, data fusion, and interpretation. Some familiarity with GIS is recommended.
Spring, odd numbered years only
Also Offered As: AAMW 5720, ANTH 5720, NELC 5925
1 Course Unit

CLST 7317 Ruins and Reconstruction
This class examines our enduring fascination with ruins coupled with our commitments to reconstruction from theoretical, ethical, socio-political and practical perspectives. This includes analyzing international conventions and principles, to the work of heritage agencies and NGOs, to the implications for specific local communities and development trajectories. We will explore global case studies featuring archaeological and monumental sites with an attention to context and communities, as well as the construction of expertise and implications of international intervention. Issues of conservation from the material to the digital will also be examined. Throughout the course we will be asking what a future in ruins holds for a variety of fields and disciplines, as well as those who have most to win or lose in the preservation of the past.
Also Offered As: ANTH 5805, HSPV 5850, NELC 5950
1 Course Unit

CLST 7400 Myth Through Time and In Time
The textual and physical remains of Greek and Roman culture and belief as ‘myth’ entrenched the post-antique European world and its neighbors. Makers, patrons and viewers manipulated those survivals to challenge and speak to a contemporary world. This course focuses on how and why artists and their patrons engaged the mythic and examines the various areas of political and religious life that sought animation through an evocation of narratives from the past. Readings and case studies will engage with very late antique, medieval, and early modern art, turning to the modern and contemporary as well. Moving to the modern lets us examine, among other things, how artists address the exclusionary histories of the past, to enable critiques of myths of supremacy by one gender, race, or culture over others.
Also Offered As: AAMW 5590, ARTH 5590, COML 5590, GRMN 5590
1 Course Unit
CLST 7403 Borderlines: Art and Artifact in the Roman Empire
What made art and artifacts 'Roman', or not, in a Roman world? 'Roman
provincial art' is an active scholarly category. This seminar reframes
it, to test productive models to understand visual culture outside the
domestic world was not just a document of history: it was history. Open to
environment so often spoke to political and sociological realities. The
This seminar looks at how Roman things, images and the designed
architectural, urbanism, and landscapes can all concern us, as we try out disciplinary approaches that take in eg cultural
appropriation, translation and hybridity, creolization, discrepant experience, object agency, and communities of taste and style. 'Ethnicity' is a loaded
cultural politics. A traditional topic for that has been Roman interaction
with Greek culture. This seminar extends that range, while tackling
'Hellenization', as we reflect on models of 'Romanization', globalism and
identity formation within the imperium's boundaries in its provinces and
client kingdoms, and also at its frontier zones. Various disciplines apply:
art history, archaeology, history, and more. Case studies, evolved with
students, may range from Britain to Iran, northern Africa to the Black
Sea in space and, in time, from interactions with the Hellenistic East
and West and with Iron Age Europe, to the age of Germanic, Sasanian
and Ummayad conquests of Roman terrain, ca 3rd c. BCE-7th c. CE. The
market in art and artifact, the nature and status of makers, and conditions of
patronage and viewing are key considerations. Private and public
objects, images, architecture and urbanism, and landscapes can all
concern us, as we try out disciplinary approaches that take in eg cultural
appropriation, translation and hybridity, creolization, discrepant experience, object agency, and communities of taste and style. 'Ethnicity' is a loaded
concept in ancient Mediterranean studies, as is 'race'; our course must
engage those, and the ways in which things and styles have been made
to serve those terms. And who owns, is heir to, the cultural legacies we
look at, and how to name them, are problems that tangle with current
national identity formation, and academic and museum practice. Our own
Museum's holdings can make topics. Students are welcome to bring in
interests in language and text cultures, in disciplines outside art history and
archaeology, and in other world cultures and epochs.
Not Offered Every Year
Also Offered As: AAMW 5250, ANCH 7403, ARTH 5250
1 Course Unit

CLST 7404 Roman Political Art Seminar
This seminar looks at how Roman things, images and the designed
environment so often spoke to political and sociological realities. The
material world was not just a document of history: it was history. Open to
graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5251, ARTH 5251
1 Course Unit

CLST 7405 Late Antique Art and Artifact Seminar
What is 'Late Antiquity'? In 312 when Roman emperor Constantine
inaugurated a Christian empire, 'Roman' culture was centuries old. The
period ca. 200-650 CE saw profound transformations that launched
Medieval, Byzantine and Islamic traditions. In this epoch of upheaval
destruction was frequent but partial: Rome long survived, Constantine's
'new Rome', Constantinople flourished, and around the Empire both proto-
global visual culture and local forms prospered. Roman cultural models
authorized both innovation and passion for tradition: we critique art-
historical models for Late Antique 'decline', analyse habits of material
reuse and curation, and look at new Christian and Jewish roles for Roman
things as well as polytheist visual survival. Foreign allies and enemies
interacted with Greco-Roman Late Antiquity; we visit them too, as in the early
Islamic palaces. Media discussed include not just 'monumental'
painting, mosaic, sculpture, but also silver, ceramic, ivory, figural textile,
glass, painted books, jewelry, coins and more. We look too at Late Antique
texts on art, objects, space and viewership. This seminar is open to
graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5252, ARTH 5252
1 Course Unit

CLST 7406 Violence in Ancient Mediterranean Art Seminar
Violence, physical and emotional, pervades the images of the ancient
Mediterranean. This seminar asks why, how and to what end that
occurred; in these and any cultures, why do people look at such images?
Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5253, ARTH 5253
1 Course Unit

CLST 7407 Myth Through Time and in Time Seminar
The textual and physical remains of Greek and Roman culture and belief
as 'myth' entranced the post-antique European world and its neighbors.
Makers, patrons and viewers manipulated those survivals to challenge
and speak to a contemporary world. This course focuses on how and why
artists and their patrons engaged the mythic and examines the various
areas of political and religious life that sought animation through an
evocation of narratives from the past. Readings and case studies will
examine very late antique through medieval and early modern art. This
seminar is open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5254, ARTH 5254, ITAL 5254
1 Course Unit

CLST 7408 Narrative in Ancient Art
Cultures of the ancient Middle East and Mediterranean world were
fascinated to make images and things tell stories and engage with time.
Sometimes that implied a text - and sometimes, not. With case studies
from the deep past, this interdisciplinary advanced undergraduate lecture
course explores the capacity of visual language to narrate.
Not Offered Every Year
Also Offered As: AAMW 6426, ARTH 6426
1 Course Unit
CLST 7601 Approaches to Literary Texts
Most seminars focus on literary texts composed during a single historical period; this course is unusual in inviting students to consider the challenges of approaching texts from a range of different historical eras. Taught by a team of literary specialists representing diverse periods and linguistic traditions and conducted as a hands-on workshop, this seminar is designed to help students of literature and related disciplines gain expertise in analysis and interpretation of literary works across the boundaries of time, geography, and language, from classic to modern. Students will approach literature as a historical discipline and learn about key methodological issues and questions that specialists in each period and field ask about texts that their disciplines study. The diachronic and cross-cultural perspectives inform discussions of language and style, text types and genres, notions of alterity, fictionality, literariness, symbolism, intertextuality, materiality, and interfaces with other disciplines. This is a unique opportunity to learn in one course about diverse literary approaches from specialists in different fields.
Not Offered Every Year
Also Offered As: COML 6160, EALC 8290, ENGL 6160, REES 6450, ROML 6160
1 Course Unit

CLST 7602 The Worlds of the Latin Novel
This seminar will explore the worlds of Petronius’ Satyricon, Apuleius’ Metamorphoses, and other works of Latin prose fiction, devoting equal time to literary, historical, and material dimensions. Participants will devise research topics to serve as the focus of presentations and a seminar paper. Latin is not required, but the regular reading assignments will include Latin options, both from ancient novels and from modern novelae (a recent innovation in Latin learning).
Not Offered Every Year
Also Offered As: LATN 7004
1 Course Unit

CLST 7701 Medieval Poetics: Europe and India
This is a comparative course on medieval stylistic practices, formal innovations, and especially theories of form. Our common ground will be the theories that were generated in learned and pedagogical traditions of medieval literary cultures of Europe and pre-modern India (with their roots in ancient thought about poetic form). See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Also Offered As: COML 7210, ENGL 7215
1 Course Unit

CLST 7704 Topics: Renaissance Culture
Please see department website for a current course description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
Also Offered As: COML 5450, ITAL 5400, PHIL 5150
1 Course Unit

CLST 7706 Approaches to Literary Texts
Most seminars focus on literary texts composed during a single historical period; this course is unusual in inviting students to consider the challenges of approaching texts from a range of different historical eras. Taught by a team of literary specialists representing diverse periods and linguistic traditions and conducted as a hands-on workshop, this seminar is designed to help students of literature and related disciplines gain expertise in analysis and interpretation of literary works across the boundaries of time, geography, and language, from classic to modern. Students will approach literature as a historical discipline and learn about key methodological issues and questions that specialists in each period and field ask about texts that their disciplines study. The diachronic and cross-cultural perspectives inform discussions of language and style, text types and genres, notions of alterity, fictionality, literariness, symbolism, intertextuality, materiality, and interfaces with other disciplines. This is a unique opportunity to learn in one course about diverse literary approaches from specialists in different fields.
Not Offered Every Year
Also Offered As: COML 5110, ITAL 5110
1 Course Unit

CLST 7708 Black Classicisms
This course will explore heterogeneous responses to ancient Greek and Roman Classics in the literature, art, and political thought of Africa and the Black Diaspora, ranging from the late eighteenth century to the present day and encompassing Africa, the Caribbean, and North America. We will analyze how African and black diasporic writers, artists, and thinkers have engaged with and re-imagined Greco-Roman Classics, both to expose and critique discourses of racism, imperialism, and colonialism, and as a source of radical self-expression. Throughout, we will consider the reciprocal dynamic by which dialogues with ancient Greek and Roman classics contribute to the polyphony of black texts and these same texts write back to and signify on the Greek and Roman Classics, diversifying the horizon of expectation for their future interpretation.
Writers and artists whose work we will examine include Romare Bearden; Dionne Brand; Gwendolyn Brooks; Aimé Césaire; Austin Clarke; Anna Julia Cooper; Rita Dove; W.E.B. Du Bois; Ralph Ellison; Athol Fugard; John Kani, and Winston Ntshona; C.L.R. James; June Jordan; Toni Morrison; Harryette Mullen; Marlene Nourbese Philip; Ola Rotimi; William Sanders Scarborough; Wole Soyinka; Mary Church Terrell; Derek Walcott; Booker T. Washington; Phillis Wheatley; and Richard Wright. We will study these writers in the context of national and transnational histories and networks and in dialogue with relevant theoretical debates. Work for assessment will include a 15-page research paper and the preparation of a teaching syllabus for a course on an aspect of Black Classical Receptions.
Not Offered Every Year
Also Offered As: AFRC 7708, COML 7708
1 Course Unit

CLST 7709 Introduction to Paleography & Book History
Writing and reading are common actions we do every day. Nonetheless they have changed over the centuries, and a fourteenth century manuscript appears to us very different from a Penguin book. The impact of cultural movements such as Humanism, and of historical events, such as the Reformation, reshaped the making of books, and therefore the way of reading them. The course will provide students with an introduction to the history of the book, including elements of paleography, and through direct contact with the subjects of the class: manuscripts and books. Furthermore, a section of the course will focus on digital resources, in order to make students familiar with ongoing projects related to the history of book collections (including the "Philosophical Libraries" and the "Provenance" projects, based at the Scuola Normale Superiore in Pisa and at Penn). The course will be conducted in English; a basic knowledge of Latin is desirable but not required.

Spring
Also Offered As: COML 5111, ITAL 5110
1 Course Unit
CLST 7710 Topics in Medieval Studies: Premodern Animals (c.500-c.1500)
From St. Cuthbert, whose freezing feet were warmed by otters, to St. Guinefort, a miracle-performing greyhound in 13th-century France, to Melusine, the half-fish, half-woman ancestress of the house of Luxembourg (now the Starbucks logo), medieval narratives are deeply inventive in their portrayal of human-animal interactions. This course introduces students to critical animals studies via medieval literature and culture. We will read a range of genres, from philosophical commentaries on Aristotle and theological commentaries on Noah’s ark to werewolf poems, beast fables, political satires, saints’ lives, chivalric romances, bestiaries, natural encyclopaedias, dietary treatises and travel narratives. Among the many topics we will explore are the following: animals in premodern law; comfort and companion animals; vegetarianism across religious cultures; animal symbolism and human virtue; taxonomies of species in relation to race, gender, and class; literary animals and political subversion; menageries and collecting across medieval Europe, the Near East, and Asia; medieval notions of hybridity, compositeness, trans-species identity, and interspecies relationships; art and the global traffic in animals (e.g., ivory, parchment); European encounters with New World animals; and the legacy of medieval animals in contemporary philosophy and media. No prior knowledge of medieval literature is required. Students from all disciplines are welcome.
Also Offered As: COML 5245, ENGL 5245, RELS 6101
1 Course Unit

CLST 7711 People Out of Place Then and Now
Encounters between hosts and strangers are at the core of some of our oldest surviving narratives through time. The actions and decisions taken over the threshold, whether in welcome or repulsion, serve to position society within a moral framework, and simultaneously re/define the framework itself. Asylum negotiations, by their nature, constitute the ‘host’ through pointing to the existence of bodies positioned external to it. Yet, the appeals for refuge also expose the ambiguity of who the host is. In this course we will seek to understand how value is drawn from persons, whose condition is reduced to being bodies out of place. That is whose physical position means removal from – a place of rights, protection and belonging – whether through expulsion or by being relegated to spaces of constrained mobility – asylum seekers, refugees, exiles, captives and those without effective citizenship. We will draw on ancient, on modern and on imaginary liminal settings to investigate the unique role of people in such states for articulating intra-community relations and the space between civil rights and human rights. Individuals and groups in such positions of liminality – whose state is considered one of exception and characterised by precarity, unsettledness and threat of violence have a significant role in articulating the parameters of the non-exceptional – the so called ‘norm’. Here the perplexities of sovereignty are revealed, not only for the host, but for those citizen-strangers, the stateless or people with non-effective citizenship, whose existence lies seemingly beyond the possibilities of sovereign action, and yet there is the power to invoke it.
1 Course Unit

CLST 7801 Historical Grammar of Greek
Investigation of the grammar of Classical Greek from the viewpoint of historical linguistics. The course will offer historical explanations for numerous structural peculiarities of the Greek language and anomalies of Greek grammar, touch on the relationship of Greek with other languages, and incidentally introduce the student to some basic concepts of language analysis likely to be useful in teaching Greek and learning other languages.
Not Offered Every Year
1 Course Unit

CLST 8000 Language Pedagogy Workshop
The Workshop is intended to serve as a forum for first-time teachers of Latin or Greek. This will include discussing course-plans and pedagogical theories and strategies, collaborating on course materials, and addressing any concerns in the language courses presently being taught.
1 Course Unit

CLST 8888 Local Project
Participation in, or pursuit of, a community-service or public-facing project or participation in an outreach program. Proposal and outcome subject to approval by graduate chair.
1 Course Unit

CLST 9000 Dissertation Prospectus Workshop
Designed to prepare graduates in any aspect of study in the ancient world to prepare for the dissertation prospectus. Course will be centered around individual presentations and group critique of prospectus’ in process, as well the fundamentals of large-project research design and presentation.
Spring
Also Offered As: ANCH 9000
1 Course Unit

CLST 9900 Masters Thesis
This course is taken by Masters students writing a thesis.
Fall or Spring
0 Course Units

CLST 9950 Dissertation
This course is taken by students writing a doctoral dissertation.
Fall or Spring
0 Course Units

CLST 9991 Special Topic
Independent study advised by faculty, usually taken in the third year (earlier only by permission of the graduate chair).
1 Course Unit

CLST 9999 Independent Study
Study devoted to pursuing a specific research topic, reading in a specific subject area or scholarly literature in English and other languages, or preparing a conference paper, publication, or comparable project. Proposal and outcome subject to approval by graduate chair.
Fall or Spring
1 Course Unit

Classics (CLSC)
The courses listed on this page are exclusive to the LPS BAAS degree ([https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/](https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/)) and LPS Online certificates ([https://lpsonline.sas.upenn.edu/academics/certificates/](https://lpsonline.sas.upenn.edu/academics/certificates/)).
CLSC 1000 Greek and Roman Mythology
Myths are traditional stories that have endured many years. Some of them have to do with events of great importance, such as the founding of a nation. Others tell the stories of great heroes and heroines and their exploits and courage in the face of adversity. Still others are simple tales about otherwise unremarkable people who get into trouble or do some great deed. What are we to make of all these tales, and why do people seem to like to hear them? This course will focus on the myths of ancient Greece and Rome, as well as a few contemporary American ones, as a way of exploring the nature of myth and the function it plays for individuals, societies, and nations. We will also pay some attention to the way the Greeks and Romans themselves understood their own myths. Are myths subtle codes that contain some universal truth? Are they a window on the deep recesses of a particular culture? Are they entertaining stories that people like to tell over and over? Are they a set of blinders that all of us wear, though we do not realize it? We investigate these questions through a variety of topics creation of the universe between gods and mortals, religion and family, sex, love, madness, and death.
1 Course Unit

CLSC 1200 Archaeology of Greece and Rome
The monuments and material remains of ancient Mediterranean civilizations have shaped a discourse about western civilization for centuries. From the so-called Tomb of Atreus at Mycenae to the colosseum in Romel, the physical remains of the past have been seen as signs of social sophistication, of overweening hubris, of imperial exploitation, of lost greatness. This course introduces you to the material remains of the ancient Mediterranean and their contested significance today. Chronologically organized, it will explore both great monuments and humble dwellings, using material remains to examine the religions, economies and social structure of the Bronze Age through the late Roman empire. In doing so, it will challenge the notion of "western" civilization by probing the constant connections between the Mediterranean and the east, and the myriad of ways that ancient social practices, as evident through archaeology, challenge our own values and assumptions. The course will also ask how archaeology has been itself shaped by national politics and national identity, and how these monuments continue to exert a powerful impact today - as economic drivers, as contested symbols, and as part of a fragile heritage increasingly under threat.
1 Course Unit

CLSC 2500 Ancient Cities
The Greco-Roman world was a world of cities. From the ancient Greek city-states (or poleis), to the cosmopolitan cities that appeared in the era of Alexander the Great and his successors, and to the modern city-projects of the Roman Empire. This course examines the architectural and urban developments of Greek and Roman cities together with central political institutions and religious and social practices that were associated with them. In studying a diversity of visual, material and textual evidence–such as urban form, architectural and sculptural monuments, as well as literary sources and epigraphic evidence–the course addresses both the structure of the urban fabric and the socio-political situation of ancient Greek and Roman cities.
1 Course Unit

Climate Change (CLCH)
The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).
CLCH 2300 Climate Change
Climate change is happening right now! Climate change is a hoax this is normal variation! Climate change is something we can worry about in 50 to 100 years, no need to worry about it now. On an almost daily basis we are bombarded by mixed messages about climate in the media. Who is right? What is the truth? This course will examine the cryosphere and build on the previous Climate Certificate courses CLCH 160 Oceanography and CLCH 220 Atmospheric Science to better understand Earth's climate system. We will explore past climate, how we know what that climate was like, and how and why we believe it has changed. We will then examine current evidence for climate change (sea level rise, loss of glacier mass, changes in weather systems) and critique various climate models. Once the class has a good understanding of the science behind climate change we will examine potential impacts in various parts of the world. Finally we will examine climate policy in the US at the federal, state and local level and in various parts of the world.
1 Course Unit

CLCH 3000 Communicating Science
Even the most brilliant scientists must be able to communicate clearly to effectively share their enthusiasm for their fields. Relating scientific concepts and quantitative data to colleagues is very different than sharing it with the general public. This course will show students how to refine their communication skills in crafting messages to address different audiences and genres. There are no required prerequisites for this course, although students pursuing the Certificate in Climate Change are strongly encouraged to already have completed CLCH 160: Oceanography, CLCH 220: Atmospheric Science, and CLCH 230: Climate Change prior to enrolling in this course.
1 Course Unit

CLCH 3100 Global Environmental Issues
Wildfires, deforestation, air pollution, plastics in the ocean, lead in water, and increasingly destructive natural disasters have all been in the news lately. What are the underlying causes? What can be done? In this course students will examine eight environmental issues. They will become familiar with the current knowledge, debates, human impacts, economic consequences, policies, and potential solutions for each issue. Lectures will introduce each of the disciplines that contribute to the dialogue on these environmental issues, while a final project will allow students to dive deeper into one major environmental issue within the context of each of these disciplines. In addition to lectures, readings, and discussion there is a semester-long group project culminating in a final paper.
1 Course Unit

Cognitive Science (COGS)

COGS 1001 Introduction to Cognitive Science
How does mind work? This course surveys a wide range of answers to this question from disciplines ranging from philosophy to neuroscience. The course devotes special attention to the use of simple computational and mathematical models. Topics include perception, learning, memory, decision making, emotion and consciousness. The course shows how the different views from the parent disciplines interact and identifies some common themes among the theories that have been proposed. The course pays particular attention to the distinctive role of computation in such theories and provides an introduction to some of the main directions of current research in the field. It is a requirement for the BA in Cognitive Science, the BAS in Computer and Cognitive Science, and the minor in Cognitive Science, and it is recommended for students taking the dual degree in Computer and Cognitive Science.
Fall
Also Offered As: CIS 1400, LING 1005, PHIL 1840, PSYC 1333
1 Course Unit

COGS 2982 Study Abroad
Departmental permission required
1 Course Unit

COGS 3998 Senior Thesis
This course is a directed study intended for cognitive science majors who have been admitted to the cognitive science honors program. Upon admission into the program, students may register for this course under the direction of their thesis supervisor.
Fall or Spring
1 Course Unit

COGS 3999 Independent Study
Departmental permission required
Fall or Spring
1 Course Unit

COGS 4290 Big Data, Memory and the Human Brain
This course fulfills the research experience requirement in the psychology major. Advances in brain recording methods over the last decade have generated vastly more brain data than had been collected by neuroscientists during the previous century. To understand the human brain, scientists must now use computational methods that exploit the power of these huge data sets. This course will introduce you to the use of big data analytics in the study of human memory. Through hands-on Python-based programming projects, we will analyze very large data sets both to replicate existing phenomena and to make new discoveries. Programming experience in python is required for this course.
Fall, even numbered years only
Also Offered As: PSYC 4290
1 Course Unit
**College (COLL)**

**COLL 0010 Pre-First Year Program in WRIT/MATH/BIOL**

In this course, students will participate in a month-long academic program that covers Writing, Math, and Biology. The Writing course focuses mainly on writing about literature, students will learn general principles and strategies for good writing in various disciplines and genres. “Place and Belonging” will introduce students to a range of writing about the ways our social and geographical locations shape our sense of self and our personal feelings of connection or alienation. Students will read a short novel, stories, essays, and poems by authors from the U.S. and abroad. All these works are attempts to give written form to the relationships between people and the places they inhabit. The Math course will be based on a diagnostic exam and will either: cover Sets, Logic, Number Theory for students with little math experience or interest; Intense Algebra and Pre-Calc Review, Introduction to Limits for students who are may or may not be confident in their math preparation and could benefit from a review of Algebra and PreCalculus; Covers a quick Pre-Calc review, Limits, Derivatives for students who have taken AB Calculus and are confident in their performance; or Derivatives, Applications, Integrals for students who have taken BC Calculus and are confident in their performance. The Biology course will include cellular respiration, genetics, and molecular biology. This course will use lectures, class discussion of current topics, group work, practice questions, quizzes, and lab to help students understand important concepts and develop skills needed to succeed in college-level biology courses.

Summer Term
0-1 Course Unit

---

**COLL 0020 Pre-First Year Program in WRIT/MATH/PSYC**

In this course, students will participate in a month-long academic program that covers Writing, Math, and Psychology. The Writing course focuses mainly on writing about literature, students will learn general principles and strategies for good writing in various disciplines and genres. “Place and Belonging” will introduce students to a range of writing about the ways our social and geographical locations shape our sense of self and our personal feelings of connection or alienation. Students will read a short novel, stories, essays, and poems by authors from the U.S. and abroad. All these works are attempts to give written form to the relationships between people and the places they inhabit. The Math course will be based on a diagnostic exam and will either: cover Sets, Logic, Number Theory for students with little math experience or interest; Intense Algebra and Pre-Calc Review, Introduction to Limits for students who are may or may not be confident in their math preparation and could benefit from a review of Algebra and PreCalculus; Covers a quick Pre-Calc review, Limits, Derivatives for students who have taken AB Calculus and are confident in their performance; or Derivatives, Applications, Integrals for students who have taken BC Calculus and are confident in their performance. The Psychology course introduces students to the scientific study of human moral psychology. It will cover several topics central to our understanding of humans as moral beings, including: What is morality? What role does morality play in social life? How do people make moral judgments? Is there such a thing as true altruism? Why do people sometimes behave immorally? What is the nature of human evil (and is there such a thing)? What role does morality play in political disagreement? Lectures will provide an introductory overview of research in these and other topics, and will be accompanied by readings that will enhance students’ understanding. Beyond the topics covered above, this course will also help students better understand the nature of hypothesis testing in psychological research, the strengths and weaknesses of different experimental designs, how to detect confounds in experimental designs, how to draw accurate inferences from data, and how to communicate scientific findings.

0-1 Course Unit

---

**COLL 0135 The Art of Speaking**

This course is designed to equip students with the major tenets of rhetorical studies and peer education necessary to work as a CWiC speaking advisor. The course is a practicum that aims to develop students’ abilities as speakers, as critical listeners and as advisors able to help others develop those abilities. In addition to creating and presenting individual presentations, students present workshops and practice advising. During this ABCS course, students will practice their advising skills by coaching and mentoring students at a public school in Philadelphia.

Fall
1 Course Unit
Communications (COMM)

COMM 0025 Fellows Proseminar I (SNF Paideia Program Course)
The SNF Paideia Fellows Proseminar I introduces sophomore SNF Paideia Fellows to academic research and practice related to the civic engagement mission of the SNF Paideia program. We engage diverse perspectives on the purpose of higher education, the nature of citizenship, the value of civility, and the relationship between individual and community wellness. Students will develop their personal civic identity and wellness goals through intentional course exercises and assignments. The goal of the course is to equip students with the knowledge, skills, experiences, and ethical frameworks for healthy, sustainable and robust civic leadership at Penn and in their local, national, and global communities. This course is open only to SNF Paideia Fellows, who are required to take it during the fall of their sophomore year.
Fall
0.5 Course Units

COMM 0026 Fellows Proseminar II (SNF Paideia Program Course)
In the SNF Paideia Fellows Proseminar II, Fellows engage in deeper exploration of the themes of dialogue, citizenship, wellness, and service, especially considering potential connections with their chosen major. In this course, junior Fellows investigate engaged scholarship in their home discipline and reflect on the ways their designated SNF Paideia courses influence their research, career, and service trajectories. Building on the course materials from Proseminar I, Fellows will delve deeper into the scholarship that evaluates dialogue strategies for the ways they contribute to service, citizenship and wellness. Moving beyond Penn, the course invites several researchers or practitioners at the national or international level to share how they put theory into direct practice addressing real world problems. The culminating assignment is to develop a draft proposal for a capstone project that in some way incorporates SNF Paideia themes. Fellows in this course also develop their leadership skills by mentoring students in the sophomore Fellows course. The goal of the course is to equip students with the knowledge, skills, experiences, and ethical frameworks for healthy, sustainable and robust civic leadership at Penn and in their local, national, and global communities. This course is open only to SNF Paideia Fellows, who are required to take it during the fall of their junior year.
Fall
0.5 Course Units

COMM 1230 Critical Approaches to Popular Culture
Popular culture has been alternately condemned as too trivial to warrant attention and too powerful to resist. Its consumers have been dubbed fashion victims, couch potatoes, and victims of propaganda. This course considers these critiques, as well as those that suggest that popular culture can be emancipatory, allowing for the creation and renegotiation of meaning. Over the course of the semester, we consider the impacts of various forms of popular culture, and discuss their effects on how we see ourselves and others. We explore the ever-shifting distinctions between high, middlebrow, and low culture and analyze how power and resistance structure the production and consumption of popular texts.
Fall
1 Course Unit

COMM 1250 Introduction to Communication Behavior
This course introduces students to social science research regarding the influence of mediated communication on individual and collective attitudes, beliefs, and behaviors. Throughout the semester we explore the impacts of various types of mediated content (e.g., violence, gender and sexuality, race and ethnicity, politics and activism, health and wellbeing); genres (e.g., news, entertainment, educational, marketing); and mediums (e.g., television, film, social media) on what we think and how we act. The aim of the course is to provide students with (1) a general understanding of both the positive and negative effects of mediated communication on people's personal, professional, social, and civic lives; and (2) the basic conceptual tools needed to evaluate the assumptions, theories, methods, and empirical evidence supporting these presumed effects. Class meets twice a week as a lecture and once a week in smaller discussion groups led by graduate teaching fellows. In addition to a midterm exam and occasional short assignments, students have the option of producing a multi-media capstone project or a final term paper on a media-effects topic of their choice. Group projects or final papers are permitted, with approval of the instructor.
Spring
1 Course Unit

COMM 1300 Media Industries and Society
The aim of this course is to prepare you to work in the media business as well as to be an informed citizen by acquainting you with the work and language of media practitioners. The class also investigates the exciting, (and to some employed there) scary changes taking place in the news industry, internet industry, advertising industry, television industry, movie industry, magazine industry, and several other areas of the media system. In doing that, the course ranges over economic, political, legal, historical, and cultural considerations that shape what we see when we go online, use social media, watch TV, read books, play video games, and more.
Spring
1 Course Unit

COMM 1330 Data Science for Beginners
This course serves as an introduction to the world of data science and is aimed at students who have little to no background in data science, statistics, or programming. The core content of the course focuses on data acquisition and wrangling, exploratory data analysis, data visualization, inference, modelling, and effective communication of results. This course, which will rely on R, the statistical programming language, will prepare students for more advanced data science and computational social science courses.
Not Offered Every Year
1 Course Unit
COMM 2010 Power and Misconduct in Popular Music: An Archival Study
This course asks students to interrogate power and identity in America's popular music industries through a close examination of sexism and sexual misconduct. Designed as a research practicum that teaches interdisciplinary methods of archival research, this course explores the challenges individuals face within the cultural and professional landscapes of popular music. We will spend the first half of the semester exploring theories and practices of archives and archiving, developing critical analytical approaches to archival research in media and popular music. In the second half of the semester, students will apply this methodological and theoretical foundation to a focused examination of select case studies. Students will engage with a range of primary sources and archival texts, including memoirs, artist biographies, music histories, documentaries, and traditional and social media to consider how dynamics of power intersect in popular music. This course will provide students with the opportunity to contribute important insight and archival research to a new digital archive on sexual misconduct in America's popular music industries. Students will gain hands-on experience conducting in-depth media analyses and archival research, which will culminate in the development of a comprehensive research portfolio.
Not Offered Every Year
1 Course Unit

COMM 2011 The Art and Science of Story-Centered Research
Stories are a powerful communication tool that can be used to entertain, connect, inform, and inspire. Stories also play varied and vital roles in communication research. This course explores the relationship between storytelling, inquiry, and knowledge production. Engaging with interdisciplinary and multi-modal scholarship, students will learn how stories can be used to formulate and answer research questions, shape and share knowledge, and create meaningful change. Students will develop foundational knowledge in a variety of qualitative methods (e.g., interviewing, observation, textual analysis), and foster their skills producing accessible, ethical, critical, and creative research.
1 Course Unit

COMM 2012 Journalism, Crime, and Justice
This class explores the politics of crime reporting in an age of mass incarceration, police expansionism, and endemic racial and gender injustice and economic inequality. Students will be introduced to the various institutional, legal, economic, symbolic, and material entanglements between news agencies and journalists, on the one hand, and criminal justice institutions, on the other. Adopting a critical cultural approach, we will consider issues such as: accuracy, bias, and distortion in crime reporting; the newsworthiness of crime; stereotyping and criminalization; access and gatekeeping; moral panics and electoral politics; ‘copaganda’ and the professionalization of police public relations; the rise of citizen journalism and ‘cop watching’; and emerging practices of self-mediation and storytelling. The class will also introduce students to important critical perspectives on how practices of journalistic storytelling and representation are implicated in the politics of crime control and broader struggles for safety and justice.
1 Course Unit

COMM 2100 Quantitative Research Methods in Communication
This course is a general overview of the important components of social research. The goal of the course is to understand the logic behind social science research, be able to view research with a critical eye and to engage in the production of research. It will cover defining research problems, research design, assessing research quality, sampling, measurement, and causal inference. The statistical methods covered will include descriptive and inferential statistics, measures of association for categorical and continuous variables, inferences about means, and the basic language of data analysis. Course activities will include lectures, class exercises, reading published scientific articles, using statistical software, and discussing research featured in the news.
Fall or Spring
1 Course Unit

COMM 2130 Social Media and Social Life
The irruption of social media as a means of communication has been said to transform many dimensions of social life, from how we interact with significant others to how we engage in public life - but has it, really? Regardless of the specific technology (blogs, micro-blogs, social networking sites, peer-to-peer networks), social media make interdependence more prevalent, and exposure to information more pervasive. But social networks, and the ties that bring us together, have long mediated the way in which we obtain information, engage in public discussion, and are recruited or mobilized for a public cause. So what has social media brought to the table that is new? This course will evaluate the evidence that can help us answer this question, as well as challenge conventional views and discuss questions that remain open. The effects of social media on ideological polarization, social influence and peer pressure, agenda-setting dynamics, and the formation and effects of social capital are examples of the substantive topics and theoretical debates that will be considered.
Not Offered Every Year
1 Course Unit

COMM 2140 Media and South Asia
This course examines the historical development of media institutions across the Indian subcontinent, and how media texts have helped to shape post-colonial national/cultural/religious/social identities, nationalism, and geopolitical relations. The course looks at how the post-colonial State in South Asia (India, Pakistan, Bangladesh, Nepal, Bhutan, and Sri Lanka) has interacted with media industries, and the implications of this interaction.
Not Offered Every Year
Also Offered As: SAST 1110
1 Course Unit

COMM 2150 Children and Media
This course examines children's relationships to media in their historic, economic, political, and social contexts. The class explores the ways in which "childhood" is created and understood as a time of life that is qualitatively unique and socially constructed over time. It continues with a review of various theories of child development as they inform children's relationships with and understanding of media. It reviews public policies designed to empower parents and limit children's exposure to potentially problematic media content and simultaneously considers the economic forces that shape what children see and buy. The course also provides a critical examination of research on the impact of media on children's physical, cognitive, social, and emotional development. Students in this course produce a proposal for an educational children's media product as their final project.
Fall
1 Course Unit
COMM 2260 Introduction to Political Communication
This course is an introduction to the field of political communication and conceptual approaches to analyzing communication in various forms, including advertising, speech making, campaign debates, and candidates' and office-holders' uses of social media and efforts to frame news. The focus of this course is on the interplay in the U.S. between media and politics. The course includes a history of campaign practices from the 1952 presidential contest through the election of 2020.
Fall
Also Offered As: PSCI 1210
1 Course Unit

COMM 2300 Advertising and Society
This course explores the historical and contemporary role of the advertising industry in the U.S. media system. The course will cover the social history of advertising; the structure of today's advertising industry; the workings of advertising in digital media; and critical analyses of advertising's role in society. In addition to academic writings, the class will read industry reports to understand contemporary strategies and processes.
Not Offered Every Year
1 Course Unit

COMM 2310 Gender and Sexuality in Global Media
Media play a powerful role in both constructing and challenging local and global understandings of gender and sexuality. This course focuses on how practices and norms of gender and sexuality are represented, complicated, and resisted across different forms of global media. We draw on insights from media/communication, anthropology, and queer and feminist theory to examine historical and contemporary media production, consumption, and circulation across nations, with a special emphasis on the Global South. Via a series of case studies (including TV melodrama, the global #metoo movement, and gay dating apps), we will explore the "top down" power of media industries and nation-states, the "bottom up" power of media users, and the dynamic cross-cultural encounters in which they interact.
1 Course Unit

COMM 2320 Gender and Media
This course examines various images and performances of gender in media focusing on the late 20th century to the present. Using theories from cultural and media studies, film and gender studies, and communication studies, we will explore different processes and practices of gender, specifically in terms of media representations of femininity, masculinity, and other genders. The purpose of the course is to gain insight into the ways in which gender, and its intersections with race, ethnicity, and class, is enacted, represented, and has an impact on cultural formations and communication. We will explore the socio-cultural mechanisms that shape our individual and collective notions of identity and essentially teach us what it means to be gendered masculine or feminine or align with other identifications. The media plays a major role in "constructing" gender, and popular views of what "appropriate" gendering is, in turn, shape how we communicate with each other. In examining cultural myths about gender as well as ongoing debates on gender construction, we will consider how gender is tied in with notions of power, identity, voice, and other defining identity categories (race, socio-economic status, sexuality, etc.). Throughout the course, we will examine a variety of media forms, from film to television to streaming platforms, as well as social media such as Twitter, Instagram, and TikTok.
Not Offered Every Year
1 Course Unit

COMM 2410 Introduction to Network Dynamics and Collective Behavior
How do new ideas spread online? Why do some take off and others fail? What determines when people will cooperate and when they will be selfish? Where do our social norms come from, and what happens when they are disrupted – as they were during the first year of the pandemic? How did 'wearing a face mask' and 'getting vaccinated' become political issues and what role did social media play in this? Why is communicating about climate change so challenging? The last several decades in social science have seen remarkable breakthroughs in our answers to these and other profound questions about societal communication and evolution. One of the most powerful and influential tools behind these breakthroughs is computational modeling. Models are used to simulate the spread COVID, and to test strategies for halting the pandemic. They are used to test strategies for international relations, and to predict the emergence of new terrorist cells. Models are also used to predict voting outcomes and create better forms of political representation. This class does not involve coding and no programming experience is necessary. Instead, students will be introduced to a range of computation models and learn how they work to guide our governments and businesses. You will learn about the big ideas and simple formulas that are used to predict the future of our economy, our society, and our ecology.
1 Course Unit

COMM 2445 Civil Dialogue Seminar: Civic Engagement In A Divided Nation
The goal of this course is to help students develop concepts, tools, dispositions, and skills that will help them engage productively in the ongoing experiment of American democracy. This nation's founders created a governmental structure that sets up an ongoing and expansive conversation about how to manage the tensions and tradeoffs between competing values and notions of the public good. These tensions can never be fully resolved or eliminated; they are intrinsic to the American experiment. Every generation must struggle to find its own balance, in no small part because in every era people who previously had been unjustly excluded from the conversation find a way to be heard. That inevitably introduces new values and changes how enduring ones get interpreted. The challenge of each generation is to develop that capacity to its fullest. The goal of this course is to equip you to engage fully in your generation's renewal of the conversation. Class sessions will use a variety of modalities: lecture, discussion, case studies, opportunities to experiment with the tools and techniques of civil dialogue and writing. Each session will include some theory or historical context, a case study, exploration of a key concept of civic dialogue with a related tool or technique, and an interactive exercise. This course is part of a larger effort by the university (called the Paideia program) to help Penn students build these skills.
Fall or Spring
Also Offered As: EDUC 2445, URBS 2445
1 Course Unit
COMM 2530 Divine Mediation: Media and the Shaping of Religious Identity and Practice
This course surveys how religious groups interact with media, and how media texts and institutions have played a role in defining religions. The intersections between media and religion are numerous, from the mediated growth of national identities, the rise of online religious extremism, the ingroup/outgroup dynamics within and among religious groups, and the ways in which media is used to legitimize/delegitimize theological positions. We examine how media institutions have played a role in propping up religious norms (both explicitly and implicitly) and the shaping of religious identities. This course looks at media as both enforcer and disruptor, as well as the ways in which religions have been challenged by those with media literacy and access. The evolution of religious practice and social norms can also be linked with technological innovations such as the mass distribution of Bibles in the 15th and 16th century thanks to the printing press, the rise of radio and television messiahs in the 20th century, and the individualization of religious practices through new apps.
Not Offered Every Year
1 Course Unit

COMM 2550 Foundations in Data Science for Communication
Acquiring and demonstrating data literacy, namely, the ability to find, appropriately handle, analyze, and communicate insights from the rapidly growing spectrum of data in all aspects of modern life, is now a vital skill for virtually all workers and researchers. This course provides a foundation in the concepts, methods, and applications of data science (including network science) to questions in Communication. The course will build data literacy and help you start to develop skills working with large and complex datasets of relevance to communication behaviors in the digital world. Students will become familiar with basic programming skills for data analysis using the R and Python programming languages, along with some of the common tools used for network and data analysis and visualization. It will provide an introduction and overview of the key elements of applied data science, including the analysis of networks and machine learning (ML). The practical and ethical challenges of 'big data' and the increasing use of algorithmic (ML) decision systems will also be explored. No prior programming or data analysis experience is required.
1 Course Unit

COMM 2600 Media Activism Studies
This seminar provides an introduction to the politics and tactics underlying various types of media activism. The class will examine interventions aimed at media representations, labor relations in media production, media policy reform, activists’ strategic communications, and “alternative” media making. The course will draw from an overview of the existing scholarship on media activism, as well as close analyses of actual activist practices within both old and new media at local, national, and global levels. We will study how various political groups, past and present, use media to advance their interests and effect social change. Each member of the class will choose one case study of an activist group or campaign to explore throughout the semester.
Not Offered Every Year
1 Course Unit

COMM 2620 Social Movements
This course examines the main sociological theories and concepts in the analysis of revolutions, popular protest, and social movements. Special attention will be given to three theoretical traditions: resource mobilization, political process, and cultural analysis. We will study narratives, symbols, performances, and old and new media forms in the construction of identities and solidarities and the mobilization of publics. Historical and contemporary cases from the U.S. and around the world will be examined.
Also Offered As: SOCI 2620
1 Course Unit

COMM 2640 Media Culture & Society in Contemporary China
This course covers Chinese media, culture, and society from the 1970s to the present. It examines the causes and consequences of social and institutional transformation, with an emphasis on civic engagement, cultural change, and the impact of digital media. In analyzing these developments, the course pays special attention to historical contexts and draws on concepts and theories from sociology, communication, and related fields. The course helps students develop nuanced and sophisticated approaches to the understanding of contemporary Chinese media, culture, and society and cross-cultural phenomena more broadly.
Also Offered As: SOCI 2640
1 Course Unit

COMM 2750 Communication and Persuasion
This course examines theory, research, and application in the persuasive effects of communication in social and mass contexts. The primary focus will be on the effects of messages on attitudes, opinions, values, and behaviors. Applications include political, commercial, and public service advertising, propaganda, and communication campaigns (e.g., anti-smoking). Students will develop their own communication campaign over the semester. The campaign will include identifying and analyzing the persuasion problem, the target audience's characteristics and media habits, and then creating a persuasive message consistent with research and practice targeted to the problem and its solution.
Not Offered Every Year
1 Course Unit

COMM 2760 How We Change: Social-Psychological and Communication Dynamics (SNF Paideia Program Course)
Have you wondered why people undergo religious conversion, change their political affiliation, suddenly endorse conspiracy theories, alter their taste in music, or seek hypnosis to quit smoking? What is common to these processes of change, and how does resistance to change play out across these seemingly different contexts? In “Why We Change,” we will ask unique questions such as how religious change might highlight methods of transforming public health communications or how the study of attitude change might yield new theories about the impact of life experiences on personality. Broadly speaking, the class will provide an opportunity for students to learn theories of belief formation, attitudes and persuasion, normative influence, and behavioral change. For example, we will work to understand how specific beliefs, such as group stereotypes, or specific attitudes, such as trust and values, change in response to variations in the environment and communication with other people. We will cover culturally based and professional approaches to change, from fear appeals to motivational interviewing, to hypnosis. Students will read empirical studies and conduct observational projects about potential sources of social, cultural, or psychological change and resistance to change in Philadelphia.
Also Offered As: NURS 2760, PSYC 2760
1 Course Unit
COMM 2820 Sick and Satiried - The Insanity of Humor and How it Keeps Us Sane
This course will examine how and why humor, as both an instigator and peacemaker, might be considered one of the most influential and profoundly useful forms of communication devised by human beings. The unique ability of jokes and satire to transcend familiar literary and journalistic forms for the purpose of deepening (or cheapening) socio-philosophical arguments and to inspire (or discourage) debate and participation in public conversations about innumerable political and social issues will be explored. The fearless analytical nature of both high and lowbrow comedy will be examined, as well as its defective qualities. The course will enable students to consider, through analysis of both contemporary and historical examples, the political and cultural satirist's unique role in society as a witness, a predictor and, in some circumstances, an instigator of public and private debate. We will examine the role of satire in revealing and mediating differences between disparate social groups based not solely on language differences, but also on political affiliation, cultural identity, ethnicity, gender, religious fellowship, sexual orientation, and socio-economic caste.
Fall
1 Course Unit

COMM 2860 Masculinity and the Media
This course examines the construction of masculinity in American and global media, highlighting how masculinity developed in parallel to social, cultural, economic, and political norms. Using case studies and multiple theoretical approaches, we will seek to understand how constructions of masculinity across the world have served to uphold - or challenge - the status quo. Analysis of individual texts across time periods and different cultural contexts will also help us better come to terms with the idea of masculinity - and its proliferation across media platforms.
Not Offered Every Year
1 Course Unit

COMM 2920 WARNING! Graphic Content - Political Cartoons, Comix, and the Uncensored Artistic Mind
This course examines the past, present, and future of political cartooning, underground comix, graphic journalism and protest art, exploring the purpose and significance of image-based communication as an unparalleled propagator of both noble and nefarious ideas. The work presented will be chosen for its unique ability to demonstrate the inflammatory effect of weaponized visual jokes, uncensored commentary, and critical thinking on a society so often perplexed by artistic free expression and radicalized creative candor.
Spring
1 Course Unit

COMM 2991 Special Topics in Communication
Special topics course covering a variety of topics in communication. A detailed course description can be found in the Section Details area of the term offering, or by visiting the Annenberg School for Communication website: https://www.asc.upenn.edu/undergraduate/courses.
Not Offered Every Year
1 Course Unit

COMM 2992 Special Topics in Communication
Special topics course covering a variety of topics in communication. A detailed course description can be found in the Section Details area of the term offering, or by visiting the Annenberg School for Communication website: https://www.asc.upenn.edu/undergraduate/courses.
Not Offered Every Year
1 Course Unit

COMM 3010 Global Media and Society: Perspectives on Africa
This course offers an introduction to media, culture, and society in postcolonial Africa. It takes into account diverse media forms and cultures across the continent, to examine ways in which media interconnect with globalization, colonialism and imperialism, development, and social change. The course is designed to train students to do critical comparative analyses of media across nations. Suggested readings, activities, and assignments are designed to help students situate media technologies, forms, and artifacts in relation to broader political, economic, social, and cultural contexts. At the end of the course, students will be able to contextualize media across national borders paying attention to the ways in which media both shape and are shaped by social, political, religious, and economic factors.
1 Course Unit

COMM 3011 Media, Medicine, and the Art of Mortality
This seminar explores how death has shaped and been shaped by modern communication, healthcare, and the arts. We'll examine the politics, ethics, and aesthetics of mortality in film, television, journalism, digital media, and literature. Our methodological approach will build on insights from media studies and medical humanities. Topics may include the emergence of the "end-of-life" as a life stage in popular culture and medical care; protest, activism, and other political movements against death and injustice; and the creation of knowledge, media, and art in the wake of mourning and loss.
1 Course Unit

COMM 3091 Communication Internship Seminar
This seminar provides a scholarly counterpart for students' internships in various communication-related organizations. Through individually selected readings, class discussion, and individual conferences, students develop their own independent research agendas which investigate aspects of their internship experience or industry. In written field notes and a final paper, students combine communication theory and practice in pursuit of their individual questions. This course is restricted to Comm majors.
Two Term Class, Student may enter either term; credit given for either 1 Course Unit

COMM 3100 The Communication Research Experience
In this hands-on course students will work with active researchers in the Communication Neuroscience lab at Penn to gain experience in how research works. Students will have the opportunity to interact closely with a mentor and will gain experience conceptualizing research questions, designing experiments, and collecting and analyzing data.
Not Offered Every Year
Prerequisite: (COMM 2100 OR HSOC 2002 OR INTR 3500 OR MKTG 2120 OR SOCI 2000 OR URBS 2000)
1 Course Unit

COMM 3120 Studying Digital Worlds: Qualitative Social Science for Research
This course will prepare students to design and conduct qualitative research projects that seek to understand the social life of digital technologies and digital media. Students will learn about inductive research design and key qualitative methods such as interviewing, ethnography, and content analysis. We will also explore the ethical challenges of research in digital worlds. This qualitative methods course will equip students to analyze interaction in digital media environments, with apps, and elsewhere in everyday life.
Not Offered Every Year
1 Course Unit
COMM 3130 Computational Text Analysis for Communication Research
In this 'big data' era, presidents and popes tweet daily. Anyone can broadcast their thoughts and experiences through social media. Speeches, debates, and events are recorded in online text archives. The resulting explosion of available textual data means that journalists and marketers summarize ideas and events by visualizing the results of textual analysis (the ubiquitous 'word cloud' just scratches the surface of what is possible). Automated text analysis reveals similarities and differences between groups of people and ideological positions. In this hands-on course students will learn how to manage large textual datasets (e.g. Twitter, YouTube, news stories) to investigate research questions. They will work through a series of steps to collect, organize, analyze, and present textual data by using automated tools toward a final project of relevant interest. The course will cover linguistic theory and techniques that can be applied to textual data (particularly from the fields of corpus linguistics and natural language processing). No prior programming experience is required. Through this course students will gain skills writing Python programs to handle large amounts of textual data and become familiar with one of the key techniques used by data scientists, which is currently one of the most in-demand jobs.

Fall 1 Course Unit

COMM 3180 Stories From Data: Introduction to Programming for Data Journalism
Today masses of data are available everywhere, capturing information on just about everything and anything. Related but distinct data streams about newsworthy events and issues – including activity from social media and open data sources (e.g., The Open Government Initiative) – have given rise to a new source for and style of reporting sometimes called Data Journalism. Increasingly, news sites and information portals present visually engaging, dynamic, and interactive stories linked to the underlying data (e.g., The Guardian DataBlog). This course offers an introduction to Python programming for data analysis and visualization. Students will learn how to collect, analyze, and present various forms of data. Because numbers and their visualizations do not speak for themselves but require context, interpretation, and narrative, students will practice making effective stories from data and presenting them in blogs and other formats. No programming experience is required for this class.

Fall 1 Course Unit

COMM 3220 History and Theory of Freedom of Expression (SNF Paideia Program Course)
If we were to fashion new laws for speech from scratch in our media-saturated, fake news world, would they be different laws from those we have? The rootedness of free speech in our civic DNA springs from enduring philosophical arguments over what truth and knowledge are, what human nature is like, and what we think society owes to and requires from its members. We explore foundational debates at the core of the First Amendment, the evolving interpretation of the amendment by the Supreme Court, its determined historical challengers, and struggles over its applicability to contemporary controversies. We address strong claims that unfettered speech is central to democratic societies and strong claims that society can be made more democratic by removing discriminatory speech from social media and public discourse more generally. Every society limits speech in significant ways. What are these limits in the United States, why are these the limits, and are they the ones we want? This reading and discussion seminar meets for lively, informed dialogue and debate.

Spring 1 Course Unit

COMM 3230 Contemporary Politics, Policy, and Journalism
This course focuses on how modern media intersect with politics and government in the 21st century. Case studies will include examining media coverage of the Gore v. Bush 2000 presidential election recount, 9/11, Barack Obama's election and presidency, the Trump administration, and the 2020 election. The course will include several guest speakers, all of them prominent press/political figures. In addition, students will participate in a DC field trip where they will get to hear from, and interact with, Washington leaders in the fields of politics, policy, and journalism. Course materials, in addition to a number of books, will include the New York Times, Washington Post, Wall Street Journal, left- and right-wing social media sites, cable broadcasts, and network news shows. There will be three written assignments: an analysis of the first two weeks of the next Administration; a column or op-ed; and a final research paper. In this discussion-based seminar there will be a premium on class participation.

Spring 1 Course Unit

COMM 3280 Drawing the Blue Line: Police and Power in American Popular Culture (SNF Paideia Program Course)
The police are one of the most heavily imagined institutions in American popular culture. From Cagney and Lacey to Colors, Law & Order, The Wire and The Watchmen, evolving depictions of law enforcement help us to understand larger socio-cultural shifts that have occurred from the post-1968 riots to the dawn of the Black Lives Matter movement in the mid-2010s and police abolition in the early 2020s. Using case study and textual analysis approaches, students will examine how specific police procedural, movies, and other cultural texts showcase police authority in relation to certain communities, and consider how these texts reflect, uphold, and/or challenge prevailing views on law and order and criminal justice. Our explorations of how media and cultural industries have framed policing will pay particular attention to questions of power, race, gender, sexuality, class, and geography. These explorations will also include learning about and learning to dialogue, given the diverse – and often contentious – views about policing in America. Students will have an opportunity to interact with speakers representing different positions that relate to mediated perceptions – as well as lived experiences of – policing. Class assignments and activities will enhance students' abilities to productively discuss complex issues that are frequently sanitized or homogenized within U.S. popular culture.

Not Offered Every Year

1 Course Unit

COMM 3300 The Hidden World of Privacy Policies
The US Federal Trade Commission considers privacy policies essential for internet sites and apps. Lawyers for firms with internet sites and/or apps spend much time writing privacy policies. Yet surveys show that most Americans don’t read the policies, and in fact cannot understand them because of their legal jargon. Moreover, surveys indicate, most Americans don’t even correctly understand what the label privacy policy means. The aim of this course will be to examine this crucial but misunderstood aspect of modern life. You will learn how to read privacy policies, how to understand their strategic business purposes within the internet industry, and how to think about the implications for society when the key rules of surveillance and privacy are hidden from all but a relative few. You will also work with others in the class to create and carry out a survey of college students' understanding of privacy policies. There will be one exam and a paper related to the survey.

Not Offered Every Year

1 Course Unit
COMM 3360 Feminism and the Internet
From the earliest message boards and email chains, the internet has given people a way to connect, not just digitally but sexually. Porn, online dating, sex education, digital technology have made it easier for people to find each other and explore sexuality, but these same tools have also been used in relationships that are exploitative and criminal. In this course, we look at the different connections between sex, gender, queerness and the internet: changing policies regulating sex (like FOSTA and SESTA), the platforms that have created controversies around sex (for example, craigslist, tumblr and Grindr) and shifting norms around how sex and sexuality manifest online. This is an interdisciplinary course that brings together internet studies, queer theory, and cultural studies in order to understand the social and historical dimensions of sex, sexuality and digital technologies.
Not Offered Every Year
Also Offered As: GSWS 3360
1 Course Unit

COMM 3370 Public Health Communication in the Digital Age
This course is designed to explore the role of public health communication in the digital age to influence health behavior change in several areas: infectious disease pandemics, tobacco and substance use, mental health, cancer, nutrition and physical activity and others. Throughout the course, we will discuss a number of important considerations when designing and implementing public health communication interventions. Students will be introduced to theories of health behavior change, models of persuasive communication, practical issues in the design of effective health communication programs, countering misinformation, community engagement, audience segmentation, cultural tailoring to specific audiences, evaluation approaches, ethics, and communication inequalities. We will also explore the use of digital technologies and social media platforms, entertainment education, popular media, and social marketing in delivery of public health communication interventions.
Not Offered Every Year
1 Course Unit

COMM 3390 Critical Perspectives in Journalism
This course aims to provide students with a critical understanding of journalism. It combines theoretical perspectives on the making of news with primary source material produced by and about journalists. Students will analyze theoretical material on journalism -- about how news is made, shaped, and performed -- alongside articles and broadcasts appearing in the media, interviews with journalists in the trade press, and professional reviews. Topics include models of journalistic practice, journalistic values and norms, gatekeeping and sourcing practices, storytelling formats in news, and ethical problems related to misrepresentation, plagiarism, and celebrity.
Spring
1 Course Unit

COMM 3400 Peace Communication: The Use and Abuse of Comm in Intergroup Conflict (SNF Paideia Program Course)
Why are conflicts between groups of humans so tragically predictable? What drives us to exclude, demean and fight with members of other groups? And what can we do about it? In this class, we will examine the biological roots of intergroup conflict between religious, ethnic and political groups, and take a critical view of the ways in which psychology and communication have been employed to help foment or transcend conflict. In the first part of the course, we will examine the theoretical work from intergroup psychology. In the second part of the course, we will examine the specific biases that drive conflict (e.g., stereotypes, prejudices, dehumanization) and how they are measured using both explicit self-report and implicit measures (e.g., physiology, neuroimaging); in the third part, we will explore the interventions that have been demonstrated to work (and fail) to decrease intergroup conflict. No prior experience in psychology or neuroscience is required.
The course is lecture-based, but will include class discussions and in-class activities.
Not Offered Every Year
1 Course Unit

COMM 3450 Adolescence and Media
How are adolescents represented in media and what effects do these portrayals have on developing teens? What makes adolescents a “jackpot market” to be targeted by advertising and how can they be swayed by mediated public health efforts to encourage health-promoting behaviors? Finally, what does the increasingly mediated nature of everyday life mean for adolescents, their friends, and their families during their journey into adulthood? We will explore these questions by reading key empirical studies and by critically analyzing film, music, and public service announcements portraying and/or targeting adolescents from the 1950s to the present day.
Not Offered Every Year
1 Course Unit

COMM 3510 Media and Migration in the 21st Century
This seminar examines how media represent the lives and journeys of people who migrate from the Global South. We explore how migrant stories are framed and circulated across different media networks and we address how public perceptions of migrants shift based on factors such as gender, race, class, and disability. We also consider the affordances and pitfalls of heightened visibility when migrants turn to new media to represent themselves and advocate for rights and recognition. Course materials will include different types of non-fiction media (documentaries, news reports, online content, social media posts) created by a variety of stakeholders (e.g., corporate newsrooms, governments, NGOs, migration activists).
1 Course Unit

COMM 3600 Understanding the Political Economy of Media
This course has two aims. First, assuming that communications are central to any society, it situates media systems within larger national and international social relationships and political structures. Second, this course critically examines the structures of the communication systems themselves, including ownership, profit imperatives, support mechanisms such as advertising and public relations, and the ideologies and government policies that sustain these arrangements. Considering case studies ranging from traditional news and entertainment media to new digital and social media, the course provides a comprehensive survey of the major texts in this vibrant sub-field of media studies.
Not Offered Every Year
1 Course Unit
COMM 3650 Media, the Apocalypse, and the Undead
Global media industries have long been fascinated with the idea of the apocalypse, particularly humanity's attempts at survival against (seemingly) mindless hordes. Whether in the form of zombies or infected masses, cultural industries' preoccupation with humankind's collapse - and potential resilience - has led to lucrative film, comic, and television franchise universes. Using texts from around the world, including - but not limited to - The Night of the Living Dead, The Walking Dead, Black Mirror, Reality Z, Dead Set, KL Zombie, The Road, Ravenous, Bird Box, Train to Busan, Kingdom, Adventure Time, and The Girl with all the Gifts, this course invites students to explore the ways in which media and cultural industries seek to define human existence through the Otherness of the undead/infected. Central to the course will be an examination of the ways in which post-apocalyptic portrayals of human survival amidst rampaging hordes include important commentaries and subtexts about race, gender, power, and class, as well as the connections to a political moment or era.
Not Offered Every Year
1 Course Unit

COMM 3670 Communication in the Networked Age
Communication technologies, including the internet, social media, and countless online applications create the infrastructure and interface through which many of our interactions take place today. This form of networked communication opens new questions about how we establish relationships, engage in public, build a sense of identity, promote social change, or delimit the private domain. The ubiquitous adoption of new technologies has also produced, as a byproduct, new ways of observing the world: many of our interactions now leave a digital trail that, if followed, can help us unravel the determinants and outcomes of human communication in unprecedented ways. This course will give you the theoretical tools to critically analyze the impact that networked technologies have on social life and inform your assessment of current controversies surrounding those technologies.
Not Offered Every Year
1 Course Unit

COMM 3670 Comparative Journalism
This course explores the relationship between journalism and philosophy by examining particular issues in epistemology, political philosophy, ethics, and aesthetics. Topics will include: the concept of a "fact"; the role of the press in the state; whether journalists (like doctors and lawyers) operate according to specialized "professional" ethics; and the limits of journalism as a literary or visual genre. Course readings will include philosophical texts, breaking print journalism, and blogs that specialize in media issues.
Spring
1 Course Unit

COMM 3750 Black Geographies: Race and Visual Culture
What is the relationship between the Flint water crisis, the hyper-policing of racialized people, and the increased surveillance of neighborhoods deemed "poverty-stricken" or "at risk"? How do regimes of security, surveillance, policing, and forms of violence depend upon the concept of "risk" as central to their operation? How is risk informed by systemic racism and forms of anti-Blackness? How does visual culture (e.g., media coverage, documentary photographs, etc.) inform how we come to see and define certain people, communities, and ways of life as "risky"? How have those living in racialized geographies of "risk" found ways to live in, make do, and challenge the faulty narratives of risk? This interdisciplinary course will examine critical debates and key moments—historical (e.g., MOVE bombing in Philadelphia) and contemporary (e.g., Ferguson riots)—that have informed the concept of risk. Over the course of the semester, we will read scholarly texts and engage with objects such as archival documents, photographs, conceptual art, performance art and installations, journalistic texts, and films. This communications course will be approached from a cultural studies perspective, with particular attention to race, gender, and sexuality.
1 Course Unit

COMM 3770 Philosophical Problems of Journalism
This course explores the relationship between journalism and philosophy by examining particular issues in epistemology, political philosophy, ethics, and aesthetics. Topics will include: the concept of a "fact"; the role of the press in the state; whether journalists (like doctors and lawyers) operate according to specialized "professional" ethics; and the limits of journalism as a literary or visual genre. Course readings will include philosophical texts, breaking print journalism, and blogs that specialize in media issues.
Spring
1 Course Unit

COMM 3780 Comparative Journalism
Is journalism the same all over the world? Do press systems and practices differ in fundamental ways that affect how we evaluate them politically, morally, aesthetically, epistemologically, and economically? Where does U.S. journalism fit among the models? This undergraduate seminar will introduce students to concrete differences in journalism around the world, but it won't only be an empirical look at how various press systems operate. We will also examine and argue about which journalistic practices and systems work best for which purposes, and explore the distinctive journalistic and philosophical assumptions and histories that undergird diverse practices and systems. Asian, European, African, and Mideast journalism will all be attended to.
Not Offered Every Year
1 Course Unit
COMM 3880 Ritual Communication
This course explores the power of ritual in contemporary culture. We examine how rituals help forge and strengthen social groups, be they generational, ethnic, religious, familial, regional, professional and/or institutional. We also consider how rituals create and communicate boundaries between “us” and “them” and between “desirable” and “deviant” behaviors. Students will have the opportunity to examine a diverse range of case-studies, from quinceañeras to rodeos, from weddings to reunions. We will explore rituals that unfold at the local level (proms, Thanksgiving dinners), as well as those that most of us experience only in mediated form (Oscars, Super Bowls, Presidential Inaugurations). We will also consider the profoundly disruptive impact of Covid-19 on ritual and explore the creative ways in which people hastily improvised online versions of vital rites of passage. From Gathertown graduations to Zoom memorials, the rapid rise of virtual rituals during the pandemic confirms their fundamental importance to our everyday lives and identities. Students in this interactive course will get to select their own ritual foci, will gain hands-on experience conducting original fieldwork, and will learn how to develop and present compelling research proposals.
1 Course Unit

COMM 3890 Black Visual Culture and Its Archives
This undergraduate seminar examines the intersections of visual culture and race in the United States. It aims to provide a historical, cultural, and visual foundation for understanding the representation of and by Black people from the 19th to the 21st centuries, including texts such as, but not limited to, photography, film, television, conceptual art, and performance. Students will be introduced to critical concepts in the field of visual studies, black studies, communication, cultural studies, and rhetorical studies. The course will pay special attention to concepts such as Blackness, visibility, visibility and invisibility, surveillance, photographic theory, the gaze, and spectatorship. We will consider questions such as: What is “black visual culture”? What are its archives? How is Blackness produced, represented, and negotiated through visual modes? In what ways does Blackness and Black people challenge, refract, and rewrite the various visual modes that have sought to represent it? The course will explore various theoretical and methodological approaches to answering the aforementioned questions and enable students develop their own questions for understanding the complex ways in which race and the visual have been, and continue to be, entangled.
1 Course Unit

COMM 3940 India on Screen: How Global Media Industries Shape Culture and Politics
This course offers an overview of media, culture, and society in contemporary South Asia and the South Asian diaspora worldwide. Engaging with a diversity of media forms and cultures across the subcontinent – Hindi and regional-language cinemas, television, podcasts, social media platforms, and streaming video – we will explore what the histories of media technologies and the production, circulation, and consumption of media reveal about cultural and political developments in South Asia and the South Asian diaspora worldwide. Readings and assignments are designed to help students situate media technologies, forms, and artifacts in relation to broader political-economic, social, and cultural issues involving nationalism, religion, caste, gender, and sexuality.
1 Course Unit

COMM 3950 Communication and the Presidency
This course examines the vital aspect of communication as a tool of the modern Presidency. Reading and class discussions focus on case studies drawn from modern Presidential administrations (beginning with FDR) that demonstrate the elements of successful and unsuccessful Presidential initiatives and the critical factor of communication common to both. This course is also an introduction to primary research methods and to the use of primary research materials in the Presidential Library system.
Two Term Class, Student may enter either term; credit given for either 1 Course Unit

COMM 3970 New Media and Politics
This course examines the evolving media landscape and the political process from three perspectives: 1) the voter, 2) political campaigns and candidates, and 3) the evolving and expanding media environment. The course opens with a broad overview of the main theories of political communication and a historical review of the role played by new media technologies in U.S. political campaigns leading up to 1996, the year the internet debuted in presidential campaigns. The course then follows this evolution from the 1996 presidential campaign to the present. We will take a deep dive into the landmark changes brought on by new media technologies to mobilize, persuade, inform, and fundraise around modern presidential campaigns. Students will gain an understanding of the shifting role of social media and Big Tech as it relates to political content moderation, misinformation, campaign speech/ads, laws governing voting, measuring public opinion, media coverage and participation.
Not Offered Every Year
1 Course Unit

COMM 3991 Special Topics in Communication
Special topics course covering a variety of topics in communication. A detailed course description can be found in the Section Details area of the term offering, or by visiting the Annenberg School for Communication website: https://www.asc.upenn.edu/undergraduate/courses.
Not Offered Every Year
1 Course Unit

COMM 3999 Independent Study
The independent study offers the self-motivated student an opportunity for a tailored, academically rigorous, semester-long investigation into a topic of the student’s choice with faculty supervision. Students must complete and file a designated form, approved and signed by the supervising faculty member and the Associate Dean for Undergraduate Studies. This form must be received by the Undergraduate Office before the end of the first week of classes in the semester in which the independent study will be conducted.
1 Course Unit

COMM 4040 Media and Politics
Media and Politics will examine multiple issues specific to the past and present political media environment in the United States. Focus will be primarily, though not exclusively, on the contemporary news media. Topics covered will include political primaries, how elections have been influenced by the rise of partisan media, selective exposure, freedom of political speech as it relates to elections, the theoretical purpose of elections, money and media, political targeting, etc. We will also explore the quantitative and qualitative methods underlying what is and is not known about how elections work. Under the supervision of the professor, students will write an original research paper examining a specific topic in greater depth.
Not Offered Every Year
Also Offered As: PSCI 2208, PSCI 4208
1 Course Unit
COMM 4050 Media, Public Opinion, and Globalization
This seminar will examine American attitudes toward globalization and the role of the media in shaping public opinion toward events and people beyond our borders. Students will participate in original research on attitudes toward issues tied to globalization such as immigration, international trade, support for international organizations, isolationism, and so forth. Students will also spend time systematically studying the implications of American media coverage of these issues.
Not Offered Every Year
Also Offered As: PSCI 4209
1 Course Unit

COMM 4070 Understanding Social Networks
Digital technologies have made communication networks ubiquitous: even when we can’t really notice them, they mediate most aspects of our daily activities. Networks, however, have always been the backbone of social life: long before Facebook, Twitter, Snapchat, or other similar platforms, communication created channels for information diffusion that linked people in myriad other ways. Through letters, commerce, or simply face to face interactions, people have always been exposed to the behavior of others. These communicative ties embed us into an invisible web of influence that we can make tangible and analyze. This course will teach you how to map those connections in the form of networks, and how to study those networks so that we can improve our understanding of social life. The goal is to help you grasp the consequences of connectivity, and how small changes in the structure of our ties can lead to big differences in how networks behave.
Not Offered Every Year
1 Course Unit

COMM 4110 Communication, Activism, and Social Change
This course examines the communication strategies of 20th and 21st-century social movements, both U.S. and global. We analyze the communication social movements create (including rhetorical persuasion, art activism, bodily argumentation, protest music, media campaigns, public protest, and grassroots organizing), and the role of communication in the identity formation, circulation, and efficacy of social movements. We also consider the communication created by forces seeking to undermine social change, define the study of social movements from a communication perspective, identify major historical and contemporary movements, and apply theories of communication and social change to “real world” activism. Students are required to research and design their own social movement campaign.
Not Offered Every Year
1 Course Unit

COMM 4230 Communication and Social Influence Laboratory
Considerable resources are devoted to constructing mass media campaigns that persuade individuals to change their behavior. In addition, individuals powerfully influence one another without even knowing it. Still, our ability to design and select optimal messages and interventions is far from perfect. This course will review investigations in social and cognitive psychology and communication sciences that attempt to circumvent the limits of introspection by using biological and implicit measures, with particular focus on neuroimaging studies of social influence and media effects.
Not Offered Every Year
Prerequisite: COMM 2750
1 Course Unit

COMM 4280 Conventions, Debates, and Campaigns
Offered every four years to coincide with the U.S. presidential election cycle, this course focuses broadly on the Democratic and Republican national conventions and the post-conventions campaign lasting until election day. Seminar members will attend either one or both conventions in order to make a close study of the convention process as well as the role of the convention in launching the two major party nominees. Students will explore how political appeals are fashioned and presented; how campaign themes develop; how efforts are split between persuading the electorate versus mobilizing the party faithful; the role of political parties, non-governmental organizations (NGOs), and political action committees (PACs); how the campaigns forecast governance and serve American democracy. Students will produce comprehensive group reports on the conventions, debates, or major aspects of the unfolding campaigns.
Not Offered Every Year
1 Course Unit

COMM 4320 Digital Inequalities
Digital information and communication technologies are intertwined with our everyday lives, from banking, to working, and dating. They’re also increasingly crucial parts of our most powerful institutions, from policing, to the welfare state, and education. This course examines the ways that these technologies combine with traditional axes of inequality like race, gender, and class in ways that may deepen social inequality. We’ll consider major approaches to understanding digital inequalities and apply them to case studies of both problems and solutions. Students will learn to critically analyze policies and programs from a variety of perspectives, and to evaluate the promise of digital technologies against their potential perils.
Fall
1 Course Unit

COMM 4360 Data Literacy in the Algorithmic Society
Algorithms regulate many areas of social life: they shape the information you see online, how resources are allocated, or how hiring and matching happen in private and public settings. In these and many other examples, algorithms rely on data informing the automated decisions they encode. Our ability to think critically about that data is, thus, paramount to understanding how the algorithms operate. In this course, we will discuss how data is transformed into information and actionable knowledge. You will learn how to question data to ensure their validity, reliability, and representativeness. Understanding how data are collected, analyzed, and used is key to being able to demand transparency in automated decision-making, and to exercising our democratic role of demanding accountability when decisions are made based on questionable data.
1 Course Unit
COMM 4460 Media Industries and Nationalism (SNF Paideia Program Course)
Media institutions have long played a central role in constructing national identity, particularly in the era of nation-states. As globalization increases, media industries have also helped countries project their national identities – and nationalism – for both domestic and international audiences. With contemporary nationalist movements in the spotlight, this course examines how media institutions and cultural industries help to shape nationalism while framing in-group/out-group dynamics for audiences. This course examines case studies in mediated nationalism, paying particularly close attention to – but not limited to - countries such as the United States, the United Kingdom, Brazil, China, Hungary, Israel, India, Russia, Sri Lanka, Turkey, and Ukraine. Using Benedict Anderson's idea of imagined communities as a theoretical basis, this course seeks to investigate how media industries affirm – and occasionally challenge – nationalistic sentiment, and how much of a role state intervention has played in the production of media texts. This course provides students with an understanding of the deep connection between media institutions and state-sponsored/populist nationalist movements, as well as the dynamics that shape nationalism in both wartime and peacetime eras. This course will also help students engage in constructive dialogue on the impact of nationalism domestically and internationally, while interacting with scholarship and speakers representing a wide range of viewpoints. Students will have an opportunity to learn more nuanced understandings about the ways in which nationalism and media intersect, reflecting the ideological, social, geographic diversity of what it means to be a part of community and nation.
Not Offered Every Year
1 Course Unit

COMM 4590 Social Networks and the Spread of Behavior
This course explores the nature of diffusion through social networks, the ways networks are formed and shaped by social structures, and the role they play in health behavior, public policy, and innovation adoption. Topics include: the theory of social networks; the small world model of network structure; constructing models to represent society; the social bases of the adoption of innovations and the spread of new ideas; the role of social networks in controlling changes in public opinion; the emergence of unexpected fashions, fads, and social movements; and the connection between social network models and the design of public policy interventions. Students will learn how to use the agent-based computational modeling tool "NetLogo", and they will work directly with the models to understand how to test scientific theories. We will examine the basic theory of social networks in offline, face-to-face, networks, as well as the role of online networks in spreading new ideas and behaviors through social media. Long standing debates on the effects of social networks on changing beliefs and behaviors, their impact on social change, and ethical concerns regarding their potential manipulation will be given careful consideration throughout. Students will be taught new skills that will enable them to use and develop their own agent-based models.
Not Offered Every Year
Prerequisite: (COMM 2100 OR HSOC 2002 OR INTR 3500 OR MKTG 2120 OR SOCI 2000 OR URBS 2000)
1 Course Unit

COMM 4630 Surveillance Capitalism
Surveillance capitalism is a term academics and policymakers increasingly use to describe the world in which we live: where businesses track and classify individuals in order to decide how to sell to them, or whether to sell to them at all. Companies that millions of people turn to every hour such as Google, Facebook, Amazon, Target, Walmart, and Pandora use the technologies of surveillance capitalism to drive their revenues. Critics point out that these activities are intimately bound with issues of discrimination and reputation. The "big data" analyses (often powered by artificial intelligence) may affect the ads people see, the discounts they receive, the jobs they may get offered, and far more. This course surveys the history of surveillance capitalism, how it works, and the key issues swirling around it. Students will write short (350 word) essays about each reading that will be key contributors toward their grades. Students will also a conduct research and write a paper that explores a contemporary or historical topic related to surveillance capitalism.
Not Offered Every Year
1 Course Unit

COMM 4640 The Industrial Construction of Audiences
This course will explore the ways in which media companies, advertisers, and the ratings and/or analytics firms they hire (Nielsen, ComScore, Liveramp, 84.51*, Experian etc.) count, track, estimate, and label the people who make up their audiences. The descriptions they present are industrial constructions in the sense that they are portrayals of population segments and individuals that are based on data; they may or may not reflect the views that the populations or individuals have of themselves. The class will explore how internet giants such as Google, smaller internet firms such as The New York Times, multimedia companies such as NBC-Universal, connected TV manufacturers such as Vizio, and supermarkets such as Kroger construct their audiences. We will discuss the controversies such activities engender, and the possible implications the industrial constructions of audiences have for society as well as media industries.
1 Course Unit

COMM 4797 Honors & Capstone Thesis
The senior thesis provides a capstone intellectual experience for Honors students and Communication and Public Service Program (ComPS) participants. Students conduct a primary research study on a communication-related issue over the course of two semesters. Students should consult with and arrange for a faculty supervisor no later than the summer before senior year. Students must also file a designated form and topic statement, approved and signed by the supervising faculty member, no later than the first day of class. Required of all students planning to enroll in COMM 4897 or COMM 4997 in the Spring. All Honors students must have a 3.5 cumulative GPA at the end of junior year for eligibility. See the Annenberg website for complete eligibility requirements.
Fall
1 Course Unit
COMM 4897 COMPS Capstone Thesis
Second semester of two semester thesis course. Successful completion of COMM 4797 is required for enrollment. The capstone thesis is a requirement for all Communication and Public Service Program participants. Students complete the primary research project started during COMM 4797. For students graduating with a 3.5 cumulative GPA after completing COMM 4897 with a grade of 3.7 or higher, the capstone thesis may be designated as a senior honors thesis in communication and public service.
Spring
Prerequisite: COMM 4797
1 Course Unit

COMM 4991 Special Topics in Communication
Special topics course covering a variety of topics in communication. A detailed course description can be found in the Section Details area of the term offering, or by visiting the Annenberg School for Communication website: https://www.asc.upenn.edu/undergraduate/courses.
Not Offered Every Year
1 Course Unit

COMM 4997 Senior Honors Thesis
Second semester of two semester thesis course. Completion of COMM 4797 with a grade of 3.3 or higher and a 3.5 cumulative GPA at the end of the Fall semester of senior year are required for enrollment. The Senior Honors Thesis provides a capstone intellectual experience for students who have demonstrated academic achievement of a superior level. Students complete the primary research project started during COMM 4797.
Spring
Prerequisite: COMM 4797
1 Course Unit

COMM 5000 Proseminar
Introduction to the field of communications study and to the graduate program in communications. Required of all degree candidates. Open only to graduate students in communication.
Fall
0 Course Units

COMM 5220 Introduction to Communication Research
The logic of scientific inquiry and the nature of research. Hypothesis development, research design, field and laboratory observation and experimentation, measurement, interviewing and content analysis, sampling, and basic statistical analysis. Required of all degree candidates. Open only to graduate communication students.
Fall
1 Course Unit

COMM 5230 Qualitative Ways of Knowing
How do social scientists create new knowledge? What are the qualitative processes and philosophies of knowing for communication scholars? This course provides students with a range of theories and frameworks for gathering data and developing claims, as well as understanding the limits of social science inquiry. Key areas of focus are identifying research questions, research ethics, understanding evidence, making causal claims and scholarly writing. COMM 5230 is required of all degree candidates and open only to graduate communication students.
Not Offered Every Year
1 Course Unit

COMM 5250 Introduction to Political Communication
This course is designed as a PH.D.-level introduction to the study of political communication, and is recommended as a foundational course to be taken early in ones course of study for students interested in political communication as a primary or secondary area of research and teaching. As an introduction to the field it is structured to cover a wide-range of topics and approaches, including media institutions and the effects of both mass mediated and deliberative communications. While no single course can provide comprehensive coverage of a subfield with as long and diverse a history as political communication, our hope is that you will leave this course with a strong grasp of the major theories, trends, methods, findings and debates in this area of study, as well as the gaps in our knowledge and promising directions for future research.
Not Offered Every Year
1 Course Unit

COMM 5300 Advertising and the Digital Age
It is impossible to understand the development of the contemporary digital era without understanding the role played by the advertising industry, broadly the understood. From the launch of first popular web browsers in the mid-1990s, various forms of marketing communication have shaped the most popular activities-from search to social to apps-and redefined the ways companies think about individuals in society. The aim of this course is to study these developments historically and contemporaneously. First we will range across the history of advertising and its related social force, consumerism, through the late 20th century. We will next investigate the forces that guided the rise of the internet as a commercial medium in the face of an earlier ethic that decried that very idea. Then we will dive into the ways marketers attempt to guide the internet and other digital media to their benefit by exploring a range of key contemporary activities: the rise of the smartphone as a marketing device, programmatic advertising, personalization strategies, location and cross-platform targeting and attribution, online retailing, the responses of brick and mortar retailers, advertisers’ roles in the cratering of print media, native advertising/branded content, the rise of “influencers,” and the transformation of “television” as a product, an activity, and an industry. We will read industry documents and other materials to assess how all these activities actually “work” and what drives them. Then we will consider their societal implications through a variety of lenses, including surveillance, privacy, pluralism, and democracy.
Not Offered Every Year
1 Course Unit

COMM 5400 Discourse Analysis
Discourse Analysis examines both verbal and non-verbal communication to explore the making of claims of meaning, truthfulness, and authority, in everything from political speech to advertising to scientific reports. The course presents a range of methods and theoretical frameworks for analyzing discourse in a wide variety of social contexts (journalistic, legal, political, medical, familial). Readings and exercises draw from theories of signs, symbols, gestures, and language to analyze communicative acts and events. The goal of the course is to provide a solid grounding in the theories of speech, writing, symbols, and images, and to survey a broad array of empirical studies that have grown out of these theoretical frameworks. The course is appropriate for graduate students and advanced undergraduates.
Also Offered As: SOCI 5400
1 Course Unit
COMM 5530 Research Seminar on Computational Social Science
This is a graduate research seminar in which top researchers in the field of Computational Social Science will present cutting-edge research. Our focus will be on carefully reading the speaker’s work, and discussing in detail their theoretical models, empirical methods, and overall scientific contribution. Participants will also present in the seminar, which will help to prepare them for professional presentations of their work at conferences and job talks.
Fall or Spring
1 Course Unit

COMM 5610 Cultural Sociology
Studies culture as values, scripts, practice, performance, and style in the contexts of everyday life, social class, and status groups, social movements, and changes of communication technologies. Approaches politics, society, institutions, identities, and social change as dynamic processes and complex interactions at both micro/meso and meso/macro levels. Examines the production, reception, circulation and effects of signs, symbols, and stories. Readings include both classic authors (Elias, Simmel,Bakhtin, Goffman, Foucault, Bourdieu, Raymond Williams, etc.) and contemporary works from sociology and communication studies.
Not Offered Every Year
Also Offered As: SOCI 5610
1 Course Unit

COMM 5630 Doing Media Studies: Theories, Frameworks, and Methods
This seminar provides an introduction to theoretical and methodological developments in media and critical-cultural studies from the 1960s until the present. We will examine how a range of theoretical frameworks and methods that are central to media and communication research – textual and discourse analysis, ethnographic techniques, archival and historical research, memory studies, science and technology studies, postcolonial studies, and so on – emerged in conversation with broader philosophical and theoretical debates across the humanities and the social sciences. Taking a comparative approach – reading scholarship that addresses a range of media forms and technologies, cultural contexts, and historical periods – we will map the development of the field by exploring four distinct but overlapping terrains: ‘texts’ and discourses; audiences, users, and publics; industries and institutions; and media history and historiography. Throughout, we will pay close attention to research design, the promises and limits of various qualitative and interpretive research methods (in-depth interviews, participant observation, close reading, etc.), and most importantly, connections and disjunctures across theoretical frameworks, types of evidence, and narrative style and argumentation.
1 Course Unit

COMM 5750 Social Psychology of Communication
Contributions of social psychology to understanding communication behavior; message systems; social cognition; persuasive communications; attitude formation and change; face-to-face interactions and small group situations; strategies of attributional and communicative interpretation; mass communication effects; social influence and networks.
Fall or Spring
1 Course Unit

COMM 5770 Attitude & Behavior Prediction
This course surveys classic and contemporary theory and research in the area of attitude formation and change and examines the principles of social information processing that underlie attitudes. We cover some of the basic concepts of the psychology of attitudes, including attitude structure and measurement at both conscious and unconscious levels. After this introduction, we will review persuasion approaches, the role of affect and fear in communication, influences of past behavior, to finally turn to models that explain behavioral change and allow researchers and practitioners to design ways of modifying recipients’ actions.
Not Offered Every Year
1 Course Unit

COMM 5800 Global Digital Cultures
What do histories of media technologies and the production, circulation and consumption of media artifacts reveal about cultural and political developments across the postcolonial world? What happens when media and communication technologies become the site of intelligibility instead of serving as a conduit for investigating some other question(s) (globalization, nationalism, secularism, etc.)? What new life-worlds come to the fore when we think the postcolonial world with digital media? With these broad questions in mind, this seminar offers a critical introduction to the unfolding impact of digitalization across the postcolonial world. Situating digital infrastructures and platforms in relation to diverse media forms and cultures across print, national and regional cinemas, television, and pirate and other non-formal media circuits, readings and assignments are designed to help students locate the digital turn in relation to broader political-economic, social, and cultural forces that transformed the ‘rest of the world’ beginning in the 1980s. Drawing on scholarship from global media and communication studies, cultural studies, postcolonial studies, cultural anthropology, and science and technology studies, we will adopt a trans-regional and connected histories approach to examine how digital media are positioned in relation to existing media infrastructures, changing urban environments, the ongoing transformation of established sound and screen industries, and emergent forms of everyday media practice and use that are reconfiguring socio-cultural, political, and economic terrains. From massive state-driven digital identity projects to YouTube influencer cultures, from Twitter and primetime television to WhatsApp and political rumors, readings and discussions will reflect on enduring concerns of representation, identity, and power while grappling with logics of algorithmic curation, datafication, and user-participation.
1 Course Unit

COMM 5940 Introduction to Networks
Much of what we think and do is shaped by social interactions, by the behavior we see in other people, or the information we receive from them: we pay attention to what our friends or we monitor news through the feeds of social media, and we are more likely to use technologies already embraced by other users. Networks are behind those (and, by extension, most) dimensions of social life. They offer the language to capture the invisible structure of interdependence that links us together, and the means to analyze dynamics like diffusion, influence, or the effects of media in an increasingly diverse information environment. The aim of this course is to introduce networks and the relational way of thinking. Students will gain the necessary literacy to read, interpret, and design network-based research; learn how to go from concepts to metrics; and draw and interpret networks through the lens of substantive research questions. We will pay equal attention to the theory and the empirics of network science, and set the foundations for more advanced work on networks.
Fall or Spring
1 Course Unit
COMM 5980 Special Topics in Communication
Special topics course covering a variety of topics in communication. A detailed course description can be found in the Section Details area of the term offering, or by visiting the Annenberg School for Communication website: https://www.asc.upenn.edu/graduate/courses
Spring
1 Course Unit

COMM 6000 Advocacy in Emergent Technology, Digital Media and Society
This course is designed to build a critical foundation for understanding the interplay of digital technologies and society and the important role of advocates in this space. Providing an overview of the history, students will investigate and critique contemporary emergent technologies in a social context, and explore their use in advocacy efforts. The course uses interactive lecture, discussion, readings, and guest speakers from technologists in the field.
Fall
Also Offered As: SSPP 6000
1 Course Unit

COMM 6010 Contemporary Sociological Theory
This is a graduate-level course that will explore contemporary social theory with an emphasis on theories and theoretical orientations related to social interaction, identity, culture, and inequality. For example, we will discuss sociological theories from the last half century about race and racism, gender, social class, education, emotion, and violence. Importantly, we will consider theory in the context of its application to empirical social science research and real world concerns.
Not Offered Every Year
Also Offered As: SOCI 6010
Mutually Exclusive: SOCI 3010
1 Course Unit

COMM 6030 Journey to Joy: Designing a Happier Life for Social Work, Social Policy and Non-Profit Leadership Pr
What does joy really mean? Could joy be an intervention for complex trauma, pain, grief, and loss? How does joy show up in policy making and leadership? This innovative new course combines cutting-edge research, practical techniques, and real-world examples to help you understand the power of joy and develop community-informed, anti-racist strategies for promoting it. From exploring the latest in clinical intervention, popular ideas around manifestation, self-care, and #Blackjoy, to examining the role of technology and cultural differences, you will gain a culturally humble and comprehensive understanding of what it takes to design a happier life. This course includes a blend of immersive, hands-on activities, short lectures, and engaging reflexive discussions that will leave you feeling inspired and empowered. Whether you are social work, non-profit leader or social policy student, or someone who wants to increase their own experiences of joy and happiness, this course is a perfect way to jump start your journey to joy.
Fall
Also Offered As: SSPP 6030
1 Course Unit

COMM 6110 Neurobiology of Social Influence
Required prior experience: A graduate level statistics course and ability to read primary research articles in cognitive neuroscience. (No course prereqs, but students with less background may need to do supplemental work at the front end.) Description: Considerable resources are devoted to constructing mass media campaigns that persuade individuals to change their behavior and individuals exert powerful influence on one another without even knowing it. Still, our ability to design and select optimal messages and interventions is far from perfect. This course will review investigations in social and cognitive psychology and communication sciences that attempt to circumvent the limits of introspection by using biological and implicit measures, with particular focus on neuroimaging studies of social influence and media effects.
1 Course Unit

COMM 6120 Meaningful Measures in a Data-Driven World
Knowledge cannot proceed without observing and measuring. And knowledge is necessary to transform society. Today we can observe a larger share of behaviors, from the individual to the collective, but extracting scientific meaning from that data, and connecting that meaning with insights and applications, is still a challenge. New approaches to the management, use, and analysis of social data are required to transform new forms of quantification into meaningful understanding of human and social behavior. This seminar will discuss and evaluate new forms of data representation and the conceptual, computational, and ethical challenges they create. We will discuss how our theories can keep up with rapidly changing realities and our capacity to analyze those realities, focusing on the central principles of measurement and questions of access and ethics.
1 Course Unit

COMM 6150 Experimental Design and Issues in Causality
The main goal of this course is to familiarize students with experiments, quasi-experiments, survey experiments and field experiments as they are widely used in the social sciences. Some introductory level statistics background will be assumed, though this is a research design course, not a statistics course. By the end of the course, students will be expected to develop their own original experimental design that makes some original contribution to knowledge. Throughout the course of the semester, we will also consider how to deal with the issue of causality as it occurs in observational studies, and draw parallels to experimental research.
Fall or Spring
Also Offered As: PSCI 6350
1 Course Unit

COMM 6230 Health Psychology Seminar
Seminar members will critically review theory and research on communication, behavior, and health, with the goal of suggesting new directions that research might take. Theories of health behavior, methodological issues in health behavior research, and strategies to improve health-related behaviors, including sexual risk behaviors, physical activity, diet, and medication adherence, using a variety of approaches will be studied.
Not Offered Every Year
1 Course Unit

COMM 6300 Historical Trends of Mass Communication Research
An introduction into the field of mass communication research covering classic studies from the late 19th century through 1970s. Emphasis is on the societal, organizational, political, and other considerations that shaped the field.
Fall or Spring
1 Course Unit
COMM 6310 Social Cohesion in the Age of Social Media
Social media platforms have created an information infrastructure that decentralizes the curation of content, reinforces selective exposure to like-minded sources, and offers very loose moderation policies to govern interactions. As a result, social media platforms have created an environment prone to conflict, polarization, incivility, and information disorders. But how much do we actually know about the role social media play in undermining social cohesion? Do social media reflect larger societal trends or is there something specific to these platforms that creates or aggravates conflict? Do the effects of social media vary by platform or by affordances within platforms? The goal of this seminar is to evaluate existing empirical evidence about the role social media plays in eroding social cohesion, and to connect this evidence with ongoing policy discussions on how to regulate social media companies.

1 Course Unit

COMM 6370 Public Health Communication
Theories of health behavior change and the potential role for public health communication; international experience with programs addressing behaviors related to cancer, AIDS, obesity, cardiovascular disease, child mortality, drug use and other problems, including evidence about their influence on health behavior; the design of public health communication programs; approaches to research and evaluation for these programs.

Spring
1 Course Unit

COMM 6372 Public Health Communication Research and Evaluation in the Digital Age
This research seminar focuses on formative and evaluation research methods used to design and examine the effectiveness of public health communication interventions in the digital age. Students will learn about behavioral change theories and program planning frameworks used to inform communication intervention design; mechanisms of how communication interventions influence health behaviors; formative research used in determining targeted beliefs, message themes, and message effectiveness; research designs to measure campaign exposure and effects. The course will emphasize unique affordances, ethical considerations, and limitations of communication interventions using digital technologies. We will explore these research topics across different settings, health issues, and populations including public health communication to promote vaccinations, tobacco cessation, mental health care utilization, cancer screening, healthy nutrition and physical activity among others.

1 Course Unit

COMM 6390 Communication and Cultural Studies
This course tracks the different theoretical appropriations of "culture" and examines how the meanings we attach to it depend on the perspectives through which we define it. The course first addresses perspectives on culture suggested by anthropology, sociology, communication, and aesthetics, and then considers the tensions across academic disciplines that have produced what is commonly known as "cultural studies." The course is predicated on the importance of becoming cultural critics versed in alternative ways of naming cultural problems, issues, and texts. The course aims not to lend closure to competing notions of culture but to illustrate the diversity suggested by different approaches.

Not Offered Every Year
1 Course Unit

COMM 6750 Message Effects
Current research, theory and statistical methods for assessing the effects of messages. Specific focus on messages designed to have a persuasive effect on attitudes, beliefs, opinions, or behaviors. Experimental and non-experimental research from mass and interpersonal communication, health, social psychology, advertising, political science and journalism will be considered. Unintended effects—such as the consequences of violent pornography—are not considered.

Not Offered Every Year
Prerequisite: COMM 5750
1 Course Unit

COMM 6840 Data Visualization for Research
Empirical research employs data to gain insights and build a theoretical understanding of the world. An appropriate visualization of data is key to illuminating hidden patterns and effectively communicate the main findings of research. This course will discuss the visualization strategies of published research, give recommendations of best practice, and discuss tips and techniques for specific research purposes (i.e. hypothesis testing, group comparison) and data structures, including temporal, geographic, and network data. The course will equip students with tools they can use to learn through visualization and to communicate more effectively their own research.

Not Offered Every Year
1 Course Unit

COMM 6990 Advanced Project in a Medium
Proposal written in specified form and approved by both the student's project supervisor and academic advisor must be submitted with registration. Open only to graduate degree candidates in communication.

Fall or Spring
1 Course Unit

COMM 7010 Introduction to the Political Economy of Media
This course has two aims. First, assuming that communications are central to any society, it situates media systems within larger national and international social relationships and political structures. Second, this course critically examines the structures of the communication systems themselves, including ownership, profit imperatives, support mechanisms such as advertising and public relations, and the ideologies and government policies that sustain these arrangements. Considering case studies ranging from traditional news and entertainment media to new digital and social media, the course provides a comprehensive survey of the major texts in this vibrant sub-field of media studies.

Not Offered Every Year
1 Course Unit

COMM 7020 Media, Capitalism, and Democracy
In this course we critically examine the complex and often-invisible relationships between political-economic structures and information/communication systems. Drawing from various schools of economic and democratic theory, we will explore historical and international case studies of how capitalism shapes media systems, infrastructures, and institutions. In doing so, we will interrogate how commercial logics affect media organizations' ability to provide for democratic society's communication and information needs. As we unpack and denaturalize the ideologies, imaginaries, and unexamined assumptions that undergird these relationships, we also will consider structural alternatives, always asking the utopian but necessary question: Is another media system possible?

1 Course Unit

COMM 7020 Media, Capitalism, and Democracy
In this course we critically examine the complex and often-invisible relationships between political-economic structures and information/communication systems. Drawing from various schools of economic and democratic theory, we will explore historical and international case studies of how capitalism shapes media systems, infrastructures, and institutions. In doing so, we will interrogate how commercial logics affect media organizations' ability to provide for democratic society's communication and information needs. As we unpack and denaturalize the ideologies, imaginaries, and unexamined assumptions that undergird these relationships, we also will consider structural alternatives, always asking the utopian but necessary question: Is another media system possible?

1 Course Unit
COMM 7060 Analysis of Election Data
This course is intended to serve as a workshop for students interested in the empirical analysis of elections, public opinion and political communication more generally. The centerpiece of the course will be an original research paper produced by each student on a topic of his or her own choosing. The requirements for these papers are fairly open, but demanding: the research papers must a) involve empirical analysis of a major election data set, b) be oriented toward answering an original research question selected with the guidance of the instructor, and c) aim to be of publishable quality. There are no formal prerequisites for the course. However, if you have less than two semesters of statistical training, and/or no formal background in the study of elections, public opinion or political communication, then this is probably not the right course for you. In order to be able to formulate an original research question, you need some background in the literature, which is provided by other courses, but is not a formal part of this course.
Fall or Spring
Also Offered As: PSCI 8050
1 Course Unit

COMM 7100 Rhetorical Criticism
Drawing on the 2008 election for materials, the course will focus on two themes: the relationship between the rhetoric of presidential campaigns and the rhetoric of governance and the rhetorical role of biography, age, race, and gender in the construction of a candidate’s political identity. 1 Course Unit

COMM 7150 Political Communication
This course examines the role of political communication in influencing political attitudes and behaviors. Because of the broad prerequisites of the topic, course readings and lectures will be interdisciplinary, drawing on research in sociology, history, psychology, political science and communication research. There are two primary goals for the course. One goal is to acquaint graduate students with the wide-ranging literature on political communication. A second major goal is to stimulate ideas for original research in the field of political communication. Toward this end, by the end of the semester students will be expected to be sufficiently familiar with the field to propose original studies on topics of their choosing. The formulation of an original research question and research design will be an important component of the final examination.
Not Offered Every Year
Also Offered As: PSCI 7150
1 Course Unit

COMM 7220 Theories and Methods in Qualitative Research
The objective of this course is to ensure that students have a grasp of the fundamental theories and methods of qualitative research. After spending time immersing ourselves in the metatheories that shape social science research, we will address ethical issues that emerge in all human subjects research (qualitative and otherwise), focusing primarily on responsible treatment of participants and their data. Then we will work through a series of research techniques, including semi-structured interviews, focus groups, ethnography, discourse analysis and participatory mapping. With the goal of providing practical instruction on qualitative methods and a grounding in theoretical issues, this course is meant to prepare studies for conducting a broad range of qualitative research projects in communication and media studies.
Not Offered Every Year
1 Course Unit

COMM 7270 Evaluation of Communication Campaigns
The various roles of research in campaign work: foundational research, formative research, monitoring research, summative evaluation research, policy research. The place for a theory of campaign effects. The ethics of evaluation research. Alternative designs, measurement, statistical, and analytic approaches.
Fall or Spring
1 Course Unit

COMM 7390 Collective Memory and Journalism
How do understandings of the past impact what academics know? Collective memory has emerged as one of the most widespread, yet least understood, manifestations of contemporary culture. This course uses the study of collective memory to better explain the charting of disciplinary knowledge about journalism. Students will consider major theories and histories of collective memory and explore the ways in which they have taken shape as disciplinary approaches to journalism’s study. Considering disciplines as communities of memory, whose participants gravitate toward codified ways of approaching problems, issues and events, the course uses the idea of shared memory as a way to explain and evaluate how the academy develops and legitimates knowledge, how the past is strategically used to drive engagements with the present, and how simplified notions from the past stand in for complicated phenomena of the present. The course aims to develop student familiarity with the vagaries of collective memory, the workings of the academy, and the frames for understanding the study of journalism, all with an eye to improving students’ skills as cultural critics on a variety of topics.
1 Course Unit

COMM 7410 Media Effects Research Design
This course will include three components. Part one will focus on readings and lectures about media effects research design, with some emphasis on exposure measurement, and on constructing out-of-laboratory designs including natural and quasi experiments, longitudinal and time series designs and designs appropriate for evaluating persuasive campaigns. Part two will be case focused, asking for design critiques of current published research studies. Part three will provide an opportunity for development of designs relevant to students’ own interests.
Fall or Spring
1 Course Unit

COMM 7470 Media Effects Research Design
This graduate course will introduce students to key approaches to understanding digital inequalities across communication, media studies, and sociology. From divides in access and skills, to institutional and intersectional approaches, this emerging research area utilizes different types of theories about social inequalities and social scientific methods to understand novel issues arising in our increasingly digitally mediated society. Over the course of the semester, students will develop a research proposal that will prepare them to utilize and contribute to theory and methods discussed in the course.
1 Course Unit

COMM 7650 Digital Inequalities
This course examines the role of political communication in influencing political attitudes and behaviors. Because of the broad nature of the topic, course readings and lectures will be interdisciplinary, drawing on research in sociology, history, psychology, political science and communication research. There are two primary goals for the course. One goal is to acquaint graduate students with the wide-ranging literature on political communication. A second major goal is to stimulate ideas for original research in the field of political communication. Toward this end, by the end of the semester students will be expected to be sufficiently familiar with the field to propose original studies on topics of their choosing. The formulation of an original research question and research design will be an important component of the final examination.
Not Offered Every Year
Also Offered As: PSCI 7150
1 Course Unit

COMM 7720 Theories and Methods in Qualitative Research
The objective of this course is to ensure that students have a grasp of the fundamental theories and methods of qualitative research. After spending time immersing ourselves in the metatheories that shape social science research, we will address ethical issues that emerge in all human subjects research (qualitative and otherwise), focusing primarily on responsible treatment of participants and their data. Then we will work through a series of research techniques, including semi-structured interviews, focus groups, ethnography, discourse analysis and participatory mapping. With the goal of providing practical instruction on qualitative methods and a grounding in theoretical issues, this course is meant to prepare studies for conducting a broad range of qualitative research projects in communication and media studies.
Not Offered Every Year
1 Course Unit
COMM 7830 Describing Your Data
This course is for students who have collected empirical data and will explore ways of describing data for scholarly and translational purposes. For example, students will explore different ways to explore and visualize their data (e.g., a conference abstract vs. a blog post), present their data (e.g., a conference talk vs. a pop talk) and make their findings more reproducible. Students will also read scholarly work (oversampling, though not limited to work on media effects and the science of science communication) and critique their work in relation to what is known about effective communication and reproducibility. Students should come prepared to engage with art, science, and computer programming. Not Offered Every Year 1 Course Unit

COMM 7880 Research Seminar on Internet Experiments
In the last decade, new studies have used Web-based experimentation to identify previously unobservable features of communication networks - from processes of cumulative advantage, to the spread of innovations, to the emergence of cooperation. This course offers a deep-dive into the design, creation and execution of Web-based experiments. Students will learn the core principles of Web-based experimental design, which will prepare them to design their own Web-based studies. Students will learn the relationship between theory and methods through a careful analysis of the theoretical implications of past Web-based experiments (both in terms of their value for some scientific problems, and their limitations for others). To this end, students will explore Web-based experiments through the lens of the theories that motivate them. Discussions and assignments will focus on eliciting both the strengths and limitations of this approach with specific emphasis on identifying the scientific potential for new studies. Longstanding debates concerning the value of identification and replication in social science, alongside the relationship between theoretical models, observational data and experimental data, are given careful consideration throughout. Students will be exposed to new ways of conducting empirical research that will prepare them to design their own Web-based experimental studies. Not Offered Every Year 1 Course Unit

COMM 7999 Independent Research
Proposal written in specified form and approved by both the student's project supervisor and academic advisor or another member of the faculty must be submitted with registration. Fall or Spring 1 Course Unit

COMM 8010 Filter Bubbles, Long Tails, & Information Cascades: Methodology for a Fragmented Media Environment
Scholars and pundits have made many claims in recent years about the impact that digital technologies, and social media in particular, play in shaping access to political information and the formation of beliefs. However, all these claims rely on specific measurement instruments and research designs that are not always appropriately scrutinized or evaluated. This course will discuss the different analytical approaches that can be used to measure media consumption, selective exposure, bias, opinion formation, and the diffusion of information in the online media environment. Our goal is to assess the strength and weaknesses of different research designs with an eye on how to best triangulate available evidence and advance in a cumulative fashion in this important research domain. Not Offered Every Year 1 Course Unit

COMM 8140 Doing Internet Studies
This is a project-based seminar with two key objectives: introducing students to core theories and methods in internet studies and completing a research project that uses digital media, broadly construed. Comprising many methods and research approaches, Internet studies is inherently interdisciplinary, and this course is designed to provide a practical set of guidelines for doing work in this diverse and growing field. Students will have a lot of independence in developing a final research project for the course they may work individually, in pairs or in small groups, and the final project can take the form of a research paper, an art project or a piece of long-form journalism, as long as these projects use both digital media and critical theory from internet studies. Not Offered Every Year 1 Course Unit

COMM 8150 Labor, Communication, and Technology
 Debates about the “future of work,” automation, and the working conditions of “on-demand” work have opened up new questions rooted in long intellectual lineages. This course introduces students to key theoretical perspectives and concepts in the study of labor, communication, and technology from the 19th and 20th centuries and examines their relevance to 21st century issues. We will examine the meaning of labor from Marxist, post-industrial, cultural, and sociological perspectives as well as the place of labor in communication scholarship. We will also examine the relationship between digital transformations of the workplace and new forms of surveillance, social stratification, and inequality. Not Offered Every Year 1 Course Unit

COMM 8370 The Meaning of Measures: Quantification, Culture, & Digital Technologies
It's been said that what's counted counts. Numbers and other measurements communicate meaning and create hierarchies of value. As such, measurement is a political act. From prices to ratings, risk scores to the 2020 Census, quantification projects surround our daily lives. This class will ask, how do numbers and other metrics communicate meaning throughout the social world? Specifically, we'll focus on the role of technologies and data in the process of quantification and the construction of cultural meaning and conflict about knowledge and truth. How do our ideas about data shape what we know about ourselves? How we seek to know others? This course will engage in an interdisciplinary conversation about the past and present of culture and quantification, from the cultural pre-history of "big data" technologies' appeals to objectivity and efficiency, to current conflicts over privacy and platforms. Not Offered Every Year 1 Course Unit

COMM 8370 The Meaning of Measures: Quantification, Culture, & Digital Technologies
It's been said that what's counted counts. Numbers and other measurements communicate meaning and create hierarchies of value. As such, measurement is a political act. From prices to ratings, risk scores to the 2020 Census, quantification projects surround our daily lives. This class will ask, how do numbers and other metrics communicate meaning throughout the social world? Specifically, we'll focus on the role of technologies and data in the process of quantification and the construction of cultural meaning and conflict about knowledge and truth. How do our ideas about data shape what we know about ourselves? How we seek to know others? This course will engage in an interdisciplinary conversation about the past and present of culture and quantification, from the cultural pre-history of "big data" technologies' appeals to objectivity and efficiency, to current conflicts over privacy and platforms. Not Offered Every Year 1 Course Unit

COMM 8410 The Ethics of Forgetting: Media at Risk of Deletion
Digital information is continually being created and circulated, but it is also forgotten, deleted, and otherwise lost. Whether from the perspective of journalists, activists, artists, or academics, how do we deal with the deletion or loss of media? Where is information archived and what politics guide its organization, curation, and erasure? Where do our media live and die? This course begins with theories of institutional and individual archiving. It then moves to concepts of remediation and machine learning to complicate how information travels, data is stored, and archives are 'retrieved'. Finally, using case studies of arts-based digital archiving projects, the course focuses on the politics of forgetting media. Not Offered Every Year 1 Course Unit
COMM 8490 Labor in the Digital Economy
Long before the rise of platforms, scholars connected the role of media and communication technologies in the re-organization of labor. This course introduces students to key concepts and theories in the study of labor, communication, and technology from the 19th and 20th centuries and examines their relevance to 21st century issues. We will examine the ways that technological transformations have prompted scholars to reconsider the meaning and value of work, from Marxist, cultural, and feminist perspectives, as well as the place of labor in communication scholarship. Key areas of focus will include the relationship between digital transformations of the workplace and precarity, control, resistance, and inequality.
1 Course Unit

COMM 8510 Social Media and Political Information
Is social media good or bad for democracy? This seminar will unpack this question through the lens of empirical research casting light on how different actors create and consume content on social media - and the broader consequences of that content for political behavior. The discussion will center on current controversies, including the political impact of bots, the role of algorithms in radicalization dynamics, the susceptibility of different groups to misinformation, the consequences of incivility and hate speech, or the predominance of clickbait over factual news.
Not Offered Every Year
1 Course Unit

COMM 8520 It's About Time: Problematizing Time in Social Science Research
Human experience is characterized by a complex interplay of processes that play out across multiple timescales: from second to second, from week to week, and from generation to generation. We will critically examine an expansive literature touching on emotions, personality, media engagement, health communication, political communication, and more, all in the service of identifying notions of time that are often implicit in theories of human experience. In doing so, students will become accustomed to identifying and evaluating notions of change, accumulation, speed, timing, tempo, sequences, and applying the following questions to the topics they encounter in their everyday readings and their own research: What timescale(s) are addressed by a theory, either implicitly or explicitly? Is the timing of measurement matched to the timescale(s) over which phenomena are unfolding? Seminars will be accompanied by a data science laboratory in which students will gain hands-on experience in describing, visualizing, and analyzing intensive longitudinal data, data consisting of 5 or more repeated measures over relatively short (seconds, minutes, hours, days) timescales. Intensive longitudinal data are increasingly feasible to collect due to the widespread availability of smartphones and come with both data wrangling and analytic challenges as well as opportunities to operationalize complex, time-related concepts. Some familiarity with linear regression is recommended but not required.
Not Offered Every Year
1 Course Unit

COMM 8530 Gender, Media, and Culture
This course focuses on contemporary feminist theory as a site for the restructuring of knowledge, exploring the theoretical, methodological, and intersectional questions that arise when gender and race are placed at the center of study. This course is designed to historicize and conceptualize past and current developments, as well as recurrent themes and movements, in feminist methodology and theory, as well as to gain insight into the ways in which gender, and its intersections with race, ethnicity and class, is enacted, represented and mediated, and has an impact on cultural formations and communication. The course material provides an overview of feminist theories as they have developed in the West, especially the United States, with a particular emphasis on the period since the 1960s. It also suggests that we must consider feminism beyond the West in terms of global and transnational perspectives. It places works and scholars in conversation with others, both contemporaries who act and speak from other standpoints and predecessors who belong to the same tradition or trajectory.
1 Course Unit

COMM 8540 A Sociopolitical and Intellectual History of the Communication Field
This course combines close readings of canonized works as well as lesser-known scholarship with a critical sociology of knowledge. A key theme of the course is that to understand how our field evolved, we must understand the historical context and the power relationships that shaped its intellectual and ideological contours. Although we will include some contemporary criticism of the field's historical lacunae—especially along racial, gender, sexuality, and class lines—much of the course's emphasis will be placed on the field's development during the twentieth century. As a class, we will consider the relevance of research paradigms that emerged during the print and broadcast eras for today's digital age.
Not Offered Every Year
1 Course Unit

COMM 8550 Polarization and Partisan Discord
In this course we examine the nature, causes, and consequences of polarization and incivility. We pay special attention to the role that the media and information plays in exacerbating these problems, as well as ways in which technology can be redesigned to ameliorate incivility and polarization.
Not Offered Every Year
1 Course Unit

COMM 8580 CHANGE: Networks and Policy
This course explores the policy applications of current network theories of social influence and behavior propagation. The course is developed around the book CHANGE focusing on the specific shortcomings of existing policies and the development of new policy strategies for collective behavior change. Students will engage with current thinking on topics including: influencers, virality, stickiness, social norms, motivated reasoning, organizational change, partisan bias, group problem-solving, and political change. This course focuses on implementation and evaluation strategies for applying the theory of network diffusion to current policy problem such as: COVID-19 vaccination, sustainable technology adoption, political campaign mobilization, justice system reform, implicit bias in medicine, the spread of political and health-related misinformation, #MeToo and changing gender norms in organizations, and other important topics. Students will engage in "translational social science" by developing theoretically motivated solutions to concrete policy problems.
Not Offered Every Year
1 Course Unit
COMM 8590 Diversity and the End of Average
There are persistent inequities in academic experiences and careers between individuals from different demographic backgrounds. There are also differences in the extent to which certain groups of people are represented in our scholarship, preventing these groups from experiencing the benefits of our research innovations and, in turn, perpetuating inequity. The aim of this class is twofold. Seminar readings will provide insight into the long history of inequity, discrimination against, and lack of representation of groups marginalized because of their sex, gender, race/ethnicity, sexual orientation, socioeconomic status, intersectional identities, and more, that persists in our communities and our scholarship. A data science laboratory run in parallel with the seminar will introduce students to person-specific approaches to data collection, analysis, and intervention to provide students with a toolkit that allows them to circumvent approaches that rely on the presumption that empirical studies recruiting diverse samples produce an average result that is appropriately reflective of the individuals themselves.
1 Course Unit

COMM 8610 Surveillance Capitalism
This course explores the history, technologies, political economy, and regulatory tensions relating to the monitoring of populations and individuals in the contemporary digital media environment.
1 Course Unit

COMM 8620 Gendered Media Economies
This seminar introduces and traces feminist media studies over the past several decades, with a particular emphasis on media and cultural economies, which includes financial economies but also expands it to the production and circulation of reproducing inequalities, constituting norms, regulating and disciplining individuals and populations, commodifying difference and critique, and (potentially) enabling resistance, oppositional practices and cultural activism. Through this frame, we approach the power dynamics of gender alongside the power dynamics of race, class, sexuality, geopolitics and other social experiences. Along the way, we will examine a variety of gendered media economies from feminist media production to reality television to social media influencers and more.
Not Offered Every Year
1 Course Unit

COMM 8630 Utilizing Mixed Methods in Communication Research
This course will focus on applying principles and best practices in designing and conducting mixed methods research to address communication research questions and develop communication interventions. Through this course, students will 1) learn how rigorous qualitative and quantitative methods can be integrated to answer complex research questions, 2) appreciate the relative strengths and limitations of qualitative and quantitative data, 3) understand the rationale, benefits, and tradeoffs of commonly utilized mixed methods study designs, and 4) practice designing a mixed methods investigation. We will learn different aspects developing, conducting, reporting, and evaluating mixed methods studies, and read examples of communication research studies that utilized mixed methods. We will review the best practices, strengths, and challenges of utilizing mixed methods to answer communication research questions drawing from these examples. This course requires prior completion of introductory coursework in quantitative and qualitative research methods.
Not Offered Every Year
Prerequisite: COMM 5220 OR COMM 5230
1 Course Unit

COMM 8690 Ethnography & the Internet
This course covers qualitative and interpretive methods for investigations of socio-technical phenomena related to digital culture and online life. Concentrating on ethnographic methods, the course will cover methodological issues common to research on digital technologies, drawing on theorists from communication, media studies, information studies, sociology, anthropology and internet studies. In addition to developing a sophisticated understanding of ethical and methodological issues surrounding ethnography and online life, students will complete a research proposal for a qualitative or interpretive study of online phenomena.
1 Course Unit

COMM 8700 Advanced Qualitative Research
An important milestone in every doctoral program is the successful defense of a dissertation proposal. But what does a good dissertation proposal look like? How can students craft a proposal that sets them up for success as they advance towards writing a dissertation? This course has one objective: to provide students with the tools they need to write a convincing, well-written and well-reasoned dissertation proposal. This means having a clear problem statement, a convincing answer to the "So what?" question, and a coherent plan for moving forward with writing a dissertation. Structured more as a workshop rather than a seminar, students will provide feedback on each other's work throughout the semester, collectively addressing common issues around writing, argumentation, reviewing literature, research ethics and outlining chapters. Because qualitative and interpretive work comes with specific expectations and challenges, this course is geared towards students who draw from these research techniques; students who are conducting mixed-methods dissertations may also be allowed to join.
Not Offered Every Year
1 Course Unit

COMM 8760 The Black Public Sphere, from Freedoms Journal to Black Lives Matter
The field of communication projects and encourages particular visions of deliberation and the public that have been critiqued for failing to represent publics that experience identity-based exclusion and misrepresentation. In this course we correct this practice by centering work on the black public sphere, recognizing it as central to political and media theory on publics and counterpublics. We will connected "classical" works on publics (Habermas and Fraser), fields (Bourdieu), and mediascapes (Appadurai) to more contemporary critical, cultural, and institutional analysis (Squires, Gray, Brock, and more) of African American media-making, protest and deliberation.
Not Offered Every Year
1 Course Unit

COMM 8800 The Social Neuroscience of Communication
This interdisciplinary course focuses on understanding the mechanisms of social thinking, media effects and interpersonal communication across multiple levels of analysis. We use the brain as one powerful window to understand and predict outcomes that are challenging to predict otherwise. The course will cover foundational readings and involve weekly, seminar style discussions of recent papers in social neuroscience, neuroeconomics, and communication science.
Not Offered Every Year
1 Course Unit
COMM 8810 The Performance Society: Readings in Social and Media Theories
Social action has a performative character - people act as if on a stage in response to audience expectations, whether offline or online. This seminar traces the history of this line of critical thought from Weber and Bakhtin through Goffman and Victor Turner to contemporary authors such as Judith Butler, Byung-Chul Han, Jon McKenzie, and Charles Tilly. Special attention will be devoted to the relationship between media and performance, examined through recent work by media scholars and sociologists such as Ben Agger, Jeffrey Alexander, Jeffrey Berry, Danah Boyd, Alice Marwick, and Sarah Sobieraj. A central issue concerns the will to perform. Why are individuals in modern society compelled to perform? What are the manifestations and forms of performance in institutional and non-institutional politics (such as revolutions and social movements)? How are performances related to emotion? How do the internet and digital media shape the forms and meanings of performance? What are the consequences of the performance imperative? A term paper is required.
Not Offered Every Year
Also Offered As: SOCI 8810
1 Course Unit

COMM 8850 Summer Culture
Special topics course covering a variety of topics in communication. A detailed course description can be found in the Section Details area of the term offering, or by visiting the Annenberg School for Communication website: https://www.asc.upenn.edu/graduate/courses
1 Course Unit

COMM 8910 Special Topics in Media at Risk
The Center for Media at Risk hosts a visiting scholar each semester who teaches a course related to the risks associated with engagement in journalism, documentary, entertainment or digital spaces, with particular attention paid to practitioners under threat from political intimidation. For more information about the course, please see: https://www.asc.upenn.edu/graduate/courses
1 Course Unit

COMM 8980 Explaining Explanation
In the social sciences we often use the word "explanation" as if (a) we know what we mean by it, and (b) we mean the same thing that other people do. In this course we will critically examine these assumptions and their consequences for scientific progress. In part 1 of the course we will examine how, in practice, researchers invoke at least three logically and conceptually distinct meanings of "explanation": identification of causal mechanisms; ability to predict (account for variance in) some outcome; and ability to make subjective sense of something. In part 2 we will examine how and when these different meanings are invoked across a variety of domains, focusing on social science, history, business, and machine learning, and will explore how conflation of these distinct concepts may have created confusion about the goals of science and how we evaluate its progress. Finally, in part 3 we will discuss some related topics such as null hypothesis testing and the replication crisis. We will also discuss specific practices that could help researchers clarify exactly what they mean when they claim to have "explained" something, and how adoption of such practices may help social science be more useful and relevant to society.
Also Offered As: CIS 7980, OIDD 9530
1 Course Unit

Comparative Literature (COML)

COML 0004 India's Literature: Love, War, Wisdom and Humor
This course introduces students to the extraordinary quality of literary production during the past four millennia of South Asian civilization. We will read texts in translation from all parts of South Asia up to the sixteenth century. We will read selections from hymns, lyric poems, epics, wisdom literature, plays, political works, and religious texts.
Fall or Spring
Also Offered As: SAST 0004
1 Course Unit

COML 0006 Hindu Mythology
Premodern India produced some of the world's greatest myths and stories: tales of gods, goddesses, heroes, princesses, kings and lovers that continue to capture the imaginations of millions of readers and hearers. In this course, we will look closely at some of these stories especially as found in Purana-s, great compendia composed in Sanskrit, including the chief stories of the central gods of Hinduism: Visnu, Siva, and the Goddess. We will also consider the relationship between these texts and the earlier myths of the Vedas and the Indian Epics, the diversity of the narrative and mythic materials within and across different texts, and the re-imagining of these stories in the modern world.
Fall or Spring
Also Offered As: RELS 0006, SAST 0006
1 Course Unit

COML 0007 Introduction to Modern South Asian Literatures
This course will provide a wide-ranging introduction to the literatures of South Asia from roughly 1500 to the present, as well as an exploration of their histories and impact on South Asian society today. How are literary movements and individual works - along with the attitudes towards religion, society, and culture associated with them - still influential in literature, film, and popular culture? How have writers across time and language engaged with questions of caste, gender, and identity? We will read from the rich archive of South Asian writing in translation - from languages that include Braj, Urdu, Bangla, and Tamil - to consider how these literatures depict their own society while continuing to resonate across time and space. Topics of discussion will include the Bhakti poetries of personal devotion, the literature of Dalits - formerly referred to as the Untouchables - and the ways in which literature addresses contemporary political and social problems. Students will leave this course with a sense of the contours of the literatures of South Asia as well as ways of exploring the role of these literatures in the larger world. No prior knowledge of South Asia is required; this course fulfills the cross-cultural analysis requirement, and the Arts and Letters sector requirement.
Fall or Spring
Also Offered As: SAST 0007
1 Course Unit

COML 0011 In Praise of the Small in Literature and the Arts
We can memorize aphorisms and jokes, carry miniature portraits with us, and feel playful in handling small objects. This seminar will ask us to pay attention to smaller texts, art works, and objects that may easily be overlooked. In addition to reading brief texts and looking at images and objects, we will also read texts on the history and theory of short genres and the small.
Not Offered Every Year
Also Offered As: GRMN 0011
1 Course Unit
COML 0015 Writing the Self: Life-Writing, Fiction, Representation
This course investigates how people try to understand who they are by writing about their lives. It will cover a broad range of forms, including memoirs, novels, essay films, and even celebrity autobiographies. The course will be international and in focus and will ask how the notion of self may shift, not only according to the demands of different genres, but in different literary, linguistic, and social contexts. Questions probed will include the following: How does a writer’s language—or languages—shape how they think of themselves? To what extent is a sense of self and identity shaped by exclusion and othering? Is self-writing a form of translation and performance, especially in multilingual contexts? What can memoir teach us about the ways writers navigate global literary institutions that shape our knowledge of World Literature? How do various forms of life-writing enable people on the margins, whether sexual, gendered, or racial, to craft narratives that encapsulate their experience? Can telling one’s own story bring joy, affirmation, and greater transcultural or even global understanding? In sum, this course proposes to illuminate the many ways in which writing becomes meaningful for those who take it up. The format of the seminar will require students to offer oral presentations on the readings and invite them to craft their own experiences and memories in inventive narrative forms.
Spring, even numbered years only
Also Offered As: ENGL 1745, GSWS 0051
1 Course Unit

COML 0017 Hipster Philosophy from Marx to Zizek
From Wes Anderson to Williamsburg, hipster culture is everywhere. And yet the very notion of the hipster remains notoriously difficult to define—whether we perceive this cultural phenomenon as the waste product of the postmodern, as a new form of consumerism, as a peculiar attitude toward irony and authenticity, as scenester posturing or as just plain cool. This course addresses such tensions through an examination of the intellectual history of the nineteenth and twentieth centuries. Each week pairs philosophical and theoretical readings with an artifact of hipster culture: reading Instagram beside Walter Benjamin, ironic facial hair with Friedrich Nietzsche, Facebook through the lens of Georg Lukacs and indie music alongside Theodor Adorno. No previous knowledge of skinny jeans required.
Not Offered Every Year
Also Offered As: GRMN 0015
1 Course Unit

COML 0021 Study of a Theme in Cinema
This introduction to literary study examines a compelling theme central to a set of cinematic texts. The theme’s function within specific historical contexts, within varying media technologies, and within contemporary culture, will all be emphasized. In presenting a range of materials and perspectives, this course is an ideal introduction to literary study. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: CIMS 0021, ENGL 0021
1 Course Unit

COML 0022 Study of a Theme in Global Literature
This introduction to literary study examines a compelling literary theme by attending to texts from around the globe. The theme’s function within multiple historical and regional contexts, within literary history generally, and within contemporary culture, will all be emphasized. In presenting a range of materials and perspectives, this course is an ideal introduction to literary study. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: ENGL 0022
1 Course Unit

COML 0030 Introduction to Sexuality Studies and Queer Theory
This course will introduce students to the historical and intellectual forces that led to the emergence of queer theory as a distinct field, as well as to recent and ongoing debates about gender, sexuality, embodiment, race, privacy, global power, and social norms. We will begin by tracing queer theory’s conceptual heritage and prehistory in psychoanalysis, deconstruction and poststructuralism, the history of sexuality, gay and lesbian studies, woman-of-color feminism, the feminist sex wars, and the AIDS crisis. We will then study the key terms and concepts of the foundational queer work of the 1990s and early 2000s. Finally, we will turn to the new questions and issues that queer theory has addressed in roughly the past decade. Students will write several short papers.
Fall
Also Offered As: ENGL 0160, ENGL 2303, GSWS 0003
1 Course Unit

COML 0035 Study of a Genres: World Autobiography
An introduction to literary study through world literature. The course will introduce you to the manifold connections between theories of world literature and fields such as globalization studies, translation studies, comparative literature, and postcolonial studies. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 0038
1 Course Unit

COML 0041 Study of a Period in Cinematic History
This is an introduction to the study of cinema and culture through a survey of works from a specific historical period. This course is ideal for students wishing to explore a significant era, and it presents a range of films and contexts for understanding the cultural products of a period. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: CIMS 0041, ENGL 0041
1 Course Unit

COML 0052 Literature and Society: Introduction to Psychoanalysis
The course will introduce students to the broad and ever-expanding spectrum of psychoanalytic ideas and techniques, through reading and discussion of major works by some of its most influential figures. We will also read some literary, historical, philosophical, and anthropological works that have special relevance to the psychoanalytic exploration of the human condition. In addition to the other requirements it satisfies, this course may also be counted toward completion of the Psychoanalytic Studies minor (http://web.sas.upenn.edu/pays/). See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 0052
1 Course Unit
COML 0080 Laughter and Tricky Topics
This course takes a comparative approach to studying the philosophy and praxis of laughter in a variety of artistic media — texts, films, performances and memes. We will seek to develop a critical apparatus to answer the following questions: How does laughter unite us? How does it divide us? How does it contribute to identity and community formation? We will focus on humoristic expression produced in contexts considered too serious for lightheartedness, such as death, race and gender-related oppression, and disenfranchisement. Together, we will wonder whether everything can be a laughing matter, if irony is even funny (and what does it mean anyway?), and whether humor has the potential to effect meaningful sociopolitical change. Our theoretical corpus will include works by Bakhtin, Baudelaire, Bergson, and Freud, who conceptualized laughter in wildly different ways — respectively as carnivalesque, satanic, social, and as a coping mechanism. In the 1940s, René Ménil, a Franco-Caribbean philosopher, synthesized these early theories and further developed them into a means of resistance for colonial subjects. To see these concepts in action, we will engage with materials spanning three centuries, from a short story written by Jonathan Swift to contemporary French comedies (subtitled in English). Should laughter occur throughout the semester, its causes will be dutifully analyzed and presented in diverse oral and written assignments.
Not Offered Every Year 
Also Offered As: CIMS 0080, FREN 0080
1 Course Unit

COML 0081 Decolonizing French Food
Wine and cheese, baguettes and croissants, multiple courses and fresh ingredients straight from the market—these are the internationally recognized hallmarks of French food. Yet, even as the practices surrounding the mythical French table have been deemed worthy of a place on UNESCO's World Heritage List since 2010, culinary traditions in France remain persistently rooted in legacies of colonialism that are invisible to many. In order to "decolonize" French food, this seminar turns to art, literature, and film, as well as archival documents such as advertisements, maps, and cookbooks. In what ways do writers and filmmakers use food to interrogate the human, environmental, and cultural toll that French colonialism has taken on the world? How do their references to food demonstrate the complex cultural creations, exchanges, and asymmetries that have arisen from legacies of colonialism? We will interpret artworks, read literature (in English or in translation), and watch films (subtitled in English) that span the twentieth and twenty-first centuries by authors and directors from across the Francosphere—from Haiti, Guadeloupe, and Martinique in the Caribbean; to Mauritius in the Indian Ocean; from the Vietnamese diaspora in France, Canada, and the United States; to North, Central, and West Africa. Just as food can be examined from many angles, our discussions will focus on art, literature, and film, but also take into account perspectives from the fields of history, anthropology, and environmental studies. Moreover, we will employ the theoretical tools supplied by food studies, feminist and gender studies, critical race studies, and postcolonial studies.
Not Offered Every Year 
Also Offered As: AFRC 0081, FREN 0081
1 Course Unit

COML 0082 Caribbean Literature
This course will introduce students to Caribbean literature. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Not Offered Every Year 
Also Offered As: AFRC 0082, ENGL 1220
1 Course Unit

COML 0087 Desire and Deception in Medieval Erotic Literature
In this course, we will investigate the ideology, content, and material forms of love literature from Dante Alighieri to Francesco Petrarca. Through close readings of such texts as Dante's Vita nova (ca. 1295), Giovanni Boccaccio's Decameron (ca. 1353), and Petrarca's Rerum vulgariump fragmenta (often referred to as the poetry book par excellence: il canzoniere, ca. 1374), we will unveil the literary and fictitious nature of medieval erotic literature. We will explore the origins of love poetry in medieval France and its subsequent interpretation and rewriting in Italian courts and comuni. We will inquire into the cultural constructions of the medieval notion of lyrical self and how it still has an impact on our own notion of consciousness. We will study the forms, themes, and characters that populate ‘love stories’ in the Middle Ages. We will analyze the dynamics of composition, circulation, and reception in manuscript culture. Our close analysis of the texts as they have been preserved in manuscript form will help us gauge the differences between medieval and contemporary ways of writing, reading, and loving.
Not Offered Every Year
Also Offered As: GSWS 0087, ITAL 0087
1 Course Unit

COML 0095 Universal Language: From the Tower of Babel to Artificial Intelligence
This is a course in European intellectual history. It explores the historical trajectory, from antiquity to the present day, of the idea that there once was, and again could be, a universal and perfect language among the human race. If recovered, it can explain the origins and meaning of human experience, and can enable universal understanding and world peace. The tantalizing question of the possibility of a universal language have been vital and thought-provoking throughout the history of humanity. The idea that the language spoken by Adam and Eve was a language which perfectly expressed the nature of all earthly objects and concepts has occupied the minds of intellectuals for almost two millennia. In defiance of the Christian biblical myth of the confusion of languages and nations at the Tower of Babel, they have over and over tried to overcome divine punishment and discover the path back to harmonious existence. By recovering or recreating a universal language, theologians hoped to be able to experience the divine; philosophers believed that it would enable apprehension of the laws of nature, while mystic cabbalists saw in it direct access to hidden knowledge. In reconstructing a proto-language, 19th-century Indo-Europeanist philologists saw the means to study the early stages of human development. Even in the 20th century, romantic idealists, such as the inventor of Esperanto Ludwik Zamenhof, strived to construct languages to enable understanding among estranged nations. For writers and poets of all times, from Cyrano de Bergerac to Velimir Khlebnikov, the idea of a universal and perfect language has been an inexhaustible source of inspiration. Today, this idea echoes in theories of universal and generative grammars, in approaching English as a global tongue, and in various attempts to create artificial languages, even a language for cosmic communication. Each week we address a particular period and set of theories to learn about universal language projects, but above all, the course examines fundamental questions of what language is and how it functions in human society.
Fall or Spring
Also Offered As: ENGL 1445, HIST 0822, REES 1177
1 Course Unit
COML 0103 Doctors' Notes
Internist. Surgeon. Essayist. Poet. When we go to the doctor, we hope to meet someone whose medical expertise will allow them to remain objective as they assess our symptoms, and, like a good detective, get to the bottom of things quickly and efficiently. What we may not expect is that the person wearing the white coat is also a staff writer for The New Yorker. In this course students will explore critical and creative writing by physicians deeply interested in reflecting on the medical encounter alongside intersectional and multi-ethnic narratives of illness and disability. Together, we will ask: what role does the "literary" play in medicine? How do representations of health and healing differ or change as we consider genres such as fiction writing, film, graphic novels, and autobiography from U.S., Caribbean, and Latin American perspectives? Reading these unconventional "doctors' notes" alongside patients' writing about their lived experiences of health and healing, we will reflect on how the turn to narrative reveals new facets of the doctor-patient relationship not contained by the traditional genres of medicine.
1 Course Unit

COML 0104 On the Stage and in the Streets: An Introduction to Performance Studies
What do Hamilton, RuPaul's Drag Race, political protest, TikTok Ratatouille, and Queen Elizabeth's funeral have in common? They all compose repertoires of performance. From artistic performances in theatres, galleries, and concert halls to an individual's comportment in everyday life, to sporting events, celebrations, courtroom proceedings, performance studies explores what happens when embodied activities are repeatable and given to be seen. In this course we ask: what is performance? How do we describe, analyze, and interpret it? What do theatre and everyday life have in common? How does performance legitimate or challenge the exercise of power? How has social media shifted our understanding of the relationship of our daily lives to performance? How does culture shape what is considered to be performance and how it functions? What isn't performance? Throughout the semester students will apply key readings in performance theory to case studies drawn from global repertoires of contemporary and historical performance. In addition to analyzing artistic performances, we will also consider sporting events, celebrations, political events, and the performance of everyday life. We will attend to the challenges provoked by performance's embodied, ephemeral, affective, effective, relational, and contingent aspects. Coursework will include discussion posts, class facilitation, and the opportunity to choose between a research paper or creative project for the final assessment.
Also Offered As: ANTH 1104, ENGL 1890, THAR 0104
1 Course Unit

COML 0303 First Year Seminar: National Epics
In this course we will consider texts that become "national epics," texts that in some sense come to "represent" a nation. How and when might such imaginative texts emerge? Nations change, and old poems may no longer serve. Can the Song of Roland, once compulsory study for all schoolchildren in France, still be required reading today—especially if I am French Muslim? What about El Cid in Spain? How do some texts—such as the Mahabharata in India, or Journey to the West in China—seem more adaptable than others? The course begins in western Europe, but then pivots across Eurasian space to become gradually more global. Most all of us have complex family histories: Chinese-American, French Canadian, Latino/a/x, Jewish American, Pennsylvania Dutch, Lenni Lenape. Some students may choose to investigate, for their final project, family histories (and hence their own, personal connection to "national epics").
Also Offered As: ENGL 0303
1 Course Unit

COML 0315 Jewish Literature in the Middle Ages in Translation
Course explores the cultural history of Jews in the lands of Islam from the time of Mohammed through the late 17th century (end of Ottoman expansion into Europe) —in Iraq, the Middle East, al-Andalus and the Ottoman Empire. Primary source documents (in English translation) illuminate minority-majority relations, internal Jewish tensions (e.g., Qaraism), and developments in scriptural exegesis, rabbinic law, philosophy, poetry, polemics, mysticism and liturgy.
Fall or Spring
Also Offered As: JWST 0315, NELC 0315, RELS 0315
1 Course Unit

COML 0320 Modern Hebrew Literature and Film in Translation
This course is designed to introduce students to the rich art of Modern Hebrew and Israeli literature and film. Poetry, short stories, and novel excerpts are taught in translation. The course studies Israeli cinema alongside literature, examining the various facets of this culture that is made of national aspirations and individual passions. The class is meant for all: no previous knowledge of the language is required. The topic changes each time the course is offered. Topics include: giants of Israeli literature; the image of the city; childhood; the marginalized voices of Israel; the Holocaust from an Israeli perspective; and fantasy, dreams & madness.
Fall or Spring
Also Offered As: CIMS 0320, JWST 0320, NELC 0320
1 Course Unit

COML 0335 Jewish Humor
In modern American popular culture Jewish humor is considered by Jews and non-Jews as a recognizable and distinct form of humor. Focusing upon folk-humor, in this course we will examine the history of this perception, and study different manifestation of Jewish humor as a particular case study of ethnic in general. Specific topics for analysis will be: humor in the Hebrew Bible, Jewish humor in Europe and in America, JAP and JAM jokes, Jewish tricksters and pranksters, Jewish humor in the Holocaust and Jewish humor in Israel. The term paper will be collecting project of Jewish jokes.
Not Offered Every Year
Also Offered As: JWST 0335, NELC 0335
1 Course Unit

COML 0502 BFS—Med/Red Dante in English: Creative Responses to the Divine Comedy
A cross-period and in-depth look at Dante's Divine Comedy and the many creative responses it has spawned across the globe and across languages. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 0502, ITAL 3335
1 Course Unit

COML 0507 Benjamin Franklin Seminar: 20th-Century Literature
This seminar explores an aspect of 20th-Century literature intensively. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 0507
1 Course Unit
COML 0510 Benjamin Franklin Seminar: National Epics (Med/Ren)
A course that traces how particular literary texts, very often medieval, are adopted to become foundational for national literatures. Key moments of emphasis will be the early nineteenth century, the 1930s, and (to some extent) the unfolding present. Some texts immediately suggest themselves for analysis. The Song of Roland, for example, has long been fought over between France and Germany; each new war inspires new editions on both sides. The French colonial education system, highly centralized, long made the Chanson de Roland a key text, with the theme of Islamic attack on the European mainland especially timely, it was thought, during the Algerian war of independence. Germany also sees the Niebelungenlied as a key text, aligning it with the Rhine as an impeccably Germanic: but the Danube, especially as envisioned by Stefan Zweig, offers an alternative, hybridized, highly hyphenated cultural vision in running its Germanic-Judaic-Slavic-Roman course to the Black Sea. The course will not be devoted exclusively to western Europe. Delicate issues arise as nations determine what their national epic needs to be. Russia, for example, needs the text known as The Song of Igor to be genuine, since it is the only Russian epic to predate the Mongol invasion. The text was discovered in 1797 and then promptly lost in Moscow's great fire of 1812; suggestions that it might have been a fake have to be handled with care in Putin's Russia. Similarly, discussing putative Mughal (Islamic) elements in so-called "Hindu epics" can also be a delicate matter. Some "uses of the medieval" have been exercised for reactionary and revisionist causes in the USA, but such use is much more extravagant east of Prague. And what, exactly, is the national epic of the USA?
Fall or Spring
Also Offered As: ENGL 0510
1 Course Unit

COML 0518 Benjamin Franklin Seminar: Cinema and Globalization
In this seminar, we will study a number of films (mainly feature films, but also a few documentaries) that deal with the complicated nexus of issues that have come to be discussed under the rubric of "globalization." See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: CIMS 0518, ENGL 0518
1 Course Unit

COML 0520 Capitalism, (Neo)Colonialism, Racism, and Resistance
This interdisciplinary seminar examines, from an international perspective, theory and artistic productions, including literature, films, and performance art, that analyze and critique capitalism, imperialism and (neo)colonialism, racism, and patriarchy. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 0520, LALS 0520
1 Course Unit

COML 0540 Benjamin Franklin Seminar: History of Literary Criticism
This is a course on the history of literary theory, a survey of major debates about literature, poetics, and ideas about what literary texts should do, from ancient Greece to examples of modern European thought. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CLST 3508, ENGL 0540
1 Course Unit

COML 0590 Benjamin Franklin Seminar: Film Studies
This course explores an aspect of film studies intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3890, CIMS 0590, ENGL 0590
1 Course Unit

COML 0615 Modern Arabic Literature
This course is a study of modern Arabic literary forms in the context of the major political and social changes which shaped Arab history in the first half of the twentieth century. The aim of the course is to introduce students to key samples of modern Arabic literature which trace major social and political developments in Arab society. Each time the class will be offered with a focus on one of the literary genres which emerged or flourished in the twentieth century: the free verse poem, the prose poem, drama, the novel, and the short story. We will study each of these emergent genres against the socio-political backdrop which informed it. All readings will be in English translations. The class will also draw attention to the politics of translation as a reading and representational lens.
Spring
Also Offered As: NELC 0615
1 Course Unit

COML 0700 Iranian Cinema: Gender, Politics and Religion
This seminar explores Iranian culture, society, history and politics through the medium of film. We will examine a variety of cinematic works that represent the social, political, economic and cultural circumstances of contemporary Iran, as well as the diaspora. Along the way, we will discuss issues pertaining to gender, religion, nationalism, ethnicity, and the role of cinema in Iranian society and beyond. Discussions topics will also include the place of the Iranian diaspora in cinema, as well as the transnational production, distribution, and consumption of Iranian cinema. Films will include those by internationally acclaimed filmmakers, such as Rakhshan Bani-Etemad, Asghar Farhadi, Bahman Gharbadi, Abbas Kiarostami, Mohsen Makhmalbaf, Dariush Mehrjui, Tahmineh Milani, Jafar Panahi, Marjane Satrapi and others. All films will be subtitled in English. No prior knowledge is required.
Fall
Also Offered As: CIMS 0700, GSWS 0700, NELC 0700
1 Course Unit

COML 1000 Introduction to Literary Study
This course has three broad aims: first, it will introduce students to a selection of compelling contemporary narratives; second, it will provide prospective students of literature and film, as well as interested students headed for other majors, with fundamental skills in literary, visual, and cultural analysis; and, third, it will encourage a meditation on the function of literature and culture in our world, where commodities, people, and ideas have been constantly in motion. Questions for discussion will therefore include: the meaning of terms like "globalization," "translation," and "world literature"; the transnational reach and circulation of texts; migration and engagement with "others": violence, trauma, and memory; terrorism and the state; and the ethic of cosmopolitanism. Our collective endeavor will be to think about narrative forms as modes of mediating and engaging with the vast and complex world we inhabit today. See COML website for current semester's description at https://complit.sas.upenn.edu/course-list/2019A
Fall or Spring
Also Offered As: ENGL 1409
1 Course Unit
COML 1003 Cinema and Revolution
Can cinema be revolutionary? From Sergei Eisenstein’s Battleship Potemkin to Boots Riley’s Sorry to Bother You, filmmakers have long grappled with political revolution. In this course we’ll study films that take moments of revolutionary upheaval as their subject, and cinema made during times of revolution. Can cinematic techniques challenge the status quo? How have filmmakers navigated the complex politics of cinematic production and distribution in moments of censorship and repression? Are art and propaganda always different? Students will give two oral presentations: one will be a detailed analysis of a single scene, and another will consider the politics of a film of their choosing. Open to all, including those with no prior background in cinema studies.
Fall
Also Offered As: CIMS 1003
1 Course Unit

COML 1010 Freud: The Invention of Psychoanalysis
No other person of the twentieth century has probably influenced scientific thought, humanistic scholarship, medical therapy, and popular culture as much as Sigmund Freud. This course will study his work, its cultural background, and its impact on us today. In the first part of the course, we will learn about Freud’s life and the Viennese culture of his time. We will then move to a discussion of seminal texts, such as excerpts from his Interpretation of Dreams, case studies, as well as essays on psychoanalytic practice, human development, definitions of gender and sex, neuroses, and culture in general. In the final part of the course, we will discuss the impact of Freud’s work. Guest lectureres from the medical field, history of science, psychology, and the humanities will offer insights into the reception of Freud’s work, and its consequences for various fields of study and therapy.
Not Offered Every Year
Also Offered As: GRMN 1010, GSWS 1010, HIST 0820
1 Course Unit

COML 1011 World Film History to 1945
This course surveys the history of world film from cinema’s precursors to 1945. We will develop methods for analyzing film while examining the growth of film as an art, an industry, a technology, and a political instrument. Topics include the emergence of film technology and early film audiences, the rise of narrative film and birth of Hollywood, national film industries and movements, African-American independent film, the emergence of the genre film (the western, film noir, and romantic comedies), ethnographic and documentary film, animated films, censorship, the MPPDA and Hays Code, and the introduction of sound. We will conclude with the transformation of several film industries into propaganda tools during World War II (including the Nazi, Soviet, and US film industries). In addition to contemporary theories that investigate the development of cinema and visual culture during the first half of the 20th century, we will read key texts that contributed to the emergence of film theory. There are no prerequisites. Students are required to attend screenings or watch films on their own.
Fall or Spring
Also Offered As: ARTH 1080, CIMS 1010, ENGL 1900
1 Course Unit

COML 1013 Chaucer: Poetry, Voice, and Interpretation
Watching Chaucer at work, modern poet Lavinia Greenlaw says, is like meeting English “before the paint has dried.” Before rules (even of spelling) have hardened. Before live oral performance is subordinated to written record. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 1013
1 Course Unit

COML 1014 King Arthur: Medieval to Modern
In this course, we will study nearly 1000 years of literature about King Arthur from around the world. We will think about what Arthurian legends mean to the way we write history and the ways in which we view our collective pasts (and futures). See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 1014
1 Course Unit

COML 1015 Sagas and Skalds: Old Norse Literature in Translation
This course introduces students to the powerful and influential corpus of Old Norse literature and to the cultural and historical landscape of Viking and medieval Scandinavia. Students will explore mythological and heroic verse, court poetry, law codes, runic inscriptions, and the famed Icelandic sagas to develop a deeper understanding of one of the most significant literary traditions in high medieval Europe, and to myth-bust popular misconceptions about who ‘the Vikings’ were and how they lived. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: ENGL 1015
1 Course Unit

COML 1018 Poetics of Screenplay: The Art of Plotting
This course studies screenwriting in a historical, theoretical and artistic perspective. We discuss the rules of drama and dialogue, character development, stage vs. screen-writing, adaptation of nondramatic works, remaking of plots, auteur vs. genre theory of cinema, storytelling in silent and sound films, the evolvement of a script in the production process, script doctoring, as well as screenwriting techniques and tools.
Not Offered Every Year
Also Offered As: CIMS 1110, REES 0470
1 Course Unit
COML 1020 Marx, Marxism, and the Culture of Revolution
Capitalist society is the object of Karl Marx’s analysis and critique—a society that is the product of history and may one day vanish. This course will trace Marx’s critique by moving between the fields of philosophy, economics, and politics. We will locate key interventions of Marx’s thought that transform modern conceptions of history, the relation between economics and politics, and the limits of struggle and emancipation in capitalist society. We will consider the historical conditions of Marx’s writing and the development of his thought to discover many sides of Marx and many divergent Marxisms (humanist, post-structuralist, feminist, and others) that follow, often at odds with each other. Further, we will ask about what kind of horizons Marx’s and Marxist interventions open up for critique and analysis of capitalist society with respect to gender, race, class, and nation. “Theory becomes a material force when it has seized the masses,” argues the young Marx; indeed, his theories have fueled emancipatory movements and propped up tyrannical regimes, substantiated scientific theories and transformed philosophical debates. In examining Marx’s legacy, we will focus on the elaborations and historical limitations of his ideas by examining the challenges of fascism, the communist experiment in the Soviet Union and its collapse, as well as the climate and other crises currently taking place. In conclusion, we will turn to the question of whether and to what extent Marx’s ideas remain relevant today, and whether it is possible to be a Marxist in the contemporary world dominated by global capital.
Not Offered Every Year
Also Offered As: GRMN 1020, PHIL 1439, REES 1172
1 Course Unit

COML 1021 Introduction to Renaissance Literature and Culture
This course will survey the cultural history of sixteenth- and seventeenth-century England. Interdisciplinary in nature and drawing on the latest methodologies and insights of English studies, we will explore how aesthetics, politics, and social traditions shaped literature at this vital and turbulent time of English history. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 1021
1 Course Unit

COML 1022 World Film History 1945-Present
Focusing on movies made after 1945, this course allows students to learn and to sharpen methods, terminologies, and tools needed for the critical analysis of film. Beginning with the cinematic revolution signaled by the Italian Neo-Realism (of Rossellini and De Sica), we will follow the evolution of postwar cinema through the French New Wave (of Godard, Resnais, and Varda), American movies of the 1950s and 1960s (including the New Hollywood cinema of Coppola and Scorsese), and the various other new wave movements of the 1960s, 1970s and 1980s (such as the New German Cinema). We will then selectively examine some of the most important films of the last two decades, including those of U.S. independent film movement and movies from Iran, China, and elsewhere in an expanding global cinema culture. There will be precise attention paid to formal and stylistic techniques in editing, mise-en-scene, and sound, as well as to the narrative, non-narrative, and generic organizations of film. At the same time, those formal features will be closely linked to historical and cultural distinctions and changes, ranging from the Paramount Decision of 1948 to the digital convergences that are defining screen culture today. There are no prerequisites. Requirements will include readings in film history and film analysis, an analytical essay, a research paper, a final exam, and active participation.
Fall or Spring
Also Offered As: ARTH 1090, CIMS 1020, ENGL 1901
1 Course Unit

COML 1025 Narrative Across Cultures
The purpose of this course is to present a variety of narrative genres and to discuss and illustrate the modes whereby they can be analyzed. We will be looking at shorter types of narrative: short stories, novellas, and fables, and also some extracts from longer works such as autobiographies. While some works will come from the Anglo-American tradition, a larger number will be selected from European and non-Western cultural traditions and from earlier time-periods. The course will thus offer ample opportunity for the exploration of the translation of cultural values in a comparative perspective.
Fall or Spring
Also Offered As: ENGL 0039, NELC 1960, SAST 1124, THAR 1025
1 Course Unit

COML 1027 Sex and Representation
This course explores literature that resists normative categories of gender and sexuality. By focusing on figures writing from the margins, we will explore how radical approaches to narrative form and subject-matter invite us to think in new ways about desire and identity. We will read texts that blur the boundaries between fact and fiction, hybridizing the genres of poetry, drama, and autobiography to produce new forms of expression, such as the graphic novel, auto-fiction, and prose poetry. From Virginia Woolf’s gender-bending epic, Orlando, to Tony Kushner’s Angels in America, this course traces how non-normative desire is produced and policed by social and literary contexts - and how those contexts can be re-imagined and transformed.
Fall or Spring
Also Offered As: CIMS 1027, GSWS 1027, REES 1481
1 Course Unit

COML 1030 Nietzsche’s Modernity and the Death of God
"God is dead." This famous, all too famous death sentence, issued by the 19th-century German philosopher Friedrich Nietzsche, also signaled the genesis of a radical challenge to traditional notions of morality, cultural life, and the structure of society as a whole. In this course we will examine both the “modernity” of Nietzsche’s thought and the ways in which his ideas have helped to define the very concept of Modernity (and, arguably, Postmodernity) itself. In exploring the origin and evolution of Nietzsche’s key concepts, we will trace the ways in which his work has been variously revered or refuted, championed or co-opted, for more than a century. We will survey his broad influence on everything from philosophy and literature to music and art, theater and psychology, history and cultural theory, politics and popular culture. Further, we will ask how his ideas continue to challenge us today, though perhaps in unexpected ways. As we will see, Nietzsche wanted to teach us “how to philosophize with a hammer.”
Not Offered Every Year
Also Offered As: CIMS 1030, ENGL 1027, GSWS 1027, REES 1481
1 Course Unit
COML 1031 Television and New Media
How and when do media become digital? What does digitization afford and what is lost as television and cinema become digitized? As lots of things around us turn digital, have we started telling stories, sharing experiences, and replaying memories differently? What has happened to television and life after New Media? How have television audiences been transformed by algorithmic cultures of Netflix and Hulu? How have (social) media transformed socialities as ephemeral snaps and swiped intimacies become part of the "new" digital/phone cultures? This is an introductory survey course and we discuss a wide variety of media technologies and phenomena that include: cloud computing, Internet of Things, trolls, distribution platforms, optical fiber cables, surveillance tactics, social media, and race in cyberspace. We also examine emerging mobile phone cultures in the Global South and the environmental impact of digitization. Course activities include Tumblr blog posts and Instagram curations. The final project could take the form of either a critical essay (of 2000 words) or a media project.
Spring
Also Offered As: ARTH 1070, CIMS 1030, ENGL 1950
1 Course Unit

COML 1040 Berlin: History, Politics, Culture
What do you know about Berlin's history, architecture, culture, and political life? The present course will offer a survey of the history of Prussia, beginning with the seventeenth century, and the unification of the small towns of Berlin and Koeln to establish a new capital for this country. It will tell the story of Berlin's rising political prominence in the eighteenth century, and its position as a center of the German and Jewish Enlightenment. It will follow Berlin's transformation into an industrial city in the nineteenth century, its rise to metropolis in the early twentieth century, its history during the Third Reich, and the post-war cold war period. The course will conclude its historical survey with a consideration of Berlin's position as a capital in reunified Germany. The historical survey will be supplemented by a study of Berlin's urban structure, its significant architecture from the eighteenth century (i.e. Schinkel) to the nineteenth (new worker's housing, garden suburbs) and twentieth centuries (Bauhaus, Speer designs, postwar rebuilding, GDR housing projects, post-unification building boom). In addition, we will read literary texts about the city, and consider the visual art and music created in and about Berlin, and focus on Berlin's Jewish history. The course will be interdisciplinary with the fields of German Studies, history, history of art, urban studies, and German-Jewish studies. It is also designed as a preparation for undergraduate students who are considering spending a junior semester with the Penn Abroad Program in Berlin.
Not Offered Every Year
Also Offered As: ARTH 2370, GRMN 1040, HIST 0821, URBS 1070
1 Course Unit

COML 1050 War and Representation
This class will explore complications of representing war in the 20th and 21st centuries. War poses problems of perception, knowledge, and language. The notional "fog of war" describes a disturbing discrepancy between agents and actions of war; the extreme nature of the violence of warfare tests the limits of cognition, emotion, and memory; war's traditional dependence on declaration is often warped by language games--"police action," "military intervention," "nation-building," or palpably unnamed and unacknowledged state violence. Faced with the radical uncertainty that forms of war bring, modern and contemporary authors have experimented in historically, geographically, experientially and artistically particular ways, forcing us to reconsider even seemingly basic definitions of what a war story can be. Where does a war narrative happen? On the battlefield, in the internment camp, in the suburbs, in the ocean, in the ruins of cities, in the bloodstream? Who narrates war? Soldiers, refugees, gossips, economists, witnesses, bureaucrats, survivors, children, journalists, descendants and inheritors of trauma, historians, those who were never there? How does literature respond to the rise of terrorist or ideology war, the philosophical and material consequences of biological and cyber wars, the role of the nuclear state? How does the problem of war and representation disturb the difference between fiction and non-fiction? How do utilitarian practices of representation--propaganda, nationalist messaging, memorialization, xenophobic depiction--affect the approaches we use to study art? Finally, is it possible to read a narrative barely touched or merely contextualized by war and attend to the question of war's shaping influence? The class will concentrate on literary objects--short stories, and graphic novels--as well as film and television. Students of every level and major are welcome in and encouraged to join this class, regardless of literary experience.
Fall or Spring
Also Offered As: ENGL 1449, REES 1179
1 Course Unit

COML 1054 Forest Worlds: Mapping the Arboreal Imaginary in Literature and Film
The destruction of the world's forests through wild fires, deforestation, and global heating threatens planetary bio-diversity and may even, as a 2020 shows, trigger civilizational collapse. Can the humanities help us think differently about the forest? At the same time that forests of the world are in crisis, the "rights of nature" movement is making progress in forcing courts to acknowledge the legal "personhood" of forests and other ecosystems. The stories that humans have told and continue to tell about forests are a source for the imaginative and cultural content of that claim. At a time when humans seem unable to curb the destructive practices that place themselves, biodiversity, and forests at risk, the humanities give us access to a record of the complex inter-relationship between forests and humanity. Forest Worlds serves as an introduction to the environmental humanities. The environmental humanities offer a perspective on the climate emergency and the human dimension of climate change that are typically not part of the study of climate science or climate policy. Students receive instruction in the methods of the humanities - cultural analysis and interpretation of literature and film - in relation to texts that illuminate patterns of human behavior, thought, and affect with regard to living in and with nature.
Spring
Also Offered As: CIMS 1520, ENVS 1550, GRMN 1132
1 Course Unit
COML 1060 The Fantastic and Uncanny in Literature: Ghosts, Spirits & Machines
Do we still believe in spirits and ghosts? Do they have any place in an age of science of technology? Can they perhaps help us to define what a human being is and what it can do? We will venture on a journey through literary texts from the late eighteenth century to the present to explore the uncanny and fantastic in literature and life. Our discussions will be based on a reading of Sigmund Freud's essay on the uncanny, and extraordinary Romantic narratives by Ludwig Tieck, E.T.A. Hoffmann, Edgar Allan Poe, Nathaniel Hawthorne, Prosper Mérimée, Villiers de l'Isle-Adam, and others. 
Not Offered Every Year 
Also Offered As: ENGL 1070, GSWS 1060 
1 Course Unit

COML 1070 Modernisms and Modernities
This class explores the international emergence of modernism, typically from the middle of the 19th century to the middle of the 20th century. We will examine the links between modernity, the avant-garde, and various national modernisms that emerged alongside them. Resolutely transatlantic and open to French, Spanish, Italian, German, or Russian influences, this course assumes the very concept of Modernism to necessitate an international perspective focusing on the new in literature and the arts -- including film, the theatre, music, and the visual arts. The philosophies of modernism will also be surveyed and concise introductions provided to important thinkers like Marx, Nietzsche, Sorel, Bergson, Freud, and Benjamin. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year  
Also Offered As: ENGL 1070 
1 Course Unit

COML 1071 Fascist Cinemas
Cinema played a crucial role in the cultural life of Nazi Germany and other fascist states. As cinema enthusiasts, Goebbels and Hitler were among the first to realize the important ideological potential of film as a mass medium and saw to it that Germany remained a cinema powerhouse producing more than 1000 films during the Nazi era. In Italy, Mussolini, too, declared cinema "the strongest weapon." This course explores the world of "fascist" cinemas ranging from infamous propaganda pieces such as The Triumph of the Will to popular entertainments such as musicals and melodramas. It examines the strange and mutually defining kinship between fascism more broadly and film. We will consider what elements mobilize and connect the film industries of the Axis Powers: style, genre, the aestheticization of politics, the creation of racialized others. More than seventy years later, fascist cinemas challenge us to grapple with issues of more subtle ideological insinuation than we might think. Weekly screenings with subtitles.
Not Offered Every Year 
Also Offered As: CIMS 1070, GRMN 1070, ITAL 1930 
1 Course Unit

COML 1072 Fashion and Modernity
In this class we will study the emergence of the Modernist concept of the "new" as a term also understood as "new fashion." We will move back and forth in time so as to analyze today's changing scene with a view to identify contemporary accounts of the "new" in the context of the fashion industry. Our texts will include poetry, novels, and films. See the English Department's website at www.english.upenn.edu for a description of the current offerings. 
Also Offered As: ARTH 2889, ENGL 1071, FREN 1071, GRMN 1065 
1 Course Unit

COML 1080 German Cinema
An introduction to the momentous history of German film, from its beginnings before World War One to developments following the fall of the Berlin Wall in 1989 and German reunification in 1990. With an eye to film's place in its historical and political context, the course will explore the "Golden Age" of German cinema in the Weimar Republic, when Berlin vied with Hollywood; the complex relationship between Nazi ideology and entertainment during the Third Reich; the fate of German film-makers in exile during the Hitler years; post-war film production in both West and East Germany; the call for an alternative to "Papa's Kino" and the rise of New German Cinema in the 1960s.
Not Offered Every Year 
Also Offered As: CIMS 1080, GRMN 1080 
1 Course Unit

COML 1081 20th-Century British Literature
This course introduces major works in twentieth-century British literature. We will read across a range of fiction, poetry, plays, and essays, and will consider aesthetic movements such as modernism as well as historical contexts including the two World Wars, the decline of empire, and racial and sexual conflict. Authors treated might include: Conrad, Yeats, Joyce, Eliot, Lawrence, Forster, Shaw, Woolf, Auden, Orwell, Beckett, Achebe, Rhys, Synge, Naipaul, Rushdie, Heaney, and Walcott. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year 
Also Offered As: ENGL 1081 
1 Course Unit

COML 1090 Jewish Films and Literature
From the 1922 silent film "Hungry Hearts" through the first "talkie,""The Jazz Singer," produced in 1927, and beyond "Schindler's List" Jewish characters have confronted the problems of their Jewishness on the silver screen for a general American audience. Alongside this Hollywood tradition of Jewish film, Yiddish film blossomed from independent producers between 1911 and 1939, and interpreted literary masterpieces, from Shakespeare's "King Lear" to Sholom Aleichem's "Teyve the Dairyman," primarily for an immigrant, urban Jewish audience. In this course, we will study a number of films and their literary sources (in fiction and drama), focusing on English language and Yiddish films within the framework of three dilemmas of interpretation: a) the different ways we "read" literature and film, b) the various ways that the media of fiction, drama, and film "translate" Jewish culture, and c) how these translations of Jewish culture affect and are affected by their implied audience. 
Not Offered Every Year  
Also Offered As: ENGL 1289, GRMN 1090, JWST 1090 
1 Course Unit


**COML 1095 Fate and Chance in Literature and Culture**

In Fate and Chance in Literature and Culture, we will explore these two interrelated concepts in comparative perspective over a broad historical range. As a result, the students will learn how the philosophy of fate and chance has been reflected in works of different Russian authors and in different cultural and political environments. In Russian as well as western systems of belief fate and chance represent two extreme visions of the universal order, or, perhaps, two diametrically opposed cosmic forces: complete determinism, on the one hand, and complete chaos or unpredictability, on the other. These visions have been greatly reflected by various mythopoetic systems. In this course, we will investigate religious and folkloric sources from a series of Russian traditions compared to other Indo-European traditions (Greek, East-European). Readings will include The Song of Prince Igor's Campaign, The Gambler by Dostoevsky, The Queen of Spades by Pushkin, Vîj by Gogol, The Black Monk by Chekhov, The Fatal Eggs by Bulgakov, and more.

Also Offered As: REES 1471
1 Course Unit

**COML 1097 Madness and Madmen in Russian Culture**

Is “insanity” today the same thing as “madness” of old? Who gets to define what it means to be “sane,” and why? Are the causes of madness biological or social? In this course, we will grapple with these and similar questions while exploring Russia’s fascinating history of madness as a means to maintain, critique, or subvert the status quo. We will consider the concept of madness in Russian culture beginning with its earliest folkloric roots and trace its depiction and function in the figure of the Russian “holy fool,” in classical literature, and in contemporary film. Readings will include works by many Russian greats, such as Pushkin, Gogol, Dostoevsky, Chekhov, Bulgakov and Nabokov.

Not Offered Every Year
Also Offered As: REES 0172
1 Course Unit

**COML 1110 Jewish American Literature**

What makes Jewish American literature Jewish? What makes it American? This course will address these questions about ethnic literature through fiction, poetry, drama, and other writings by Jews in America, from their arrival in 1654 to the present. We will discuss how Jewish identity and ethnicity shape literature and will consider how form and language develop as Jewish writers “immigrate” from Yiddish, Hebrew, and other languages to American English. Our readings, from Jewish American Literature: A Norton Anthology, will include a variety of stellar authors, both famous and less-known, including Isaac Mayer Wise, Emma Lazarus, Isaac Bashevis Singer, Celia Dropkin, Abraham Cahan, Anzia Yezierska, Saul Bellow, Philip Roth, Cynthia Ozick, and Allegra Goodman. Students will come away from this course having explored the ways that Jewish culture intertwines with American culture in literature.

Not Offered Every Year
Also Offered As: GRMN 1110, JWST 1110
1 Course Unit

**COML 1120 Translating Cultures: Literature on and in Translation**

“Languages are not strangers to one another,” writes the great critic and translator Walter Benjamin. Yet two people who speak different languages have a difficult time talking to one another, unless they both know a third, common language or can find someone who knows both their languages to translate what they want to say. Without translation, most of us would not be able to read the Bible or Homer, the foundations of Western culture. Americans wouldn’t know much about the cultures of Europe, China, Africa, South America, and the Middle East. And people who live in or come from these places would not know much about American culture. Without translation, Americans would not know much about the diversity of cultures within America. The very fabric of our world depend upon translation between people, between cultures, between texts. With a diverse group of readings—autobiography, fiction, poetry, anthology, and literary theory—this course will address some fundamental questions about translating language and culture. What does it mean to translate? How do we read a text in translation? What does it mean to live between two languages? Who is a translator? What are different kinds of literary and cultural translation? what are their principles and theories? Their assumptions and practices? Their effects on and implications for the individual and the society?

Not Offered Every Year
Also Offered As: GRMN 1120, JWST 1120
1 Course Unit

**COML 1121 Community, Freedom, Violence: Writing the South Asian City**

The South Asian city—as space, symbol, and memory—is the subject of this course. Through a range of readings in English and in translation, we will gain a sense for the history of the city and the ways in which it is a setting for protest and nostalgia, social transformation and solitary wandering. We will see reflections of the city in the detective novels sold in its train stations, the stories scribbled in its cafes, and films produced in its backlots. Readings will attempt to address urban spaces across South Asia through a range of works, which we will examine in the context of secondary readings, including histories and ethnological works that take up life in the modern city. Students will finish this course prepared to pursue projects dealing with the urban from multiple disciplinary perspectives. This course is suitable for anyone interested in the culture, society, or literature of South Asia, and assumes no background in South Asian languages.

Fall or Spring
Also Offered As: ENGL 1191, SAST 1120, URBS 1120
1 Course Unit
COML 1130 Water Worlds: Cultural Responses to Sea Level Rise & Catastrophic Flooding
As a result of climate change, the world that will take shape in the course of this century will be decidedly more inundated with water than we're accustomed to. The polar ice caps are melting, glaciers are retreating, ocean levels are rising, polar bear habitat is disappearing, countries are jockeying for control over a new Arctic passage, while low-lying cities and small island nations are confronting the possibility of their own demise. Catastrophic flooding events are increasing in frequency, as are extreme droughts. Hurricane-related storm surges, tsunamis, and raging rivers have devastated regions on a local and global scale. In this seminar we will turn to the narratives and images that the human imagination has produced in response to the experience of overwhelming watery invasion, from Noah to New Orleans. Objects of analysis will include mythology, ancient and early modern diluvialism, literature, art, film, and commemorative practice. The basic question we'll be asking is: What can we learn from the humanities that will be helpful for confronting the problems and challenges caused by climate change and sea level rise? Not Offered Every Year
Also Offered As: CIMS 1130, ENVS 1040, GRMN 1130
1 Course Unit

COML 1131 Crime and Criminality in Early America
This seminar examines the complex cultural history of crime and criminality in early America. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 1131, GSWS 1131
1 Course Unit

COML 1140 Liquid Histories and Floating Archives
Climate change transforms the natural and built environments, and it is re-shaping how we understand, make sense, and care for our past. Climate changes history. This course explores the Anthropocene, the age when humans are remaking earth's systems, from an on-water perspective. In on-line dialogue and video conferences with research teams in port cities on four continents, this undergraduate course focuses on Philadelphia as one case study of how rising waters are transfiguring urban history, as well as its present and future. Students projects take them into the archives at the Independence Seaport Museum and at Bartram's Garden. Field trips by boat on the Schuylkill and Delaware Rivers and on land to the Port of Philadelphia and to the John Heinz National Wildlife Refuge invite transhistorical dialogues about how colonial and then industrial-era energy and port infrastructure transformed the region's vast tidal marshlands wetlands. Excursions also help document how extreme rain events, storms, and rising waters are re-making the built environment, redrawing lines that had demarcated land from water. In dialogue with one another and invited guest artists, writers, and landscape architects, students final projects consider how our waters might themselves be read and investigated as archives. What do rising seas subsume and hold? Whose stories do they tell? What floats to the surface?
Not Offered Every Year
Also Offered As: ANTH 1440, ENGL 1589, ENVS 1440, GRMN 1140, HIST 0872
1 Course Unit

COML 1160 Sustainability & Utopianism
This seminar explores how the humanities can contribute to discussions of sustainability. We begin by investigating the contested term itself, paying close attention to critics and activists who deplore the very idea that we should try to sustain our, in their eyes, dystopian present, one marked by environmental catastrophe as well as by an assault on the educational ideals long embodied in the humanities. We then turn to classic humanist texts on utopia, beginning with More's fictive island of 1517. The "origins of environmentalism" lie in such depictions of island edens (Richard Grove), and our course proceeds to analyze classic utopian tests from American, English, and German literatures. Readings extend to utopian visions from Europe and America of the nineteenth and twentieth centuries, as well as literary and visual texts that deal with contemporary nuclear and flood catastrophes. Authors include: Bill McKibben, Jill Kerr Conway, Christopher Newfield, Thomas More, Francis Bacon, Karl Marx, Henry David Thoreau, Robert Owens, William Morris, Charlotte Perkins Gilman, Ayn Rand, Christa Wolf, and others.
Not Offered Every Year
Also Offered As: ENGL 1579, ENVS 1050, GRMN 1160, STSC 1160
1 Course Unit

COML 1170 Global Sustainabilities
This research-oriented seminar focuses on the ways in which "sustainability" and "sustainable development" are linguistically and culturally translated into the world's languages. We may take the terms for granted, but they have only really been on the global stage since they were widely introduced in the 1987 United Nations report, Our Common Future. Seminar participants will first become acquainted with the cultural and conceptual history of the terms and the UN framework within which sustainability efforts directly or indirectly operate. Having established the significance of cultural and linguistic difference in conceiving and implementing sustainability, participants will collaboratively develop a research methodology in order to begin collecting and analyzing data. We will draw heavily on Penn's diverse language communities and international units. Seminar members will work together and individually to build an increasingly comprehensive website that provides information about the world's languages of sustainability.
Not Offered Every Year
Also Offered As: ENVS 1450, GRMN 1170
1 Course Unit

COML 1190 Introduction to Postcolonial Literature
English is a global language with a distinctly imperial history, and this course serves as an essential introduction to literary works produced in or about the former European colonies. The focus will be poetry, film, fiction and non fiction and at least two geographic areas spanning the Americas, South Asia, the Caribbean and Africa as they reflect the impact of colonial rule on the cultural representations of identity, nationalism, race, class and gender. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 1190, ENGL 1190
1 Course Unit
COML 1191 World Literature
How do we think 'the world' as such? Globalizing economic paradigms encourage one model that, while it connects distant regions with the ease of a finger-tap, also homogenizes the world, manufacturing patterns of sameness behind simulations of diversity. Our current world-political situation encourages another model, in which fundamental differences are held to warrant the consolidation of borders between Us and Them, "our world" and "theirs." This course begins with the proposal that there are other ways to encounter the world, that are politically compelling, ethically important, and personally enriching—and that the study of literature can help tease out these new paths. Through the idea of World Literature, this course introduces students to the appreciation and critical analysis of literary texts, with the aim of navigating calls for universality or particularity (and perhaps both) in fiction and film. "World literature" here refers not merely to the usual definition of "books written in places other than the US and Europe, "*but any form of cultural production that explores and pushes at the limits of a particular world, that steps between and beyond worlds, or that heralds the coming of new worlds still within us, waiting to be born. And though, as we read and discuss our texts, we will glide about in space and time from the inner landscape of a private mind to the reaches of the farthest galaxies, knowledge of languages other than English will not be required, and neither will any prior familiarity with the literary humanities. In the company of drunken kings, botanical witches, bisexual alien lifeforms, and storytellers who've lost their voice, we will reflect on, and collectively navigate, our encounters with the faraway and the familiar—and thus train to think through the challenges of concepts such as translation, narrative, and ideology. Texts include Kazuo Ishiguro, Ursula K. LeGuin, Salman Rushdie, Werner Herzog, Jamaica Kincaid, Russell Hoban, Hiroshi Teshigahara, Arundhati Roy, and Abbas Kiarostami.

Fall or Spring
Also Offered As: CLST 1602, ENGL 1179

1 Course Unit

COML 1192 Classics of the World II
This class provides a survey of works drawn from the Western literary canon from the Renaissance to the 20th century. Work may be drawn in part from the following authors: Montaigne, Shakespeare, Webster, Moliere, Milton, Behn, Laclos, Rousseau, Sterne, the Romantic poets, Austen, Dickens, Bronte, Wilde, Woolf and Joyce.

Fall or Spring

1 Course Unit

COML 1200 Sex and Gender in Ancient Greece and Rome
What is being a man, being a woman, being masculine, being feminine, being neither, being both? Is sex about pleasure, domination, identity, reproduction, or something else? Are sexual orientation and gender identity innate? How can words, myths and stories inform cultural assumptions about sex and gender? Did people in ancient times have a concept of sexuality? How do gendered English terms (like "girly", "effeminate", or "feisty") compare to gendered ancient Greek and Latin terms, like virtus, which connotes both "virtue" and "masculinity"? Why did the Roman and English speaking worlds have to borrow the word "clitoris" from the ancient Greeks? How did people in antiquity understand consent? Can we ever get access to the perspectives of ancient women? In this introductory undergraduate course, we will learn about sex and gender in ancient Greece and Rome. We will discuss similarities and differences between ancient and modern attitudes, and we will consider how ancient texts, ancient art, ancient ideas and ancient history have informed modern western discussions, assumptions and legislation. Our main readings will be of ancient texts, all in English translation; authors studied will include Ovid, Aristophanes, Plato, Euripides, and Sappho.

Class requirements will include participation in discussion as well as quizzes, reading responses, and a final exam.

Also Offered As: CLST 1200, GSWS 1200

1 Course Unit

COML 1201 Foundations of European Thought: from Rome to the Renaissance
This course offers an introduction to the world of thought and learning at the heart of European culture, from the Romans through the Renaissance. We begin with the ancient Mediterranean and the formation of Christianity and trace its transformation into European society. Along the way we will examine the rise of universities and institutions for learning, and follow the humanist movement in rediscovering and redefining the ancients in the modern world.

Fall or Spring

Also Offered As: HIST 1200

1 Course Unit

COML 1215 Love, Lust and Violence in the Middle Ages
Medieval Europe was undoubtedly gruff and violent but it also gave birth to courtly culture - raw worries transformed into knights who performed heroic deeds, troubadours wrote epics in their honor and love songs about their ladies, women of the elite carved out a place in public discourse as patrons of the arts, and princely courts were increasingly defined by pageantry from jousting tournaments to royal coronations. This course will trace the development of this courtly culture from the eleventh to the sixteenth century, from its roots in Southern France to its spread to Northern France and then to various kingdoms in Europe. Central themes will include the transformation of the warrior into the knight, the relationship between violence and courtliness, courtly love, cultural production and the patronage, and the development of court pageantry and ceremonial. This is a class cultural history and, as such, will rely on the interpretation of objects of art and material culture, literature as well as historical accounts.

Fall or Spring

Also Offered As: GSWS 1215, HIST 1215

1 Course Unit
COML 1231 Perspectives in French Literature: Love and Passion
This basic course in literature provides an overview of French literature and acquaints students with major literary trends through the study of representative works from each period. Students are expected to take an active part in class discussion in French. French 1231 has as its theme the presentation of love and passion in French literature.
Fall
Also Offered As: FREN 1231
1 Course Unit

COML 1232 Perspectives in French Literature: The Individual and Society
This basic course in literature provides an overview of French literature and acquaints students with major literary trends through the study of representative works from each period. Special emphasis is placed on close reading of texts in order to familiarize students with major authors and their characteristics and with methods of interpretation. Students are expected to take an active part in class discussion in French. French 1232 has as its theme the Individual and Society.
Spring
Also Offered As: FREN 1232
1 Course Unit

COML 1235 Autobiographical Writing
How does one write about oneself? Who is the “author” writing? What does one write about? And is it fiction or truth? Our course on autobiographical writing will pursue these questions, researching confessions, autobiographies, memoirs, and other forms of life-writing both in their historical development and theoretical articulations. Examples will include selections from St. Augustine’s confessions, Rousseau’s Confessions, Benjamin Franklin’s Autobiography, as well as many examples from contemporary English, German, French, and American literature.
Not Offered Every Year
Also Offered As: GRMN 1235
1 Course Unit

COML 1250 Belief and Unbelief in Modern Thought
“God is dead,” declared Friedrich Nietzsche, “and we have killed him.” Nietzsche’s words came as a climax of a longer history of criticism of, and dissent toward, the religious foundations of European society and politics. The critique of religion had vast implications for the meaning of human life, the nature of the person, and the conception of political and social existence. The course will explore the intensifying debate over religion in the intellectual history of Europe, reaching from the Renaissance, through the Scientific Revolution and the Enlightenment, to the twentieth century. Rousseau, Voltaire, Marx, Nietzsche, and Freud. These thinkers allow us to trace the varieties of irreligious experience that have emerged in modern European thought and their implications for both historical and philosophical understanding. Rather than drawing a straight line from belief to non-belief, however, we will also consider whether religion lingers even in secular thought and culture.
Not Offered Every Year
Also Offered As: HIST 1250
1 Course Unit

COML 1260 Latinx Literature and Culture
This course offers a broad introduction to the study of Latinx culture. We will examine literature, theater, visual art, and popular cultural forms, including murals, poster art, graffiti, guerrilla urban interventions, novels, poetry, short stories, and film. In each instance, we will study this work within its historical context and with close attention to the ways it illuminates class formation, racialization, and ideologies of gender and sexuality as they shape Latinx experience in the U.S. Topics addressed in the course will include immigration and border policy, revolutionary nationalism and its critique, anti-imperialist thought, Latinx feminisms, queer Latinidades, ideology, identity formation, and social movements. While we will address key texts, historical events, and intellectual currents from the late 19th century and early 20th century, the course will focus primarily on literature and art from the 1960s to the present. All texts will be in English.
Not Offered Every Year
Also Offered As: ARTH 2679, ENGL 1260, GSWS 1260, LALS 1260
1 Course Unit

COML 1262 Tolstoy’s War and Peace and the Age of Napoleon
In this course we will read what many consider to be the greatest book in world literature. This work, Tolstoy’s War and Peace, is devoted to one of the most momentous periods in world history, the Napoleonic Era (1789-1815). We will study both the book and the era of the Napoleonic Wars: the military campaigns of Napoleon and his opponents, the grand strategies of the age, political intrigues and diplomatic betrayals, the ideologies and human dramas, the relationship between art and history. How does literature help us to understand this era? How does history help us to understand this great book? Because we will read War and Peace over the course of the entire semester, readings will be manageable and very enjoyable.
Fall or Spring
Also Offered As: HIST 1260, REES 1380
1 Course Unit

COML 1265 Topics German Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at http://cinemastudies.sas.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 1301, GRMN 1300
1 Course Unit

COML 1300 Topics Latin American Cinema
This course offers an introduction to Latin American cinema. We will discuss major figures and movements, focusing on works from the Spanish and Portuguese-speaking world. We will examine a wide range of films, from classic works to recent releases, in order to understand the diverse cultures and histories of Latin America. Specific course topics vary from year to year. See the Cinema Studies website at http://cinemastudies.sas.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 1300
1 Course Unit

COML 1301 Jewish Folklore
The Jews are among the few nations and ethnic groups whose oral tradition occurs in literary and religious texts dating back more than two thousand years. This tradition changed and diversified over the years in terms of the migrations of Jews into different countries and the historical, social, and cultural changes that these countries underwent. The course attempts to capture the historical and ethnic diversity of Jewish Folklore in a variety of oral literary forms.
Spring
Also Offered As: JWST 1300, NELC 1300
1 Course Unit
COML 1310 Gender, Sexuality, and Literature
This course will focus on questions of gender difference and of sexual desire in a range of literary works, paying special attention to works by women and treatments of same-sex desire. More fundamentally, the course will introduce students to questions about the relation between identity and representation. We will attend in particular to intersections between gender, sexuality, race, class, and nation, and will choose from a rich vein of authors. See the English Department's website at www/english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 1310, GSWS 1310
1 Course Unit

COML 1311 Introduction to Modern Hebrew Literature
The objective of this course is to develop an artistic appreciation for literature through in-depth class discussions and text analysis. Readings are comprised of Israeli poetry and short stories. Students examine how literary language expresses psychological and cultural realms. The course covers topics such as: the short story reinvented, literature and identity, and others. This course is conducted in Hebrew and all readings are in Hebrew. Grading is based primarily on participation and students' literary understanding.
Fall
Also Offered As: JWST 1310, NELC 1310
Prerequisite: HEBR 0400
1 Course Unit

COML 1351 Contemporary Fiction & Film in Japan
This course will explore fiction and film in contemporary Japan, from 1945 to the present. Topics will include literary and cinematic representation of Japan's war experience and post-war reconstruction, negotiation with Japanese classics, confrontation with the state, and changing ideas of gender and sexuality. We will explore these and other questions by analyzing texts of various genres, including film and film scripts, novels, short stories, manga, and academic essays. Class sessions will combine lectures, discussion, audio-visual materials, and creative as well as analytical writing exercises. The course is taught in English, although Japanese materials will be made available upon request. No prior coursework in Japanese literature, culture, or film is required or expected; additional secondary materials will be available for students taking the course at the 600 level. Writers and film directors examined may include: Kawabata Yasunari, Hayashi Fumiko, Abe Kobo, Mishima Yukio, Oe Kenzaburo, Yoshimoto Banana, Ozu Yasujiro, Naruse Mikio, Kurosawa Akira, Imamura Shohei, Koreeda Hirokazu, and Beat Takeshi.
Not Offered Every Year
Also Offered As: CIMS 1351, EALC 1351, GSWS 1351
1 Course Unit

COML 1400 Introduction to Literary Theory
This course introduces students to major issues in the history of literary theory, and provides an excellent foundation for the English major or minor. Treating the work of Plato and Aristotle as well as contemporary criticism, we will consider the fundamental issues that arise from representation, making meaning, appropriation and adaptation, categorization and genre, historicity and genealogy, and historicity and temporality. We will consider major movements in the history of theory including the "New" Criticism of the 1920's and 30's, structuralism and post-structuralism, Marxism and psychoanalysis, feminism, cultural studies, critical race theory, and queer theory. See the English Department's website at www/english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 1400, GRMN 1303
1 Course Unit

COML 1427 Wild Things: Children's Literature and the Psychoanalytic Study of the Child
This course, framed as a psychoanalytic study of the child, focuses on English-language children's literature from the 19th Century to the present. See the English Department's website at www/english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 1427, GSWS 1427
1 Course Unit

COML 1500 Greek & Roman Mythology
Myths are traditional stories that have endured many years. Some of them have to do with events of great importance, such as the founding of a nation. Others tell the stories of great heroes and heroines and their exploits and courage in the face of adversity. Still others are simple tales about otherwise unremarkable people who get into trouble or do some great deed. What are we to make of all these tales, and why do people seem to like to hear them? This course will focus on the myths of ancient Greece and Rome, as well as a few contemporary American ones, as a way of exploring the nature of myth and the function it plays for individuals, societies, and nations. We will also pay some attention to the way the Greeks and Romans themselves understood their own myths. Are myths subtle codes that contain some universal truth? Are they a window on the deep recesses of a particular culture? Are they entertaining stories that people like to tell over and over? Are they a set of blinders that all of us wear, though we do not realize it? We investigate these questions through a variety of topics creation of the universe between gods and mortals, religion and family, sex, love, madness, and death.
Spring
Also Offered As: CLST 1500
1 Course Unit
COML 1601 Ancient Drama
This course will introduce students to some of the greatest works of dramatic literature in the western canon. We will consider the social, political, religious, and artistic functions of drama in ancient Greece and Rome, and discuss the differences and similarities between ancient drama and modern art forms. The course will also pursue some broader goals: to improve students skills as readers and scholarly critics of literature, both ancient and modern; to observe the implications of form for meaning, in considering, especially, the differences between dramatic and non-dramatic kinds of cultural production: to help students understand the relationship of ancient Greek and Roman culture to the modern world; and to encourage thought about some big issues, in life as well as in literature: death, heroism, society, action and meaning.
Not Offered Every Year
Also Offered As: CLST 1601
1 Course Unit

COML 1650 Introduction to Digital Humanities
This course provides an introduction to foundational skills common in digital humanities (DH). It covers a range of new technologies and methods and will empower scholars in literary studies and across humanities disciplines to take advantage of established and emerging digital research tools. Students will learn basic coding techniques that will enable them to work with a range of data including literary texts and utilize techniques such as text mining, network analysis, and other computational approaches. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: ENGL 1650, HIST 0870
1 Course Unit

COML 1701 Scandalous Arts in Ancient and Modern Communities
What do the ancient Greek comedian Aristophanes, the Roman satirist Juvenal, have in common with rappers Snoop Dogg and Eminem? Many things, in fact, but perhaps most fundamental is their delight in shocking audiences and upending social norms. This course will examine the various arts (including literary, visual and musical media) that transgress the boundaries of taste and convention in ancient Greco-Roman culture and our own era. We will consider, among other topics, why communities feel compelled to repudiate some forms of scandalous art, while turning others - especially those that have come down to us from remote historical periods - into so-called classics.
Not Offered Every Year
Also Offered As: CLST 1701
1 Course Unit

COML 1740 20th-Century British Novel
This course traces the development of the novel across the twentieth-century. The course will consider the formal innovations of the modern novel (challenges to realism, stream of consciousness, fragmentation, etc.) in relation to major historical shifts in the period. Authors treated might include: Conrad, Lawrence, Joyce, Forster, Woolf, Cather, Faulkner, Hemingway, Achebe, Greene, Rhys, Baldwin, Naipaul, Pynchon, Rushdie, and Morrison. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 1740
1 Course Unit

COML 1810 Sounding Poetry
Never before has poetry been so inescapable. Hip hop, the soundtrack of our times, has made rhyme, meter, and word-play part of our daily lives. How did this happen? This course ranges through oral and lyric traditions in Europe, the Americas, and the Commonwealth. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
Fall
Also Offered As: AFRC 1810, ENGL 1810
1 Course Unit

COML 1840 20th-Century Poetry
From abstraction to beat, from socialism to negritude, from expressionism to ecopoetry, from surrealism to visual poetry, from collage to digital poetry, the poetry of the twentieth century has been characterized by both the varieties of its forms and the range of its practitioners. This course will offer a broad overview of many of the major trends and a few minor eddies in the immensely rich, wonderfully varied, ideologically and aesthetically charged field. The course will cover many of the radical poetry movements and individual innovations, along with the more conventional and idiosyncratic work, and will provide examples of political, social, ethnic, and national poetries, both in the Americas and Europe, and beyond to the rest of the world. While most of the poetry covered will be in English, works in translation, and indeed the art of translation, will be an essential component the course. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 1840
1 Course Unit

COML 1859 The Play: Structure, Style, Meaning
How does one read a play? Theatre, as a discipline, focuses on the traditions of live performance. In those traditions, a play text must be read not only as a piece of literature, but as a kind of "blueprint" from which productions are built. This course will introduce students to a variety of approaches to reading plays and performance pieces. Drawing on a wide range of dramatic texts from different periods and places, we will examine how plays are made, considering issues such as structure, genre, style, character, and language, as well as the use of time, space, and theatrical effects. Although the course is devoted to the reading and analysis of plays, we will also view selected live and/or filmed versions of several of the scripts we study, assessing their translation from page to stage.
Fall or Spring
Also Offered As: ENGL 1859, THAR 0103
1 Course Unit

COML 1915 Myth in Society
In this course we will explore the mythologies of selected peoples in the Ancient Near East, Africa, Asia, and Native North and South America and examine how the gods function in the life and belief of each society. The study of mythological texts will be accompanied, as much as possible, by illustrative slides that will show the images of these deities in art and ritual.
Not Offered Every Year
Also Offered As: NELC 1915
1 Course Unit

COML 1982 Study Abroad
Study abroad for undergraduates.
1 Course Unit
COML 2000 Topics In Classicism and Literature: Epic Tradition
This advanced seminar will examine the classical backgrounds of western medieval literature, in particular the reception of classical myth and epic in the literature of the Middle Ages. Different versions of the course will have different emphases on Greek or Latin backgrounds and on medieval literary genres. Major authors to be covered include Virgil, Ovid, Chaucer, and the Gawain-poet.
Not Offered Every Year
Also Offered As: CLST 3708, ENGL 2000, GSWS 2000
1 Course Unit

COML 2004 Tolstoy
Leo Tolstoy is a figure who arguably needs little introduction, if only as an effigy for the kind of author who writes books like "War and Peace" — prime examples of what Henry James called the "large, loose, baggy monsters" of nineteenth-century Russian literature, the sprawling novels with several parallel plot lines and hundreds of characters who inhabit page numbers in the quadruple digits. In this seminar, we will grapple together with the intricacies of "War and Peace," learn about the social, cultural, and historical contexts not only of its depiction and genesis, but also of its wide-ranging reception, and consider the big questions that preoccupied Tolstoy throughout his lifetime. Working with a range of his texts including a wide spread of his shorter fiction and also a number of Tolstoy's non-literary writings on topics such as aesthetics, religion, education, and social and political problems, we will work toward understanding Tolstoy's work, how he became who he was, and the reverberations of his thought throughout the rest of the world.
Also Offered As: REES 0481
1 Course Unit

COML 2007 Dostoevsky
This seminar is a survey of the life and works of Fyodor Dostoevsky (1821-1881). Focal texts include a selection of his major novels and a range of shorter works that span Dostoevsky's early career, his return from exile in Siberia, and the last years of his life. We will work together to understand Dostoevsky's career and self-conception as a writer, the wide-ranging philosophical implications of his work, and how his activity can be interpreted in the historical, ideological, and literary contexts of nineteenth-century Russia and Europe.
Also Offered As: REES 0480
1 Course Unit

COML 2011 Literature of Dissent: Art as Protest in 20th-Century Poland and Czechoslovakia
Eastern and Central Europe was the site of monumental political changes in the twentieth century, including the disillusion of monarchical empires in the First World War and the expansion of Soviet-style communism. At every point, artists have taken part in political debates, sometimes advancing radical agendas, sometimes galvanizing movements, sometimes simply shouting into the void to register their own dissatisfaction. In this course, we will consider texts including literature, political philosophy and film that pushed back against the dominant political norms. In so doing, we will investigate Aesopian language, the mechanics of censorship, the repercussions of dissent, performativity, samizdat and the rise of an alternative culture. We will contextualize our readings of literature with the sociological and historical work of Benedict Anderson, Tony Judt, Jonathan Bolton, Shana Penn, Alexei Yurchak and the series Discourses of Collective Identity in Central and Southeast Europe. As well as becoming familiar with major thinkers and movements in Eastern and Central Europe, students will develop a sense of art as a tool of political protest.
Not Offered Every Year
Also Offered As: REES 0479
1 Course Unit

COML 2012 Transnational Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3912, CIMS 2012, ENGL 2930
1 Course Unit

COML 2013 Saints and Devils in Russian Literature and Tradition
This course is about Russian cultural imagination, which is populated with "saints" and "devils": believers and outcasts, the righteous and the sinners, virtuous women and fallen angels, holy men and their most bitter adversary - the devil. In Russia, where people's frame of mind has been formed by a mix of Eastern Orthodox Christianity and earlier pagan beliefs, the quest for faith, spirituality, and the meaning of life has invariably been connected with religious matters. How can one find the right path in life? Can a sinner be redeemed? Should one live for God or for the people? Does God even exist? In "Saints and Devils," we read works of the great masters of Russian literature and learn about the historic trends that have filled Russia's literature and art with religious and mystical spirit. Among our readings are old cautionary tales of crafty demons and all-forgiving saints, about virtuous harlots and holy fools, as well as fantastic stories by Nikolai Gogol about pacts with the devil, and a romantic vision of a fallen angel by Yury Lermontov. We will be in awe of the righteous portrayed by Nikolai Leskov and follow the characters of Fedor Dostoevsky, Leo Tolstoy and Anton Chekhov, as they ponder life and death and search for truth, faith, and love. In sum, over the course of this semester we will talk about ancient cultural traditions, remarkable works of art, and the great artists who created them. In addition to providing a basic introduction to Russian literature, religion, and culture, the course introduces students to literary works of various genres and teaches basic techniques of literary analysis. (No previous knowledge of Russian literature necessary. All readings are in English).
Not Offered Every Year
Also Offered As: REES 0180, RELS 0180
1 Course Unit
**COML 2014 Medieval Literature Seminar: Premodern Animals**
This course introduces students to critical animal studies via medieval literature and culture. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2014, RELS 2014
1 Course Unit

**COML 2020 Russia and the West**
This course will explore the representations of the West in eighteenth-and nineteenth-century Russian literature and philosophy. We will consider the Russian visions of various events and aspects of Western political and social life Revolutions, educational system, public executions, resorts, etc. within the context of Russian intellectual history. We will examine how images of the West reflect Russia’s own cultural concerns, anticipations, and biases, as well as aesthetic preoccupations and interests of Russian writers. The discussion will include literary works by Karamzin, Pushkin, Gogol, Dostoevsky, Leskov, and Tolstoy, as well as non-fictional documents, such as travelers’ letters, diaries, and historiosophical treatises of Russian Freemasons, Romantic and Positivist thinkers, and Russian social philosophers of the late Nineteenth century. A basic knowledge of nineteenth-century European history is desirable. The class will consist of lectures, discussion, short writing assignments, and two in-class tests.
Not Offered Every Year
Also Offered As: HIST 0824, REES 0190
1 Course Unit

**COML 2031 18th-Century Seminar: China in the English Imagination**
This course explores the material culture of china-mania that spread across England and Europe in the eighteenth century, from chinoiserie vogues in fashion, tea, porcelain, and luxury goods, to the idealization of Confucius by Enlightenment philosophers. The course texts include travel writing, poetry, essays, and plays, and is designed to provide historical background to contemporary problems of Orientalism, Sinophilia, and Sinophobia. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ASAM 2310, EALC 1321, ENGL 2031
1 Course Unit

**COML 2052 Freud’s Objects**
How do we look at objects? And which stories can objects tell? These are questions that have been asked quite regularly by Art Historians or Museum Curators, but they take a central place within the context of psychoanalytic studies as well. The seminar “Freud’s Objects” will offer an introduction to Sigmund Freud’s life and times, as well as to psychoanalytic studies. We will focus on objects owned by Freud that he imbued with special significance, and on Freud’s writings that focus on specific objects. Finally, we will deal with a re-interpretation of the “object” in psychoanalytic theory, via a discussion of texts by British psychoanalysts such as Melanie Klein and Donald Winnicott.
Not Offered Every Year
Also Offered As: ARTH 3560, CLST 3509, ENGL 1425, GRMN 1015
1 Course Unit

**COML 2073 Modernist Animals: How to Rethink the Human-Animal Divide**
This course explores literary modernism through the lens of Animal Studies. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: CIMS 2073, ENGL 2073
1 Course Unit

**COML 2082 20th-Century American Literature Seminar**
The course explores an aspect of 20th-century American literature intensively; specific course topics will vary from year to year. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2082
1 Course Unit

**COML 2083 Faking it: Liars, Imitators and Cheats in Literature and Film**
Deception and lies are a constant theme and a mechanism of narrative art. For a genre literally synonymous with falsehood, fiction has always been touchy about its relationship to truth: Does the novel neutrally represent reality or does it recreate it? Are characters like living, breathing real people, or are they mere simulations? And if they’re just words on a page (or images on a screen), why are we so moved by their adventures, loves and misfortunes? In this class, we will explore and expand on these questions by focusing on novels and films that deal explicitly and exclusively with fakers, shapeshifters and doppelgangers, lies of necessity and of opportunity, as well as with works that revel in exposing their own manipulative artificiality. We will read psychoanalysts, sociologists, philosophers, and postcolonial thinkers and ask, What does it mean to be authentic? How malleable are our individual identity, race, gender and sexuality? What forces shape it, and how constant is this shape? Are we the same selves when we have a conversation as when we give a presentation? Do we remain ourselves when we talk to customers at our service jobs, to teachers, to students? When we “pass” as a different race? When we speak in a different accent? How do we reconcile the conflicting demands of “be yourself” and “fake it till you make it”? What is the relation between our presentation of ourselves and our selves? Novels and short stories for discussion might include classics like Nella Larsen’s Passing, Vladimir Nabokov’s Despair and Patricia Highsmith’s The Talented Mr. Ripley, as well as movies like Gaslight, The Battle of Algiers, The Yes Men, and American Psycho. While much of the weekly work in this class will be reading-and-discussion based, oral presentations – keenly aware of their own artifice – will count toward half of the final grade. A final oral presentation will be based on a creative project in conversation with class materials. The course would satisfy those interested in fulfilling the Advanced Film and Literature and Global Literature and Film requirements. This is a CWiC course, Communication Within the Curriculum.
Spring, even numbered years only
Also Offered As: CIMS 2083, ENGL 2083
1 Course Unit

**COML 2071 Global Modernism Seminar**
This course explores literary modernism as a global and cross-cultural phenomenon. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3850, ENGL 2071, GRMN 1304
1 Course Unit
COML 2084 Black Italy: Transnational Identities and Narratives in Afro-Italian Literature
This course focuses on how the migration movements to Italy, mainly from the Maghreb and the Horn of Africa in the '80s and '90s contributed to change Italy's status and image. From a country of emigration to other parts of the world, Italy became - as many historians, geographers, and scholars have observed - an immigration site, playing a pivotal role in the African diaspora. In the shadow of Italy's colonialist heritage (a past that Italy still has not fully confronted), these phenomena of mass migration challenge, complicate, and develop the notion of Italian-ness and undermine the fixity of an Italian identity in favor of multicultural and transnational identities. This course focuses on several Black Italian artists, writers, filmmakers, and activists of Somali, Eritrean, Tunisian, Ethiopian, and Egyptian origins (e.g. migrants or children of immigrants who were born or raised in Italy and children of mixed-race unions) who contribute to broaden the definition of Italian-ness and to challenge its racial, social, and cultural boundaries. Students will analyze short stories, novels, documentaries, songs, blogs, journal articles by Igiaba Scego, Cristina Ali Farah, Gabriella Ghermandi, Medhin Paolos, Fred Kudjo Kuwornu, Amir Issaa, Amara Lakhous, Pap Khouma, and Kaha Mohamed Aden, among others. They describe their multicultural identities, their senses of belonging, their feelings for the place that is depriving them of foundational rights (such as citizenship or a legal status), their nostalgia for their homeland or the countries where their parents were born, their fights to find or create a social and literal space where being recognized not as foreigners or worse as "clandestini." Their works offer an original, complex, and multilayered depiction of contemporary Italy and its social and cultural changes, where the African community is becoming larger and better represented. Some questions this course will ask include: what are the historical and geographical components of blackness in Italy? How, if at all, have these phenomena of migration changed Italian identity? How do black Italians live within the context of anti-blackness? How do these Italian writers and artists relate to African American histories and experiences of diaspora? How can African Italian literature contribute to a deeper understanding of the Black diaspora in Europe and elsewhere? The course will pursue answers to these questions by exploring issues of race, color, gender, class, nationality, identity, citizenship, social justice in post-colonial Italy while drawing on related disciplines such as Geography, Mediterranean Studies, Diaspora Studies, Post-Colonialism, and Media and Cultural Studies. Course taught in English. Course Material in English.
Not Offered Every Year
Also Offered As: ENGL 1296, ITAL 2510
1 Course Unit

COML 2086 Latin American and Latinx Theatre and Performance
This course will examine contemporary Latin American and Latinx theatre and performance from a hemispheric perspective. In particular, we will study how Latin American and Latinx artists engage with notions of identity, nation, and geo-political and geo-cultural borders, asking how we might study "national" theatres in an age of transnational globalization. Our consideration of plays, performances, and theoretical texts will situate Latin American and Latinx theatre and performance within the context of its politics, culture, and history.
Also Offered As: ENGL 0490, LALS 2860, THAR 2860
1 Course Unit

COML 2180 Literature of Africa and the African Diaspora
This course explores an aspect of the literature of Africa and the African Diaspora intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year
Also Offered As: ENGL 2180
1 Course Unit

COML 2190 Postcolonial Literature Seminar
This course explores an aspect of Postcolonial literature intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year
Also Offered As: ENGL 2190
1 Course Unit

COML 2191 The Dictator Novel as Global Form
In this seminar, we will explore the ways in which twentieth- and twenty-first-century writers across the globe have responded to tyrants and tyrannical regimes. Our focus will be a set of outstanding contemporary novels from Latin America, Europe, the Caribbean, Africa, and Asia.
See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2191
1 Course Unit

COML 2192 Narrating Survival
This course critically examines the way in which "survival" has been/continues to be defined as individual triumph in the 20th and 21st century. The intent here is to dig deeper into current buzzwords like "resilience," "wellness," "grit," and "care" to ask how such concepts have been constructed in different socio-historical moments, by and for whom, and towards what (social, cultural, political, economic) ends. We will pay special attention to the central role that the child plays in these discourses as an icon of both ultimate vulnerability and idealized resilience, and we'll consider the burdens and privileges that such centering might confer upon real-life children. We engage with a generically diverse body of contemporary multiethnic and transnational literature featuring children and young people in crisis, including texts from Black, Latine, Native, Asian and White U.S. writers as well as Dutch, Argentinian, Iranian, Malaysian, and Afghan authors. All non-English texts will be read in English translation, with the option for students to read in the original language if they wish and are able. Learning to dialogue across cultures and learning from such interactions with these texts and one other will be an essential part of our approach to exploring these complex questions.
Also Offered As: ASAM 1211, ENGL 2192
1 Course Unit
COML 2200 Creating New Worlds: The Modern Indian Novel
Lonely bureaucrats and love-struck students, Bollywood stars and wayward revolutionaries: this course introduces students to the worlds of the Indian novel. From the moment of its emergence in the 19th century, the novel in India grappled with issues of class and caste, colonialism and its aftermath, gender, and the family. Although the novel has a historical origin in early modern Europe, it developed as a unique form in colonial and post-colonial India, influenced by local literary and folk genres. How did the novel in India—and in its successor states after 1947—transform and shift in order to depict its world? How are novels shaped by the many languages in which they are written, including English? And how do we, as readers, engage with the Indian novel in its diversity? This course surveys works major and minor from the past 200 years of novels-writing in India—with surveys both into predecessors of the Indian novel and parallel forms such as the short story. Readings will include works in translation from languages such as Hindi, Bangla, Urdu, Telugu, and Malayalam, as well as works written originally in English.
Students will leave this course with an understanding of the Indian novel, along with the social conditions underlaying it, especially those relating to caste and gender.

Not Offered Every Year
Also Offered As: SAST 2200
1 Course Unit

COML 2201 Modern East Asian Texts
This course is an introduction to and exploration of modern East Asian literatures and cultures through close readings and discussion of selected literary works from the early 20th century to the start of the 21st century. Focusing on China, Japan, and Korea, we will explore the shared and interconnected experiences of modernity in East Asia as well as broaden our perspective by considering the location of East Asian cultural production within a global modernity. Major issues we will encounter include: nation-building and the modern novel; cultural translation; media and technology; representations of gender, race, and class; history and memory; colonialism; war; body and sexuality; globalization. No knowledge of the original language is required.

Not Offered Every Year
Also Offered As: EALC 2201
Mutually Exclusive: EALC 6201
1 Course Unit

COML 2217 CU in India - Topics Course
C.U. in India is a hybrid, domestic/overseas course series which provides students with the opportunity to have an applied learning and cultural experience in India or South East Asia where students participate in 1) 28 classroom hours in the Fall term 2) a 12-day trip to India or South East Asia with the instructor during the winter break visiting key sites and conducting original research (sites vary) 3) 28 classroom hours at Penn in the Spring term and 4) a research paper, due at the end of the Spring term. Course enrollment is limited to students admitted to the program. For more information and the program application go to http://sites.sas.upenn.edu/cuinindia This is a 2-CU yearlong course DEADLINE TO REGISTER IS MARCH 31st
Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: ARTH 3170, GSWS 2217, SAST 2217
1 Course Unit

COML 2231 The Sanskrit Epics
Ancient India’s two epic poems, originally composed in Sanskrit and received in dozens of languages over the span of two thousand years, continue to shape the psychic, social, religious, and emotional worlds of millions of people around the world. The epic Mahabharata, which roughly translates to The Great Story of the Descendants of the Legendary King Bharata, is the longest single poem in the world (approximately 200,000 lines of Sanskrit verse in the 1966 Critical Edition) and tells the mythic history of dynastic power struggles in ancient India. An apocalyptic meditation on time, death, and the utter devastation brought upon the individual and the family unit through social disintegration, the epic also serves as sourcebook for social and political mores and contains one of the great religious works of the world, The Bhagavad Gita (translation: The Song of God), in the middle of its sprawling narrative. The other great epic, The Ramayana (Rama’s Journey), though essentially tragic and about the struggles for power in ancient India, offers a relatively brighter narrative in foregrounding King Rama, an avatar of the supreme divinity Viṣṇu, who serves as an ideal for how human beings might successfully negotiate the challenges of worldly life. Perhaps the most important work of ancient Asia, the Rāma’s journey also provides a model of human social order that contrasts with dystopic polities governed by animals and demons. Our course will engage in close reading of selections from both of these epic poems (in English translation) and scholarship on the epic from the past century. We will explore the Sanskrit epic genre, its oral and textual forms in South Asia, and the numerous modes for interpreting it over the centuries. We will also look at the reception of these ancient works in modern forms of media, such as the novel, television, theater, cinema and the comic book/ anime.

Also Offered As: SAST 2231
Mutually Exclusive: COML 6631, SAST 6631
1 Course Unit

COML 2251 Machiavelli and Modern Political Thought
Niccolò Machiavelli, the Renaissance author best known for The Prince, is frequently regarded as a consummate cynic. Yet he has been not only a provocation but an inspiration throughout the subsequent history of political thought. This was true for the entire twentieth century, which witnessed an ever-growing interest in the Florentine thinker among historians and philosophers alike. One of the most surprising dimensions of this modern engagement with Machiavelli is surely his recurring presence as figure and motif within left-wing philosophical discourse. In light of the failure of the twentieth-century’s revolutionary experiments, as well as its own entanglements with those experiments, how could radical theory understand its past and imagine its future? What vision could supplant the dimming of utopia? Such questions have frequently led recent theorists into melancholic resignation, but they have also provoked innovative and rigorous attempts to rethink the project of radical politics as radical democracy. How is it that Machiavelli, a thinker indelibly associated with the cynical and amoral manipulation of politics, could become an inspiration for theorists of a robust democratic life? This course will examine this curious history of influence and transformation. Starting with an examination of key texts by Machiavelli himself, we will then trace his reception in European intellectual history, focusing upon the twentieth century. Among authors we will consider will be Jean-Jacques Rousseau, Hannah Arendt, Leo Strauss, John Pocock, Quentin Skinner, Antonio Gramsci, Louis Althusser, John McCormick, and Antonio Negri.

Fall or Spring
Also Offered As: HIST 2251
1 Course Unit
COML 2252 European Intellectual History since 1945
This course concentrates on French intellectual history after 1945, with some excursions into Germany. We will explore changing conceptions of the intellectual, from Sartre's concept of the 'engagement' to Foucault's idea of the 'specific intellectual'; structuralism and poststructuralism; and the debate over 'postmodernity.'
Spring
Also Offered As: HIST 2252
1 Course Unit

COML 2258 Existentialism, Structuralism, Poststructuralism: French Thought Since 1945
In no other period, with the possible exception of the European Enlightenment, did French thought enjoy greater international influence than in the decades after the Second World War. From Existentialism, through Structuralism, Poststructuralism, and Postmodernism, French thinkers played a crucial role in shaping the intellectual history of the second half of the twentieth century. This seminar surveys the intellectual movements and some of the key figures of this period. While our discussion will touch on many themes, the core of our inquiry will be the status of the human subject. If late nineteenth and early twentieth-century thinkers were preoccupied by the question of the "death of God," French philosophical discourse in the late twentieth century was famously obsessed by the death of "Man". Jean-Paul Sartre opened the post-war era by declaring that the death of God heralded an unprecedented age of Man; soon that proclamation came under attack as rival thinkers of the post-war period subjected the idea of the human "subject" -- the "self" or "ego" -- to unprecedented criticism. With the waning of Sartrean Existentialism, the unfolding dynamics of that critique came to drive the most creative and influential figures in French intellectual life.
Also Offered As: HIST 2258
1 Course Unit

COML 2310 Gender, Sexuality, and Literature Seminar
This advanced seminar focuses on literary, cultural, and political expressions of gender and sexuality. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: AFRC 2310, ENGL 2310, GSWS 2310
1 Course Unit

COML 2324 Sanskrit Literature in Translation
This course will focus solely on the specific genres, themes, and aesthetics of Sanskrit literature (the hymn, the epic, the lyric, prose, drama, story literature, the sutra, etc.) and a study of the history and specific topics of Sanskrit poetics and dramaturgy. All readings will be in translation.
Not Offered Every Year
Also Offered As: SAST 2324
1 Course Unit

COML 2334 A Survey of Sanskrit, Pakrit, and Classical Tamil Literature in Translation
This course will cover most of the genres of literature in South Asia's classical languages through close readings of selections of primary texts in English translation. Special focus will be given to epics, drama, lyric poetry, satirical works, and religious literature.
Not Offered Every Year
Also Offered As: SAST 2334
1 Course Unit

COML 2390 Clarice Lispector
This seminar focuses on the work of Clarice Lispector, the Ukrainian-born Brazilian novelist and short story writer (1920-1977). See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2390, GSWS 2390, LALS 2390, PRTG 0090
1 Course Unit

COML 2400 Faces of Love: Gender, Sexuality and the Erotic in Persian Literature
Beloved, Lover and Love are three concepts that dominate the semantic field of eroticism in Persian literature and mysticism. The interrelation among these concepts makes it almost impossible to treat any one of the concepts separately. Moreover, there exists various faces and shades of love in the works of classical and modern Persian literature that challenges the conventional heteronormative assumptions about the sexual and romantic relationships between the lover and the beloved.
A sharp contrast exists between the treatment of homosexuality and 'queerness' in Islamic law, on the one hand and its reflection in Persian literature, particularly poetry (the chief vehicle of Persian literary expression), on the other. This course introduces and explores different faces of love, eroticism and homoeroticism in the Persian literary tradition from the dawn of dawn of the Persian poetry in the ninth century all through to the twenty-first century. It offers a comprehensive study of representations and productions of heteronormativity, sexual orientation and gender roles with particular reference to the notion of love, lover and beloved in Persian literature.
Fall
Also Offered As: GSWS 2402, NELC 2400
1 Course Unit

COML 2401 Literature and Theory Seminar: Theories of World Literature
This course is an introduction to efforts—beginning in the nineteenth century, but with special attention to the late-twentieth and twenty-first centuries—to develop theoretical models and corresponding critical practices for the comprehensive study of world literature. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2401
1 Course Unit

COML 2402 What is Capitalism? Theories of Marx and Marxism
At their root, Marx and Marxisms try to examine the problems with both capitalism and the political and economic discourses that justify or ignore those problems. Today, many around the globe are also reflecting on capitalism's problems, in the hope of imagining and realizing a better future. This course will trace some of the origins of that renewed inquiry, and examine its limits and possibilities in today's world. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2402, GSWS 2410
1 Course Unit

COML 2403 Marx's Century
This course will introduce you to Karl Marx in the context of his century, and it will consider the nineteenth century in turn through the lens of his revolutionary social analysis. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2403
1 Course Unit
COML 2410 Literary Theory Seminar
This course explores an aspect of literary theory intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2400, GSWS 2960
1 Course Unit

COML 2420 Cultural Studies Seminar
This course explores an aspect of cultural studies intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 2930, CIMS 2420, ENGL 2420
1 Course Unit

COML 2500 The Novel and Marriage
The content of the course will vary from semester to semester. All works read in English. Please check the department's website for a description.
https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: ENGL 0575, ENGL 2799, FREN 2500, HIST 0722
1 Course Unit

COML 2520 Contemporary Italy: Pop Culture, Politics, and Peninsular Identity
Is the land of good food, beautiful landscapes, and la bella vita really how it looks in the movies? Where do our ideas about Italy come from and how do they compare to the realities of its cultural production and its contemporary day-to-day life? This cultural survey course on contemporary Italy will investigate the similarities and divergences of these perceptions by researching current social, political, and media trends and putting them face to face with our preconceived notions. The course will cover major cultural trends from fashion and food trends, to eco-Italy, criminality and the Anthropocene, to immigration, to Black and LGBTQ+ Italia, to contemporary transfeminism, to Berlusconismo and Populism, to Netflix Italia and Social media culture. Through written assignments both in and outside the classroom, oral presentations, and multimedia projects we will critically reflect on these contemporary issues and gain a stronger understanding of the socio-cultural specificity of the Italian cultural landscape and its relationship to contemporary global socio-political trends and identities.
Not Offered Every Year
Also Offered As: ITAL 2520
1 Course Unit

COML 2595 Imagining Environmental Justice
Advanced seminar in Environmental Humanities centered around issues of international environmental justice. Sustained engagement with Indigenous North American, African American, Palestinian, and South African imaginary traditions will highlight diverse ways of relating to land, water and nonhuman animals challenge that challenge capitalist and colonial logics of extraction. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ANTH 3390, ENGL 2595
1 Course Unit

COML 2800 Poetry and Poetics Seminar
This course explores an aspect of poetry and poetics intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2800
1 Course Unit

COML 2810 Poetry and Sound Seminar: Music and Literature
The seminar explores the relationship of poetry and music intensively. See the English Department's website at www.english.upenn.edu for current offerings.
Not Offered Every Year
Also Offered As: ENGL 2810
1 Course Unit

COML 2820 Theatre and Politics
This course will examine the relationship between theatre and politics in the twentieth and twenty-first centuries. How do theatre artists navigate their artistic and political aims? How do we distinguish between art and propaganda? Throughout the semester we will ask how the unique components of theatre—its poetic structure, engagement with spectators, aesthetics of representation, relationship to reality, and rehearsal process—contribute to its political capacity. Students will read a variety of plays drawn from late twentieth century and contemporary global theatre practice alongside political and aesthetic theory to interrogate the relationship between artistic production, power, and resistance. We will conclude with a consideration of the ways politics is itself a performance, considering how power is supported by theatrical means and how performance functions in resistance movements.
Also Offered As: ENGL 2880, LALS 2820, THAR 2820
1 Course Unit

COML 2840 20th-Century Poetry Seminar
The course explores an aspect of 20th-century poetry intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2840
1 Course Unit

COML 2920 Contemporary European Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3915, CIMS 2015, ENGL 2920
1 Course Unit

COML 2931 World Cinema
This topic course explores aspects of Film Practice intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3902, CIMS 2022, ENGL 2931
1 Course Unit

COML 2932 Bollywood and Beyond
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3916, CIMS 2016, ENGL 2932
1 Course Unit
COML 2950 Global Film Theory
This course will provide an introduction to some of the most important film theory debates and allow us to explore how writers and filmmakers from different countries and historical periods have attempted to make sense of the changing phenomenon known as “cinema,” to think cinematically. Topics under consideration may include: spectatorship, authorship, the apparatus, sound, editing, realism, race, gender and sexuality, stardom, the culture industry, the nation and decolonization, what counts as film theory and what counts as cinema, and the challenges of considering film theory in a global context, including the challenge of working across languages. There will be an asynchronous weekly film screening for this course. No knowledge of film theory is presumed.
Not Offered Every Year
Also Offered As: ARTH 2950, CIMS 2950, ENGL 2900, GSWS 2950
Mutually Exclusive: ARTH 6950
1 Course Unit

COML 2960 Digital and New Media Seminar
This course explores a particular topic in the study of digital and new media in an intensive and in-depth manner. See the English Department's website at: www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 2920, CIMS 2951, ENGL 2950
1 Course Unit

COML 3097 Psychoanalysis and Autobiography
Both psychoanalysis and autobiography are ways of re-telling a life. Psychoanalysis is often called “the talking cure” because, as patients tell the analyst more and more about their lives (their thoughts, dreams, memories, hopes, fears, relationships, jobs, and fantasies), they start to recognize themselves in new ways, and this can help them overcome conflicts, impasses, bad feelings, and even psychiatric illnesses that have kept them from flourishing. Autobiographers do something similar as they remember, re-examine, and re-tell their lives - though one very important difference is that they do so, not privately in a psychoanalyst’s office, but publicly in books that anyone may read. This seminar is a comparative exploration of these different ways of a re-telling a life. This seminar is usually team-taught by a humanities scholar and a practicing psychoanalyst.
Fall
Also Offered As: ENGL 0541, GSWS 3890
1 Course Unit

COML 3110 French Thought After 1968
In American academia, French thought after May ’68 is often referred to as “French Theory,” a heterogeneous corpus of philosophical and critical texts compacted into a set of poststructuralist premises, first introduced by and grew within humanities departments, then identified as a luxury by-product of the “literary” people. This course proposes to unpack the notion of “French Theory” and re-anchor it into its original social/historical background. We will read some of the most influential texts of its key figures, study how a post May 68 revolutionary energy is transformed into various innovative but also destabilizing ways of rethinking power relations, gender, language and subjectivity, and finally, consider in what capacities and limits these diverse critical approaches go beyond the simple label of “post-structuralism” and relate to our own epoch and personal experiences. The readings and discussions will be divided into four axes: 1. Philosophy of Desire (Lacan, Deleuze/Guattari); 2. Sexual Revolt and Body Politics (Foucault, Hocquenghem, Barthes); 3. Deconstruction and Its Impact on Feminism (Derrida, Cixous, Irigaray); 4. Consumer Society and Society of the Spectacle (Lipovetsky, Baudrillard, Debord). Several documentaries and feature films will be shown outside class time. Taught in English. Reading knowledge of French is welcome but not required.
Fall or Spring
Also Offered As: FREN 3110
1 Course Unit

COML 3120 The Translation of Poetry/The Poetry of Translation
Through poems, essays, and our own ongoing writing experiments, this course will celebrate the ways in which great poetry written different languages underscores the fact that language itself is a translation. Alternating between creative writing workshops and critical discussion, the course will be tailored to the backgrounds of students who enroll, and all are welcome. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
Also Offered As: ENGL 3120
1 Course Unit
COML 3211 Modern Chinese Poetry in a Global Context
The tumultuous political and economic history of modern China has been mirrored in and shaped by equally fundamental revolutions in language and poetic expression. In this course, we will take Chinese poetry as a crucible in which we can observe the interacting forces of literary history and social change. From diplomats who saw poetry as a medium for cultural translation between China and the world, to revolutionaries who enlisted poetry in the project of social transformation, we will examine the lives and works of some of China's most prominent poets and ask, what can we learn about modern China from reading their poetry? In asking this question, we will also reckon with the strengths and limitations of using poetry as an historical source. In addition to poems, the course will include fiction, essays, photographs, and films by both Chinese and non-Chinese artists that place our poets in a broader context. We will pay close attention to how these poets represent China's place in the world, as well as the role of language in social change. Topics of discussion include: national identity, revolution, translation, gender, the body, ethnicity, and technology. Familiarity with Chinese or related cultural context is beneficial, but not required. This course introduces students to Chinese poetry in English translation. Students will leave the course with an in-depth understanding of the main figures, themes, and techniques of Chinese poetry, and will be introduced to some of the major developments in the history of China. Through a focus on primary texts, students will develop the vocabulary and analytical skills to appreciate and analyze poetry in translation and will gain confidence as writers thinking about literary texts.
Not Offered Every Year
Also Offered As: ASAM 3211, EALC 3211
Mutually Exclusive: EALC 7211
1 Course Unit

COML 3220 Advanced Topics in Global Gender and Sexuality Studies
This is an advanced topics course, and the course description will vary from semester to semester.
Fall
Also Offered As: GSWS 3220
1 Course Unit

COML 3252 Marx, Nietzsche, Freud: Masters of Suspicion
In his influential book Freud & Philosophy, the French philosopher Paul Ricoeur identified three master thinkers whose influence on the twentieth century was inestimable. What these figures shared was what Ricoeur called a "hermeneutics of suspicion," that is, in their different ways, each developed a style of interpretation aimed at unmasking, demystifying, and exposing the real from the apparent. "Three masters, seemingly mutually exclusive, dominate the school of suspicion: Marx, Nietzsche, and Freud." Taking its inspiration from Ricoeur, this seminar will explore some of the key writings of Marx, Nietzsche, and Freud. We will encounter the hermeneutics of suspicion above all in these authors’ attempts to unmask religion and reveal its true origin and function. And we shall also pursue the hermeneutics of suspicion in the specific concerns that form the core of each thinker’s work: Marx’s critique of capitalism, Nietzsche’s genealogy of Judaeo-Christian morality, skepticism about ‘truth’, and proto-deconstruction of the human self, and Freud’s theory of the unconscious. The final weeks of the course will be devoted to independent research and writing of an original essay in intellectual history.
Also Offered As: HIST 3252
1 Course Unit

COML 3330 Dante's Divine Comedy
In this course we will read the Inferno, the Purgatorio and the Paradiso, focusing on a series of interrelated problems raised by the poem: authority, fiction, history, politics and language. Particular attention will be given to how the Commedia presents itself as Dante’s autobiography, and to how the autobiographical narrative serves as a unifying thread for this supremely rich literary text. Supplementary readings will include Virgil’s Aeneid and selections from Ovid’s Metamorphoses. All readings and written work will be in English. Italian or Italian Studies credit will require reading Italian texts in their original language and writing about their themes in Italian. This course may be taken for graduate credit, but additional work and meetings with the instructor will be required.
Not Offered Every Year
Also Offered As: ENGL 0509, ITAL 3330
1 Course Unit

COML 3501 Writing and Witnessing
This course will explore one of the fundamental questions we face as humans: how do we bear witness to ourselves and to the world? How do we live and write with a sense of response-ability to one another? How does our writing grapple with traumatic histories that continue to shape our world and who we are in it? The very word “witnessing” contains a conundrum within it: it means both to give testimony, such as in a court of law, and to bear witness to something beyond understanding. In this class, we will explore both senses of the term “witness” as we study work by writers such as Harriet Jacobs, Paul Celan, M. NourbeSe Philip, Bhanu Kapil, Layli Long Soldier, Claudia Rankine, Julianna Spahr, and others that wrestles with how to be a witness to oneself and others during a time of ongoing war, colonialism, racism, climate change, and other disasters. Students are welcome in this class no matter what stage you are at with writing, and whether you write poetry or prose or plays or make other kinds of art. Regardless of your experience, in this class you'll be considered an “author,” which in its definition also means a “witness.” We will examine and question what authorship can do in the world, and we will analyze and explore the fine lines among being a witness, a bystander, a participant, a spectator, and an ally. In this class you will critically analyze and write responses to class readings; you’ll do writing exercises related to the work we read; and you’ll complete (and be workshopped on) a portfolio of creative writing (and/or art) that bears witness to events that matter to you.
Not Offered Every Year
Also Offered As: ENGL 3501, GSWS 3501
1 Course Unit

COML 3508 Queer Forms
Queer and trans writers have always queered form, constantly inventing new ways to express new forms of becoming. And yet, much of the attention paid to LGBTQ+ writing has focused on identity and content rather than looking at the many innovations in form that queer and trans writers are always producing. This multi-genre creative/critical workshop will examine some of the methods contemporary LGBTQ+ writers have used to queer genre and form in their writing, whether they are working through fiction, poetry, essay, play/performance, or some combination thereof. Queer theorist José Esteban Muñoz’s notions of disidentification and queer futurity will help guide our thinking in this course. Students will read and write creative/critical responses each week to a wide range of writing that queers form. The class will include weekly workshopping and students will work towards a final project that incorporates all they have learned over the term, generating ever new queer forms of making.
Also Offered As: ENGL 3508, GSWS 3508
1 Course Unit
COML 3555 Japanese Theater
Japan has one of the richest and most varied theatrical traditions in the world. In this course, we will examine Japanese theater in historical and comparative contexts. The readings and discussions will cover all areas of the theatrical experience (script, acting, stage design, costumes, music, and audience). Audio-visual material will be used whenever appropriate and possible. The class will be conducted in English, with all English materials.
Fall or Spring
Also Offered As: EALC 3355, THAR 3355
1 Course Unit

COML 3603 Writing, Publishing, and Reading in Early Modern Europe and the Americas
In this course we will consider the writing, publication, and reading of texts created on both sides of the Atlantic in early modern times, from the era of Gutenberg to that of Franklin, and in many languages. The seminar will be held in the Kislak Center for Special Collections, Rare Books and Manuscripts in Van Pelt Library and make substantial use of its exceptional, multilingual collections, including early manuscripts, illustrated books, plays marked for performance, and censored books. Any written or printed object can be said to have a double nature: both textual and material. We will introduce this approach and related methodologies: the history of the book, the history of reading; connected history; bibliography; and textual criticism. We will focus on particular case studies and also think broadly about the global history of written culture, and about relations between scribal and print culture, between writing and reading, between national traditions, and between what is and what is not "literature." We encourage students with diverse linguistic backgrounds to enroll. As part of the seminar, students will engage in a research project which can be based in the primary source collections of the Kislak Center. History Majors or Minors may use this course to fulfill the US, Europe, or Latin America geographic requirement if that region is the focus of their research paper.
Also Offered As: ENGL 2603, HIST 3603
1 Course Unit

COML 3704 The Iliad and its Afterlife
As the earliest work in the western tradition, the Iliad has been a constant point of reference for later considerations of heroism, friendship, the search for meaning in the face of mortality, and the effects of war on individuals and societies. We will begin with a close reading of the Iliad in translation, with attention both to the story of its hero Achilles as he experiences disillusionment, frustration, anger, triumph, revenge, and reconciliation and to the poems broader portrait of a society at war, which incorporates the diverse perspectives of invaders and defenders, men and women, old and young, gods and mortals, along with tantalizing glimpses of peacetime life. We will then consider how later writers and artists have drawn on the Iliad to present a range of perspectives of their own -- whether patriotic, mock heroic, romantic, or pacifist -- with particular attention to 20th and 21st century responses by such figures as W.H. Auden, Simone Weil, Cy Twombly, David Malouf, Alice Oswald, and Adrienne Rich. There are no specific prerequisites, but the course can serve as a complement to CLST 302, The Odyssey and its Afterlife or CLST 331 Reading the Iliad in a Time of War.
Also Offered As: CLST 3704
1 Course Unit

COML 3712 From Tablets to Tablets: A Long History of Technology and Communication
The invention of new communications technologies is often accompanied by a swell of hope. Enthusiasts expect people to become more connected, new ideas to become more accessible, and information to be shared more rapidly and in more fixed forms than ever before. While there are always nay-sayers, who warn against the effects of such inventions, the narrative linking new communications technologies and progress is so strong that these detractors are most commonly painted as luddites, and the narrative itself is used to justify and promote yet newer media as well as new configurations of state and media relations. In this class, we will examine some of the most significant transformations in the history of communications technology—from orality to writing, from tablet to scroll to codex, manuscript to print, hand-press to steam-press, print to radio, radio to tv, and tv to streaming and other forms of new media. We will ask some basic questions: How were these technologies made? How and by whom were these technologies used? How did contemporaries perceive them and the transformations they did or did not work? We will also ask some bigger questions: why do certain communications technologies emerge and get adopted when and where they do? Conversely, why are some communications technologies resisted at some times and in some places? What impacts do communications technologies have on the societies in which the appear? Do they alter the course of events? Do they change the way in which we think? If so, then how? Is the history of communication substitutive or additive? How is the digital age in which we live similar to or different from those that came before? History Majors may use this course to fulfill the pre-1800 requirement depending on the topic of their research paper.
Not Offered Every Year
Also Offered As: HIST 3712
1 Course Unit

COML 3802 Literary Translation
This course is for graduate students and undergraduates with permission of the instructor. All students enrolled must have knowledge of at least one language other than English. We will study the history, theory and practice of literary translation, and participate in it. Readings will include theoretical works in translation studies, using selections from Lawrence Venuti’s Translation Studies Reader and Schulte/Biguenet’s Translation Theory Reader, with some supplemental readings; we will also look at comparative cases of multiple translations of the same original, and analyze how different translators make different interpretative/formal/aesthetic choices. Course assignments will include both a research paper, on the history and/or theory of translation, and an extended practical translation exercise, to be workshopped over the course of the semester, consisting of a literary translation of a text of the student’s choice.
Also Offered As: CLST 3802
1 Course Unit
COML 3830 French & Italian Modern Horror
This course will consider the horror genre within the specific context of two national cinemas: France and Italy. For France, the focus will be almost exclusively on the contemporary period which has been witnessing an unprecedented revival in horror. For Italy, there will be a marked emphasis on the 1960s-1970s, i.e. the Golden Age of Gothic horror and the giallo craze initiated by the likes of Mario Bava and Dario Argento. Various subgenres will be examined: supernatural horror, ghost story, slasher, zombie film, body horror, cannibalism, etc. Issues of ethics, gender, sexuality, violence, spectatorship will be examined through a variety of critical lenses (psychoanalysis, socio-historical and cultural context, aesthetics, politics, gender, etc.).
Fall or Spring
Also Offered As: CIMS 3830, FREN 3830, ITAL 3830
1 Course Unit

COML 3922 European Thought and Culture in the Age of Revolution
Starting with the dual challenges of Enlightenment and Revolution at the close of the eighteenth century, this course examines the emergence of modern European thought and culture in the century from Kant to Nietzsche. Themes to be considered include Romanticism, Utopian Socialism, early Feminism, Marxism, Liberalism, and Aestheticism. Readings include Kant, Hegel, Burke, Marx, Mill, Wollstonecraft, Darwin, Schopenhauer, and Nietzsche.
Fall or Spring
Also Offered As: HIST 3922
1 Course Unit

COML 3923 Twentieth Century European Intellectual History
European intellectual and cultural history from 1870 to 1950. Themes to be considered include aesthetic modernism and the avant-garde, the rebellion against rationalism and positivism, Social Darwinism, Second International Socialism, the impact of World War One on European intellectuals, psychoanalysis, existentialism, and the ideological origins of fascism. Figures to be studied include Nietzsche, Freud, Woolf, Sartre, Camus, and Heidegger.
Spring
Also Offered As: HIST 3923
1 Course Unit

COML 3931 Participatory Community Media, 1970-Present
What would it mean to understand the history of American cinema through the lens of participatory community media, collectively-made films made by and for specific communities to address personal, social and political needs using a range of affordable technologies and platforms, including 16mm film, Portapak, video, cable access television, satellite, digital video, mobile phones, social media, and drones? What methodologies do participatory community media makers employ, and how might those methods challenge and transform the methods used for cinema and media scholarship? How would such an approach to filmmaking challenge our understanding of terms like "authorship," "amateur," "exhibition," "distribution," "venue," "completion," "criticism," "documentary," "performance," "narrative," "community," and "success"? How might we understand these U.S.-based works within a more expansive set of transnational conversations about the transformational capacities of collective media practices? This course will address these and other questions through a deep engagement with the films that make up the national traveling exhibition curated by Louis Massiah and Patricia R. Zimmerman, We Tell: Fifty Years of Participatory Community Media, which foregrounds six major themes: Body Publics (public health and sexualities); Collaborative Knowledges (intergenerational dialogue); Environments of Race and Place (immigration, migration, and racial identities unique to specific environments); States of Violence (war and the American criminal justice system); Turf (gentrification, homelessness, housing, and urban space); and Wages of Work (job opportunities, occupations, wages, unemployment, and underemployment). As part of that engagement, we will study the history of a series of Community Media Centers from around the U.S., including Philadelphia's own Scribe Video Center, founded in 1982 by Louis Massiah, this course's co-instructor. This is an undergraduate seminar, but it also available to graduate students in the form of group-guided independent studies. The course requirements include: weekly screenings, readings, and seminar discussions with class members and visiting practitioners, and completing both short assignments and a longer research paper.
Also Offered As: AFRC 3932, ARTH 3931, CIMS 3931, ENGL 2970, GSWS 3931
Mutually Exclusive: ARTH 6931
1 Course Unit

COML 3999 Independent Study
Supervised study for Juniors.
Fall or Spring
1 Course Unit

COML 4300 Seminar in Modern Hebrew Literature
This course introduces students to selections from the best literary works written in Hebrew over the last hundred years in a relaxed seminar environment. The goal of the course is to develop skills in critical reading of literature in general, and to examine how Hebrew authors grapple with crucial questions of human existence and national identity. Topics include: Hebrew classics and their modern "descendents," autobiography in poetry and fiction, the conflict between literary generations, and others. Because the content of this course changes from year to year, students may take it for credit more than once. This course is conducted in Hebrew and all readings are in Hebrew. Grading is based primarily on participation and students' literary understanding.
Spring
Also Offered As: JWST 4300, NELC 4300
Mutually Exclusive: NELC 5410
Prerequisite: HEBR 1000
1 Course Unit
COML 4500 Arabic Literature and Literary Theory
This course will explore different critical approaches to the interpretation and analysis of Arabic literature from pre-Islamic poetry to the modern novel and prose-poem. The course will draw on western and Arabic literary criticism to explore the role of critical theory not only in understanding and contextualizing literature but also in forming literary genres and attitudes. Among these approaches are: Meta-poetry and inter-Arts theory, Genre theory, Myth and Archetype, Poetics and Rhetoric, and Performance theory. This course is taught in translation.
Fall or Spring
Also Offered As: NELC 4500
1 Course Unit

COML 4998 Honors Thesis
Supervised honors thesis for seniors.
Fall or Spring
1 Course Unit

COML 4999 Independent Study
Supervised study for Seniors.
Fall or Spring
1 Course Unit

COML 5010 Comparative Literature Proseminar
This course will survey what has come to be known in literary and cultural studies as "theory" by tracking the genealogies of a select range of contemporary practices of interpretation. We will address the following questions. What are some of the historical and rhetorical conditions of emergence for contemporary critical theories of interpretation? What does it mean to interpret literature and culture in the wake of the grand theoretical enterprises of the modern period? How do conceptions of power and authority in literature and culture change as symbolic accounts of language give way to allegorical and performative accounts? How might we bring frameworks of globality and translation to bear on literary and cultural criticism? Half of the course sessions will involve the instructor and the students reading texts that represent a range of hermeneutic approaches, in classical and contemporary forms. For the other half of the class, we will welcome one visiting instructor per week from the Comparative Literature faculty, who will assign readings and lead discussion on their own area(s) of specialization. The central, practical goals of the class will be to help first year PhD candidates in Comparative Literature prepare for their MA exam, to introduce students to a range of faculty in the Program, and to forge an intellectual community among the first year cohort.
Fall
Also Offered As: GRMN 5340
1 Course Unit

COML 5041 18th-century Visual Cultures of Race & Empire
This course approaches the Western history of race and racial classification (1600-1800) with a focus on visual and material culture, natural history, and science that connected Atlantic and Pacific worlds. Across the long eighteenth century, new knowledges about human diversity and species distinctions emerged alongside intensifications of global trade with Asia. The course will include case studies of chinoiserie textiles, portraits of consuming individuals, natural history prints and maps, Chinese export porcelain and furnishings, and "blackamoor" sculpture. Objects of visual and material culture will be studied alongside readings on regional and world histories that asserted universal freedoms as well as hierarchies of human, animal, and plant-kind. Keeping in mind that the idea of race continues to be a distributed phenomenon - across color, gender, class, religion, speech, culture - we will explore changing vocabularies of difference, particularly concerning skin color, across a range of texts and images. Knowledge often does not take written or literary form, and for this reason, we will study examples of visual and material culture as well as forms of technology that were critical to defining human varieties, to use the eighteenth-century term. Although we will be reading texts in English, some in translation, we will also account for European and non-European knowledge traditions - vernacular, indigenous - that informed scientific and imaginative writings about the globe. Topics may include cultural and species distinction, global circulations of commodities between the East and West Indies, the transatlantic slave trade, the casta system of racial classification in the Americas, religious and scientific explanations of blackness and whiteness, and visual representations of non-European people.
Spring
Also Offered As: ARTH 5680, ENGL 5440
1 Course Unit

COML 5050 Digital Humanities Studies
This course is designed to introduce advanced undergraduate and graduate students to the range of new opportunities for literary research afforded by Digital Humanities and recent technological innovation. Digital Humanities: you've heard of it. Maybe you're excited about it, maybe you're skeptical. Regardless of your primary area of study, this course will give you the critical vocabularies and hands-on experience necessary to understand the changing landscape of the humanities today. Topics will include quantitative analysis, digital editing and bibliography, network visualization, public humanities, and the future of scholarly publishing. Although we will spend a good portion of our time together working directly with new tools and methods, our goal will not be technological proficiency so much as critical competence and facility with digital theories and concepts. We will engage deeply with media archaeology, feminist technology studies, critical algorithm studies, and the history of material texts; and we will attend carefully to the politics of race, gender, and sexuality in the field. Students will have the opportunity to pursue their own scalable digital project. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: CIMS 5051, ENGL 5050
1 Course Unit
COML 5090 Topics in Yiddish Literature: Modernist Jewish Poetry
One version of this seminar considers works by Jewish women who wrote in Yiddish, Hebrew, English, and other languages in the late 19th through the 20th century. The texts, poetry and prose, will include both belles lettres and popular writings, such as journalism, as well as private works (letters and diaries) and devotional works. The course will attempt to define "Jewish writing," in terms of language and gender, and will consider each writer in the context of the aesthetic, religious, and national ideologies that prevailed in this period. Because students will come with proficiency in various languages, all primary texts and critical and theoretical materials will be taught in English translation. However, those students who can, will work on the original texts and share with the class their expertise to foster a comparative perspective. Because we will be discussing translated works, a secondary focus of the course will, in fact, be on literary translation's process and products. Another version of this seminar presents Jewish modernism as an international phenomenon of the early 20th century. The course will attempt to define "Jewish modernism" through the prism of poetry, which inevitably, given the historical events in Europe and America during this time, grapples with aesthetic, religious, and national ideologies and methods. The syllabus will focus mainly on poetry written in Yiddish and English, and will also include German, Russian, and Hebrew verse. All poetry, critical, and theoretical materials will be taught in English translation, although students who know the languages will work on the original texts and will bring to the table a comparative perspective. Because we will be discussing translated poems, a secondary focus of the course will, in fact, be on literary translation's process and products.
Not Offered Every Year
Also Offered As: GRMN 5090, GSWS 5090, JWST 5090, YDSH 5090
1 Course Unit

COML 5110 Life Writing: Autobiography, Memoir, and the Diary
This course introduces three genres of life writing: Autobiography, Memoir and the Diary. While the Memoir and the diary are older forms of first persons writing the Autobiography developed later. We will first study the literary-historical shifts that occurred in Autobiographies from religious confession through the secular Eurocentric Enlightenment men, expanded to women writers and to members of marginal oppressed groups as well as to non-European autobiographies in the twentieth century. Subsequently we shall study the rise of the modern memoir, asking how it is different from this form of writing that existed already in the middle ages. In the memoirs we see a shift from a self and identity centered on a private individual autobiographer to ones that comes from connections to a community, a country or a nation; a self of a memoirist that represents selves of others. Students will attain theoretical background related to the basic issues and concepts in life writing: genre, truth claims and what they mean, the limits of memory, autobiographical subject, agency or self, the autonomous vs. the relational self. The concepts will be discussed as they apply to several texts. Some examples are: parts of Jan Jacques Rousseau's Confessions; the autobiography of Benjamin Franklin; selected East European autobiographies between the two world wars; the memoirs of Lady Ann Clifford, Sally Morgan, Mary Jamison and Saul Friedlander. The third genre, the diary, is a person account, organized around the passage of time, and its subject is in the present. We will study diary theories, diary's generic conventions and the canonical text, trauma diaries and the testimonial aspect, the diary's time, decoding emotions, the relation of the diary to an audience and the process of transition from archival manuscript to a published book. The reading will include travel diaries (for relocation and pleasure), personal diaries in different historical periods and countries, diaries in political conflict (as American Civil War women's diaries, Holocaust diaries, Middle East political conflicts diaries). We will conclude with diaries online, and students will have a chance to experience and report about differences between writing a personal diary on paper and diaries and blogs on line. Each new subject in this online course will be preceded by an introduction. Specific reading and written assignments, some via links to texts will be posted weekly ahead of time. We will have weekly videos and discussions of texts and assigned material and students will post responses during these sessions and class presentations in the forums.
Not Offered Every Year
1 Course Unit

COML 5111 Introduction to Paleography & Book History
Writing and reading are common actions we do every day. Nonetheless they have changed over the centuries, and a fourteenth century manuscript appears to us very different from a Penguin book. The impact of cultural movements such as Humanism, and of historical events, such as the Reformation, reshaped the making of books, and therefore the way of reading them. The course will provide students with an introduction to the history of the book, including elements of paleography, and through direct contact with the subjects of the class: manuscripts and books. Furthermore, a section of the course will focus on digital resources, in order to make students familiar with ongoing projects related to the history of book collections (including the "Philosophical Libraries" and the "Provenance" projects, based at the Scuola Normale Superiore in Pisa and at Penn). The course will be conducted in English; a basic knowledge of Latin is desirable but not required.
Spring
Also Offered As: CLST 7709, ITAL 5110
1 Course Unit
COML 5120 Film Noir
Topics vary. Please see the department’s website for the current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: CIMS 5120, FREN 5120
1 Course Unit

COML 5180 Old Church Slavonic: History, Language, Manuscripts
The language that we know today as Old Church Slavonic was invented, along with the Slavic alphabet(s), in the 9th century by two Greek scholars, Sts. Cyril and Methodius. They had been tasked by the Byzantine Emperor with bringing the Christian faith to the Slavic-speaking people of Great Moravia, a powerful medieval state in central Europe. From there, literacy, along with the Christian faith, spread to other Slavs, and even non-Slavic speakers, such as Lithuanians and Romanians. Church Slavonic and its regional variants were used to compose the oldest texts of the Slavic-speaking world, which today is comprised of Belarus, Bosnia, Bulgaria, Croatia, Czechia, Macedonia, Montenegro, Russia, Poland, Slovakia, Serbia, Slovenia, and Ukraine. Knowledge of this language and tradition aids in understanding the cultural, literary, and linguistic history of any modern Slavic language. For learners of Russian and other Slavic languages, Church Slavonic provides a layer of elevated stylistic vocabulary and conceptual terminology, similar to, and even greater than, the role of Latin and Greek roots in the English language. For historical linguists, Church Slavonic provides unique material for comparison with other ancient Indo-European languages, such as Latin, Greek, and Sanskrit. For medievalists and cultural historians, it opens the door into the Slavic Orthodox tradition that developed in the orbit of the Byzantine Commonwealth.
Not Offered Every Year
Also Offered As: REES 5100
1 Course Unit

COML 5240 Topics in Medieval Studies
This course covers topics in Medieval literature. Its emphasis varies with instructor. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 5240, GSWS 5240
1 Course Unit

COML 5245 Topics in Medieval Studies: Premodern Animals (c.500-c.1500)
From St. Cuthbert, whose freezing feet were warmed by otters, to St. Guinefort, a miracle-performing greyhound in 13th-century France, to Melusine, the half-fish, half-woman ancestress of the house of Luxembourg (now the Starbucks logo), medieval narratives are deeply inventive in their portrayal of human-animal interactions. This course introduces students to critical animals studies via medieval literature and culture. We will read a range of genres, from philosophical commentaries on Aristotle and theological commentaries on Noah's ark to werewolf poems, beast fables, political satires, saints' lives, chivalric romances, bestiaries, natural encyclopaedias, dietary treatises and travel narratives. Among the many topics we will explore are the following: animals in premodern law; comfort and companion animals; vegetarianism across religious cultures; animal symbolism and human virtue; taxonomies of species in relation to race, gender, and class; literary animals and political subversion; menageries and collecting across medieval Europe, the Near East, and Asia; medieval notions of hybridity, compositeness, trans-species identity, and interspecies relationships; art and the global traffic in animals (e.g., ivory, parchment); European encounters with New World animals; and the legacy of medieval animals in contemporary philosophy and media. No prior knowledge of medieval literature is required. Students from all disciplines are welcome.
Also Offered As: CLST 7710, ENGL 5245, RELS 6101
1 Course Unit

Although the starting point for the Anthropocene is still under discussion, there is broad agreement that the industrial revolution and the turn to fossil fuels mark an intensification of humanity's impact on the Earth. It may not be a coincidence that Kant's proclamation of the Copernican revolution in philosophy, according to which human reason replaces the natural light of traditional metaphysics, falls roughly in the same period. Human finite cognition became the measure for God and his creation. The dawn of the era of human freedom and the ramped up exploitation of resources coincide. It is against this background that the Naturphilosophie of F. W. J. Schelling can become particularly interesting. The genesis of German idealism is closely related with the opposition between freedom and necessity that lies at the heart of Kant's critical project. Kant associated the former with man and the latter with nature. In trying to bridge the gap between them, Schelling reinstates nature as an autonomous actor in its own right. Schelling's thinking about nature chimed with the literary and empirical-scientific work of his contemporary Johann Wolfgang von Goethe. In the productive interplay of poetry, science, religion, and philosophical thought, Goethe and Schelling offer a critical alternative to philosophy in the aftermath of the Copernican revolution that may be viable or useful today as humanity tries to come to terms with anthropogenically induced climate change. This co-taught interdisciplinary seminar will focus on works by Schelling (Ideas for a Philosophy of Nature, First Outline of a System of the Philosophy of Nature, On the World Soul) and Goethe (scientific writings, Faust I & II), in addition to engaging recent scholarship of Schelling and Goethe in relation to environmental humanities.
Not Offered Every Year
Also Offered As: GRMN 5250
1 Course Unit
COML 5260 The Trouble with Freud: Psychoanalysis, Literature, Culture

For professionals in the field of mental care, Freud's work is often regarded as outmoded, if not problematic. Psychologists view his work as non-scientific, dependent on theses that cannot be confirmed by experiments. In the realm of literary and cultural theory, however, Freud's work seems to have relevance still, and is cited often. How do we understand the gap between a medical/scientific reading of Freud's work, and a humanist one? Where do we locate Freud's relevance today? The graduate course will concentrate on Freud's descriptions of psychoanalytic theory and practice, as well as his writings on literature and culture.

Not Offered Every Year
Also Offered As: GRMN 5260, GSWS 5260
1 Course Unit

COML 5310 Dante's Commedia I

Please check the department's website for the course description at: http://www.sas.upenn.edu/italians/graduate/courses Dante Visualizing: Dante Visualizing and Dante Visualized. Dante’s Commedia has inspired art, but at the same time art is present within the Comedy itself, through images, metaphors, descriptions and even more concrete examples. This course aims at discussing these aspects, taking into consideration also the political, religious and philosophical background of these motifs. While analyzing images in and from the Commedia, we will look at illustrations and artistic interpretations, spanning from medieval illuminations and Renaissance printed books (mainly from Van Pelt Library) to contemporary examples, and focusing on artists such as Giotto, Botticelli, Michelangelo, Blake, Dore, and Dali. The course will be taught in English.

Not Offered Every Year
Also Offered As: ITAL 5310
1 Course Unit

COML 5350 The Elemental Turn

The unfolding effects of climate change—rising sea level, melting ice sheets, subsiding land masses, drought-stricken regions, wildfires, air laden with greenhouse gases, and inundated cities—heighten our awareness of the elements: air, earth, fire and water. Within the context of the new materialism, philosophers, eco-critics, and writers are re-turning to the elements and encountering, at the same time, predecessor texts that assume new relevance. This seminar will place current thinking and culture within the Commedia itself, through images, metaphors, descriptions, and even more concrete examples. The seminar will place current thinking toward (ideal) metaphysics, as a poetic practice, or as a central concern of Marxist and Spinozist traditions. We will also survey the attempts to recuperate materialism as a positive category in recent materialist poetics?

Not Offered Every Year
Also Offered As: GRMN 5350
1 Course Unit

COML 5351 Petrarch

Petrarch’s life and work in the context of Italian and European culture and society.

Not Offered Every Year
Also Offered As: ITAL 5350
1 Course Unit

COML 5370 Translating Literature: Theory and Practice

The greats all have something to say about translation. The Hebrew poet H. N. Bialik is attributed with saying that “he who reads the Bible in translation is like a man who kisses his bride through a veil.” That, however, is a mistranslation: What Bialik really wrote was, “Whoever knows Judaism through translation is like a person who kisses his mother through a handkerchief.” (http://benyehuda.org/bialik/dvarim02.html), a saying that he probably translated and adapted from Russian or German. (https://networks.h-net.org/node/28655/discussions/116448/query-bialik-kissing-bride) Robert Frost wrote, “I could define poetry this way: it is that which is lost out of both prose and verse in translation.” Walter Benjamin defines it: “Translation is a form. To comprehend it as a form, one must go back to the original, for the laws governing the translation lie within the original, contained in the issue of its translatability.” Lawrence Venuti rails against translation that domesticates, rather than foreignizes, thus betraying the foreign text through a contrived familiarity that makes the translator invisible. Emily Wilson wants her translation “to bring out the way I think the original text handles it. [The original text] allows you to see the perspective of the people who are being killed.” https://bookriot.com/2017/12/04/emily-wilson-translation-the-odyssey/ Is translation erotic? A form of filial love? Incestuous? A mode of communion, or idol worship? Is translation a magician’s vanishing trick? Is translation traitorous, transcendent? Maybe translation is impossible. But let’s try it anyways! In this graduate seminar, we will read key texts on the history and theory of translating literature, and we sample translations from across the centuries of the “classics,” such as the Bible and Homer. We will consider competing translations into English of significant modern literary works from a variety of languages, possibly including, but not limited to German, Yiddish, French, Hebrew, and Russian. These readings will serve to frame each student’s own semester-long translation of a literary work from a language of her or his choice. The seminar offers graduate students with their skills in various language an opportunity to take on a significant translation project within a circle of peers.

Not Offered Every Year
Also Offered As: GRMN 5370, JWST 5370
1 Course Unit

COML 5380 Materialism

How do we recognize materialism? This seminar poses this question by acknowledging "materialism" as a contested category with disparate and contradictory historical meanings: as a synonym for dogmatism, as the arch-enemy of reason and morality, as the scientific philosophy of the revolutionary workers’ movement, as an alternative to (ideal) metaphysics, as a poetic practice, or as a central concern for material nature and environment, among others. Less concerned with enumerating philosophical systems, we will search out “family resemblances” and materialist tendencies among a wide range of texts. To this end, we will not only read the major historical texts of the so-called materialists (from Lucretius to Spinoza, from La Mettrie to Lenin), but also engage with materialism’s supposed critics and antagonists (from Plato to Kant and Hegel). A special emphasis will be placed on the attempts to recuperate materialism as a positive category in recent critical theory and continental philosophy, for example, in the reinventions of Marxist and Spinozist traditions. We will also survey the attempts that found new traditions, such as aleatory materialism or various new materialisms. By reading exemplary literary texts that engage with the problem of materialism the seminar will also ask: can one speak of materialist poetics?

Not Offered Every Year
Also Offered As: GRMN 5720
1 Course Unit
COML 5400 Franz Kafka and J. M. Coetzee
This seminar will listen attentively to the echoes of Franz Kafka in the novels of J.M. Coetzee. Building on Gilles Deleuze and Felix Guattari’s concept of a minor literature, elaborated on the example of Kafka’s oeuvre, we will situate Kafka against the backdrop of the German-speaking Jewish community of Habsburg-era Prague and read Coetzee within the context of apartheid and his native South Africa. Beyond an investigation of empire and its aftermath, this course will consider the arguably posthuman ethics of these authors, examining them through the lens of animal studies and the environmental humanities in order to reveal how they anticipate and participate in current thinking on the Anthropocene. Reading Kafka’s fables beside Coetzee’s allegorical narratives, the seminar will follow the twisted course taken by literary justice from the Josef K. of Kafka’s Trial to Coetzee’s Life and Times of Michael K. Alongside these two towering figures, the influence of and affinities with other German-language authors (Heinrich von Kleist, Hugo von Hofmannsthal, Robert Walser) and Anglophone contemporaries (Samuel Beckett, Nadine Gordimer, Cormac McCarthy) will also be considered. Other works to be read will include Kafka’s Castle, In the Penal Colony, Metamorphosis and late animal stories as well as Coetzee’s In the Heart of the Country, Waiting for the Barbarians and Elizabeth Costello. Advanced undergraduates may enroll with the permission of the instructor. Readings and discussions in English.
Not Offered Every Year
Also Offered As: ENGL 6400, GRMN 5400
1 Course Unit

COML 5410 Topics in Cultural History
Topic for Fall 2021: Making and Marking Time.
Not Offered Every Year
Also Offered As: ARTH 5870, ENGL 5410, GRMN 5410
1 Course Unit

COML 5411 Transalpine Tensions: Franco-Italian Rivalries in the Renaissance
In the Middle Ages and Early Modern period, France and the Italian States were bound together by linguistic, economic, political, and religious ties, and intellectual developments never flowed unilaterally from one country to the other. On the contrary, they were transnational phenomena, and French and Italian thinkers and writers conceived of themselves and their work both in relation to and in opposition to one another. This course will consider the most fundamental aspects of Franco-Italian cultural exchange in the medieval and early modern period, with an emphasis on humanism, philosophical and religious debates, political struggles, and the rise of vernacular languages in literary and learned discourse. Authors to be studied include Dante, Petrarch, Boccaccio, Picino, Pico della Mirandola, Castiglione, Bembo, Rabelais, Marguerite de Navarre, Du Bellay, Machiavelli, and Montaigne. In addition to learning the material covered in the course, students will gain expertise in producing professional presentations and research papers, and will also have the opportunity to consult original material from the Kislak Center. This course is open to undergraduates with permission of the instructor. It counts toward the undergraduate minor in Global Medieval Studies and the graduate certificate in Global and Medieval Renaissance Studies.
Not Offered Every Year
Also Offered As: FREN 5410, ITAL 5410
1 Course Unit

COML 5420 Topics in Culture.
Topics vary annually.
Not Offered Every Year
Also Offered As: GRMN 5420
1 Course Unit

COML 5430 Environmental Humanities: Theory, Method, Practice
Environmental Humanities: Theory, Methods, Practice is a seminar-style course designed to introduce students to the trans- and interdisciplinary field of environmental humanities. Weekly readings and discussions will be complemented by guest speakers from a range of disciplines including ecology, atmospheric science, computing, history of science, medicine, anthropology, literature, and the visual arts. Participants will develop their own research questions and a final project, with special consideration given to building the multi-disciplinary collaborative teams research in the environmental humanities often requires.
Not Offered Every Year
Also Offered As: ENGL 5430, ENV 5410, GRMN 5430, SPAN 5430
1 Course Unit

COML 5440 Public Environmental Humanities
This broadly interdisciplinary course is designed for Graduate and Undergraduate Fellows in the Penn Program in Environmental Humanities (PPEH) who hail from departments across Arts and Sciences as well as other schools at the university. The course is also open to others with permission of the instructors. Work in environmental humanities by necessity spans academic disciplines. By design, it can also address and engage publics beyond traditional academic settings. This seminar, with limited enrollment, explores best practices in public environmental humanities. Students receive close mentoring to develop and execute cross-disciplinary, public engagement projects on the environment. In spring 2018, participants have the opportunity to participate in PPEH’s public engagement projects on urban waters and environmental data. These ongoing projects document the variety of uses that Philadelphians make of federal climate and environmental data, and beyond city government; they also shine light on climate and environmental challenges our city faces and the kinds of data we need to address them. Working with five community partners across Philadelphia, including the City’s Office of Sustainability, students in this course will develop data use stories and surface the specific environmental questions neighborhoods have and the kinds of data they find useful. The course hosts guest speakers and research partners from related public engagement projects across the planet; community, neighborhood, open data, and open science advocates; and project partners in government in the City of Philadelphia and Commonwealth of Pennsylvania. Course assignments include: * 2 short-form essays (course blog posts); * a 12-hour research stay (conducted over multiple visits) with a community course partner to canvas data uses and desires; * authorship of 3 multi-media data stories; * co-organization and participation in a city-wide data storytelling event on May 2, 2018.
Not Offered Every Year
Also Offered As: ANTH 5440, ENV 5440, GRMN 5440, URBS 5440
1 Course Unit

COML 5450 Topcs: Renaissance Culture
Please see department website for a current course description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
Also Offered As: CLST 7704, ITAL 5400, PHIL 5150
1 Course Unit
COML 5460 Women's Writing in French, 1160–1823
In this course, we will examine a representative sample of premodern women's writing in French, beginning in the Middle Ages and concluding in the Revolutionary Era. The authors studied come from differing walks of life, social classes, and religious and political identifications, and they express themselves in a wide variety of genres, including short stories, fairy tales, lyric poetry, letters, plays, and novels. Despite their many differences, these authors are united by a common tendency to question a centuries-old tradition of misogynistic discourse, patriarchal social order, and gender normativity. Authors to be studied include: - Marie de France (ca. 1160), a brilliant storyteller and poet attached to the court of Henry II of England whose fabulous tales, arguably an early form of speculative fiction, imagine alternatives to the rigidity of arranged marriages and the heterosexual couple. - Christine de Pizan (1364–ca. 1430), a court writer for Charles VI of France and several other powerful patrons who is often considered France's first professional female writer. Her Livre de la Cité des Dames (Book of the City of Ladies) systematically refutes the misogynistic pronouncements of learned male authors and holds up devotion and religious life as alternatives to accepting the assigned role of wife and mother. - Marguerite de Navarre (1492–1549), the sister of Francis I of France and a prolific author of devotional poetry, plays, and the Heptaméron, a collection of tales modeled on Boccaccio's Decameron and known for its often shocking subject matter. Throughout her oeuvre, she calls into question the social perception of women rooted in misogynistic discourse, as well as the tendency to blame sexual violence on women, while at the same time revealing the potential danger of masculinity for men and women alike and envisioning Pauline Christianity as a means of radical equality. - Perrine du Guillet (1520–1545), Louise Labé (c. 1524–1566), and Anne de Marquets (1533–1588), three poets who respond to and write against the male-centered tradition of Petrarchan love poetry. Guillet and Labé stand out for their frank and often sensual depictions of female desire and sexuality in spite of taboos against their public expression, while Marquets, a Dominican nun at the convent of Poissy, combines Petrarchan, devotional, and mystic tropes to envision religious life as an alternative to the heteronormativity of lay French society and the Protestant Reformation. - Madame de Lafayette (1634–1693) and Madame de Sévigné (1626–1696), whose writings are of monumental importance in the history of literature in French as well as invaluable testimonies to the role played by women in the intellectual developments of the early modern period, including salons, Jansenism, and free-thinking (libertinism). - Gabrielle-Suzanne de Villeneuve (1685–1755), author of the first known version of La belle et la bête (Beauty and the Beast), who, along with other female authors of fairy tales, used the conventions of the genre to challenge social conventions and criticize the treatment of women. - Claire de Duras (1777–1828), whose novel Ourika, much like Villeneuve's La belle et la bête, shows how feminist concerns might intersect with colonialism and race; a bestseller in its day, it is one of the first works in French to feature a complex and articulate black narrator and what many scholars consider to be a modern outlook on race and identity. To provide historical and theoretical context, these readings will be supplemented with relevant primary and secondary sources, as well as with modern and contemporary adaptations, such as illustrations and films. The course is open to graduate students and to advanced undergraduates with permission of the instructor. Discussions will be in English. Readings will be made available both in the original French and in English translation, and final papers may be written in English or in French. Also Offered As: FREN 5460, GSWS 5460
1 Course Unit

COML 5500 Etudes sur le XVII siecle
The specific topics of the seminar vary from semester to semester, depending on the instructor and his/her choice. Among the topics previously covered, and likely to be offered again, are the following: The Theatre of Jean Racine, Fiction of Mme de Lafayette, The Moralists (La Bruyere, La Rochefocauld, Perrault ), Realistic Novels (Sorel's Francion, Scarron's Le Roman Comique, Furetiere's Le Roman Bourgeois). Students give oral and written reports, and write a term paper. Not Offered Every Year
Also Offered As: FREN 5500, GSWS 5500
1 Course Unit

COML 5520 Affect Theory and Power
This seminar will examine contemporary affect theory and its relationship with Michel Foucault's theory of power. We will begin by mapping out Foucault's "analytics of power," from his early work on power knowledge to his late work on embodiment, desire, and the care of the self. We will then turn to affect theory, an approach which centralizes the non-rational, emotive force of power. No previous knowledge of theory is required. Also Offered As: GSWS 5520, RELS 5520
1 Course Unit

COML 5550 Topics in Dutch Studies
Topics vary.
Not Offered Every Year
Also Offered As: DTC 5300, GRMN 5550
1 Course Unit

COML 5590 Myth Through Time and In Time
The textual and physical remains of Greek and Roman culture and belief as 'myth' enframed the post-antique European world and its neighbors. Makers, patrons and viewers manipulated those survivals to challenge and speak to a contemporary world. This course focuses on how and why artists and their patrons engaged the mythic and examines the various areas of political and religious life that sought animation through an evocation of narratives from the past. Readings and case studies will engage with very late antique, medieval, and early modern art, turning to affect theory, an approach which centralizes the non-rational, emotive force of power. No previous knowledge of theory is required. Also Offered As: AAMW 5590, ARTH 5590, CLST 7400, GRMN 5590
1 Course Unit

COML 5600 Eighteenth-Century Novel
Please check the department's website for the course description:
https://www.sas.upenn.edu/french/pc
Fall or Spring
Also Offered As: FREN 5600
1 Course Unit
COML 5650 Reading Benjamin Reading Kafka
Readings and discussions in English. Walter Benjamin’s study of the works of Franz Kafka is as enlightening as it can be bewildering. Moving from philology to Marxism, metaphysics to messianism, Daoism to Talmud, this densely argued piece elliptically touches on almost all of Kafka’s published works in just four short sections. This seminar proposes a line-by-line reading Benjamin’s 1934 “Franz Kafka on the Tenth Anniversary of His Death” with an eye to its literary, philosophical and religious contexts as well as to the rich history of its intellectual reception. Reading Kafka’s works as the essay evokes them, we will situate this piece with regard to Benjamin’s other writings, the essay’s interlocutors (Brod, Scholem, Lukacs, Brecht) and its most illustrious interpreters (Adorno, Arendt, Lukacs, Brecht). Not Offered Every Year Also Offered As: GRMN 5450, JWST 5650 1 Course Unit

COML 5660 The Long Nineteenth Century: Literature, Philosophy, Culture
The present course will discuss German literature and thought from the period of the French Revolution to the turn of the twentieth century, and put it into a European context. In regard to German literature, this is the period that leads from the Storm and Stress and Romanticism to the political period of the Vormärz, Realism, and finally Expressionism; in philosophy, it moves from German Idealism to the philosophy of Schopenhauer, Nietzsche, and neo-Kantian thought. It is also the period that saw the rise of the novel, and new forms of dramatic works. Painting moved out of the studio into plein air; the invention of photography made an imprint on all arts, and the rise of the newspaper led to new literary genres such as the feuilleton. Economically, Germany experienced the industrial revolution; politically, it was striving for a unification that was finally achieved in 1871. The nineteenth century saw the establishment of the bourgeoisie, the emergence of the German working class, and the idea of the nation state; it also saw Jewish emancipation, and the call for women’s rights. Readings will focus on a variety of literary, political, and philosophical texts; and consider a selection of art works. Not Offered Every Year Also Offered As: ARTH 7770, GRMN 5580 1 Course Unit

COML 5700 Topics in Afro-Diasporic Literature and Culture
This course treats some important aspect of African American and Afro-Diasporic literature and culture. Some recent versions of the course have focused on the emergence of African-American women writers, on the relation between African-American literary and cultural studies, and on the Harlem Renaissance. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings. Not Offered Every Year Also Offered As: AFRC 5701, ENGL 5700 1 Course Unit

COML 5710 Literature and Multilingualism
Since several years, the societal and cultural reality of multilingualism has become an important research field in linguistics and literary studies, as in cultural studies more generally. This graduate course will investigate how multilingual poetics challenge and resist paradigms and ideologies of innate monolingualism, linguistic mastery, absolute translatability and monocultural nationalism. To begin with, the course will introduce central aspects of scholarship on literature and multilingualism, covering concepts such as heteroglossia, code switching, translanguaging and macaronic language, and debates such as those on world literature, global English, foreignization, (un)translatability and non-translation, including their political and ethical importance. After a brief historical overview, glancing at western literary multilingualism in the Middle Ages, Romanticism and the avantgarde, the course will mainly focus on literature of the late 20th and 21st centuries taken from Germanic and Romance linguistic contexts. Using an exemplary selection, the course will cover prose, poetry and drama, and include excerpts of texts by authors such as Andrea Camilleri, Gino Cielliino, Fikry El Azzouzzi, Ernst Jandl, Jackie Kay, Çağlar Köseoğlu, Monique Mojica, Melinda Nadj Abonji, Emine Sevgi Özdamar, Olivier Rolin, Yoko Tawada, Nicole van Harskamp, and others. Reading these texts, we will try to determine how multilingualism manifests itself (linguistically, discursively, rhetorically, thematically, contextually etc.) and how the texts engage with linguistic, cultural and social pluralities. The course will conclude with a focus on the translator as a central character in fictional prose and movies. Classes will take place in an interactive format that stimulates discussion and exchange. Students will get the respective excerpts – both in the original version and in English translation – one week at a time so that they can prepare themselves each week for the discussion. Theoretical and contextual information will be provided via Power Point presentations. Not Offered Every Year Also Offered As: DTCH 5710, FREN 5710, GRMN 5710, ITAL 5710 1 Course Unit

COML 5730 Topics in Criticism & Theory: Object Theory
Topics vary annually Not Offered Every Year Also Offered As: ARTH 5730, CIMS 5730, ENGL 5730, GRMN 5730, REES 6683 1 Course Unit

COML 5735 Topics in Criticism: What is Poetics?
What is poetics? How does it differ from other forms of criticism in terms of both attitude or posture and method? In terms of practices of art and politics, What is its relationship to poiesis and ethics – what is poetics? – as articulated by such varied thinkers as Joan Retallack, Denise Ferreira Da Silva and R.A. Judy? What’s to be observed about the current turn of black studies toward poetics? For the seminar, let’s think about the above as matters of a) critical inquiry b) art practice and c) professional discipline. It may be possible to triangulate by way of “critique” and “aesthetics.” Proposing the inseparability of critical inquiry and writing practice, the final assignment will be deemed experimental since the monograph-ish essay won’t be presumed. Consequently, we will discuss the institutional state/status of what participants will have made. Possible readings incoude Michel Foucault, What is Critique?; Gilles Deleuze and Felix Guattari, What is Philosophy?: Hortense Spillers, Black, White & in Color (selections); Joan Retallack, The Poethical Wagner; Denise Ferreira Da Silva, Unpayable Debt; Boris Groys, Going Public; Rachel Zolf, No One’s Witness; Leslie Scalapino, Objects in the Terrifying Tense/Longing from Taking Place. Also Offered As: ENGL 5735 1 Course Unit
COML 5790 Spinoza After Marx
This seminar will focus on the thought of Baruch Spinoza and Karl Marx, tracing the effects of their encounter, not only in philosophy and critical theory, but in fields ranging from literary studies to environmental humanities. The second half of the twentieth century saw a revival of interest in Spinoza across the humanities and social sciences as a means of rethinking the very terms of philosophical and political debates of modernity. Mobilized for political purposes and contemporary demands, especially among Marxist theoreticians, Spinoza's philosophy became virtually unrecognizable from its earlier forms of reception. This seminar departs from the following observation: on the one hand, this revival of Spinoza proved especially fruitful among Marxist theoreticians; on the other hand, the modes of interpretation of Spinoza and the adaptations of Spinoza and Marxism are highly heterogeneous and often conflictual. The seminar will ask: what is it about Spinoza's thought that lends itself to a revival of Marxism? To what extent is Marx's thought necessary for a reevaluation of Spinoza? Why Spinoza today? To address these questions, we will trace the multiple traditions that think Marx and Spinoza together: the deployment of Spinoza against Hegel to rejuvenate Marxism in France (Louis Althusser, Etienne Balibar, Gilles Deleuze, Chantal Jaquet); the development of theories of the multitude in the tradition of Autonomism in Italy (Antonio Negri, Paolo Virno); the vicissitudes of Spinozism among the Soviet Marxists (Lyubov Axelrod, Abram Deborin, Evald Ilyenkov). Likewise, we will investigate the most recent turn to the Marx-Spinoza tradition in psychoanalysis (A. Kiariana Kordela), rethinking finance capitalism (Frederic Lordon), feminist theory (Moira Gatens), literary studies (Pierre Macherey, Anthony Uhlmann), and environmental humanities (Hasana Sharp, Beth Lord).
Not Offered Every Year
Also Offered As: GRMN 5790
1 Course Unit

COML 5800 Topics In Aesthetics
Topic title for Spring 2018: Walter Benjamin. Walter Benjamin (1892-1940) is a philosopher whose writings on art, literature, and politics have had tremendous influence on many disciplines in the Humanities and Social Studies. He has been variously described as one of the leading German-Jewish thinkers, and a secular Marxist theorist. With the publication of a four-volume collection of this work in English, many more of his writings have been made accessible to a wider public. Our seminar will undertake a survey of his work that begins with his studies on language and allegory, and continues with his autobiographical work, his writings on art and literature, and on the imaginary urban spaces of the nineteenth-century.
Not Offered Every Year
Also Offered As: ARTH 5871, GRMN 5800, JWST 5800, PHIL 5389
1 Course Unit

COML 5811 Modern/Contemporary Italian Culture
Please see department website for current description at: http://www.sas.upenn.edu/italians/graduate/courses
Fall or Spring
Also Offered As: ITAL 5810, JWST 5810
1 Course Unit

COML 5821 Topics: Literature and Film
Please see department website for a current course description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
Also Offered As: CIMS 5820, ITAL 5820
1 Course Unit

COML 5840 Fantastic Literature 19th/20th Centuries
This course will explore fantasy and the fantastic in short tales of 19th- and 20th-century French literature. A variety of approaches – thematic, psychoanalytic, cultural, narratological – will be used in an attempt to test their viability and define the subversive force of a literary mode that contributes to shedding light on the dark side of the human psyche by interrogating the “real,” making visible the unseen and articulating the unsaid. Such broad categories as distortions of space and time, reason and madness, order and disorder, sexual transgressions, self and other will be considered. Readings will include "recits fantastiques" by Merimee, Gautier, Nerval, Maupassant, Breton, Peyre de Mandiargues, Jean Ray and others.
Not Offered Every Year
Also Offered As: CIMS 5821, FREN 5820
1 Course Unit

COML 5850 Italian Thought
What is Italian philosophy? Does Italian philosophy have a peculiar character? Can we speak of “Italian philosophy” if Italy became a unified country only recently, and its history is complex and fragmented? Yet “Italian Thought” and its genealogy are central to today’s theoretical debates on concepts such as biopolitics, reproductive labor and “empire” among others. This course will offer a diachronic review of the most important Italian thinkers, highlighting the political vocation of Italian philosophy, and its engagement with history and science, while discussing the modern supporters and opponents of the “Italian Thought” category. Readings might include Dante, Machiavelli, Bruno, Vico, Beccaria, Gramsci, Cavarero and Agamben among others.
Fall or Spring
Also Offered As: CIMS 5850, ITAL 5850
1 Course Unit

COML 5900 Introduction to Francophone Studies
An introduction to major literary movements and authors from five areas of Francophonie: the Maghreb, West Africa, Central Africa, the Caribbean and Quebec.
Not Offered Every Year
Also Offered As: AFRC 5900, FREN 5900
1 Course Unit

COML 5901 Recent issues in Critical Theory
This course is a critical exploration of recent literary and cultural theory, usually focusing on one particular movement or school, such as phenomenology, psychoanalysis, the Frankfurt School, or deconstruction. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 5900
1 Course Unit

COML 5902 Modern/Contemporary French Literature
This course will explore French literature of the recent past, focusing on the work of major authors and contemporary writers. Readings may range from short stories to novels, and from poetry to plays. The course will also consider the role of French literature in the cultural and political context of contemporary France.
Not Offered Every Year
Also Offered As: FREN 5902
1 Course Unit
COML 5904 Theories of Nationalism
You cannot build a wall to stop the free flow of literary and creative ideas. But in constructing narratives of national identity, states have long adopted particular texts as "foundational." Very often these texts have been epics or romances designated "medieval," that is, associated with the period in which specific vernaculars or "mother tongues" first emerged. France and Germany, for example, have long fought over who "owns" the Strasbourg oaths, or the Chanson de Roland; new editions of this epic poem, written in French but telling of Frankish (Germanic) warriors, have been produced (on both sides) every time these two countries go to war. In this course we will thus study both a range of "medieval" texts and the ways in which they have been claimed, edited, and disseminated to serve particular nationalist agendas. Particular attention will be paid to the early nineteenth century, and to the 1930s. Delicate issues arise as nations determine what their national epic needs to be. Russia, for example, needs the text known as The Song of Igor to be genuine, since it is the only Russian epic to predate the Mongol invasion. The text was discovered in 1797 and then promptly lost in Moscow's great fire of 1812; suggestions that it might have been a fake have to be handled with care in Putin's Russia. Similarly, discussing putative Mughal (Islamic) elements in so-called "Hindu epics" can also be a delicate matter. Some "uses of the medieval" have been exercised for reactionary and revisionist causes in the USA, but such use is much more extravagant east of Prague. And what, exactly, is the national epic of the USA? What, for that matter, of England? Beowulf has long been celebrated as an English Ur-text, but is set in Denmark, is full of Danes (and has been claimed for Ulster by Seamus Heaney). Malory's Morte Darthur was chosen to provide scenes for the queen's new robing room (following the fire that largely destroyed the Palace of Westminster in 1834), but Queen Victoria found the designs unacceptable: too much popery and adultery. Foundations of literary history still in force today are rooted in nineteenth-century historiography: thus we have The Cambridge History of Italian Literature and The Cambridge History of German Literature, each covering a millennium, even though political entities by the name of Italy and Germany did not exist until the later nineteenth century. What alternative ways of narrating literary history might be found? Itinerary models, which do not observe national boundaries, might be explored, and also the cultural history of watercourses, such as the Rhine, Danube, or Nile. The exact choice of texts to be studied will depend in part on the interests of those who choose to enroll. Faculty with particular regional expertise will be invited to visit specific classes.
Not Offered Every Year
Also Offered As: ENGL 5940, ITAL 5940
1 Course Unit

COML 5920 Life, Death, and Revolution in Haiti
In the last few decades, Haiti has been known on the global stage for its repeated calamities: earthquakes, hurricanes, droughts followed by floods and vice versa, dictatorships, cholera, civil unrest, etc. These media representations, which foreground trauma and failure, tend to overshadow a momentous revolutionary past as well as a long tradition of thriving avant-garde literary and artistic movements. These negative representations are part and parcel of a centuries-long practice of epistemic violence against Haiti that began well before it declared its independence from France in 1804, at the end of a bloody revolution. In this course, we will seek a more nuanced understanding of Haiti by exploring the concepts of life, death, and revolution in a selection of literary texts, essays, articles, documents, and films. Our interdisciplinary approach will allow us to discuss voodoo, the figure of the zombi, gender, the environment, modernity, and the relationship between politics and poetics. This course is taught in French and is open to advanced undergraduates and graduate students.
Not Offered Every Year
Also Offered As: FREN 5920
1 Course Unit

COML 5930 Classical Film Theory
At a moment when contemporary film and media theory has become increasingly interested in how earlier film theories can help us understand our moment of transition, this course will give students the opportunity to read closely some of those key early texts that are preoccupied with questions and problems that include: the ontology of film, the psychology of perception, the transition to sound, the politics of mass culture, realism, and ethnography. Course requirements: ; completion of all readings and screenings; participation in class discussion; weekly online responses; 20-25 page paper.
Not Offered Every Year
Also Offered As: ARTH 5930, CIMS 5930, ENGL 5930, GSWS 5930
1 Course Unit

COML 5910 Francophone Postcolonial Studies
Please see the department's website for current course description:
https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: AFRC 5910, FREN 5910
1 Course Unit
COML 5940 Cinema and Media Studies Methods
This proseminar will introduce a range of methodological approaches (and some debates about them) informing the somewhat sprawling interdisciplinary field of Cinema and Media Studies. It aims to equip students with a diverse—though not comprehensive—toolbox with which to begin conducting research in this field; an historical framework for understanding current methods in context; and a space for reflecting on both how to develop rigorous methodologies for emerging questions and how methods interact with disciplines, ideologies, and theories. Students in this class will also engage scholars participating in the Cinema and Media Studies colloquium series in practical discussions about their methodological choices. The course's assignments will provide students with opportunities to explore a particular methodology in some depth through a variety of lenses that might include pedagogy, the conference presentation, grant applications, the written essay, or an essay in an alternative format, such as the graphic or video essay. Throughout, we will be trying to develop practical skills for the academic profession. Although our readings engage a variety of cinema and media objects, this course will be textually based. No prior experience needed. The course is open to upper-level undergraduates with relevant coursework in the field by permission of instructor only. Course Requirements: Complete assigned readings and actively participate in class discussion: 20%; Reading responses: 10%; Annotated bibliography or course syllabus on a particular methodology: 20%; SCMS methodology-focused conference paper proposal according to SCMS format: 10%; Research paper or grant proposal, or essay in an alternative format using the methodology explored in the syllabus or bibliography: 40%.

Fall
Also Offered As: ARTH 5933, CIMS 5933, ENGL 5933, GSWS 5933
1 Course Unit

COML 5950 Travel Literature
Within the context of the ill-defined, heterogeneous genre of the travelogue and of today's age of globalization, CNN and the Internet, this seminar will examine the poetics of travel writing based largely albeit not exclusively on travel notebooks, or journaux/carnets de voyage, spanning the 20th century from beginning to end. One of the principal specificities of the texts studied is that they all evince to a lesser or greater degree a paradoxical resistance both to the very idea of travel(ing) as such and to the mimetic rhetoric of traditional travel narratives. We will therefore look at how modern or postmodern texts question, revisit, subvert or reject such key notions of travel literature as exoticism, nostalgia, exile, nomadism, otherness or foreignness vs. selfhood, ethnology and autobiography, etc. Authors considered will include Segalen, Morand, Michaux, Leiris, Levi-Strauss, Butor, Le Clezio, Baudrillard, Bouvier, Jouanard, Leuwers.
Not Offered Every Year
Also Offered As: FREN 5950
1 Course Unit

COML 5980 Theories of Gender & Sexuality
This course addresses the history and theory of gender and sexuality. Different instructors will emphasize different aspects of the topic. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Also Offered As: ENGL 5980, GSWS 5980
1 Course Unit

COML 6010 Italian Literary Theory
Please see department website for current description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
Also Offered As: ITAL 6010
1 Course Unit

COML 6030 Poetics of Narrative
Please see the department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: FREN 6030
1 Course Unit

COML 6050 Modern Literary Theory and Criticism
This course will provide an overview of major European thinkers in critical theory of the 20th and 21st centuries. We will pay particular attention to critical currents that originated in Eastern European avant-garde and early socialist contexts and their legacies and successors. Topics covered will include: Russian Formalism and its successors in Structuralism and Deconstruction (Shklovsky, Levi-Strauss, Jakobson, Derrida); Bakhtin and his circle, dialogism and its later western reception; debates over aesthetics and politics of the 1930s (Lukacs, Brecht, Adorno, Benjamin, Radek, Clement Greenberg); the October group; Marxism, new Left criticism, and later lefts (Althusser, Williams, Eagleton, Jameson, Zizek).
Fall or Spring
Also Offered As: ENGL 6050, ENGL 7905, FREN 6050, GRMN 6050, ITAL 6050, REES 6435
1 Course Unit

COML 6090 Global France
The purpose of this course is to examine the various modalities of interaction between anthropology and literature in modern French culture. Our guiding thesis is that the turn toward other cultures has functioned as a revitalizing element in the production of cultural artifacts while providing an alternative vantage point from which to examine the development of French culture and society in the contemporary period. The extraordinary innovations of “ethnosurrealism” in the twenties and thirties by such key figures of the avant-garde as Breton, Artaud, Bataille, Caillois, and Leiris, have become acknowledged models for the postwar critical thought of Barthes, Derrida, and Foucault, as well as inspiring a renewal of “anthropology as cultural critique in the United States.”
Besides the authors just indicated, key texts by Durkheim, Mauss and Levi-Strauss will be considered both on their own terms and in relation to their obvious influence. The institutional fate of these intellectual crossovers and their correlative disciplinary conflicts will provide the overarching historical frame for the course, from the turn of the century to the most recent debates.
Not Offered Every Year
Also Offered As: FREN 6090
1 Course Unit
COML 6100 Ancient and Medieval Theories and Therapies of the Soul
This seminar focuses on premodern conceptions of the 'soul', the force felt to animate and energize a human body for as long as it was considered alive, and to activate virtually all aspects of its behavior through time. Premodern concepts of the soul attempted to account for a person's emotions and desires, perceptions, thoughts, memory, intellect, moral behavior, and sometimes physical condition. The course will trace the various ancient theories of the soul from the Presocratics, Plato, Aristotle, Stoic thought in Greek and Latin, medical writers (Hippocrates, Hellenistic doctors, Galen), and Neoplatonists, to the medieval receptions and transformations of ancient thought, including Augustine and Boethius, Avicenna's interpretation of Aristotle and its medieval influence, and Aquinas and other later medieval ethicists. These premodern conceptions of the soul have a surprisingly long afterlife, reaching into the literary cultures and psychological movements of early modernity and beyond. Knowledge of Greek or Latin is not required, but see the following: The seminar will meet for one two-hour session per week, and a separate one-hour 'breakout' session during which students who have registered for GREK 7203 will meet to study a selection texts in Greek, and students who have registered for COML/ENGL will meet to discuss medieval or early modern texts relevant to their fields of study. Not Offered Every Year
Also Offered As: ENGL 7060, GREK 7203
1 Course Unit

COML 6120 Hannah Arendt: Literature, Philosophy, Politics
The seminar will focus on Arendt's major work, The Origins of Totalitarianism (and its three parts, Anti-Semitism, Imperialism, Totalitarianism). We will also discuss the reception of this work and consider its relevance today. Not Offered Every Year
Also Offered As: ENGL 6120, GRMN 6120, JWST 6120, PHIL 5439
1 Course Unit

COML 6149 Socialist and Post-Socialist Worlds
In 1989-1991, a whole world, perhaps many worlds, vanished: the worlds of socialism. In this graduate seminar we will investigate key cultural works, theoretical constructs and contexts spanning the socialist world(s), focused around the USSR, which was for many the (not uncontested) center of the socialist cosmos. Further, we will study the cultural and political interrelationships between the socialist world(s) and anticolonial and left movements in the developing and the capitalist developed nations alike. Finally, we will investigate the aftermaths left behind as these world(s) crumbled or were transformed beyond recognition at the end of the twentieth century. Our work will be ramified by consideration of a number of critical and methodological tools for the study of these many histories and geographies. The purview of the course is dauntingly large - global in scale - and therefore "coverage" will of necessity be incomplete. In addition to the lead instructor, a number of guest instructors from Penn and from other institutions will join us to lead our investigations into specific geographies, moments and areas. Additionally, four weeks have been left without content, to be filled in via consensus decision by the members of the seminar. Not Offered Every Year
Also Offered As: ENGL 6490, REES 6149
1 Course Unit

COML 6160 Approaches to Literary Texts
Most seminars focus on literary texts composed during a single historical period; this course is unusual in inviting students to consider the challenges of approaching texts from a range of different historical eras. Taught by a team of literary specialists representing diverse periods and linguistic traditions and conducted as a hands-on workshop, this seminar is designed to help students of literature and related disciplines gain expertise in analysis and interpretation of literary works across the boundaries of time, geography, and language, from classic to modern. Students will approach literature as a historical discipline and learn about key methodological issues and questions that specialists in each period and field ask about texts that their disciplines study. The diachronic and cross-cultural perspectives inform discussions of language and style, text types and genres, notions of alterity, fictionality, literariness, symbolism, intertextuality, materiality, and interfaces with other disciplines. This is a unique opportunity to learn in one course about diverse literary approaches from specialists in different fields. Not Offered Every Year
Also Offered As: CLST 7601, EALC 8290, ENGL 6160, REES 6450, ROML 6160
1 Course Unit

COML 6170 Cultural History of Medieval Rus (800-1700)
This course offers an overview of the literary, cultural, and political history of Medieval Rus from its origins in the 9th century up to the reign of Peter the Great (early 18th century), the period that laid the foundation for the Russian Empire. The focus of the course is on the Kievan and Moscovite traditions but we also look at the cultural space of the Grand Duchy of Lithuania and Poland (i.e., the territory of today's Belarus and Ukraine). The course takes a comparative and interdisciplinary approach to the evolution of the main cultural paradigms of Russian Orthodoxy viewed in a broader European context (vis-à-vis Byzantium and the Latin West). We learn about the worldview of Orthodox Slavs by examining their religion, ritual, spirituality, art, music, literature, education, and popular culture. Classes are conducted in English. Readings are in Russian and English. English translations of some primary sources are available for those with limited Russian competence. Fall
Also Offered As: REES 6400
1 Course Unit

COML 6200 Paris and Philadelphia: Landscapes and Literature of the 19th Century
This course explores the literal and literary landscapes of 19th-century Paris and Philadelphia, paying particular attention to the ways in which the built environment is shaped by and shapes shifting ideologies in the modern age. Although today the luxury and excesses of the "City of Light" may seem worlds apart from the Quaker simplicity of the "City of Brotherly Love," Paris and Philadelphia saw themselves as partners and mutual referents during the 1800s in many areas, from urban planning to politics, prisons to paleontology. This interdisciplinary seminar will include readings from the realms of literature, historical geography, architectural history, and cultural studies as well as site visits to Philadelphia landmarks, with a view to uncovering overlaps and resonances among different ways of reading the City. We will facilitate in-depth research by students on topics relating to both French and American architectural history, literature, and cultural thought. Fall
Also Offered As: FREN 6200
1 Course Unit
COML 6201 Modern East Asian Texts
This course is an introduction to and exploration of modern East Asian literatures and cultures through close readings and discussion of selected literary works from the early twentieth century to the start of the 21st century. Focusing on China, Japan, and Korea, we will explore the shared and interconnected experiences of modernity in East Asia as well as broaden our perspective by considering the location of East Asian cultural production within a global modernity. Major issues we will encounter include: nation-building and the modern novel; cultural translation; media and technology; representations of gender, race, and class; history and memory; colonialism; war; body and sexuality; globalization. No knowledge of the original language is required.
Not Offered Every Year
Also Offered As: EALC 6201
Mutually Exclusive: EALC 2201
1 Course Unit

COML 6210 Reading Marx’s Capital: Divergent Traditions in Europe, the Soviet Union, and the Global South
Karl Marx’s masterpiece Capital received little attention at the time of its publication, but gained new life in the twentieth and twenty-first centuries. The afterlives of Capital, however, took disparate forms across different regions and traditions globally. While working on the same text, these traditions gave rise to conflicting and contradictory interpretations, antagonistic dialogues, and cross-disciplinary encounters. This seminar will examine a series of exemplary interpretations of Capital with attention to detail in order to clarify the stakes of different readings and pose the question of relevance of Marx’s masterpiece for the contemporary moment. We will investigate how political conjunctures, regional specificities, and ideological concerns shape disparate modes and cultures of reading. We will also examine how Capital is transfigured through the lens of disciplines such as literary studies and comparative literature, philosophy, political science, postcolonial studies, and economics. We will also pose the question of philosophical genealogies of Capital, tracing how divergent philosophical backgrounds inflect the reconfigurations of Marx’s thought, e.g., in examining “Hegelian,” “Spinozist,” and “Epicurian” readings. The topics may include, but are not limited to, the following regions and traditions: France (Louis Althusser group), Italy (Mario Tronti and autonomia tradition), and Germany (Neue Marx Lektüre); Soviet Union (Isaak Rubin, Evald Ilyenkov); Bolivia (Alvaro Garcia Linera), and Argentina (Ernesto Laclau). Finally, we will engage with the most recent readings of Capital in the twenty-first century in the works of thinkers such as Sylvia Federici, Michael Heinrich, and A. Kiara Kordela, among others.
Spring
Also Offered As: GRMN 6210, REES 6151
1 Course Unit

COML 6300 Introduction to Medieval French Literature
Topics vary. Previous topics include The Grail and the Rose, Literary Genres and Transformations, and Readings in Old French Texts. Please see the department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: FREN 6300
1 Course Unit

COML 6381 Troubadours at the Center
‘Troubadour’ is a term whose meaning has evolved from the eleventh century to our day. In the Middle Ages, a troubadour was a singer-songwriter (male or female) who composed in a language called Occitan, the language spoken in northern Italy, across southern France, and into today’s Catalonia. Medieval works in this language include epic poetry, didactic texts, lengthy romances, and love poetry. Renowned and imitated throughout medieval Europe — by authors from today’s Italy, Austria, Germany, France, Spain, and Portugal — the Occitan literary heritage cannot be ignored. Though sometimes presented as a dead language, Occitan is very much alive, and one purpose of this course is to introduce students to it and to its broad importance in European literary history. This course will present the literary and cultural history of the Occitan region, write large, from the Middle Ages to the modern day. By the end of the course, students will be able to read Occitan with the aid of a dictionary; they will understand the culture of the French Midi as distinct from that of France; they will know something of the distinctive cultural elements of Occitania. They will also have a profound knowledge of at least one Occitan author, medieval, modern, or contemporary. The course will be taught in English. In addition to learning the material covered in the course, students will gain expertise in producing professional presentations and research papers.
Also Offered As: FREN 6381, GRMN 6381, ITAL 6381
1 Course Unit

COML 6400 Studies in the Renaissance
Topics vary. Previous topics have included Rabelais and M. de Navarre, Montaigne, and Renaissance and Counter-Renaissance. Please see the department’s website for the current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: FREN 6400, GSWS 6400
1 Course Unit

COML 6530 Russian and Soviet Cultural Institutions
In this seminar, we will study Russian and Soviet culture through the history of its institutions, in the broader social-institutional context of land-based European empire and state socialism. The course will include material from the eighteenth to the twenty-first centuries, but attention will be focused disproportionately on the twentieth century. Each unit will focus on a specific social institution of culture, yet will also require the reading/viewing of canonical texts and films. Topics will include: reading publics and education; authorship and professionalization; cultural management of social, ethnic, gender and national diversity (including via institutions of translation); journals and publishing houses; genres; the Union of Soviet Writers; censorship and unofficial dissemination; the film industry; cultural history and memory (jubilee celebrations); the culture industry.
Not Offered Every Year
Also Offered As: ENGL 5910, REES 6150
1 Course Unit
COML 6570 Becoming Modern: The German-Jewish Experience
Yuri Slezkine described the twentieth century as a "Jewish Age"—to be modern would essentially mean to be a Jew. In German historical and cultural studies, this linkage has long been made—only in reference to the last years of the German monarchy and the time of the Weimar Republic. Indeed, what has become known as "modern" German culture—reflected in literature, music, and the visual arts and in a multitude of public media—has been more often than not assigned to Jewish authorship or Jewish subjects. But what do authorship and subject mean in this case? Do we locate the German-Jewish experience as the driving force of this new "modernity," or is our understanding of this experience the result of this new "modern" world?
Not Offered Every Year
Also Offered As: GRMN 6570, JWST 6570
1 Course Unit

COML 6600 Studies in the Eighteenth Century
Topics of discussion will vary from semester to semester. One possible topic is "Masterpieces of the Enlightenment." We will read the most influential texts of the Enlightenment, texts that shaped the social and political consciousness characteristic of the Enlightenment—for example, the meditations on freedom of religious expression that Voltaire contributed to "affaires" such as the "affaire Calas." We will also discuss different monuments of the spirit of the age—its corruption (Les Liaisons dangereuses), its libertine excesses and philosophy (La Philosophie dans le boudoir). We will define the specificity of 18th-century prose (fiction), guided by a central question: What was the Enlightenment?
Please see department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: FREN 6600
1 Course Unit

COML 6623 Literary History and Aesthetics in South Asia
This seminar surveys the multiple components of literary culture in South Asia. Students will engage critically with selected studies of literary history and aesthetics from the past two millennia. In order to introduce students to specific literary cultures (classical, regional, contemporary) and to the scholarly practices that situate literature in broader contexts of culture and society, the course will focus both on the literary theories—especially from the nineteenth and twentieth centuries—that position South Asia's literary cultures within broader disciplinary frameworks that use literary documents to inform social, historical and cultural research projects. The aim is to open up contexts whereby students can develop their own research projects using literary sources.
Not Offered Every Year
Also Offered As: SAST 6623
1 Course Unit

COML 6627 South Asia Literature as Comparative Literature
This course takes up the question of reading South Asian Literature both as a collection of diverse literary cultures, as well as the basis for a methodology of reading that takes language, region, and history into account. It takes as a starting point recent work that foregrounds the importance of South Asian language literatures, and their complex interactions, to an understanding of South Asian literary history, as well as critiques of the concept of world literature that question its underlying assumptions and frequent reliance on cosmopolitan languages such as English. In what ways can we describe the many complex interactions between literary cultures in South Asia, rooted in specific historical contexts, reading practices, and cultural expectations, while maintaining attention to language and literary form? How, in turn, can we begin to think of these literatures in interaction with larger conversations in the world? With these considerations in mind, we will examine works of criticism dealing with both modern and pre-modern literatures, primarily but not exclusively focused on South Asia. Topics will include the concept of the cosmopolis in literary and cultural history, the role of translation, the transformations of literature under colonialism, and twentieth century literary movements such as realism and Dalit literature. Readings may include works by Erich Auerbach, Frederic Jameson, Aijaz Ahmad, Gayatri Spivak, Aamir Mufti, Sheldon Pollack, David Shulman, Yigal Bronner, Shamshur Rahman Faruqi, Francesca Orsini, Subramanian Shankar, Sharankumar Kimbale, and Torlae Jatin Gajarawala. We will also examine selected works, in English and in translation, as case studies for discussion. This course is intended both for students who intend to specialize in the study of South Asia, as well as for those who focus on questions of comparative literature more broadly.
Fall or Spring
Also Offered As: SAST 6627
1 Course Unit
COML 6631 The Sanskrit Epics
Ancient India's two epic poems, originally composed in Sanskrit and received in dozens of languages over the span of two thousand years, continue to shape the psychic, social, religious, and emotional worlds of millions of people around the world. The epic Mahabharata, which roughly translates to The Great Story of the Descendants of the Legendary King Bharata, is the longest single poem in the world (approximately 200,000 lines of Sanskrit verse in the 1966 Critical Edition) and tells the mythic history of dynastic power struggles in ancient India. An apocalyptic meditation on time, death, and the utter devastation brought upon the individual and the family unit through social disintegration, the epic also serves as sourcebook for social and political mores and contains one of the great religious works of the world, The Bhagavad Gita (translation: The Song of God), in the middle of its sprawling narrative. The other great epic, The Ramayana (Rama's Journey), though essentially tragic and about the struggles for power in ancient India, offers a relatively brighter narrative in foregrounding King Rāma, an avatar of the supreme divinity Vi##u, who serves as an ideal for how human beings might successfully negotiate the challenges of worldly life. Perhaps the most important work of ancient Asia, the Rā#āya#a also provides a model of human social order that contrasts with dystopic polities governed by animals and demons. Our course will engage in close reading of selections from both of these epic poems (in English translation) and scholarship on the epic from the past century. We will explore the Sanskrit epic genre, its oral and textual forms in South Asia, and the numerous modes for interpreting it over the centuries. We will also look at the reception of these ancient works in modern forms of media, such as the novel, television, theater, cinema and the comic book/ anime.
Not Offered Every Year
Also Offered As: SAST 6631
Mutually Exclusive: COML 2231, SAST 2231
1 Course Unit

COML 6750 Topics in 19th Century Literature
Topics will vary. Please see department's website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: FREN 6750
1 Course Unit

COML 6770 The Life of Forms: Ontogenesis, Morphology, Literature
In recent years, the notions of form, formalism, and morphology have reentered contemporary debates across the humanities. This seminar considers the current resurgence of interest in form by tracing form's evolving concepts throughout modernity. It departs from the observation that experimentation with and debates on form in art and literature are inextricably linked to various notions of life and the living. These debates-this is the provisional thesis of the seminar—are the battlefield where literary and art criticism undermine the major presuppositions of the western metaphysical tradition (e.g., determinations of inside-outside, form-content, living-inorganic). On the one hand, the seminar will explore a selective genealogy of various attempts to dynamize the concept of form through theories of 1) ontogenesis (e.g., Spinoza, Simondon, Malabou), 2) morphology (e.g., Goethe, Propp, Goldstein), and 3) aesthetics (e.g., Baumgarten, Schlegel brothers, Adorno). On the other hand, in order to investigate the political, ideological, and methodological implications of differing concepts of form, the seminar will bring together texts from different disciplines, including literary studies (literary morphology, Russian Formalism), art history (Focillon, Kubler), philosophy (Wittgenstein, Macherey). On the other hand, in order to investigate the political, ideological, and methodological implications of differing concepts of form, the seminar will bring together texts from different disciplines ranging from literary studies (e.g., Jolles, Russian Formalism, Jauss), art history (e.g., Panofsky, Focillon, Kubler), philosophy (e.g., Wittgenstein, Blumenberg, Macherey), history of science (e.g., Vygotsky, Varela), and sociology (e.g., Tarde, DeLanda). Finally, the seminar will engage in close reading of exemplary literary and art works, and situate the findings on the conjunction of form and life in current debates on New Formalisms (e.g., Levine, Levinson, Kornbluh) and New Materialisms (e.g., Bennett, Grosz).
Not Offered Every Year
Also Offered As: GRMN 6770
1 Course Unit

COML 6820 Seminar on Literary Theory
Topics vary. See the Spanish Department's website for the current offerings. https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Fall
Also Offered As: SPAN 6820
1 Course Unit

COML 6830 Collective Violence, Trauma, and Representation
This seminar is organized as a laboratory space for graduate students and faculty working in a number of adjacent fields and problems. Seminar discussions will be led not only by the primary instructors, but also by a number of guests drawn from the Penn faculty. For the first weeks of the course, we will focus on seminal works in the interlinked areas of history and memory studies, cultural representations of collective violence, trauma studies, and other related topics. Beginning with the Xth week of the course, we will turn to case studies in a variety of geographic, cultural and historical contexts. Additionally, some later sessions of the course will be devoted to a presentation and discussion of a work in progress of a Penn graduate student, faculty member or a guest lecturer.
Not Offered Every Year
Also Offered As: LALS 6830
1 Course Unit
COML 6840 Topics in Philosophy
This seminar explores political thought in Germany from the Imperial state of the early 20th century through its fragmentation and division and into the reunification of east and west Germany in 1992. Much of this period was "after idealism" philosophically and politically, the preface to pessimism and "the passing of political philosophy" as articulated in the Enlightenment (Shklar), but fascinating period of thought and argument. Among our texts are Habermas (philosophy), Weber (sociology), Schmitt (law), Juenger (literature) & their contemporaries. Students are not expected to read texts in the original, although having German will greatly expand your range and the depth of your reading.
Not Offered Every Year
Also Offered As: GRMN 6840
1 Course Unit

COML 6860 Form, Figure, Metaphor
This course will explore the tensions and overlaps between three concepts in literary studies: form, figure, and metaphor. Through readings of works in literary theory, literature, and literary criticism, we will ask what it means to pay attention to the form of a literary text, whether at the micro scale of its literary figures or the macro scale of its overarching structure. We will historicize the shifting relations between our three key terms by exploring their role in ancient rhetoric, Victorian aesthetic theory, Russian formalism, the New Criticism, and deconstruction, among other literary-critical schools. Special attention will be paid to the notion of metaphor as it operates across genres and disciplines. While our focus will be on modern European and American literary theory, students will come away with interpretive tools beneficial to the study of literature of any period or genre.
Also Offered As: ENGL 7052
1 Course Unit

COML 6910 Transatlantic Black Feminisms in Francophone Literatures
This course explores the evolution of representations of the Black femme body in French and francophone imaginaries, tracing a chronological arc that begins with early colonial imagery and ends with the rise of a 2018 movement spearheaded by a collective of Black comediennes, denouncing exclusionary practices in the French entertainment industry. We will first focus on the male gaze — European, Caribbean and African — and the way it constructed the Black femme body, to better understand how Black female authors undermine, resist, parody, or continue to bear the weight of these early images when they take control of their own representation. While our primary readings will be authored by French-writing women, including Mayotte Capecia (Martinique), Marie Vieux-Chauvet (Haiti), Maryse Condé (Guadeloupe), Mariama Bâ (Senegal) and Marie Ndiaye (France), our theoretical foundation will include anglophone thinkers, such as bell hooks, Audre Lorde, Saidiya Hartman, and others. Readings and discussions will be in English.
Also Offered As: AFRC 6910, FREN 6910, GSWS 6910
1 Course Unit

COML 6942 Impossible Innocence: the Films of Luis Buñuel
This seminar provides an overview and introduction to the cinema of Luis Buñuel with a particular focus on the Spanish filmmaker's engagement with Surrealism. Drawing on the expertise of Professors Ignacio Javier López and Michael Solomon, each seminar session will unfold in two parts: first, Solomon will offer a general introductory lecture and discussion covering various aspects of Buñuel's filmography including technical and formal analyses that touch on cinematic form, montage, and adaptation, and a contextualization of Buñuel's cinema within the Spanish, Mexican, Latin American, and European (inter) national cinemas and cinematic movements; second, López will offer a close examination of individual films focusing on Buñuel's longstanding ties with (the ideas of) Surrealism from the movement's initial moment of scandal and provocation — understood by its participants as a new philosophy, a new way of seeing in an endless process of discovery — to a second moment in which Surrealism admits its failure to enact its revolutionary goals. Films covered in the seminar include Buñuel's Un Chien Andalou (1929), L'Age d'or (1930), Menjant garotes, Las Hurdes/Terre sans pain (1933/36), Los Olvidados (1950), Susana (1951), Ensayo de un crimen (1955), Death in the Garden (1956), Nazarin (1959), Viridiana (1961), The Exterminating Angel (1962), Belle de jour (1967), Tristana (1970), and Obscure Object of Desire (1977). Students will start working early on a final project (seminar paper), reworking the draft several times during the semester.
Fall or Spring
Also Offered As: CIMS 6942, SPAN 6942
1 Course Unit

COML 6960 Postcolonial Theory Francophone
Topics vary. For current course description, please see French Department's webpage: https://www.sas.upenn.edu/french/p
Fall or Spring
Also Offered As: FREN 6960
1 Course Unit

COML 7080 Cultural and Literary Theory of Africa and the African Diaspora
This course introduces students to the theoretical strategies underlying the construction of coherent communities and systems of representation and how those strategies influence the uses of expressive culture over time. Topics vary. See the Africana Studies Department's website at https://africana Studies.sas.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: AFRC 7080, ENGL 7080
1 Course Unit

COML 7210 Medieval Poetics: Europe and India
This is a comparative course on medieval stylistic practices, formal innovations, and especially theories of form. Our common ground will be the theories that were generated in learned and pedagogical traditions of medieval literary cultures of Europe and pre-modern India (with their roots in ancient thought about poetic form). See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Also Offered As: CLST 7701, ENGL 7215
1 Course Unit
COML 7211 Modern Chinese Poetry in a Global Context
The tumultuous political and economic history of modern China has been mirrored in and shaped by equally fundamental revolutions in language and poetic expression. In this course, we will take Chinese poetry as a crucible in which we can observe the interacting forces of literary history and social change. From diplomats who saw poetry as a medium for cultural translation between China and the world, to revolutionaries who enlisted poetry in the project of social transformation, we will examine the lives and works of some of China’s most prominent poets and ask, what can we learn about modern China from reading their poetry? In asking this question, we will also reckon with the strengths and limitations of using poetry as an historical source. In addition to poems, the course will include fiction, essays, photographs, and films by both Chinese and non-Chinese artists that place our poets in a broader context. We will pay close attention to how these poets represent China’s place in the world, as well as the role of language in social change. Topics of discussion include: national identity, revolution, translation, gender, the body, ethnicity, and technology. Familiarity with Chinese or related cultural context is beneficial, but not required. This course introduces students to Chinese poetry in English translation. Students will leave the course with an in-depth understanding of the main figures, themes, and techniques of Chinese poetry, and will be introduced to some of the major developments in the history of China. Through a focus on primary texts, students will develop the vocabulary and analytical skills to appreciate and analyze poetry in translation and will gain confidence as writers thinking about literary texts.
Not Offered Every Year
Also Offered As: EALC 7211
Mutually Exclusive: EALC 3211
1 Course Unit

COML 7255 Literary Criticism and Theory in Japanese Literature
While the focus of this seminar will shift from year to year, the aim is to enable students to gain 1) a basic understanding of various theoretical approaches to literature, 2) familiarity with the histories and conventions of criticism, literary and otherwise, in Japan; 3) a few theoretical tools to think in complex ways about some of the most interesting and controversial issues of today, such as nationalism, imperialism, colonialism, postmodernism, and feminism, with particular focus on Japan’s position in the world. The course is primarily intended for graduate students but is also open to advanced undergraduates with permission of the instructor. The course is taught in English, and all of the readings will be available in English translation. An optional discussion section may be arranged for those students who are able and willing to read and discuss materials in Japanese.
Not Offered Every Year
Also Offered As: EALC 7255
1 Course Unit

COML 7600 Realisms Seminar--19th Century to Contemporary
An advanced graduate seminar focused on Realism and spanning several centuries. This two-part course will consider the literary history of realism and will take on some fundamental epistemological questions entailed by the novel’s attempts to represent the real. We will read major theories of realism alongside canonical and marginal realist fiction. Emily Steinlight will address the variously formal, aesthetic, political, and epistemological status of realism in nineteenth-century novels and in theories old and new; some discussion will focus on the concept of totality and on the uneven histories and revitalized uses of realism across contexts. Heather Love will address the relation between classical realism, hyperrealism, and modernist/avant-garde departures in the 20th and 21st centuries, with special attention paid to the role of observation and description in literature and the social sciences. The range of readings may include novels by Honoré de Balzac, George Eliot, Leo Tolstoy, George Gissing, Mariano Azuela, Virginia Woolf, Patricia Highsmith, Nicholson Baker, Georges Perec, Karl Ove Knausgaard, and Rachel Cusk, as well as critical and theoretical work by Viktor Schklovsky, Georg Lukács, Ian Watt, Roland Barthes, Catherine Gallagher, Fredric Jameson, Elaine Freedgood, Anna Kornbluh, Colleen Lye, the Warwick Research Collective, and others.
Also Offered As: ENGL 7600
1 Course Unit

COML 7670 Modernism
An interdisciplinary and international examination of modernism, usually treating European as well as British and American modernists.
Not Offered Every Year
Also Offered As: ENGL 7730
1 Course Unit

COML 7707 The Iliad and its Receptions
We will read selections from the Greek poem together, alongside some modern scholarship on it. We will also read Plato’s Ion and the Battle of the Mice and Frogs, as evidence for Homer’s ancient philosophical, rhetorical and poetic receptions. We will discuss the history of the poem’s translation into English, focusing on earlier translations (Chapman, Hobbes, Pope) and discussing the instructor’s goals and challenges in producing a new re-translation. We will also talk about two recent novelizations of the poem, Pat Barker’s Silence of the Girls and Madeline Miller’s Song of Achilles. The course is primarily intended for graduate students in Classical Studies and Ancient History, but it is also open to students in other programs, including those whose Greek might be less advanced. Prerequisite: Students should have a working knowledge of Greek.
Not Offered Every Year
Also Offered As: GREK 7707
1 Course Unit
COML 7708 Black Classicisms
This course will explore heterogeneous responses to ancient Greek and Roman Classicism in the literature, art, and political thought of Africa and the Black Diaspora, ranging from the late eighteenth century to the present day and encompassing Africa, the Caribbean, and North America. We will analyze how African and black diasporic writers, artists, and thinkers have engaged with and re-imagined Greco-Roman Classicism, both to expose and critique discourses of racism, imperialism, and colonialism, and as a source of radical self-expression. Throughout, we will consider the reciprocal dynamic by which dialogues with ancient Greek and Roman classics contribute to the polyphony of black texts and these same texts write back to and signify on the Greek and Roman Classics, diversifying the horizon of expectation for their future interpretation. Writers and artists whose work we will examine include Romare Bearden; Dionne Brand; Gwendolyn Brooks; Aimé Césaire; Austin Clarke; Anna Julia Cooper; Rita Dove; W.E.B. Du Bois; Ralph Ellison; Athol Fugard, John Kani, and Winston Ntshona; C.L.R. James; June Jordan; Toni Morrison; Harriette Mullen; Marlene Nourbese Philip; Ola Rotimi; William Sanders Scarborough; Wole Soyinka; Mary Church Terrell; Derek Walcott; Booker T. Washington; Phelps Wheatley; and Richard Wright. We will study these writers in the context of national and transnational histories and networks and in dialogue with relevant theoretical debates. Work for assessment will include a 15-page research paper and the preparation of a teaching syllabus for a course on an aspect of Black Classical Receptions.
Not Offered Every Year
Also Offered As: AFRC 7708, CLST 7708
1 Course Unit

COML 7901 Recent Issues in Critical Theory Related to Gender & Sexuality
This course will provide an overview of critical theory related to the study of gender and/or sexuality. Different instructors will emphasize different topics within these fields. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 7901, GSWS 7901
1 Course Unit

COML 7920 Study of a Genre: The Manifesto
If ubiquity confers significance, the manifesto is a major literary form, and yet it has been relatively marginalized in genre studies, where attention to the manifesto has been largely devoted to anthologies. In this seminar we will focus on the manifesto as a genre by exploring its histories, rhetorics, definitions and reception from a Black Studies framework. Associated with politics, art, literature, pedagogy, film, and new technologies, the manifesto involves the taking of an engaged position that is tied to the moment of its enunciation. The manifestos individual or collective authors seek to provoke radical change through critique and the modeling of new ways of being through language and images. Included on the syllabus will be anticolonial, anti-racist, feminist, LGBTQ manifestos of the 18th through 21st centuries from throughout the Black world. In addition to leading class discussion, students will be responsible for a seminar paper or a final project to be developed in consultation with the instructor.
Also Offered As: AFRC 7920, ENGL 7920
1 Course Unit

COML 9810 M.A. Exam Prep
Course open to first-year Comparative Literature graduate students in preparation for required M.A. exam taken in spring of first year.
Not Offered Every Year
1 Course Unit

COML 9990 Independent Reading and Research
May be taken for multiple course credit to a maximum of two for the M.A. and four for the Ph.D. Designed to allow students to broaden and deepen their knowledge of literary theory, a national literature, and/or an area of special interest.
Fall or Spring
1-3 Course Units

COML 9999 Independent Study and Research
Designed to allow students to pursue a particular research topic under the close supervision of an instructor.
Fall or Spring
1 Course Unit

Computer and Information Science (CIS)

CIS 0099 Undergraduate Research/Independent Study
An opportunity for the student to become closely associated with a professor (1) in a research effort to develop research skills and techniques and/or (2) to develop a program of independent in-depth study in a subject area in which the professor and student have a common interest. The challenge of the task undertaken must be consistent with the student’s academic level. To register for this course, the student must submit a detailed proposal, signed by the independent study supervisor, to the SEAS Office of Academic Programs (111 Towne) no later than the end of the “add” period. Prerequisite: A maximum of 2 c.u. of CIS 0099 may be applied toward the B.A.S. or B.S.E. degree requirements.
Fall or Spring
1 Course Unit

CIS 1050 Computational Data Exploration
The primary goal of this course is to introduce computational methods of interacting with data. In this course, students will be introduced to the IPython programming environment. They will learn how to gather data, store it in appropriate data structures and then either write their own functions or use libraries to analyze and then display the salient information in that data. Data will be drawn from a variety of domains, including but not limited to travel, entertainment, politics, economics, biology etc.
Fall or Spring
Mutually Exclusive: PHYS 1100
1 Course Unit
CIS 1070 Visual Culture through the Computer’s Eye
Visual studies and the humanities more generally have thought about and modeled seeing of artworks for many centuries. What useful tools can machine learning develop from databases of art historical images or other datasets of visual culture? Can tools from machine learning help visual studies ask new questions? When put together, what can these fields teach us about visual learning, its pathways, its underlying assumptions, and the effects of its archives/datasets? Class project teams will ideally be composed of both humanities majors and engineering majors who will develop datasets and/or ask important questions of datasets, in addition to thinking and writing more generally about how computer vision could help in teaching and analyzing visual art. We are looking for a variety of students from different majors and schools to bring their diverse skill sets to the course. No programming knowledge is required. The course offers an example-based introduction to machine learning, so no prior knowledge of machine learning is required.
Fall or Spring
Also Offered As: VLST 2090
1 Course Unit

CIS 1100 Introduction to Computer Programming
Introduction to Computer Programming is the first course in our series introducing students to computer science. In this class you will learn the fundamentals of computer programming in Java, with emphasis on applications in science and engineering. You will also learn about the broader field of computer science and algorithmic thinking, the fundamental approach that computer scientists take to solving problems.
Fall or Spring
1 Course Unit

CIS 1200 Programming Languages and Techniques I
A fast-paced introduction to the fundamental concepts of programming and software design. This course assumes some previous programming experience, at the level of a high school computer science class or CIS 1100. (If you got at least 4 in the AP Computer Science A or AB exam, you will do great.) No specific programming language background is assumed: basic experience with any language (for instance Java, C, C++, VB, Python, Perl, or Scheme) is fine. If you have never programmed before, you should take CIS 1100 first.
Fall or Spring
1 Course Unit

CIS 1210 Programming Languages and Techniques II
This is a course about Algorithms and Data Structures using the JAVA programming language. We introduce the basic concepts about complexity of an algorithm and methods on how to compute the running time of algorithms. Then, we describe data structures like stacks, queues, maps, trees, and graphs, and we construct efficient algorithms based on these representations. The course builds upon existing implementations of basic data structures in JAVA and extends them for the structures like trees, studying the performance of operations on such structures, and the efficiency when used in real-world applications. A large project introducing students to the challenges of software engineering concludes the course.
Spring
Prerequisite: CIS 1200 AND CIS 1600
1 Course Unit

CIS 1250 Technology and Policy
Have you ever wondered why sharing music and video generates such political and legal controversies? Is information on your PC safe and should law enforcement be able to access information you enter on the Web? Will new devices allow tracking of your every move and every purchase? CIS 1250 is focused on developing an understanding of existing and emerging technologies, along with the political, societal and economic impacts of those technologies. The technologies are spread across a number of engineering areas and each of them raise issues that are of current concern or are likely to be a future issue.
1 Course Unit

CIS 1400 Introduction to Cognitive Science
How do minds work? This course surveys a wide range of answers to this question from disciplines ranging from philosophy to neuroscience. The course devotes special attention to the use of simple computational and mathematical models. Topics include perception, learning, memory, decision making, emotion and consciousness. The course shows how the different views from the parent disciplines interact and identifies some common themes among the theories that have been proposed. The course pays particular attention to the distinctive role of computation in such theories and provides an introduction to some of the main directions of current research in the field. It is a requirement for the BA in Cognitive Science, the BAS in Computer and Cognitive Science, and the minor in Cognitive Science, and it is recommended for students taking the dual degree in Computer and Cognitive Science.
Fall
Also Offered As: COGS 1001, LING 1005, PHIL 1840, PSYC 1333
1 Course Unit

CIS 1600 Mathematical Foundations of Computer Science
What are the basic mathematical concepts and techniques needed in computer science? This course provides an introduction to proof principles and logics, functions and relations, induction principles, combinatorics and graph theory, as well as a rigorous grounding in writing and reading mathematical proofs.
Spring
1 Course Unit

CIS 1810 The Quantum and the Computer
This Freshman Seminar is designed to be a very introductory exposition about Quantum Computation and Quantum Information Science. There are no formal physics, mathematics, or computer science prerequisites. It is meant primarily for freshmen in SAS and Wharton, who have an itch to learn about a beautiful subject that intrinsically unites quantum physics, computation, and information science. The structure of the course will be lecture-based using small-team based exercises for evaluation. The enrollment will be limited to 20 students. Freshmen standing.
Fall or Spring
1 Course Unit

CIS 1901 C++ Programming
This course will provide an introduction to programming in C++ and is intended for students who are already experienced with programming in C and in object-oriented languages such as Java. C++ provides programmers with a greater level of control over machine resources and is commonly used in situations where low level access or performance are important. This course will cover the features and abstractions that C++ provides to write code that is both safe and performant. This course recommends students to have completed CIS 1200 and CIS 2400.
Not Offered Every Year
0-0.5 Course Units
CIS 1902 Python Programming
Python is an elegant, concise, and powerful language that is useful for tasks large and small. Python has quickly become a popular language for getting things done efficiently in many in all domains: scripting, systems programming, research tools, and web development. This course will provide an introduction to this modern high-level language using hands-on experience through programming assignments and a collaborative final application development project.
Not Offered Every Year
Prerequisite: CIS 1200
0-0.5 Course Units

CIS 1903 Go Programming
Go is an open source programming language created by Google designed for speed, efficiency and infrastructure. While Go is particularly proficient at concurrent systems programming, it has a variety of uses and has been gaining popularity in a variety of fields, including graphics, mobile applications and machine learning. Go is simple, fast and is continuing to rapidly grow in industry. In this course, we will cover what makes Go so unique and apply it to practical, real world situations. Topics covered will include concurrency and parallelism, goroutines and channels, web scraping, and other popular industry Go applications.
Not Offered Every Year
Prerequisite: CIS 1100
0-0.5 Course Units

CIS 1904 Introduction to Haskell Programming
Haskell is a high-level, purely functional programming language with a strong static type system and elegant mathematical underpinnings. It is being increasingly used in industry by organizations such as Facebook, AT&T, and NASA, along with several financial firms. We will explore the joys of functional programming, using Haskell as a vehicle. The aim of the course will be to allow you to use Haskell to easily and conveniently write practical programs. Evaluation will be based on regular homework assignments and class participation.
Not Offered Every Year
Prerequisite: CIS 1200
0-0.5 Course Units

CIS 1905 Rust Programming
Rust is a new, practical, community-developed systems programming language that "runs blazingly fast, prevents almost all crashes, and eliminates data ra (rust-lang.org). Rust derives from a rich history of languages to create a multi-paradigm (imperative/functional), low-level language that focuses on high-performance, zero-cost safety guarantee in concurrent programs. It has begun to gain traction in industry, showing a recognized need for a new low-level systems language. In this course, we will cover what makes Rust so unique and apply it to practical systems programming problems. Topics covered will include traits and generics, memory safety (move semantics, borrowing, and lifetimes); Rust's rich macro system; closures; and concurrency. Evaluation is based on regular homework assignments as well as a final project and class participation. Prerequisite: CIS 1200 Recommended additional prerequisite: CIS 2400 or exposure to C or C++
Not Offered Every Year
Prerequisite: CIS 1200
0-0.5 Course Units

CIS 1911 Using and Understanding Unix and Linux
Unix, in its many forms, runs much of the world's computer infrastructure, from cable modems and cell phones to the giant clusters that power Google and Amazon. This half-credit course provides a thorough introduction to Unix and Linux. Topics will range from critical basic skills such as examining and editing files, compiling programs and writing shell scripts, to higher level topics such as the architecture of Unix and its programming model. The material learned is applicable to many classes, including CIS 2400, CIS 3310, CIS 3410, CIS 3710, and CIS 3800. Not Offered Every Year
Prerequisite: CIS 1100
0-0.5 Course Units

CIS 1912 DevOps
DevOps is the breaking down of the wall between Developers and Operations to allow more frequent and reliable feature deployments. Through a variety of automation-focused techniques, DevOps has the power to radically improve and streamline processes that in the past were manual and susceptible to human error. In this course we will take a practical, hands-on look at DevOps and dive into some of the main tools of DevOps: automated testing, containerization, reproducibility, continuous integration, and continuous deployment. Throughout the semester we build toward an end-to-end pipeline that takes a webserver, packages it, and then deploys it to the cloud in a reliable and quickly-reproducible manner utilizing industry-leading technologies like Kubernetes and Docker. Evaluation is based on homework assignments and a final group project.
Not Offered Every Year
0-0.5 Course Units

CIS 1921 Solving Hard Problems in Practice
What does Sudoku have in common with debugging, scheduling exams, and routing shipments? All of these problems are provably hard – no one has a fast algorithm to solve them. But in reality, people are quickly solving these problems on a huge scale with clever systems and heuristics! In this course, we'll explore how researchers and organizations like Microsoft, Google, and NASA are solving these hard problems, and we'll get to use some of the tools they've built!
Not Offered Every Year
Prerequisite: CIS 1210
0-0.5 Course Units

CIS 1951 iOS Programming
This project-oriented course is centered around application development on current iOS mobile platforms. The first half of the course will involve fundamentals of mobile app development, where students learn about mobile app lifecycles, event-based programming, efficient resource management, and how to interact with the range of sensors available on modern mobile devices. In the second half of the course, students work in teams to conceptualize and develop a significant mobile application. Creativity and originality are highly encouraged! Prerequisite: CIS 1200 or previous programming experience.
Not Offered Every Year
Prerequisite: CIS 1200
0-0.5 Course Units
CIS 1990 Special Topics
This course will be used for 'pilot versions' of new CIS courses of this type that the department is planning to offer. A given course will be offered as CIS 1990 at most twice; after this, it will be assigned a permanent course number.
0-0.5 Course Units

CIS 2330 Introduction to Blockchain
Blockchain or Distributed Ledger Technology (DLT) provides a decentralized method of information sharing between parties that do not trust each other. Instead the trust is in the underlying cryptographic algorithms. This practical introductory course provides experience with the fundamentals of cryptography (codes and ciphers, symmetric and asymmetric encryption, public and private keys, hashes, and zero knowledge proofs) - as it is applied to implementing a blockchain solution. This course covers the basics of a distributed ledger, how it is built, used, and secured. Methods of ensuring consensus - from proof-of-work to proof-of-stake will be explored and analyzed. Students will have both written and practical assignments to build and deploy components of a blockchain solution.
Spring
Prerequisite: CIS 1200
1 Course Unit

CIS 2400 Introduction to Computer Systems
You know how to program, but do you know how computers really work? How do millions of transistors come together to form a complete computing system? This bottom-up course begins with transistors and simple computer hardware structures, continues with low-level programming using primitive machine instructions, and finishes with an introduction to the C programming language. This course is a broad introduction to all aspects of computer systems architecture and serves as the foundation for subsequent computer systems courses, such as Computer Organization and Design (CIS 4710), Computer Operating Systems (CIS 3800), and Compilers and Interpreters (CIS 3410).
Fall or Spring
Prerequisite: CIS 1200
1 Course Unit

CIS 2610 Discrete Probability, Stochastic Processes, and Statistical Inference
The purpose of this course is to provide a 1 CU educational experience which tightly integrates the theory and applications of discrete probability, discrete stochastic processes, and discrete statistical inference in the study of computer science. The intended audience for this class is both those students who are CS majors as well as those intending to be CS majors. Specifically, it will be assumed that the students will know: Set Theory, Mathematical Induction, Number Theory, Functions, Equivalence Relations, Partial-Order Relations, Combinatorics, and Graph Theory at the level currently covered in CIS 1600. This course could be taken immediately following CIS 1600. Computation and Programming will play an essential role in this course. The students will be expected to use the Maple programming environment in homework exercises which will include: numerical and symbolic computations, simulations, and graphical displays.
Fall
Prerequisite: CIS 1600
1 Course Unit
CIS 2620 Automata, Computability, and Complexity
This course explores questions fundamental to computer science such as which problems cannot be solved by computers, can we formalize computing as a mathematical concept without relying upon the specifics of programming languages and computing platforms, and which problems can be solved efficiently. The topics include finite automata and regular languages, context-free grammars and pushdown automata, Turing machines and undecidability, tractability and NP-completeness. The course emphasizes rigorous mathematical reasoning as well as connections to practical computing problems such as test processing, parsing, XML query languages, and program verification.
Fall
Prerequisite: CIS 1600
1 Course Unit

CIS 3200 Introduction to Algorithms
How do you optimally encode a text file? How do you find shortest paths in a map? How do you design a communication network? How do you route data in a network? What are the limits of efficient computation? This course gives a comprehensive introduction to design and analysis of algorithms, and answers along the way to these and many other interesting computational questions. You will learn about problem-solving; advanced data structures such as universal hashing and red-black trees; advanced design and analysis techniques such as dynamic programming and amortized analysis; graph algorithms such as minimum spanning trees and network flows; NP-completeness theory; and approximation algorithms.
Spring
Prerequisite: CIS 1200 AND CIS 1210 AND CIS 1600 AND CIS 2620
1 Course Unit

CIS 3310 Introduction to Networks and Security
This course introduces principles and practices of computer and network security. We will cover basic concepts, threat models, and the security mindset; an introduction to cryptography and cryptographic protocols including encryption, authentication, message authentication codes, hash functions, public-key cryptography, and secure channels; an introduction to networks and network security including IP; TCP; routing, network protocols, web architecture, attacks, firewalls, and intrusion detection systems; an introduction to software security including defensive programming, memory protection, buffer overflows, and malware; and discuss broader issues and case studies such as privacy, security and the law, digital rights management, denial of service, and ethics.
Fall
Prerequisite: CIS 1600 AND CIS 2400
1 Course Unit

CIS 3340 Advanced Topics in Algorithms
Can you check if two large documents are identical by examining a small number of bits? Can you verify that a program has correctly computed a function without ever computing the function? Can students compute the average score on an exam without ever revealing their scores to each other? Can you be convinced of the correctness of an assertion without ever seeing the proof? The answer to all these questions is in the affirmative provided we allow the use of randomization. Over the past few decades, randomization has emerged as a powerful resource in algorithm design. This course would focus on powerful general techniques for designing randomized algorithms as well as specific representative applications in various domains, including approximation algorithms, cryptography and number theory, data structure design, online algorithms, and parallel and distributed computation.
Not Offered Every Year
Prerequisite: CIS 3200
1 Course Unit

CIS 3410 Compilers and Interpreters
You know how to program, but do you know how to implement a programming language? In CIS 3410 you'll learn how to build a compiler. Topics covered include: lexical analysis, grammars and parsing, intermediate representations, syntax-directed translation, code generation, type checking, simple dataflow and control-flow analyses, and optimizations. Along the way, we study objects and inheritance, first-class functions (closures), data representation and runtime-support issues such as garbage collection. This is a challenging, implementation-oriented course in which students build a full compiler from a simple, typed object-oriented language to fully operational x86 assembly. The course projects are implemented using OCaml, but no knowledge of OCaml is assumed. Prerequisite: Two semesters of programming courses, e.g., CIS 1200, CIS 1210, CIS 2400.
Not Offered Every Year
1 Course Unit

CIS 3500 Software Design/Engineering
You know how to write a "program". But how do you create a software "product" as part of a team, with customers that have expectations of functionality and quality? This course introduces students to various tools (source control, automated build systems, programming environments, test automation, etc.) and processes (design, implementation, testing, and maintenance) that are used by professionals in the field of software engineering. Topics will include: software development lifecycle; agile and test-driven development; source control and continuous integration; requirements analysis; object-oriented design and testability; mobile and/or web application development; software testing; refactoring; and software quality metrics.
Not Offered Every Year
Prerequisite: CIS 1210
1 Course Unit

CIS 3800 Computer Operating Systems
This course surveys methods and algorithms used in modern operating systems. Concurrent distributed operation is emphasized. The main topics covered are as follows: process synchronization; interprocess communication; concurrent/distributed programming languages; resource allocation and deadlock; virtual memory; protection and security; distributed operation; distributed data; performance evaluation.
Fall
Prerequisite: CIS 2400
1 Course Unit
CIS 3900 Robotics: Planning Perception
This introductory course will present basic principles of robotics with an emphasis to computer science aspects. Algorithms for planning and perception will be studied and implemented on actual robots. While planning is a fundamental problem in artificial intelligence and decision making, robot planning refers to finding a path from A to B in the presence of obstacles and by complying with the kinematic constraints of the robot. Perception involves the estimation of the robots motion and path as well as the shape of the environment from sensors. In this course, algorithms will be implemented in Python on mobile platforms on ground and in the air. No prior experience with Python is needed but we require knowledge of data structures, linear algebra, and basic probability.
Not Offered Every Year
Prerequisite: CIS 1210 AND MATH 2400
1 Course Unit

CIS 3980 Quantum Computer and Information Science
The purpose of this course is to introduce undergraduate students in computer computer science and engineering to quantum computers (QC) and quantum information science (QIS). This course is meant primarily for juniors and seniors in Computer Science. No prior knowledge of quantum mechanics (QM) is assumed. Enrollment is by permission of the instructor.
Fall or Spring
Prerequisite: (PHYS 0151 OR PHYS 0171) AND MATH 2400 AND MATH 3120 AND MATH 3140 AND CIS 1600 AND CIS 2620
1 Course Unit

CIS 3990 Special Topics
Visit the CIS department website for descriptions of available Special Topics classes.
Not Offered Every Year
0.5-1 Course Unit

CIS 4000 Senior Project
Design and implementation of a significant piece of work: software, hardware or theory. In addition, emphasis on technical writing and oral communication skills. Students must have an abstract of their Senior Project, which is approved and signed by a Project Adviser, at the end of the second week of Fall classes. The project continues during two semesters; students must enroll in CIS 401 during the second semester. At the end of the first semester, students are required to submit an intermediate report and give a class presentation describing their project and progress. Grades are based on technical writing skills (as per submitted report), oral presentation skills (as per class presentation) and progress on the project. These are evaluated by the Project Adviser and the Course Instructor. Senior standing or permission of instructor.
Fall
1 Course Unit

CIS 4100 CIS Senior Thesis
The goal of a Senior Thesis project is to complete a major research project under the supervision of a faculty member. The duration of the project is two semesters. To enroll in CIS 4100, students must develop an abstract of the proposed work, and a member of the CIS graduate group must certify that the work is suitable and agree to supervise the project; a second member must agree to serve as a reader. At the end of the first semester, students must submit an intermediate report; if the supervisor and reader accept it, they can enroll in CIS 4110. At the end of the second semester, students must describe their results in a written thesis and must present them publicly, either in a talk at Penn or in a presentation at a conference or workshop. Grades are based on the quality of the research itself (which should ideally be published or at least of publishable quality), as well as on the quality of the thesis and the oral presentation. The latter are evaluated jointly by the supervisor and the reader. The Senior Thesis program is selective, and students are generally expected to have a GPA is in the top 10-20% to qualify. Senior Theses are expected to integrate the knowledge and skills from earlier coursework; because of this, students are not allowed to enroll in CIS 4100 before their sixth semester.
1 Course Unit

CIS 4110 CIS Senior Thesis
The goal of a Senior Thesis project is to complete a major research project under the supervision of a faculty member. The duration of the project is two semesters. To enroll in CIS 4100, students must develop an abstract of the proposed work, and a member of the CIS graduate group must certify that the work is suitable and agree to supervise the project; a second member must agree to serve as a reader. At the end of the first semester, students must submit an intermediate report; if the supervisor and reader accept it, they can enroll in CIS 4110. At the end of the second semester, students must describe their results in a written thesis and must present them publicly, either in a talk at Penn or in a presentation at a conference or workshop. Grades are based on the quality of the research itself (which should ideally be published or at least of publishable quality), as well as on the quality of the thesis and the oral presentation. The latter are evaluated jointly by the supervisor and the reader. The Senior Thesis program is selective, and students are generally expected to have a GPA is in the top 10-20% to qualify.
1 Course Unit

CIS 4120 Introduction to Human Computer Interaction
In this course, you will learn the essentials of human-computer interaction (HCI). Over the course of a semester, you will learn how to design interactive systems that satisfy and delight users by undertaking the human-centered design process, from ideation to prototyping, implementation, and assessment with human users. You will learn key tools in the HCI toolkit, including need-finding, user studies, visual design, cognitive models, demo’ing, ethical considerations, and writing about your designs. This course also provides a primer on several areas of emerging technology in HCI, such as human-AI interaction and education technology. We will also cover ethics in HCI, including topics like inclusive design and dark patterns. To hone your craft as an HCI practitioner, during this course you will undertake a group project to design an innovative user interface. The final submission will include a working interactive prototype, demonstrations of the interface at a public departmental design showcase, and a written reflection on your design findings. Prerequisite: prior programming experience.
Fall
Prerequisite: Prior programming experience
1 Course Unit
**CIS 4190 Applied Machine Learning**

Machine learning has been essential to the success of many recent technologies, including autonomous vehicles, search engines, genomics, automated medical diagnosis, image recognition, and social network analysis, among many others. This course will introduce the fundamental concepts and algorithms that enable computers to learn from experience, with an emphasis on their practical application to real problems. This course will introduce supervised learning (decision trees, logistic regression, support vector machines, Bayesian methods, neural networks and deep learning), unsupervised learning (clustering, dimensionality reduction), and reinforcement learning. Additionally, the course will discuss evaluation methodology and recent applications of machine learning, including large scale learning for big data and network analysis.

Fall or Spring
Mutually Exclusive: CIS 5190
Prerequisite: CIS 1210
1 Course Unit

**CIS 4210 Artificial Intelligence**

This course investigates algorithms to implement resource-limited knowledge-based agents which sense and act in the world. Topics include, search, machine learning, probabilistic reasoning, natural language processing, knowledge representation and logic. After a brief introduction to the language, programming assignments will be in Python.

Fall
Mutually Exclusive: CIS 5210
Prerequisite: CIS 1210 AND (ESE 3010 OR STAT 4300)
1 Course Unit

**CIS 4230 Ethical Algorithm Design**

This class introduces aspiring data science technologists to the spectrum of ethical concerns, focusing on social norms like fairness, transparency and privacy. It introduces technical approaches to a number of these problems, including by hands-on examination of the tradeoffs in fairness and accuracy in predictive technology, introduction to differential privacy, and overview of evaluation conventions for predictive technology. It also provides guidelines for examining system training data for bias, representation (of race, gender and other characteristics) and ecological validity. Equipped with this knowledge, students will learn how to conduct informed analysis of the usefulness of predictive systems; they will audit for ethical concerns papers from the contemporary top artificial intelligence venues and the ongoing senior design projects.

Fall or Spring
Mutually Exclusive: CIS 5230
Prerequisite: CIS 1210
1 Course Unit

**CIS 4360 Introduction to Computational Biology & Biological Modeling**

The goal of this course is to develop a deeper understanding of techniques and concepts used in Computational Biology. The course will strive to focus on a small set of approaches to gain both theoretical and practical understanding of the methods. We will aim to cover practical issues such as programming and the use of programs, as well as theoretical issues such as algorithm design, statistical data analysis, theory of algorithms and statistics. This course WILL NOT provide a broad survey of the field nor teach specific tools but focus on a deep understanding of a small set of topics. We will discuss string algorithms, hidden markov models, dimension reduction, and machine learning (or phylogeny estimation) for biomedical problems.

Fall
Also Offered As: BIOL 4536
Mutually Exclusive: BIOL 5535
Prerequisite: MATH 1400 AND (BIOL 2510 OR BIOL 5510)
1 Course Unit

**CIS 4410 Embedded Software for Life-Critical Applications**

The goal of this course is to give students greater design and implementation experience in embedded software development and to teach them how to model, design, verify, and validate safety critical systems in a principled manner. Students will learn the principles, methods, and techniques for building life-critical embedded systems, ranging from requirements and models to design, analysis, optimization, implementation, and validation. Topics will include modeling and analysis methods and tools, real-time programming paradigms and languages, distributed real-time systems, global time, time-triggered communications, assurance case, software architecture, evidence-based certification, testing, verification, and validation. The course will include a series of projects that implements life-critical embedded systems (e.g., pacemaker, infusion pumps, closed-loop medical devices).

Fall or Spring
Prerequisite: CIS 2400
1 Course Unit

**CIS 4500 Database and Information Systems**

This course provides an introduction to the broad field of database and information systems, covering a variety of topics relating to structured data, ranging from data modeling to logical foundations and popular languages, to system implementations. We will study the theory of relational and XML data design; the basics of query languages; efficient storage of data, execution of queries and query optimization; transactions and updates; web-database development; and "big data" and NoSQL systems. The course assumes mathematical and programming experience equivalent to CIS 1600 and CIS 1210.

Fall
Mutually Exclusive: CIS 5500
Prerequisite: CIS 1210 AND CIS 1600
1 Course Unit
CIS 4550 Internet and Web Systems
This course focuses on the challenges encountered in building Internet and web systems: scalability, interoperability (of data and code), security and fault tolerance, consistency models, and location of resources, services, and data. We will examine how XML standards enable information exchange; how web services support cross-platform interoperability (and what their limitations are); how to build high-performance application servers; how "cloud computing" services work; how to perform Akamai-like content distribution; and how to provide transaction support in distributed environments. We will study techniques for locating machines, resources, and data (including directory systems, information retrieval indexing, ranking, and web search); and we will investigate how different architectures support scalability (and the issues they face). We will also examine ideas that have been proposed for tomorrow’s Web, and we will see some of the challenges, research directions, and potential pitfalls. An important goal of the course is not simply to discuss issues and solutions, but to provide hands-on experience with a substantial implementation project. This semester’s project will be a peer-to-peer implementation of a Googe-style search engine, including distributed, scalable crawling; indexing with ranking; and even PageRank. As a side-effect of the material of this course you will learn about some aspects of large-scale software development assimilating large APIs. Prerequisite: Familiarity with threads and concurrency, strong Java programming skills.
Fall or Spring
Mutually Exclusive: CIS 5550
1 Course Unit

CIS 4600 Interactive Computer Graphics
This course focuses on programming the essential mathematical and geometric concepts underlying modern computer graphics. Using 3D interactive implementations, it covers fundamental topics such as mesh data structures, transformation sequences, rendering algorithms, and curve interpolation for animation. Students are also introduced to two programming languages widely used in the computer graphics industry: C++ and GLSL. The curriculum is heavily project-based, and culminates in a group project focused on building an interactive first-person world exploration application using the various real-time interaction and rendering algorithms learned throughout the semester.
Fall
Prerequisite: CIS 1200 AND CIS 1210 AND CIS 2400
1 Course Unit

CIS 4610 Advanced Rendering
This course is designed to provide a comprehensive overview to computer graphics techniques in 3D modeling, image synthesis, and rendering. Topics cover: geometric transformations, geometric algorithms, software systems, 3D object models (surface, volume and implicit), visible surface algorithms, image synthesis, shading, mapping, ray tracing, radiosity, global illumination, sampling, anti-aliasing, Monte Carlo path tracing, and photon mapping. Prerequisite: A working knowledge of C++ programming is required (one year programming experience in general). Knowledge of vector geometry is useful.
Fall or Spring
Mutually Exclusive: CIS 5610
1 Course Unit

CIS 4620 Computer Animation
This course covers core subject matter common to the fields of robotics, character animation and embodied intelligent agents. The intent of the course is to provide the student with a solid technical foundation for developing, animating and controlling articulated systems used in interactive computer game virtual reality simulations and high-end animation applications. The course balances theory with practice by "looking under the hood" of current animation systems and authoring tools and examines the technologies and techniques used from both a computer science and engineering perspective. Topics covered include: geometric coordinate systems and transformations; quaternions; parametric curves and surfaces; forward and inverse kinematics; dynamic systems and control; computer simulation; keyframe, motion capture and procedural animation; behavior-based animation and control; facial animation; smart characters and intelligent agents. Prerequisite: Previous exposure to major concepts in linear algebra (i.e. vector matrix math), curves and surfaces, dynamical systems (e.g. 2nd order mass-spring-damper systems) and 3D computer graphics has also been assumed in the preparation of the course materials.
Fall or Spring
Mutually Exclusive: CIS 5620
1 Course Unit

CIS 4670 Scientific Computing
This course will focus on numerical algorithms and scientific computing techniques that are practical and efficient for a number of canonical science and engineering applications. Built on top of classical theories in multi-variable calculus and linear algebra (as a prerequisite), the lectures in this course will strongly focus on explaining numerical methods for applying these mathematical theories to practical engineering problems. Students will be expected to implement solutions and software tools using MATLAB/C++, practice state-of-the-art parallel computing paradigms, and learn scientific visualization techniques using modern software packages. Prerequisites: MATH 240; knowledge of C++, Python or MATLAB
Mutually Exclusive: CIS 5670
Prerequisite: MATH 2400
1 Course Unit

CIS 4710 Computer Organization and Design
This is the second computer organization course and focuses on computer hardware design. Topics covered are: (1) basic digital system design including finite state machines, (2) instruction set design and simple RISC assembly programming, (3) quantitative evaluation of computer performance, (4) circuits for integer and floating-point arithmetic, (5) datapath and control, (6) micro-programming, (7) pipelining, (8) storage hierarchy and virtual memory, (9) input/output, (10) different forms of parallelism including instruction level parallelism, data-level parallelism using both vectors and message-passing multi-processors, and thread-level parallelism using shared memory multiprocessors. Basic cache coherence and synchronization. Prerequisite: Knowledge of at least one programming language.
Spring
Mutually Exclusive: CIS 5710
Prerequisite: CIS 2400
1 Course Unit
CIS 4970 DMD Senior Project
The goal of this course is to provide an opportunity for seniors to define, design, and execute a project of your own choosing that demonstrates the technical skills and abilities that you have acquired during your 4 years as undergraduates. Evaluation is based on selecting an interesting topic, completing appropriate research on the state of the art in that area, communicating your objectives and writing and in presentations, accurately estimating what resources will be required to complete your chosen task, coding necessary functionality, and executing your plan. Senior Standing or Permission of the instructor.
Fall or Spring
1 Course Unit

CIS 4980 Senior Capstone Project
The Senior Capstone Project is required for all BAS degree students, in lieu of the senior design course. The Capstone Project provides an opportunity for the student to apply the theoretical ideas and tools learned from other courses. The project is usually applied, rather than theoretical, exercise, and should focus on a real-world problem related to the career goals of the student. The one-semester project may be completed in either the fall or spring term of the senior year, and must be done under the supervision of a sponsoring faculty member. To register for this course, the student must submit a detailed proposal, signed by the supervising professor and the student’s faculty advisor, two weeks prior to the start of the term.
Fall or Spring
1 Course Unit

CIS 5000 Software Foundations
This course introduces basic concepts and techniques in the foundational study of programming languages. The central theme is the view of programs and programming languages as mathematical objects for which precise claims may be made and proved. Particular topics include operational techniques for formal definition of language features, type systems and type safety properties, polymorphism, constructive logic, and the Coq proof assistant. This course is appropriate as an upper-level undergraduate CIS elective. Undergraduates who have satisfied the prerequisites are welcome to enroll. No permission from the instructor is needed. Prerequisite: In addition to course prerequisites, at least two additional undergraduate courses in math or theoretical CS.
Fall or Spring
Prerequisite: CIS 1210 AND CIS 1600 AND CIS 2620
1 Course Unit

CIS 5010 Computer Architecture
This course is an introductory graduate course on computer architecture with an emphasis on a quantitative approach to cost/performance design tradeoffs. The course covers the fundamentals of classical and modern uniprocessor design: performance and cost issues, instruction sets, pipelining, superscalar, out-of-order, and speculative execution mechanisms, caches, physical memory, virtual memory, and I/O. Other topics include: static scheduling, VLIW and EPIC, software speculation, long (SIMD) and short (multimedia) vector execution, multithreading, and an introduction to shared memory multiprocessors. Knowledge of computer organization and basic programming skills.
Fall or Spring
1 Course Unit

CIS 5020 Analysis of Algorithms
An investigation of paradigms for design and analysis of algorithms. The course will include dynamic programming, flows and combinatorial optimization algorithms, linear programming, randomization and a brief introduction to intractability and approximation algorithms. The course will include other advanced topics, time permitting. Prerequisite: Data Structures and Algorithms at the undergraduate level.
Fall or Spring
1 Course Unit

CIS 5050 Software Systems
This course provides an introduction to fundamental concepts of distributed systems, and the design principles for building large scale computational systems. Topics covered include communication, concurrency, programming paradigms, naming, managing shared state, caching, synchronization, reaching agreement, fault tolerance, security, middleware, and distributed applications. This course is appropriate as an upper-level undergraduate CIS elective. Prerequisite: Undergraduate-level knowledge of Operating Systems and Networking, programming experience. Prerequisite: Undergraduate-level knowledge of Operating Systems and Networking.
Fall or Spring
Prerequisite: CIT 5940
1 Course Unit

CIS 5110 Theory of Computation
Review of regular and context-free languages and machine models. Turing machines and RAM models, Decidability, Halting problem, Reductions, Recursively enumerable sets, Universal TMs, Church/Turing thesis. Time and space complexity, hierarchy theorems, the complexity classes P, NP, PSPACE, L, NL, and co-NL. Reductions revisited, Cook-Levin Theorem, completeness, NL = co-NL. Advanced topics as time permits: Circuit complexity and parallel computation, randomized complexity, approximability, interaction and cryptography. Discrete Mathematics, Automata theory or Algorithms at the undergraduate level.
Fall or Spring
1 Course Unit

CIS 5120 Introduction to Human Computer Interaction
In this course, you will learn the essentials of human-computer interaction (HCI). Over the course of a semester, you will learn how to design interactive systems that satisfy and delight users by undertaking the human-centered design process, from ideation to prototyping, implementation, and assessment with human users. You will learn key tools in the HCI toolkit, including need-finding, user studies, visual design, cognitive models, demo’ing, ethical considerations, and writing about your designs. This course also provides a primer on several areas of emerging technology in HCI, such as human-AI interaction and education technology. To hone your craft as an HCI practitioner, during this course you will undertake a group project to design an innovative user interface. The final submission will include a working interactive prototype, demonstrations of the interface at a public departmental design showcase, and a written reflection on your design findings. Prerequisite: prior programming experience
Fall
Mutually Exclusive: CIS 4120
Prerequisite: Prior programming experience
1 Course Unit
CIS 5150 Fundamentals of Linear Algebra and Optimization
This course provides firm foundations in linear algebra and basic optimization techniques. Emphasis is placed on teaching methods and tools that are widely used in various areas of computer science. Both theoretical and algorithmic aspects will be discussed.
Fall or Spring
1 Course Unit

CIS 5180 Topics in Logic: Finite Model Theory and Descriptive Complexity
This course will examine the expressive power of various logical languages over the class of finite structures. The course begins with an exposition of some of the fundamental theorems about the behavior of first-order logic in the context of finite structures, in particular, the Ehrenfeucht-Fraisse Theorem and the Trakhtenbrot Theorem. The first of these results is used to show limitations on the expressive power of first-order logic over finite structures while the second result demonstrates that the problem of reasoning about finite structures using first-order logic is surprisingly complex. The course then proceeds to consider various extensions of first-order logic including fixed-point operators, generalized quantifiers, infinitary languages, and higher-order languages. The expressive power of these extensions will be studied in detail and will be connected to various problems in the theory of computational complexity. This last motif, namely the relation between descriptive and computational complexity, will be one of the main themes of the course.
Fall or Spring
1 Course Unit

CIS 5190 Applied Machine Learning
Machine learning has been essential to the success of many recent technologies, including autonomous vehicles, search engines, genomics, automated medical diagnosis, image recognition, and social network analysis, among many others. This course will introduce the fundamental concepts and algorithms that enable computers to learn from experience, with an emphasis on their practical application to real problems. This course will introduce supervised learning (decision trees, logistic regression, support vector machines, Bayesian methods, neural networks and deep learning), unsupervised learning (clustering, dimensionality reduction), and reinforcement learning. Additionally, the course will discuss evaluation methodology and recent applications of machine learning, including large scale learning for big data and network analysis.
Fall or Spring
Mutually Exclusive: CIS 4190
Prerequisite: CIS 1210
1 Course Unit

CIS 5200 Machine Learning
This course covers the foundations of statistical machine learning. The focus is on probabilistic and statistical methods for prediction and clustering in high dimensions. Topics covered include linear and logistic regression, SVMs, PCA and dimensionality reduction, EM and HMMs, and deep learning. Elementary probability, calculus, and linear algebra. Basic programming experience.
Fall
1 Course Unit

CIS 5210 Artificial Intelligence
This course investigates algorithms to implement resource-limited knowledge-based agents which sense and act in the world. Topics include, search, machine learning, probabilistic reasoning, natural language processing, knowledge representation and logic. After a brief introduction to the language, programming assignments will be in Python.
Fall or Spring
Mutually Exclusive: CIS 4210
1 Course Unit

CIS 5220 Deep Learning for Data Science
Deep learning techniques now touch on data systems of all varieties. Sometimes, deep learning is a product; sometimes, deep learning optimizes a pipeline; sometimes, deep learning provides critical insights; sometimes, deep learning sheds light on neuroscience or vice versa. The purpose of this course is to deconstruct the hype by teaching deep learning theories, models, skills, and applications that are useful for applications.
Fall
1 Course Unit

CIS 5230 Ethical Algorithm Design
This class introduces aspiring data science technologists to the spectrum of ethical concerns, focusing on social norms like fairness, transparency and privacy. It introduces technical approaches to a number of these problems, including by hands-on examination of the tradeoffs in fairness and accuracy in predictive technology, introduction to differential privacy, and overview of evaluation conventions for predictive technology. It also provides guidelines for examining system training data for bias, representation (of race, gender and other characteristics) and ecological validity. Equipped with this knowledge, students will learn how to conduct informed analysis of the usefulness of predictive systems; they will audit for ethical concerns papers from the contemporary top artificial intelligence venues and the ongoing senior design projects.
Fall or Spring
Mutually Exclusive: CIS 4230
Prerequisite: CIS 1210
1 Course Unit

CIS 5260 Machine Translation
Google translate can instantly translate between any pair of over fifty human languages (for instance, from French to English). How does it do that? Why does it make the errors that it does? And how can you build something better? Modern translation systems like Google Translate and Bing Translator learn how to translate by reading millions of words of already translated text, and this course will show you how they work. The course covers a diverse set of fundamental building blocks from linguistics, machine learning, algorithms, data structures, and formal language theory, along with their application to a real and difficult problem in artificial intelligence.
Fall or Spring
1 Course Unit

CIS 5300 Natural Language Processing
This course provides an overview of the field of natural language processing. The goal of the field is to build technologies that will allow machines to understand human languages. Applications include machine translation, automatic summarization, question answering systems, and dialog systems. NLP is used in technologies like Amazon Alexa and Google Translate.
Fall
1 Course Unit
CIS 5350 Introduction to Bioinformatics
This course provides overview of bioinformatics and computational biology as applied to biomedical research. A primary objective of the course is to enable students to integrate modern bioinformatics tools into their research activities. Course material is aimed to address biological questions using computational approaches and the analysis of data. A basic primer in programming and operating in a UNIX environment will be presented, and students will also be introduced to Python R, and tools for reproducible research. This course emphasizes direct, hands-on experience with applications to current biological research problems. Areas include DNA sequence alignment, genetic variation and analysis, motif discovery, study design for high-throughput sequencing RNA, and gene expression, single gene and whole-genome analysis, machine learning, and topics in systems biology. The relevant principles underlying methods used for analysis in these areas will be introduced and discussed at a level appropriate for biologists without a background in computer science. The course is not intended for computer science students who want to learn about biologically motivated algorithmic problems; BIOL 4536/BIOI 5536 and BE 5370/CIS 5370/MPHY 6090 are more appropriate. Prerequisites: An advanced undergraduate course such as BIOL 4210 or a graduate course in biology such as BIOL 5210, BIOL 5240, or equivalent, is a prerequisite.
Fall
Also Offered As: GCB 5350, MTR 5350
Prerequisite: BIOL 4210 OR BIOL 5210 OR BIOL 5240
1 Course Unit

CIS 5360 Fundamentals of Computational Biology
Introductory computational biology course designed for both biology students and computer science students. The course will cover fundamentals of algorithms, statistics, and mathematics as applied to biological problems. In particular, emphasis will be given to biological problem modeling and understanding the algorithms and mathematical procedures at the "pencil and paper" level. That is, practical implementation of the algorithms is not taught but principles of the algorithms are covered using small sized examples. Topics to be covered are: genome annotation and string algorithms, pattern search and statistical learning, molecular evolution and phylogenetics, functional genomics and systems level analysis.
Fall
Also Offered As: BIOL 5536, GCB 5360
Prerequisite: ((BIOL 1101 AND BIOL 1102) OR BIOL 1121) AND STAT 111 AND STAT 112
1 Course Unit

CIS 5370 Biomedical Image Analysis
This course covers the fundamentals of advanced quantitative image analysis that apply to all of the major and emerging modalities in biological/biomaterials imaging and in vivo biomedical imaging. While traditional image processing techniques will be discussed to provide context, the emphasis will be on cutting edge aspects of all areas of image analysis (including registration, segmentation, and high-dimensional statistical analysis). Significant coverage of state-of-the-art biomedical research and clinical applications will be incorporated to reinforce the theoretical basis of the analysis methods. Prerequisite: Mathematics through multivariate calculus (MATH 2410), programming experience, as well as some familiarity with linear algebra, basic physics, and statistics.
Fall or Spring
Also Offered As: BE 5370, MPHY 6090
1 Course Unit

CIS 5400 Principles of Embedded Computation
This course is focused on principles underlying design and analysis of computational elements that interact with the physical environment. Increasingly, such embedded computers are everywhere, from smart cameras to medical devices to automobiles. While the classical theory of computation focuses on the function that a program computes, to understand embedded computation, we need to focus on the reactive nature of the interaction of a component with its environment via inputs and outputs, the continuous dynamics of the physical world, different ways of communication among components, and requirements concerning safety, timeliness, stability, and performance. Developing tools for approaching design, analysis, and implementation of embedded systems in a principled manner is an active research area. This course will attempt to give students a coherent introduction to this emerging area. This course is appropriate as an upper-level undergraduate CIS elective. This course assumes mathematical maturity, commensurate with either ESE 2100 (Introduction to Dynamical Systems), or CIS 2620 (Introduction to Theory of Computation). It is suitable for students who have an undergraduate degree in computer science, or computer engineering, or electrical engineering. It is also suitable for Penn undergraduates in CIS or CE as an upper-level elective.
Fall
1 Course Unit

CIS 5410 Embedded Software for Life-Critical Applications
This course explores techniques for writing correct and efficient embedded code. Topics include C/C++ idioms, data abstraction, elementary data structures and algorithms, environment modeling, concurrency, hard real time, and modular program reasoning. C fluency.
Fall or Spring
1 Course Unit

CIS 5420 Embedded Systems Programming
This course explores techniques for writing correct and efficient embedded code. Topics include C/C++ idioms, data abstraction, elementary data structures and algorithms, environment modeling, concurrency, hard real time, and modular program reasoning. C fluency.
Fall or Spring
1 Course Unit
CIS 5450 Big Data Analytics
In the new era of big data, we are increasingly faced with the challenges of processing vast volumes of data. Given the limits of individual machines (compute power, memory, bandwidth), increasingly the solution is to process the data in parallel on many machines. This course focuses on the fundamentals of scaling computation to handle common data analytics tasks. You will learn about basic tasks in collecting, wrangling, and structuring data; programming models for performing certain kinds of computation in a scalable way across many compute nodes; common approaches to converting algorithms to such programming models; standard toolkits for data analysis consisting of a wide variety of primitives; and popular distributed frameworks for analytics tasks such as filtering, graph analysis, clustering, and classification. Recommended: broad familiarity with probability and statistics, as well as programming in Python. Additional background in statistics, data analysis (e.g., in Matlab or R), and machine learning is helpful (example: ESE 5420).
Fall, Spring, and Summer Terms
1 Course Unit

CIS 5470 Software Analysis
This course covers the theory and practice of software analysis - a body of algorithms and techniques to reason about program behavior with applications to effectively test, debug, and secure large, complex codebases. The course surveys a wide range of applications of software analysis including proving the absence of common programming errors, discovering and preventing security vulnerabilities, systematically testing intricate data structures and libraries, and localizing root causes in complex software failures. Familiarity with programming (CIS 1200), algorithms (CIS 1210), and mathematical foundations (CIS 1600). Specifically: - Assignments involve programming in C/C++ in the LLVM compiler infrastructure. - Lectures and exams presume knowledge of search and graph algorithms, and background in logic and probability.
Fall or Spring
1 Course Unit

CIS 5480 Operating Systems Design and Implementation
The purpose of this masters-level course is to teach the design and implementation of operating systems and operating systems concepts that appear in other advanced systems. The course divides into three major sections. The first part of the course discusses concurrency: how to manage multiple tasks that execute at the same time and share resources. Topics in this section include processes and threads, context switching, synchronization, scheduling, and deadlock. The second part of the course addresses the problem of common management; it will cover topics such as linking, dynamic memory allocation, dynamic address translation, virtual memory, and demand paging. The third major part of the course concerns file systems, including topics such as storage devices, disk management and scheduling, directories, protection, and crash recovery. After these three major topics, the class will conclude with specialized topics such as virtual machines and case studies of different operating systems (e.g., Android, Windows, Linux, etc.).
Fall or Spring
1 Course Unit

CIS 5490 Wireless Communications for Mobile Networks and Internet of Things
This course covers generations of wireless mobile network standards and systems, basic differences and their evolution, charting the development of mobile telecommunications systems from 3G, to today's state-of-the-art wireless technology 4G LTE, and the next generation wireless technology 5G. The course projects require knowledge of C/C++ and Android. Any undergraduate networking courses are suggested but not required as this course covers necessary networking topics.
Fall or Spring
1 Course Unit

CIS 5500 Database and Information Systems
This course provides an introduction to the broad field of database and information systems, covering a variety of topics relating to structured data, ranging from data modeling to logical foundations and popular languages, to system implementations. We will study the theory of relational and XML data design; the basics of query languages; efficient storage of data, execution of queries and query optimization; transactions and updates; web-database development, and "big data" and NoSQL systems. The course assumes mathematical and programming experience equivalent to CIS 1600 and CIS 1210.
Fall
Mutually Exclusive: CIS 4500
1 Course Unit

CIS 5510 Computer and Network Security
This is an introduction to topics in the security of computer systems and communication on networks of computers. The course covers four major areas: fundamentals of cryptography, security for communication protocols, security for operating systems and mobile programs, and security for electronic commerce. Sample specific topics include: passwords and offline attacks, DES, RSA, DSA, SHA, SSL, CBC, IPSec, SET, DDoS attacks, biometric authentication, PKI, smart cards, S/MIME, privacy on the Web, viruses, security models, wireless security, and sandboxing. Students will be expected to display knowledge of both theory and practice through written examinations and programming assignments.
Fall or Spring
Prerequisite: CIS 1600 AND CIS 2400
1 Course Unit

CIS 5520 Advanced Programming
The goals of this course are twofold: (1) to take good programmers and turn them into excellent ones, and (2) to introduce them to a range of modern software engineering practices, in particular those embodied in advanced functional programming languages. Four courses involving significant programming and a discrete mathematics or modern algebra course. Enrollment by permission of the instructor only.
Fall or Spring
1 Course Unit

CIS 5530 Networked Systems
This course provides an introduction to fundamental concepts in the design and implementation of networked systems, their protocols, and applications. Topics to be covered include: Internet architecture, network applications, addressing, routing, transport protocols, network security, and peer-to-peer networks. The course will involve written assignments, examinations, and programming assignments. Students will work in teams to design and implement networked systems in layers, from routing protocols, transport protocols, to peer-to-peer networks.
Fall or Spring
Prerequisite: CIS 1210
1 Course Unit
CIS 5540 Programming Paradigms
Achieving mastery in a new programming language requires more than just learning a new syntax; rather, different languages support different ways to think about solving problems. Not all programming languages are inherently procedural or object-oriented. The intent of this course is to provide a basic understanding of a wide variety of programming paradigms, such as logic programming, functional programming, concurrent programming, rule-based programming, and others.
Fall or Spring
Prerequisite: CIS 1210 OR CIT 5940
1 Course Unit

CIS 5550 Internet and Web Systems
This course focuses on the challenges encountered in building Internet and web systems: scalability, interoperability (of data and code), security and fault tolerance, consistency models, and location of resources, services, and data. We will examine how XML standards enable information exchange; how web services support cross-platform interoperability (and what their limitations are); how to build high-performance application servers; how “cloud computing” services work; how to perform Akamai-like content distribution; and how to provide transaction support in distributed environments. We will study techniques for locating machines, resources, and data (including directory systems, information retrieval indexing, ranking, and web search); and we will investigate how different architectures support scalability (and the issues they face). We will also examine ideas that have been proposed for tomorrow’s Web, and we will see some of the challenges, research directions, and potential pitfalls. An important goal of the course is not simply to discuss issues and solutions, but to provide hands-on experience with a substantial implementation project. This semester’s project will be a peer-to-peer implementation of a Google-style search engine, including distributed, scalable crawling; indexing with ranking; and even PageRank. As a side-effect of the material of this course you will learn about some aspects of large-scale software development assimilating large APIs, thinking about modularity, reading other people’s code, managing versions, debugging, etc. Prerequisite: Familiarity with threads and concurrency, strong Java programming skills.
Fall or Spring
Mutually Exclusive: CIS 4550
1 Course Unit

CIS 5560 Cryptography
This course is an introduction to cryptography, both theory and applications, intended for advanced undergraduates and graduate students. Topics covered include symmetric cryptography, message authentication, public-key cryptography, digital signatures, cryptanalysis, cryptographic security, and secure channels, as well as a selection of more advanced topics such as zero-knowledge proofs, secure multiparty computation, privacy-enhancing technologies, or lattice-based cryptography.
Fall or Spring
1 Course Unit

CIS 5570 Programming for the Web
This course will focus on web programming. The first half will focus on the basics of the internet and the Web, HTML and CSS, and basic and advanced Ruby. The second half will focus on Rails. Teams (of size 2-3) will build a web application in the second half of the semester as the class project. Through Rails, we'll explore the "culture" of web programming such as agile methodology, testing, key aspects of software engineering, using web services and APIs, and deploying to the cloud.
1 Course Unit

CIS 5590 Programming and Problem Solving
This course develops students problem solving skills using techniques that they have learned during their CS training. Over the course of the semester, students work on group projects in which they use programming techniques to solve open-ended problems, e.g. optimization, simulation, etc. There are no "correct" answers to these problems; rather, the focus is on the four steps of the problem solving process: algorithmic thinking; programming; analysis; and communication. Prerequisite: Proficiency in Java.
Fall or Spring
1 Course Unit

CIS 5600 Interactive Computer Graphics
This course is designed to provide a comprehensive overview to computer graphics techniques in 3D modeling, image synthesis, and rendering. Topics cover: geometric transformations, geometric algorithms, software systems, 3D object models (surface, volume and implicit), visible surface algorithms, image synthesis, shading, mapping, ray tracing, radiosity, global illumination, sampling, anti-aliasing, Monte Carlo path tracing, and photon mapping. Prerequisite: A working knowledge of C++ programming is required (one year programming experience in general). Knowledge of vector geometry is useful.
Fall or Spring
Mutually Exclusive: CIS 4610
1 Course Unit

CIS 5610 Advanced Computer Graphics
This course covers core subject matter common to the fields of robotics, character animation and embodied intelligent agents. The intent of the course is to provide the student with a solid technical foundation for developing, animating and controlling articulated systems used in interactive computer games, virtual reality simulations and high-end animation applications. The course balances theory with practice by "looking under the hood" of current animation systems and authoring tools and exams the technologies and techniques used from both a computer science and engineering perspective. Topics covered include: geometric coordinate systems and transformations; quaternions; parametric curves and surfaces; forward and inverse kinematics; dynamic systems and control; computer simulation; keyframe, motion capture and procedural animation; behavior-based animation and control; facial animation; smart characters and intelligent agents. Prerequisite: Previous exposure to major concepts in linear algebra (i.e. vector matrix math), curves and surfaces, dynamical systems (e.g. 2nd order mass-spring-damper systems) and 3D computer graphics has also been assumed in the preparation of the course materials.
Fall or Spring
Mutually Exclusive: CIS 4620
1 Course Unit
CIS 5630 Physically Based Animation
This course introduces students to common physically based simulation techniques for animation of fluids and gases, rigid and deformable solids, cloth, explosions, fire, smoke, virtual characters, and other systems. Physically based simulation techniques allow for creation of extremely realistic special effects for movies, video games and surgical simulation systems. We will learn state-of-the-art techniques that are commonly used in current special effects and animation studios and in video games community. To gain hands-on experience, students will implement basic simulators for several systems. The topics will include: Particle Systems, Mass spring systems, Deformable Solids & Fracture, Cloth, Explosions & Fire, Smoke, Fluids, Deformable active characters, Simulation and control of rigid bodies, Rigid body dynamics, Collision detection and handling, Simulation of articulated characters, Simulated characters in games. The course is appropriate for both upper level undergraduate and graduate students. Prerequisite: Students should have a good knowledge of object-oriented programming (C++) and basic familiarity with linear algebra and physics. Background in computer graphics is required (CIS 461 and 561).
Fall or Spring
1 Course Unit

CIS 5640 Game Design and Development
The intent of the course is to provide students with a solid theoretical understanding of the core creative principles, concepts, and game play structures/schemas underlying most game designs. The course will also examine game development from an engineering point of view, including: game play mechanics, game engine software and hardware architectures, user interfaces, design documents, playtesting and production methods. Basic understanding of 3D graphics and animation principles, prior exposure to scripting and programming languages such as Python, C and C++. Prerequisite: MATH 2400
Fall or Spring
1 Course Unit

CIS 5650 GPU Programming and Architecture
This course examines the architecture and capabilities of modern GPUs. The graphics processing unit (GPU) has grown in power over recent years, to the point where many computations can be performed faster on the GPU than on a traditional CPU. GPUs have also become programmable, allowing them to be used for a diverse set of applications far removed from traditional graphics settings. Topics covered include architectural aspects of modern GPUs, with a special focus on their streaming parallel nature, writing programs on the GPU using high level languages like Cg and BrookGPU, and using the GPU for graphics and general purpose applications in the area of geometry modeling, physical simulation, scientific computing and games. Students are expected to have a basic understanding of computer architecture and graphics, and should be proficient in OpenGL and C/C++. This course is appropriate as an upper-level undergraduate CIS elective. CIS 4600 or CIS 5600, and familiarity with computer hardware/systems. The hardware/systems requirement may be met by CIS 4710/CIS 5710; or CIT 5930 and CIT 5950; or CIS 2400 (with CIS 4710/CIS 5710 recommended); or equivalent coursework.
Fall or Spring
1 Course Unit

CIS 5660 Procedural Computer Graphics
Sprawling cities, dense vegetation, infinite worlds - procedural graphics empower technical artists to quickly create complex digital assets that would otherwise be unfeasible. This course is intended to introduce the mathematical and algorithmic foundations of procedural modeling and animation techniques, and to offer hands-on experience designing and implementing visual recipes in original graphics projects by applying these methods. Students should have a strong interest in both the creative and technical aspects of computer graphics, as well as a solid programming background.
Fall or Spring
Prerequisite: CIS 4600 OR CIS 5600
1 Course Unit

CIS 5670 Scientific Computing
This course will focus on numerical algorithms and scientific computing techniques that are practical and efficient for a number of canonical science and engineering applications. Built on top of classical theories in multi-variable calculus and linear algebra (as a prerequisite), the lectures in this course will strongly focus on explaining numerical methods for applying these mathematical theories to practical engineering problems. Students will be expected to implement solutions and software tools using MATLAB/C++, practice state-of-the-art parallel computing paradigms, and learn scientific visualization techniques using modern software packages. Prerequisites: MATH 2400; knowledge of C++, Python or MATLAB
Fall or Spring
Mutually Exclusive: CIS 4670
Prerequisite: MATH 2400
1 Course Unit

CIS 5680 Game Design Practicum
The objective of the game design practicum is to provide students with hands on experience designing and developing 3D games as well as Virtual Reality (VR) and Augmented Reality (AR) applications. Working in teams of three, students will gain experience brainstorming original game concepts, writing formal design documents and developing a fully functional prototype of their game/application. Technical features to be designed and implemented include novel game mechanics and/or user interaction models, game physics, character animation, game AI (i.e. movement control, path planning, decision making, etc.), sound effects and background music, 2D graphical user interface (GUI) design and multiplayer networking capabilities. State-of-the-art game engine middleware such as the Unity3D and Unreal engine games will be used to expose student to commercial-grade software, production methodologies and art asset pipelines. As a result of their game development efforts, students will learn first-hand about the creative process, design documentation, object-oriented software design and engineering, project management (including effective team collaboration and communication techniques), design iteration through user feedback and play-testing, and most importantly, what makes a game or virtual reality experience interesting and fun to play.
Fall, Spring, and Summer Terms
Prerequisite: (CIS 4600 OR CIS 4620 OR CIS 5600 OR CIS 5620)
CIS 5710 Computer Organization and Design
This is the second computer organization course and focuses on computer hardware design. Topics covered are: (1) basic digital system design including finite state machines, (2) instruction set design and simple RISC assembly programming, (3) quantitative evaluation of computer performance, (4) circuits for integer and floating-point arithmetic, (5) datapath and control, (6) micro-programming, (7) pipelining, (8) storage hierarchy and virtual memory, (9) input/output, (10) different forms of parallelism including instruction level parallelism, data-level parallelism using both vectors and message-passing multi-processors, and thread-level parallelism using shared memory multiprocessors. Basic cache coherence and synchronization. Prerequisite: Knowledge of at least one programming language.
Spring
Mutually Exclusive: CIS 4710
Prerequisite: CIS 2400
1 Course Unit

CIS 5730 Software Engineering
Writing a "program" is easy. Developing a "software product", however, introduces numerous challenges that make it a much more difficult task. This course will look at how professional software engineers address those challenges, by investigating best practices from industry and emerging trends in software engineering research. Topics will focus on software maintenance issues, including: test case generation and test suite adequacy; code analysis; verification and model checking; debugging and fault localization; refactoring and regression testing; and software design and quality. Prerequisite: Proficiency in Java.
Fall
Prerequisite: CIT 5940 OR CIS 3500
1 Course Unit

CIS 5800 Machine Perception
An introduction to the problems of computer vision and other forms of machine perception that can be solved using geometrical approaches rather than statistical methods. Emphasis will be placed on both analytical and computational techniques. This course is designed to provide students with an exposure to the fundamental mathematical and algorithmic techniques that are used to tackle challenging image based modeling problems. The subject matter of this course finds application in the fields of Computer Vision, Computer Graphics and Robotics. Some of the topics to be covered include: Projective Geometry, Camera Calibration, Image Formation, Projective, Affine and Euclidean Transformations, Computational Stereopsis, and the recovery of 3D structure from multiple 2D images. This course will also explore various approaches to object recognition that make use of geometric techniques, these would include alignment based methods and techniques that exploit geometric invariants. In the assignments for this course, students will be able to apply the techniques to actual computer vision problems. This course is appropriate as an upper-level undergraduate CIS elective. A solid grasp of the fundamentals of linear algebra. Some knowledge of programming in C and/or Matlab
Fall
1 Course Unit

CIS 5810 Computer Vision & Computational Photography
This is an introductory course to Computer Vision and Computational Photography. This course will explore three topics: 1) image morphing, 2) image matching and stitching, and 3) image recognition. This course is intended to provide a hands-on experience with interesting things to do on images/videos. The world is becoming image-centric. Cameras are now found everywhere, in our cell phones, automobiles, even in medical surgery tools. Computer vision technology has led to latest innovations in areas such as Hollywood movie production, medical diagnosis, biometrics, and digital library. This course is suited for students from all Engineering backgrounds, who have the basic knowledge of linear algebra and programming, and a lot of imagination.
Not Offered Every Year
1 Course Unit

CIS 5970 Master's Thesis Research
For students working on an advanced research leading to the completion of a Master's thesis.
Fall or Spring
1-2 Course Units

CIS 5990 Independent Study for Masters Students
For master's students studying a specific advanced subject area in computer and information science. Involves coursework and class presentations. A CIS 5990 course unit will invariably include formally gradable work comparable to that in a CIS 500-level course. Students should discuss with the faculty supervisor the scope of the Independent Study, expectations, work involved, etc.
Fall or Spring
1-4 Course Units

CIS 6010 Advanced Topics in Computer Architecture
This course will focus on research topics in computer architecture, and include reading and presenting research papers and an optional project. The content will differ with each offering, covering topics such as multicore programmability, datacenter and warehouse-scale computing, security, energy-efficient architectures, etc.
Fall or Spring
Prerequisite: CIS 5010 OR CIS 3710
1 Course Unit

CIS 6100 Advanced Geometric Methods in Computer Science
The purpose of this course is to present some of the advanced geometric methods used in geometric modeling, computer graphics, computer vision, etc. The topics may vary from year to year, and will be selected among the following subjects (nonexhaustive list): Introduction to projective geometry with applications to rational curves and surfaces, control points for rational curves, rectangular and triangular rational patches, drawing closed rational curves and surfaces; Differential geometry of curves (curvature, torsion, osculating planes, the Frenet frame, osculating circles, osculating spheres); Differential geometry of surfaces (first fundamental form, normal curvature, second fundamental form, geodesic curvature, Christoffel symbols, principal curvatures, Gaussian curvature, mean curvature, the Gauss map and its derivative dN, the Dupin indicatrix, the Theorema Egregium equations of Codazzi-Mainardi, Bonnet's theorem, lines of curvatures, geodesic torsion, asymptotic lines, geodesic lines, local Gauss-Bonnet theorem).
Spring
Prerequisite: CIS 5010
1 Course Unit
CIS 6200 Advanced Topics in Machine Learning
This course covers a variety of advanced topics in machine learning, such as the following: statistical learning theory (statistical consistency properties of surrogate loss minimizing algorithms); approximate inference in probabilistic graphical models (variational inference methods and sampling-based inference methods); structured prediction (algorithms and theory for supervised learning problems involving complex/structured labels); and online learning in complex/structured domains. The precise topics covered may vary from year to year based on student interest and developments in the field.
Spring
Prerequisite: CIS 5200
1 Course Unit

CIS 6250 Theory of Machine Learning
This course is an introduction to the theory of Machine Learning, a field which attempts to provide algorithmic, complexity-theoretic and statistical foundations to modern machine learning. The focus is on topics in machine learning theory for researchers and students in artificial intelligence, neural networks, theoretical computer science, and statistics.
Fall or Spring
1 Course Unit

CIS 6300 Advanced Topics in Natural Language Processing
Different topics selected each offering; e.g., NL generation, question-answering, information extraction, machine translation, restricted grammar formalisms, computational lexical semantics, etc.
Fall or Spring
Prerequisite: CIS 5300
1 Course Unit

CIS 6400 Advanced Topics in Software Systems: Data Driven IoT/Edge Computing
This course is to explore selected topics in data driven IoT/Edge Computing. We are currently witnessing a technological paradigm shift, in which the IoT systems are increasingly deployed in society. This course is to study emerging paradigms in IoT/Edge Computing and to learn how to develop data driven applications that can harness the power of the IoT/Edge computing. For application domains, the course will target connected medical devices, smart home for aging, and connected automotive systems. Topics to be covered include IoT/Edge computing architectures, the Internet of medical things, connected vehicles, anomaly detection, mixed initiative systems, closed-loop systems, resource allocation, and security and privacy. The course will require a significant term project in connected health or connected automotive domains.
Spring
Prerequisite: (CIS 5450 OR CIS 5190) AND (CIS 5050 or CIS 5410)
1 Course Unit

CIS 6500 Advanced Topics in Databases
Advanced topics in databases: distributed databases, integrity constraints, failure, concurrency control, relevant relational theory, semantics of data models, the interface between programming of languages and databases. Object-oriented databases. New topics are discussed each year.
Spring
Prerequisite: CIS 5500
1 Course Unit

CIS 6600 Advanced Topics in Computer Graphics and Animation
The goal of the course is to review state-of-the-art research in the fields of computer graphics and animation as well as provide students with working knowledge of how to convert theory to practice by developing an associated graphicsanimation authoring tool. The course is comprised of primers, lectures, student presentations and the authoring tool group project. Each student will be responsible for presenting one primer and at least two SIGGRAPH papers to the class. Working in teams of two, students will design and develop an authoring tool that that facilitates the creation of a new type of user interaction, animation/simulation capability or 3D graphics special effects. Research papers published in the SigGraph Conference proceedings will provide the basis for the features/functionality/special effects that can be selected for implementation in the authoring tool. Each group will analyze the need and user requirements for the tool they plan to develop, prepare a formal software design document, construct a project work plan, develop the authoring tool functionality and user interface, test the design and demonstrate the authoring of associated content. A plug-in to standard authoring tools such as Maya or Houdini must also be developed to enable importing of appropriate assets and/or exporting of results.
Spring
Prerequisite: CIS 5600
1 Course Unit

CIS 6700 Advanced Topics in Programming Languages
The details of this course change from year to year, but its purpose is to cover theoretical topics related to programming languages. Some central topics include: denotational vs operational semantics, domain theory and category theory, the lambda calculus, type theory (including recursive types, generics, type inference and modules), logics of programs and associated completeness and decidability problems, specification languages, and models of concurrency. The course requires a degree of mathematical sophistication.
Fall or Spring
Prerequisite: CIS 5000
1 Course Unit

CIS 6730 Computer-Aided Verification
This course introduces the theory and practice of formal methods for the design and analysis of concurrent and embedded systems. The emphasis is on the underlying logical and automata-theoretic concepts, the algorithmic solutions, and heuristics to cope with the high computational complexity. Topics: Models and semantics of reactive systems; Verification algorithms; Verification techniques. Topics may vary depending on instructor. Basic knowledge of algorithms, data structures, automata theory, propositional logic, operating systems, communication protocols, and hardware (CIS 2620, CIS 3800, or permission of the instructor).
Fall or Spring
1 Course Unit

CIS 6770 Advanced Topics in Algorithms and Complexity
This course covers various aspects of discrete algorithms. Graph-theoretic algorithms in computational biology, and randomization and computation; literature in dynamic graph algorithms, approximation algorithms, and other areas according to student interests. Consent of the instructor.
Fall
1 Course Unit
CIS 6800 Advanced Topics in Machine Perception
Graduate seminar in advanced work on machine perception as it applies to robots as well as to the modeling of human perception. Topics vary with each offering. A previous course in machine perception or knowledge of image processing, experience with an operating system and language such as Unix and C, and aptitude for mathematics. Spring
1 Course Unit

CIS 6820 Friendly Logics
The use of logical formalisms in Computer Science is dominated by a fundamental conflict: expressiveness vs. algorithmic tractability. Database constraint logics, temporal logics and description logics are successful compromises in this conflict: (1) they are expressive enough for practical specifications in certain areas, and (2) there exist interesting algorithms for the automated use of these specifications. Interesting connections can be made between these logics because temporal and description logics are modal logics, which in turn can be seen, as can database constraint logics, as certain fragments of first-order logic. These connections might benefit research in databases, computer-aided verification and AI. Discussion includes other interesting connections, eg., with SLD-resolution, with constraint satisfaction problems, with finite model theory and with automata theory. Fall or Spring
1 Course Unit

CIS 7000 Special Topics
One time course offerings of special interest. Equivalent to a CIS 5XX level course. Not Offered Every Year
1 Course Unit

CIS 7980 Explaining Explanation
In the social sciences we often use the word "explanation" as if (a) we know what we mean by it, and (b) we mean the same thing that other people do. In this course we will critically examine these assumptions and their consequences for scientific progress. In part 1 of the course we will examine how, in practice, researchers invoke at least three logically and conceptually distinct meanings of "explanation:" identification of causal mechanisms; ability to predict (account for variance in) some outcome; and ability to make subjective sense of something. In part 2 we will examine how and when these different meanings are invoked across a variety of domains, focusing on social science, history, business, and machine learning, and will explore how conflation of these distinct concepts may have created confusion about the goals of science and how we evaluate its progress. Finally, in part 3 we will discuss some related topics such as null hypothesis testing and the replication crisis. We will also discuss specific practices that could help researchers clarify exactly what they mean when they claim to have "explained" something, and how adoption of such practices may help social science be more useful and relevant to society. Also Offered As: COMM 8980, OIDD 9530
Fall or Spring
1 Course Unit

CIS 8000 PhD Special Topics
One-time course offerings of special interest. Equivalent to CIS seminar course. Offerings to be determined. Fall or Spring
1 Course Unit

CIS 8100 Writing and Speaking with Style
This course is aimed at training CIS PhD students to excel in writing and presenting research results. Fall or Spring
1 Course Unit

CIS 8950 Teaching Practicum
Enrollment for students participating in Teaching Practicum. Fall or Spring
1 Course Unit

CIS 8990 Doctoral Independent Study
For doctoral students studying a specific advanced subject area in computer and information science. The Independent Study may involve coursework, presentations, and formally gradable work comparable to that in a CIS 5000 or 6000 level course. The Independent Study may also be used by doctoral students to explore research options with faculty, prior to determining a thesis topic. Students should discuss with the faculty supervisor the scope of the Independent Study, expectations, work involved, etc. The Independent Study should not be used for ongoing research towards a thesis, for which the CIS 9990 designation should be used. Fall or Spring
1-4 Course Units

CIS 9950 Dissertation
For Ph.D. candidates working exclusively on their dissertation research, having completed enrollment for a total of ten semesters (fall and spring). There is no credit or grade for CIS 9950.
0 Course Units

CIS 9990 Thesis/Dissertation Research
For students pursuing advanced research to fulfill PhD dissertation requirements. Fall or Spring
1-4 Course Units

Computer and Information Technology (CIT)

CIT 5200 Introduction to Robotics
This course introduces the fundamental geometric, kinematic, dynamic, and computational principles underlying modern robotic systems. The main topics of the course include: rotation matrices, homogeneous transformations, manipulator forward and inverse kinematics, mobile robot kinematics, Jacobians, and trajectory planning. The purpose of the course is to provide you with a mathematical, computational and practical foundation for future explorations into the robotics field. Students should have knowledge of simple geometry and trigonometry (triangle inequalities, sine, cosine), previous exposure to linear algebra (matrices and vectors), and previous programming experience. Although MEAM 2110 is often listed as a prerequisite for the on-campus version of this course, it is not strictly required. Previous experience in simple rigid body kinematics will be useful. Fall or Spring
1 Course Unit
CIT 5820 Blockchains and Cryptography
Blockchains or Distributed Ledger Technology (DLT) provide a novel method for decentralizing databases in the presence of mutually distrustful or malicious agents. The promise of DLTs has attracted billions of dollars in investments, yet the true potential of these systems remains unclear. This course introduces students to the fundamentals of cryptography and distributed systems that underpin modern blockchain platforms – including collision-resistant hash functions, digital signatures and classical consensus algorithms. From there, we will examine the architecture of modern blockchain platforms, and develop tools to analyze and interact with them in Python. At the end of this course, students should understand the power and limitations of blockchain technology, and be able to develop software that interacts with current blockchain platforms.
Fall or Spring
1 Course Unit

CIT 5900 Programming Languages and Techniques
This course is an introduction to fundamental concepts of programming and computer science for students who have little or no experience in these areas. Includes an introduction to programming using Python, where students are introduced to core programming concepts like data structures, conditionals, loops, variables, and functions. Also provides an introduction to basic data science techniques using Python. The second half of this course is an introduction to object-oriented programming using Java, where students are introduced to polymorphism, inheritance, abstract classes, interfaces, and advanced data structures. Students will also learn how to read and write to files, connect to databases, and use regular expressions to parse text. This course includes substantial programming assignments in both Python and Java, and teaches techniques for test-driven development and debugging code.
Fall or Spring
1 Course Unit

CIT 5910 Introduction to Software Development
Introduction to fundamental concepts of programming and computer science. Principles of modern object-oriented programming languages: abstraction, types, polymorphism, encapsulation, inheritance, and interfaces. This course will also focus on best practices and aspects of software development such as software design, software testing, pair programming, version control, and using IDEs. Substantial programming assignments.
Fall or Spring
1 Course Unit

CIT 5920 Mathematical Foundations of Computer Science
This course introduces you to math concepts that form the backbone of the majority of computer science. Topics covered include sets, functions, permutations and combinations, discrete probability, expectation, mathematical Induction and graph theory. The goal of the course is to ensure that students are comfortable enough with the math required for most of the CIS electives. CIS 5020 and CIT 5960 heavily rely on concepts taught in this course.
Fall or Spring
1 Course Unit

CIT 5930 Introduction to Computer Systems
This course provides an introduction to fundamental concepts of computer systems and computer architecture. You will learn the C programming language and an instruction set (machine language) as a basis for understanding how computers represent data, process information, and execute programs. The course also focuses on the Unix environment and includes a weekly hands-on lab session.
Fall or Spring
1 Course Unit

CIT 5940 Data Structures and Software Design
This course will focus on data structures, software design, and advanced Java. The course starts off with an introduction to data structures and basics of the analysis of algorithms. Important data structures covered will include arrays, lists, stacks, queues, trees, hash maps, and graphs. The course will also focus on software design and advanced Java topics such as software architectures, design patterns, networking, multithreading, and graphics. We will use Java for the entire course.
Fall or Spring
Prerequisite: CIT 5910
1 Course Unit

CIT 5950 Computer Systems Programming
This course builds on your knowledge of C and focuses on systems programming for Linux, specifically the libraries that programmers use for threading and concurrency, synchronization, inter-process communication, and networking. The course also introduces the C++ programming language, and covers important concepts in modern operating systems, including processes, scheduling, caching, and virtual memory. After completing this course, you will have the requisite knowledge and experience for systems-focused CIS graduate-level electives.
Fall or Spring
Prerequisite: CIT 5930
1 Course Unit

CIT 5960 Algorithms and Computation
This course focuses primarily on the design and analysis of algorithms. We will begin with sorting and searching algorithms and then spend most of the course on graph algorithms. In order to study graph algorithms, general algorithm design patterns like dynamic programming and greedy algorithms will be introduced. A section of this course is also devoted to understanding NP-Completeness.
Fall or Spring
Prerequisite: CIT 5920
1 Course Unit

Creative Writing (CRWR)
The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).
CRWR 1010 The Craft of Creative Writing

The Craft of Creative Writing is designed for students who are new to creative writing or who would like to return to the fundamentals of craft. Through frequent writing assignments, assigned readings and collaborative discussions, students familiarize themselves with a variety of styles and approaches, exploring a range of literary genres including poetry, fiction, creative nonfiction, memoir and journalistic prose. Students are expected to hone their skills in creative practice, to revise and take risks with their work and to cultivate their habits of close reading and peer feedback.
1 Course Unit

CRWR 1600 Modern and Contemporary US Poetry

In this fast-paced introductory course, students read and discuss a wide range of modern and contemporary American poets, beginning with Emily Dickinson and Walt Whitman and ending with 21st-century avant-garde poets like Tracie Morris. Questions central to this course include "How does experimental poetry help us understand the transition between modernism and postmodernism?" and "What is the relationship between experimental poetry and experimental teaching?" The poems and poets we study challenge students to read critically and think differently about what a poem is, about what art can be and about what poetry can teach us about reading, writing and learning. Students do not need to have any prior knowledge of poetry or poetics. The course operates primarily as a discussion. Rather than attending lectures, students participate in web-based discussions of the poems, accessible in text, audio and video formats. Requirements include active participation in the online discussion forums, in addition to five short papers, quizzes, creative exercises and a comprehensive final examination.
Also Offered As: ENLT 1600
1 Course Unit

CRWR 2010 Poetry Workshop

Poetry Workshop is a course for students who are new to poetry or who would like to return to the fundamentals of poetry. This workshop uses frequent writing assignments, assigned readings and collaborative workshop discussions to explore various elements of poetic craft, including imagery, metaphor, line, stanza, music, rhythm, diction, and tone.
1 Course Unit

CRWR 2400 The Art of Editing

This course takes a critical and practical approach to the art of editing. Is the editor simply a "failed writer," as T. S. Eliot claimed, or is good editing the key to a writer's clarity and integrity? In addition to exploring theories and histories of the red pen—including Marianne Moore's five-decade quest to revise a single poem and the editor who was discovered to have invented Raymond Carver's distinctive narrative style—we immerse ourselves in the technical aspects of editing, covering such topics as the difference between developmental and line editing, the merits of MLA and Chicago style, proofreading in hard copy and digital environments, and when to wield an em dash. Students gain practical editing experience, learn about a range of different levels of editorial interventions, and investigate the politics of language usage and standards. This course is suitable for aspiring copyeditors or any writer who wants to polish up their grammar and punctuation skills.
1 Course Unit

CRWR 2500 Writing and Meditation

Writing and Meditation is a course for students interested in intersections between creativity and contemplative practice. No previous experience is necessary. Curiosity and openness to multiple traditions of mindfulness is encouraged. In each module we'll explore a different approach to present awareness and writing. Readings will explore many routes, including attention, movement, stillness, gazing, listening, and dreaming. We'll read sacred and secular texts spanning time and place from the Spanish mystic Téresa of Avila, to contemporary poets such as Zen priest Norman Fischer and luminaries such as Tenzin Wangyal Rinpoche and Pema Chodron. We'll also explore visionary visual artists such as Hilma af Klimt and musicians including Alice Coltrane and Laraaji. Students will write in response to written and audio prompts, receive peer and instructor feedback on their work, and compile a portfolio of writing created throughout the course.
1 Course Unit

CRWR 2600 Fiction Workshop

Fiction Workshop is a course for students who are new to fiction writing or who are new to fiction writing or who would like to return to the fundamentals of fiction. This collaborative workshop uses frequent writing assignments, assigned readings and workshop discussions to explore various elements of the craft of fiction, including character, form, description, dialogue, setting, genre, and plot.
1 Course Unit

CRWR 2800 Narrative Collage

Narrative Collage is designed for students interested in experimenting with different kinds of prose, including memoir and fiction, and is appropriate for any level of experience, from curious beginners to accomplished writers. This course will explore fiction and creative nonfiction using nontraditional techniques including nonlinear segments, multiple voices, found texts, and more. Students will dig into readings from a wide range of sources, from Sei Shônagon's 10th-century Pillow Book through contemporary works such as Jenny Offill's Weather, and will write weekly responses to those readings. Every week, students will produce their own original creative work using a number of narrative collage techniques discussed in class, and will have the opportunity to revise and polish their own writing. Lively peer feedback is required in the form of discussion boards. Additionally, there will be optional live sessions for discussion and sharing creative work.
1 Course Unit

CRWR 3000 Writing About Place

This multi-genre, collaborative course is devoted to writing of and about place. Students consider place both literally—writing about the city or the landscape, for example—and figuratively—writing that engages thematically and formally with location, with displacement, and with the writing process itself as a form of mapping and belonging.
1 Course Unit

CRWR 3200 Screenwriting

Students are required to complete and revise the first 30 pages of a feature-length screenplay. In place of introductory lectures on story and cinema, an interactive presentation provides multimedia lectures that include sample text, images, and audio and video clips. In addition to two rounds of individual student feedback sessions, students have one-on-one meetings with the instructor conducted through video, audio, or text chat. The final grade is a cumulative assessment of student performance over the course of the term, factoring in all assignments, participation in discussion threads and progress made in the revision of 30 screenplay pages.
1 Course Unit
CRIM 3600 Advanced Nonfiction
Students in this course study a range of genres in creative nonfiction, including memoir, personal essay, and journalistic prose. Students use frequent writing assignments, assigned readings, and collaborative peer feedback to explore various elements of prose writing, with an emphasis on voice, description, narrative structure, and approaches to time.
1 Course Unit

CRWR 3700 Journalism Workshop
This is a course dedicated to the practice of journalistic writing. Students will learn about a range of journalistic genres, which may include interviews, profiles, reportage, features, storytelling, and criticism, as well as a range of journalistic writing tools, which may include exposition, quotation, research methodology, and fact-checking.
1 Course Unit

Criminology (CRIM)

CRIM 1000 Criminology
This introductory course examines the multi-disciplinary science of law-making, law-breaking, and law-enforcing. It reviews theories and data predicting where, when, by whom and against whom crimes happen. It also addresses the prevention of different offense types by different kinds of offenders against different kinds of people. Police, courts, prisons, and other institutions are critically examined as both preventing and causing crime. This course meets the general distribution requirement.
Fall
Also Offered As: SOCI 2920
1 Course Unit

CRIM 1100 Criminal Justice
This course examines how the criminal justice system responds to crime in society. The course reviews the historical development of criminal justice agencies in the United States and Europe and the available scientific evidence on the effect these agencies have on controlling crime. The course places an emphasis on the functional creation of criminal justice agencies and the discretionary role decision makers in these agencies have in deciding how to enforce criminal laws and whom to punish. Evidence on how society measures crime and the role that each major criminal justice agency plays in controlling crime is examined from the perspective of crime victims, police, prosecutors, jurors, judges, prison officials, probation officers and parole board members. Using the model of social policy evaluation, the course asks students to consider how the results of criminal justice could be more effectively delivered to reduce the social and economic costs of crime.
Fall
Also Offered As: SOCI 2921
1 Course Unit

CRIM 1200 Statistics for the Social Sciences I
Statistical techniques and quantitative reasoning are essential tools for properly examining questions in the social sciences. This course introduces students to the concepts of probability, estimation, confidence intervals, and how to use the statistical concepts and methods to answer social science questions. The course will require the use of R, a free, open source statistical analysis program. This course has been approved for the quantitative data analysis requirement (QDA).
Fall
1 Course Unit

CRIM 1201 Statistics for the Social Sciences II
In this course, students learn to conduct quantitative data analyses for social sciences, with an emphasis on identifying causal relationships in data. Many social science analyses aim to answer causal questions: Do longer prison sentences reduce crime? Do tougher gun laws reduce homicides and suicides? Can summer jobs help keep youth safe?
Students will learn about research designs and data analysis methods to answer these kinds of questions, and especially to learn to implement them in practice. The goal of this course is to help students conduct their own analyses, and to become critical readers of statistical analyses, both in social science publications and in public discourse. The focus will be on what to compute and how to interpret the results. The emphasis is on the intelligent use of statistics. We will be using R, an open-source programming language.
Spring
Prerequisite: CRIM 1200
1 Course Unit

CRIM 2010 American Death Penalty in Theory and Practice
Over the past forty years, in response to controversy over the American death penalty, the Supreme Court has created a framework of rules designed to make the death penalty conform to current societal standards. In this course, we will identify the critical issues identified by the courts (and the critics) in light of the practical realities of capital litigation, and we will ask whether the efforts to address these issues have been successful. The class will use specific case examples to identify the critical points in a death penalty case- for example, the decision to designate a prosecution as "capital", the performance of defense counsel, the penalty decision, and the method of execution. These critical stages will provide a platform for discussing critical issues like the proper limits of discretion; bias; cruelty; and the decision to disqualify certain groups of people from capital punishment (the mentally disabled, minors). Students will be assigned readings from different kinds of sources. Cases from the Supreme Court will identify key issues and the efforts to address them under the law. More general death penalty history will provide some context. We will also read pieces by advocates (pro and con). Finally, we will focus on a few specific prosecutions and discuss how abstract theories work in a particular case.
Fall
1 Course Unit

CRIM 2020 Criminal Justice Reform: A Systems Approach
America's criminal justice system, which affects every community in the United States, is often criticized for being biased, overly punitive, ineffective at reducing crime, and resistant to change. This course will review the various components of the criminal justice system, identify the structural challenges to the widespread implementation of reforms or improvements to the system, and provide students with a conceptual framework for dialogue and structural/cultural change that can improve the legitimacy and effectiveness of our criminal justice agencies and enhance the delivery of justice for all.
Not Offered Every Year
1 Course Unit

CRIM 2030 Law and Criminal Justice
This course explores constitutional criminal procedure or the law of the Fourth, Fifth, and Sixth Amendments to the United States Constitution. Topics included the laws and rules associated with search and seizure, arrest, interrogation, the exclusionary rule, and deprivation of counsel. Social science evidence that supports or raises questions about legal doctrine will be examined. No prerequisites are required.
Fall or Spring
1 Course Unit
CRIM 2040 Forensic Analysis
This course discusses the need for stronger scientific foundations in the analysis of forensic evidence from a scientific and a policy perspective. Forensic evidence, such as fingerprints, firearms, and hair, has been analyzed for hundreds of years to inform crime investigations and prosecutions. However, recent advances, especially the use of DNA technology, have revealed that a faulty forensic analyses may have contributed to wrongful convictions. These advances have demonstrated the potential danger of information and testimony derived from imperfect analysis, which can result not just in wrongful convictions but also in errors of impunity. In this course, students learn about the history of forensics, as well as about the recent advances that aim to improve current practices. It is an interdisciplinary course, but it focuses mostly on the statistical and scientific aspects of testing in forensics. Students discuss recent solutions that quantify the uncertainty, limitations, and errors associated with human factors, pattern evidence, and digital evidence. No prior statistical or forensic knowledge is expected. The course will be useful for students who wish to become forensic practitioners, law enforcement officers, lawyers, judges, researchers, or simply informed citizens.
Fall
1 Course Unit

CRIM 2060 Crime and Human Development
One of the central research problems in criminology is the relationship between human development and the likelihood of committing crime. This course will examine the tools for measuring the onset of crime, its persistence, intermittency, and desistence. These tools include the study of birth cohorts of everyone born in a certain time and place, life course studies of juvenile delinquents and non-delinquents, trajectory analysis of people studied from pre-school through middle age, and interviews with 70 year old former delinquents who reflect on how their life-course affected the crimes they committed. This course will also examine the research findings that have been produced using these tools. Students will be asked to consider what these findings imply for major theories of crime causation as well as policies for crime prevention.
Spring
1 Course Unit

CRIM 2070 Biopsychosocial Criminology
Is there a "natural-born killer"? Why don't psychopaths have a conscience? And is it morally wrong for us to punish those who are biologically-wired for a life of crime? This interdisciplinary biosocial course argues that answers to these inscrutable questions can be found in the fledging field of "neurocriminology". This new sub-discipline brings together the social, clinical, and neurosciences to help us better understand, predict, and prevent future crime. We will explore the biosocial bases to crime and violence, analyze controversial neuroethical, legal and philosophical issues surrounding neurocriminology, and take a field trip to prison. This interdisciplinary course presents perspectives from the fields of psychology, neuroscience, criminology, sociology, law, business, public health, psychiatry, anthropology, neuroimaging, neuroendocrinology, forensics, nutrition, and pediatrics. It is suitable for those without a background in biology or criminology. It is particularly relevant for majors in Criminology, Psychology, Nursing, and Biological Basis of Behavior.
Fall
1 Course Unit

CRIM 2080 Neighborhood Dynamics of Crime
Crime varies in time, space and populations as it reflects ecological structures and the routine social interactions that occur in daily life. Concentrations of crime can be found among locations, with antisocial activities like assaults and theft occurring at higher rates because of the demographic make-up of people (e.g. adolescents) or conflicts (e.g. competing gangs), for reasons examined by ecological criminology. Variation in socio-demographic structures (age, education ratios, and the concentration of poverty) and the physical environment (housing segregation, density of bars, street lighting) predicts variations between neighborhoods in the level of crime and disorder. Both ethnographic and quantitative research methods are used to explore the connections between the social and physical environment of areas and antisocial behavior.
Spring
Also Offered As: URBS 2090
1 Course Unit

CRIM 2090 Wrongful Convictions
This course explores wrongful convictions from an interdisciplinary perspective. Using research from the disciplines of law, criminology, psychology and sociology, this course explores how legal errors occur and how they might be prevented in the future. Connections to quality control research and practice in other industries will also be examined.
No prerequisites are required.
1 Course Unit

CRIM 2230 Forensic Anthropology
This course will investigate and discuss the various techniques of analysis that biological anthropologists can apply to forensic cases. Topics include human osteology, the recovery of bodies, the analysis of life history, the reconstruction of causes of death, and various case studies where anthropologists have contributed significantly to solving forensic cases. Discussions will include the limitations of forensic anthropology and the application of DNA recovery to skeletal/mummified materials.
Not Offered Every Year
Also Offered As: ANTH 3230
1 Course Unit

CRIM 4000 Research Seminar in Experiments in Crime and Justice
This seminar focuses on examining data from experiments in criminology including: randomized controlled trials of criminal justice policies, "natural" experiments in crime, and other quasi-experimental studies. A series of experiments conducted by Penn scholars and elsewhere will be examined. This seminar also guides criminology majors in writing a research proposal for their thesis. Students will learn about how to formulate a research question, develop a review of the literature, and how to apply necessary empirical methods. The final paper for this course will be a research proposal that can serve as the basis for the student's senior thesis and to satisfy the senior capstone requirement. Readings will come from the disciplines of criminology, sociology, psychology, economics, and urban planning.
Fall
1 Course Unit

CRIM 4001 Senior Research Thesis
Senior Research Thesis is for senior Criminology majors only. Students are assigned advisors with assistance from the Undergraduate Chair.
Spring
Prerequisite: CRIM 4000
1 Course Unit
CRIM 4002 Criminal Justice Data Analytics
This course covers the tools and techniques to acquire, organize, link and visualize complex data in order to answer questions about crime and the criminal justice system. The course is taught in an advanced course in statistics and presumes minimal mathematical or statistical background. We'll begin with a brief introduction to the research process. We'll then cover the computation, interpretation and understanding of basic descriptive statistics, distributions, hypothesis testing, measures of association and finally regression analysis. Depending on how much time we have, I will cover several more advanced topics in regression analysis at the end of the semester.
Fall
1 Course Unit

CRIM 4740 Modern Regression for the Social, Behavioral and Biological Sciences
Function estimation and data exploration using extensions of regression analysis: smoothers, semiparametric and nonparametric regression, and supervised machine learning. Conceptual foundations are addressed as well as hands-on use for data analysis. This course may be taken concurrently with the prerequisite with instructor permission.
Spring
Also Offered As: STAT 4740
Prerequisite: STAT 1020 OR STAT 1120
1 Course Unit

CRIM 5350 Quantitative Methods for Public Policy
This course provides an introduction to applied statistical techniques in the social sciences and is tailored, in particular, to students pursuing the master of science degree in the Department of Criminology. It is taught as a basic course in statistics and presumes minimal mathematical or statistical background. We'll begin with a brief introduction to the research process. We'll then cover the computation, interpretation and understanding of basic descriptive statistics, distributions, hypothesis testing, measures of association and finally regression analysis. Depending on how much time we have, I will cover several more advanced topics in regression analysis at the end of the semester.
Fall
1 Course Unit

CRIM 6000 Pro-Seminar in Criminology
This course provides an overview of the leading criminological theories of crime. The central focus is on the major theories of crime developed over the past century from the disciplines of economics, psychology, and sociology. The course will focus on the application of social science research as a way to evaluate theories of crime. Special attention is devoted to the issues of measurement of crime and what is known from the available empirical data. In addition, the course will focus on how these theoretical perspectives relate to public policy responses to crime.
Fall
1 Course Unit

CRIM 6001 Pro-Seminar in Criminal Justice
This course provides an overview of what we know about the criminal justice system in the United States and other developed nations. The central purpose of the course is to increase your knowledge about how the U.S. criminal justice system works but we will also spend a great deal of time thinking about the quality of the available evidence and how we know what we know. Topics covered will vary from year to year; recent topics have included police use of force, capital punishment, pre-trial detention, the use of predictive algorithms in the criminal justice system and the relationship between immigration and crime in the United States.
Spring
Prerequisite: CRIM 6000
1 Course Unit

CRIM 6002 Criminal Justice Data Analytics
This course covers the tools and techniques to acquire, organize, link and visualize complex data in order to answer questions about crime and the criminal justice system. The course is taught as a basic course in statistics and presumes minimal mathematical or statistical background. We'll begin with a brief introduction to the research process. We'll then cover the computation, interpretation and understanding of basic descriptive statistics, distributions, hypothesis testing, measures of association and finally regression analysis. Depending on how much time we have, I will cover several more advanced topics in regression analysis at the end of the semester.
Fall
1 Course Unit

CRIM 6003 Research Methods/Crime Analysis
This course provides an overview of the application of social science research methods and data analysis to criminology. Students will learn research design principles and statistical techniques for the analysis of social science data, including how to interpret results as part of the rigorous practice of evidence-based criminology. M.S. students will conduct a semester-long, data-intensive crime analysis project using quantitative methods to address a specific research question. Student projects culminate with a poster presentation, an oral defense, and the submission of a written research paper.
Spring
1 Course Unit

CRIM 6004A Criminology in Practice
In this capstone course, students will meet weekly with guests who work on or close to the front line of the criminal justice system. Past guests have included police chiefs, forensic scientists, lobbyists for gun rights and lobbyist for gun control, formerly incarcerated individuals, crime analysts, directors of sentencing commissions, prosecutors and defenders, politicians, and researchers at research organizations working closely with criminal justice agencies. Guests share their career paths, the roles of their organizations in the justice system, and key justice system challenges. Students interact with all guest speakers.
Fall
0.5 Course Units
CRIM 6004B Criminology in Practice
In this capstone course, students will meet weekly with guests who work on or close to the front line of the criminal justice system. Past guests have included police chiefs, forensic scientists, lobbyists for gun rights and lobbyist for gun control, formerly incarcerated individuals, crime analysts, directors of sentencing commissions, prosecutors and defenders, politicians, and researchers at research organizations working closely with criminal justice agencies. Guests share their career paths, the roles of their organizations in the justice system, and key justice system challenges. Students interact with all guest speakers.

Spring
0.5 Course Units

CRIM 6005 Evidence-Based Crime Prevention
This course considers the use of evidence to identify effective crime prevention policies. The course will teach students to think critically about what constitutes convincing evidence, use benefit-cost analysis in comparing policy alternatives, and write effective policy memos that can translate research into practice. We will develop these skills by studying the effects of different policy approaches to crime prevention including incarceration, policing, gun control, drug regulation, and place-based interventions, as well as education, social programs, and labor market policies. Emphasis will be on the methodological challenges to identifying "what works" and the empirical methods to overcome those challenges.

Fall
1 Course Unit

CRIM 6710 Violence: A Clinical Neuroscience Approach
Developed for both Psychology and Criminology graduates in particular, this interdisciplinary course outlines a clinical neuroscience approach to understanding violence in which the tools of neuroscience- neuroanatomy, neurophysiology, neurocognition, neuroendocrinology, neuropharmacology, molecular and behavioral genetics- are used to help inform the etiology and treatment of violence. Clinical components include psychopathy, proactive and reactive aggression, homicide, domestic violence, conduct disorder, oppositional defiant disorder, antisocial personality disorder, crime, and delinquency as well as their comorbid conditions (schizophrenia, drug abuse, hyperactivity). The interaction between social, psychological, and neurobiological processes in predisposing to violence will be highlighted, together with neurodevelopmental perspectives on violence focusing on prospective longitudinal and brain imaging research. Key implications for the criminal justice system, neuroethics, forensics psychology, and intervention will also be outlined.

Fall
1 Course Unit

CRIM 7000 Advanced Pro-Seminar in Criminology
This second year doctoral course is a weekly discussion group designed to help students integrate their coursework from different disciplines around the unifying perspectives of criminology. It focuses on preparation for the doctoral comprehensive examination, detailed critiques of published research reports, and colloquia by leading guest lecturers presenting new research results. Students preparing for dissertation research on the causes and prevention of crime will report on their developing research ideas.

Fall
1 Course Unit

CRIM 7100 Advanced Pro-Seminar in Criminal Justice
This second year doctoral course is a weekly discussion group designed to help students integrate their coursework from different disciplines around the behavior and operation of criminal law systems. It focuses on preparation for the doctoral comprehensive examination, detailed critiques of published and unpublished research reports, and colloquia by leading guest lecturers presenting new research results. Students preparing for dissertation research on the behavior of criminal law will report on their developing research ideas.

Spring
1 Course Unit

CRIM 9999 Independent Study and Research
Primarily for graduate students who work with individual faculty upon permission. Intended to go beyond existing graduate courses in the study of specific problems or theories or to provide work opportunities in areas not covered by existing courses.

Fall or Spring
1-2 Course Units

Czech (CZCH)

CZCH 0010 Czech Through Film
This course has two separate but related components: a series of Czech films, shown with subtitles and open to the entire University of Pennsylvania community, and a Czech language class which relies on the films for content. Each film screening will be preceded by introductory remarks and followed by a discussion, with optional reading material made available in advance. In this way, the film series can but need not also be offered as a for-credit course, cross-listed through REES and Cinema and Media Studies. The films will be sequenced chronologically through Czech history, as opposed to film history, so that the series will double as a survey of Czech history. For example, we will begin with films set in the medieval period, such as Marketa Lazarova (dir. Frantisek Vlacil, 1967) and Cisaruv pekar-Pekaruv cisar (Emperor’s Baker-Baker’s Emperor, dir. Martin Fric, 1955). Eventually we will progress to recent films that deal with the current moment. Classic and contemporary films will be intermingled to simultaneously present a variety of important historical eras and cinematic techniques. Concurrently, students enrolled in the language course will learn basic Czech using custom-made materials drawn from the films. As their vocabulary and grasp of grammatical concepts increases, we will be able to work with longer and more complex sections of the film-texts. The films will provide the material for listening and reading exercises, and the students’ oral and written work will be anchored by their responses to the films. We will advance from picking out simple statements to analyzing dialogue and identifying irony in film and composition, developing skills of intercultural communication and competence. By the end of the course, students will be able to read about Czech cinema using authentic materials, and discuss the films’ aesthetic, historical and political importance.

1 Course Unit
CZCH 0100 Czech I
This course is the first in the series of first-year courses, intended for students with no previous background in Czech. The course develops competence in speaking, reading, writing, and understanding contemporary Czech. It will also introduce you to Czech culture through exciting authentic materials, including songs, videos, short stories, and cultural artifacts. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Czech. By the end of the course, you will be able to engage in simple conversations in Czech on topics concerning your daily life. You will also be able to write short personalized messages in Czech.

Two Term Class, Student may enter either term; credit given for either 1 Course Unit

CZCH 0120 Czech through Short Stories
A conversational Czech language course integrated with an introduction to Czech short fiction. The selection of texts can be tailored to suit students’ interests. All texts will be available in English translation; students with advance knowledge may choose to read in the original. Through examples of short fiction, students will be introduced to important Czech authors such as Alois Jirásek, Jan Neruda, Bozena Nemcova, Karel Capek, Jaroslav Hasek, Eva Kanturkova, Daniela Fischerova, and Daniela Hodrova.

Spring
1 Course Unit

CZCH 0200 Czech II
This course is the second in the series of first-year courses, continuation of Czech I. The course continues to develop competence in speaking, reading, writing, and understanding contemporary Czech. We will continue the exploration of Czech culture through exciting authentic materials, including songs, videos, short stories, and cultural artifacts. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Czech. By the end of the course, you will be able to engage in simple conversations on many topics in informal and some formal contexts concerning your daily life. You will also be able to write longer personalized messages in Czech.

Two Term Class, Student may enter either term; credit given for either 1 Course Unit

CZCH 0300 Czech III
This course is the first in a series of second-year courses, continuation of Czech II. The course will strengthen students’ competence in speaking, reading, writing, and understanding contemporary Czech and will expand students’ active and passive vocabulary on a variety of topics. We will continue the exploration of Czech culture through exciting authentic materials, including songs, videos, short stories, and cultural artifacts. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Czech. By the end of the course, you will be able to engage in increasingly complex conversations in Czech on many topics in informal and formal contexts concerning your daily life, significant personal and cultural events and situations, important cultural figures. You will be able to write longer messages in a variety of informal and formal contexts.

Two Term Class, Student may enter either term; credit given for either 1 Course Unit

CZCH 0400 Czech IV
This course is the second in a series of second-year courses, continuation of Czech III. The course will continue strengthening and expanding students’ competence in speaking, reading, writing, and understanding contemporary Czech and increasing active and passive vocabulary on a variety of topics. We will continue the exploration of Czech culture through exciting authentic materials, including songs, videos, short stories, and cultural artifacts. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Czech. By the end of the course, you will be able to engage in increasingly complex conversations in Czech on many topics in informal and formal contexts concerning your daily life, significant personal and cultural events, attitudes and perspectives. You will be able to write longer messages in a variety of informal and formal contexts. Satisfies Penn Language Requirement.

Two Term Class, Student may enter either term; credit given for either 1 Course Unit

Data Analytics (DATA)
The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).

DATA 1010 Introduction to Data Analytics
In our digital world, data-driven decision-making is becoming more common and more expected. Effective leadership and communication, therefore, often hinges on the ability to acquire, manage, analyze, and display large, quantitative data sets. Even many entry-level jobs assume or require basic knowledge of data analytics. This course introduces students to important concepts in data analytics across a wide range of applications using the programming language R. Students complete the course with a clear understanding of how to utilize quantitative data in real-time problem identification, decision-making, and problem-solving. No prerequisites in statistics or math are required. This course will have required synchronous sessions and the instructor will offer a choice of times.

Also Offered As: LEAD 3050
1 Course Unit

DATA 2100 Intermediate Data Analytics
In Data Analytics 2100: Intermediate Data Analytics students learn the fundamentals of two skills required by many data science jobs: survey and experimental research. The course trains students in all aspects of the survey research process, including designing good survey questionnaires, drawing samples, weighting data, and analyzing survey responses. Students come away from the class with an understanding in how to design, analyze a randomized experiment and build upon the R skills gained in previous courses. Certificate students and individual course takers must complete a prerequisite data analytics course before enrolling in this course. Although courses in the Certificate in Data Analytics must be taken sequentially to build your expertise in data analytics, you have the option to take courses in order without committing to the entire certificate. Students who complete all four courses earn the Certificate in Data Analytics. Please submit a permission request in Path@Penn to register for this class.

Prerequisite: DATA 1010
1 Course Unit
DATA 3100 Introduction to Statistical Methods
Introduction to Statistical Methods exposes students to the process by which quantitative social science and data science research is conducted. The class revolves around three separate, but related tracks. Track one teaches some basic tools necessary to conduct quantitative social science research. Topics covered include descriptive statistics, sampling, probability, and statistical theory. Track two teaches students how to implement these basic tools using R. The third track teaches students the fundamentals of research design. Topics will include independent and dependent variables, generating testable hypotheses, and issues in causality. Please submit a permission request in Path@Penn to register for this class. Prerequisite: DATA 1010 AND DATA 2100
1 Course Unit

DATA 4010 Advanced Data Analytics
Data Analytics 4010: Advanced Topics in Data Analytics emphasizes the skills necessary to do predictive modeling of data. This is one of the most commonly sought-after skills in data science jobs, since it can help companies structure future investments, non-profits organize funding drives, or political candidates decide where to focus their get-out-the-vote efforts. The class begins with a comprehensive discussion on basic regression analysis and then moves on to more advanced topics in R like web scraping, mapping, textual analysis, and working with string variables. The course also features content about more advanced data visualization skills, including creating interactive data visualizations in RShiny. Please submit a permission request in Path@Penn to register for this class. Prerequisite: DATA 1010 AND DATA 2100 AND DATA 3100
1 Course Unit

Data Science (DATS)

DATS 5750 Cloud Technologies Practicum
Cloud computing is the heart of modern digital applications. This course provides practical, hands-on knowledge and understanding of distributed computing principles to design and develop applications that utilize public clouds such as Google Cloud, Amazon Web Services, Azure, etc. The course will cover cloud infrastructure services for computing, storage, networking, data analytics, machine learning, and modern application development. Students will learn to architect and implement complex applications utilizing different cloud infrastructure components to engineer robust, scalable solutions across practical industry use cases. Prerequisites: CIS 5450 and CIS 5500
0.5 Course Units

DATS 5970 Master's Thesis Research
For students working on advanced research leading to the completion of a master's thesis. Fall or Spring
1-2 Course Units

DATS 5990 Master's Independent Study
For Data Science Master's students. Involves coursework and class presentations. A DATS 5990 project will invariably include formallygradable work comparable to that in a CIS 5000 level course. Students should discuss with the faculty supervisor the scope of the Independent Study, expectations, work involved, etc. Fall or Spring
1-4 Course Units

Demography (DEMG)

DEMG 5240 Advanced Topics in Family Sociology
This course will focus on the intersection of family life and inequality. The course will cover theories and empirical research examining the ways in which the political economy of family life is implicated in sustaining and organizing inequalities by class, gender, sexuality, and race. Fall or Spring
Also Offered As: SOCI 5240
Mutually Exclusive: SOCI 2290
1 Course Unit

DEMG 5330 Sociology of Race and Ethnicity
Race and ethnicity are, above all, both converge as system of ideas by which men and women imagine the human body and their relationships within society. In this course we will question the concept of race and ethnicity and their place in modern society (1500-2020). While the course reviews the pre-1500 literature our focus will be on the last 500 years. This course reviews the research that has contributed to the ideas about ethnicity and race in human society. The review covers the discourse on race in political propaganda, religious doctrine, philosophy, history, biology and other human sciences. Also Offered As: AFRC 5330, SOCI 5330
1 Course Unit

DEMG 5350 Quantitative Methods I
This course is an introduction to the practice of statistics in social and behavioral sciences. It is open to beginning graduate students and—with the permission of the instructor—advanced undergraduates. Topics covered include the description of social science data, in graphical and non-graphical form; correlation and other forms of association, including cross-tabulation; bivariate regression; an introduction to probability theory; the logic of sampling; the logic of statistical inference and significance tests. There is a lecture twice weekly and a mandatory "lab." Fall
Also Offered As: SOCI 5350
1 Course Unit

DEMG 5351 Quantitative Methods II
As the second part of a two-semester sequence, this graduate course focuses on regression analysis as used in social science research. In particular, we discuss features and assumptions of linear regression and logistic regression models. We learn how to apply regression models to real social science data using Stata and how to interpret the results. Spring
Also Offered As: CRIM 5351, SOCI 5351
Prerequisite: SOCI 5350
1 Course Unit
DEMGG 5970 Demography of Education
The major topic of the course is the impacts of education, especially college education, on various kinds of family behavior such as dating, cohabitation, living arrangements, marriage, fertility, parenting, divorce, and remarriage. In many countries, some family behaviors, if not all, are increasingly differentiated between college-educated and non-college-educated parents. For instance, increase in divorce is more evident among the less educated than their more educated counterparts, while marriage decline is more substantial among the less educated. Although parents’ time and money investments in children’s education have generally increased over time for both college-educated and non-college-educated parents, the increase is much more substantial among college-educated parents than their non-college-educated counterparts, leading to divergence. In such societies, college education has increasingly differentiated population with respect to family behavior, which has important implications for inequality of children’s well-being. Of course, such diverging family behavior is not observed every society. In some countries, educational differentiation in family behavior is minimal.

In this course, students first will be able to have a global perspective on education and family behavior by reviewing empirical evidence of the relationship between education and various kinds of family behavior across a variety of countries. After learning how different measurements and methods are used to identify the relationship between education and family behavior, Students will be able to evaluate how empirical evidence is robust. Second, students will learn about different theories that explain why education has specific relationships with family behavior. Finally, students will have an opportunity to conduct their own research (in the format of either an empirical or a review paper) by choosing a specific context where they will first document the relationship between education and family behavior and apply theories to explain the relationship with explicit consideration of specific contextual factors. The proposed course will be open to undergraduate and graduate students with different assignments to each of undergraduate and graduate students.

Fall or Spring
Also Offered As: SOCI 5970
1 Course Unit

DEMGG 6040 Methodology of Social Research
This course will give students familiarity with the common research methods social scientists use to conduct research. Ethnographic, interview, survey, experimental and historical/comparative research methods will be covered. Four themes will be explored: 1) the basics of solid research design, 2) the various advantages and disadvantages of each method, 3) when the use of a method is appropriate or inappropriate for the research question, and 4) how to evaluate researchers’ claims on the basis of the evidence they present. These themes will be explored by reading examples of and conducting exercises designed to give students hands-on experience in each of the methods. Students will conduct the exercises on a topic of their choice, which together will culminate in their final paper.

Fall or Spring
Also Offered As: SOCI 6040
1 Course Unit

DEMGG 6070 Introduction to Demography
A nontechnical introduction to fertility, mortality and migration and the interrelations of population with other social and economic factors.

Fall
Also Offered As: SOCI 6070
1 Course Unit

DEMGG 6090 Basic Demographic Methods
The course is designed to introduce students to basic concepts of demographic measurement and modeling used to study changes in population size and composition. The course covers basic measures of mortality, fertility and migration; life table construction; multiple decrement life tables; stable populations; population projections; and age patterns of vital events. Students will learn to apply demographic methods through a series of weekly problem sets.

Fall or Spring
Also Offered As: SOCI 6090
1 Course Unit

DEMGG 6120 Categorical Data Analysis
This course deals with techniques for analyzing multivariate data which the dependent variable is a set of categories (a dichotomy or polytomy). Topics will include linear probability models, logit (logistic) regression models, probit models, logit analysis of contingency tables, cumulative logit and probit (for ordinal data), multinomial logit, conditional logit (discrete choice), unobserved heterogeneity, log-linear models, square tables, response-based sampling, and repeated measures. Methods will be illustrated using the Stata System. There will be several assignments using Stata to analyze data provided by the instructor.

Not Offered Every Year
Also Offered As: SOCI 6120
1 Course Unit

DEMGG 6210 Health, Mortality and Aging
The course focuses on the description and explanation of health and mortality in human populations and their variability across several dimensions such as age, time, place, social class, race, etc. The course includes general theories of health, mortality and morbidity, investigations of mortality and related processes in developing and developed countries, and discussions of future mortality trends and their implications for individual lives and the society at large.

Not Offered Every Year
Also Offered As: SOCI 6210
1 Course Unit

DEMGG 6220 Fertility
The biological, social and demographic factors explaining the levels, trends and differentials in human fertility. Data, measures, and methods used in the context of the more and the less developed countries, with an emphasis on the historical and current course of the fertility transition.

Not Offered Every Year
Also Offered As: SOCI 6220
1 Course Unit

DEMGG 6320 Demography of Race
This course will examine demographic and statistical methods used to capture the impact of racial stratification in society. This course covers the skills and insights used by demographers and social statisticians in the study of racial data. A key challenge facing researchers is the interpretation of the vast amount of racial data generated by society. As these data do not directly answer important social questions, data analysis and statistics must be used to interpret them. The course will examine the logic used to communicate statistical results from racial data in various societies. We will question the scientific claims of social science methodology by extending the critical perspective to biases that may underlie research methods. We will discuss good and bad practices within the context of the historical developments of the methods.

Also Offered As: SOCI 6320
1 Course Unit
DEM 6430 Social Stratification
This is an advanced level graduate seminar where we will review contemporary research on social stratification and mobility. We will examine empirical and theoretical studies not only in the US but also in other countries to address how the pattern of social stratification varies across societies and over time. The main topics to be discussed are social mobility, occupational attainment, educational inequality, gender and race, and family processes and stratification. We will also examine studies that address how national contexts mediate social stratification. Advanced undergraduate students will be admitted with permission.
Not Offered Every Year
Also Offered As: SOCI 6430
1 Course Unit

DEM 6620 Panel Data Analysis
This course focuses on the ability to use, analyze, and understand panel data. Panel data contain repeated measurements of the dependent variable for the same individuals, and possibly repeated measurements of the predictor variables as well. Panel data offer important opportunities for controlling unobserved variables and for answering questions about causal ordering.
Also Offered As: SOCI 6620
1 Course Unit

DEM 7070 Second Year Research Seminar I
This course is intended to hone the skills and judgment in order to conduct independent research in sociology and demography. We will discuss the selection of intellectually strategic research questions and practical research designs. Students will get experience with proposal writing, the process of editing successive drafts of manuscripts, and the oral presentation of work in progress as well as finished research projects. The course is designed to be the context in which master’s papers and second year research papers are written. This is a required course for second year graduate students in Demography. Others interested in enrolling in only one of the courses may do so with the permission of the Chair of the Graduate Group in Demography.
Fall
Also Offered As: SOCI 7070
1 Course Unit

DEM 7071 Second Year Research Seminar II
This is the second part of a two-course sequence designed to introduce and familiarize second year students with current norms for academic research, presentation and publishing in the field of Demography. Students are expected to finalize the analyses and to complete their second year research paper. This is a required course for second year demography students. Others interested in enrolling in the course may do so with the permission of the Chair of the Graduate Group in Demography.
Spring
Also Offered As: SOCI 7071
1 Course Unit

DEM 7310 Advanced Demographic Methods
This course considers a variety of procedures for measuring and modeling demographic processes. We will consider both deterministic (drawn from classic demographic methods, stable population theory, and the like) and stochastic (drawn from statistics) perspectives and methods, including their integration. Pre-requisites: DEMG 609 and SOCI 536 (or its equivalent).
Not Offered Every Year
Also Offered As: SOCI 7310
Prerequisite: SOCI 6090 AND SOCI 5351
1 Course Unit

DEM 7960 Demographic, Economic, and Social Interrelations
The course investigates economic and social determinants of fertility, mortality, and migration, and it discusses the effects of population variables on economic and social conditions, including economic and social development. Topics discussed in the course include: How do economic changes affect marriage, divorce, and child bearing decisions? How do households make decisions about transfers and requests? How can economic and sociological approaches be combined in explanatory models of demography change? How does immigration to the US affect the ethnic composition of the population, the earnings of native workers, taxes on natives, and the macro-economy? What causes the aging of populations, and how will population aging affect the economies of industrial nations, and in particular, pension programs like Social Security? What accounts for the rise in women’s participation in the wage labor force over the past century? How are family composition and poverty interrelated? Does rapid population growth slow economic development with low income countries? In addition to these topics, the course also covers selected methods not included in DEMG/ SOCI 5350/5360 and 6090.
Not Offered Every Year
Also Offered As: SOCI 7960
1 Course Unit

DEM 9999 Independent Study
Primarily for advanced students who work with individual instructors upon permission. Intended to go beyond existing graduate courses in the study of specific problems or theories or to provide work opportunities in areas not covered by existing courses.
Fall or Spring
1 Course Unit

Dental - Dental Medicine (DENT)

DENT 5001 Foundation Sciences I
Foundation Sciences I is aimed at providing students with a thorough understanding of the basic principles of molecular biology and general biochemistry; the biochemical concepts underlying healthy metabolism, nutrition and selected disease states and comprehension at an advanced level of selected topics in cell biology
2.5-6.5 Credit Hours

DENT 5011 Foundation Sciences II
The course is structured to provide basic information about the evolutionary relationship, structure, physiology and molecular biology of the prokaryotic cells and viruses, and the basic mechanisms of immunology in relation to oral health. Emphasis will also be placed on how oral microorganisms participate in plaque/biofilm formation, caries and periodontal disease. Primary objectives related to the clinical setting include an understanding of the basis of the selective inhibition of antibiotics and the development of resistance, understanding the basis of serological tests and immunization and interpretation of radiographic evidence for caries and periodontal disease
0-6.5 Credit Hours
DENT 5022 Foundation Sciences III
Foundation Sciences III is the first course in the curriculum that focuses on the underlying cellular and molecular basis of disease and is a critical component of a larger subject commonly known as Pathology. In its simplest terms, Pathology is the study of the structural, biochemical and functional abnormalities that develop within cells, tissues and organs resulting in disease. The disease process forms the core of pathology and includes: etiology, pathogenesis, lesions, and clinical manifestations. Traditionally, Pathology is divided into general and systemic pathology. FSIII is the first of two courses (the other being FSIV) that collectively comprise the topic of general pathology. Specifically, FSIII will focus on: (1) the reactions of cells and tissues to abnormal stimuli leading to either adaption or cell injury and (2) pathogenic mechanisms responsible for disease development.
2.25-6.25 Credit Hours

DENT 5032 Foundation Sciences IV
This series of lectures will present relevant and important diseases and their treatments. We will explore the mechanisms used by bacteria to infect cells and present two major classes of bacteria, the Streptococcus and Staphylococcus. We will introduce odontogenic infections important to the oral cavity. Gastrointestinal infections, sexually transmitted diseases, tuberculosis and bacterial endocarditis will also be presented. There will be an introduction to antibiotics. This will be followed by a set of lectures on viruses with oral manifestations. These will include herpes, hepatitis, influenza, rhino, coxsackie, measles, mumps, rubella viruses, and treatments using antiviral drugs. Highlighted will be HIV and opportunistic infections of AIDS. Next, fungal infections and treatments will be presented. Finally, infection control in dentistry will be featured.
0.0-6.5 Credit Hours

DENT 5051 Biological Systems I
Biological Systems I is a multi-disciplinary, module-based course. Module I will provide the student with a basic understanding of the molecular, tissue, and functional mechanisms that give rise to the human form. Clinical aberrations, including craniofacial dysmorphisms will be presented to illustrate what happens when normal developmental mechanisms are disrupted. Module 2 will provide the student with a thorough understanding of the development, biology, morphology, and function of mucosal epithelium, connective tissue, skin and salivary glands. Module 3 combines perspectives from neurocytology, neurophysiology and pharmacology to help students develop a pre-clinical understanding of neuronal conduction and coordination as applied to the function and pharmacology of the somatic and autonomic nervous systems. Clinical correlations will be used where appropriate.
2.25-6.25 Credit Hours

DENT 5062 Biological Systems II
Biological Systems III combines the study of the general principles of anatomy and physiology of the human vascular, muscular and neuroanatomic systems with an emphasis on the orofacial complex. The goals of the course are to provide students with a sound knowledge of normal biology and organization of those organ systems and to examine and discuss examples of pathophysiologic conditions. Students should subsequently be able to recognize the anatomical structures, identify tissue types, and explain the principal physiologic functions of the vasculature, muscle and cranial nerves. The third module also includes clinical assessment of cranial nerve function.
2.25-6.25 Credit Hours

DENT 5072 Biological Systems IV
Cadaveric Anatomy of the Head and Neck is designed to facilitate integration of the gross anatomy learned systemically in the Biological Science track through the meticulous regional dissection of a human cadaver. In addition to enabling visualization of both anatomical structures and their clinically significant relationships in a three-dimensional context, the course provides initiation into the tactile manipulation of the human body.
0.5-3 Credit Hours

DENT 5102 Behav Sci I-Health Promo
Lectures, seminars, clinical sessions and community field experiences are provided so that students gain the necessary knowledge and skills in oral health promotion and disease prevention activities related to caries, periodontal diseases, and oral cancer. Focus is placed on assessment, planning, implementation and evaluation of strategies designed to target the individual patient, the community and a population perspective. Course topics include discussion of the philosophy, modalities, rationale and evaluation of health promotion and disease preventive activities related to caries, periodontal diseases, and oral cancer. Focus is placed on assessment, planning, implementation and evaluation of strategies designed to target the individual patient, the community and a population perspective. Course includes an introduction to evidence based care and research principles in application to critique of current dental literature.
0.5-4 Credit Hours

DENT 5120 Local and Global Public Health I
This course provides students with an introduction and foundational knowledge in basic concepts in public health, and specifically dental public health. An overview of public health programs at the global, federal, state, local level is provided. Public health topics, such as access to care, advocacy, cultural competence, health literacy, dental care delivery system, leadership, ethics, dental payment mechanisms and public health financing are included to provide students with a broader perspective on the social, political and economic forces affecting oral health and dental practice at the local, state, national and global levels. Students attend lectures, seminars and complete twelve hours of community activities in order to gain knowledge and skills in community oral health.
Summer Term
0.75-2.25 Credit Hours

DENT 5180 Biological Systems V
The course will provide the student with a sound knowledge of hematology and the basic biology and organization of the cardiovascular, pulmonary and renal systems; and establish the general integrative knowledge of the pathologies most commonly associated with these systems. The student will be made aware of the relevance of these pathologies, and the therapeutic agents applied, to dental practice. On the basis of the information and concepts learned during the course, the student will subsequently be able to: 1) Understand laboratory medicine, hematologic disorders, and transplant medicine; 2) To recognize the anatomical structures, identify tissue types, and explain the principal physiological functions of the three internal systems; 3) To recognize and explain the interrelationships within and between the anatomical structures of the heart, blood vessels, lung, and kidney; 4) To familiarize with the common pathologies likely to be encountered during dental practice and their implications to oral health; 5) To understand how specific systemic diseases affect diagnosis, management and general well-being of the dental patient.
3 Credit Hours
DENT 5301 Intro To the Patient
This course will provide foundational knowledge about the doctor patient relationship, present medical history skills and cover the basics of a dental orofacial physical exam. The first part of the course includes lectures outlining the doctor patient relationship, components and applications of the medical history. The second part includes lectures outlining the components and application of the physical exam, including vital signs, cranial nerve exam, head and neck examination, and examination of the heart and lungs. The third and final part of the course includes two practical workshops in small groups where students are required to practice taking medical histories and performing various components of the physical examination. The second rotation occurs in the Oral Diagnosis clinic where students take a medical history and perform a physical examination on a PDM admissions patient. 2.25-4.75 Credit Hours

DENT 5321 Biological Systems II
Presented in lectures and seminars, Module 1, will present information on the history of Radiology, in particular Dental Radiology and its implications for diagnosis and patient care. Module 2 will present a detailed survey of osteology of the skull, cervical spine and laryngeal skeleton in a series of interactive lectures and small-group conferences. Appreciation of the three-dimensional anatomy of the cranium, temporomandibular joint and the orofacial skeletal complex will be reinforced with integrative presentations of radiographic anatomy to introduce some clinical correlations. Module 3 will present a basic knowledge of bone based on development, anatomical, histological, radiological, molecular and functional perspectives. Teach the fundamental principles of cell-cell interactions, extracellular matrix deposition and mineralization related to bone homeostasis, remodeling and healing. Concepts will be emphasized with radiological presentation of bone diseases using different imaging modalities. 0-4.5 Credit Hours

DENT 5340 Intro. To Hematology and Lab Medicine
The objective of the Freshmen Dental Occulsion course is to provide foundational knowledge regarding human occlusion and the temporomandibular joint. Dental occlusion relative to Operative dentistry procedures will be discussed. This knowledge will be called upon throughout all four years of the dental curriculum. This course includes lectures and laboratory sessions where waxing of teeth using only concepts related to dental occlusion, selective grinding to achieve an ideal occlusal relationship, alginate impressions and diagnostic model making, facebow transfer, and diagnostic model mounting procedures will be completed to reinforce didactic materials presented. 1.25-2 Credit Hours

DENT 5380 Operative Dent. Lab
The objective of the Freshmen Operative Dentistry Laboratory course is to develop an understanding of the normal, healthy stomatognathic system and to introduce fundamental didactic and psychomotor skills, relative to operative dentistry procedures. The course includes a review of individual tooth anatomy and the study of occlusion to define what is normal and healthy. The study of cariology and the treatment of the pathologic progress continues afterward. Restoration of form and function with basic intracoronar amalgam and composite procedures then follows. More complex intracoronar procedures such as gold inlay and porcelain onlay preparations and restorations are then taught. Throughout the entire course, the study of occlusion as it applies to restorative dentistry procedures is continued. 2 Credit Hours

DENT 5400 Intro To Pharmacology
Neuropharmacology is both a basic science and a clinical science. It builds on the foundation of anatomy, biochemistry, physiology, and pathology and bridges the gap into clinical dentistry. This course in basic neuropharmacology will give the students a better understanding of drugs, interpreting complicated drug/medical histories, and understanding drug reactions. This module will focus on pharmacology of the central nervous system with lectures on analgesic agents, antianxiety drugs, general anesthetics, arthritis and gout drugs, prescription writing and a host of other agents used to treat diseases of the CNS including Parkinson’s, seizures, and a variety of psychiatric disorders. Clinically relevant drug-drug interactions will also be covered in this course. 0.25-3 Credit Hours

DENT 5520 Ethics I
The objective of the PEDM courses (1st, 2nd and 3rd year courses) is to impart a general knowledge of fundamental concepts in principles of professionalism and ethical decision making with emphasis on care-based discussions. The courses utilize lectures, seminars, online discussions, and reflection papers to address issues related to doctor-patient relationships, academic integrity as well as professional communication. These Pass/Fail courses provide a forum for discussing, debating and understanding parameters of professional and ethical behavior, and their impact on the patients, colleagues, the public, and the profession. PEDM I focuses on academic integrity, micro-aggressions and how professional and ethical behavior during pre-clinical years translates into ethical clinical practice. 0.5 Credit Hours

DENT 5540 Intro To Clinical Dent I
This course provides first-year dental students with a variety of different clinical experiences. The student spends day-long rotations in various predoctoral and specialty PDM clinics. In addition, students gain a unique perspective in practice management by assisting PDM staff with dispensing clinical supplies and in Instrument Management Services. 0.25 Credit Hours

DENT 5702 Periodontics I
This course is presented in two parts. The first part presents basic biology concepts applied to the healthy and diseased periodontium. Macroscopic and microscopic changes of the periodontium will be featured and how these are altered by disease. In addition the biological basis for etiology, pathogenesis and epidemiology of periodontal disease is presented. The second part consists of presenting the basic clinical procedures for diagnosis and non-surgical treatment of periodontal diseases through lectures, preclinical labs and clinical rotations. Part 2: consists of lectures, pre-clinical labs and clinical rotations. Those will be dedicated to presenting diagnostic and non-surgical aspects of periodontal therapy. 0.5-3.5 Credit Hours

DENT 5800 Orthodontics I
This course will expose the students to the diagnostic and treatment planning process in orthodontics. The student will also be taught the basic principles and events in child growth and development (craniofacial, somatic and dentitional) as well as the development and diagnosis of malocclusions. 2.25 Credit Hours
DENT 5801 Advanced Simulation
The objective of the Freshman Advanced Simulation Laboratory course is to introduce and develop specific psychomotor and cognitive skills through the use of virtual reality based training that will enhance and augment future skills acquired in the preclinical General Restorative Dentistry, Operative Dentistry course. Technical skills are developed through learning preparations with a high speed handpiece, and dental hand instruments in a virtual reality, advanced simulation environment. Suitable operative skills, knowledge, and ergonomics will be emphasized for the successful transition into the preclinical operative course. Dental terminology and principles of tooth preparation will be applied to the theory of all the basic preparations. Suitable operative skills, knowledge, and ergonomics will be emphasized for the successful transition into the preclinical operative course.
0.25-2 Credit Hours

DENT 5821 Dental Devel.& Anatomy
The Freshman Dental Development and Anatomy provides foundational knowledge regarding Tooth development, Primary dentition, Permanent dentition, Tooth numbering systems, Tooth classification (Incisors, Canines, Premolars, Molars), Set Traits (traits between Primary and Permanent dentition), Class traits (traits for each kind of tooth), Arch traits (traits of maxillary vs. mandibular), and Type traits (differences between teeth within the Class). Dental morphology relative to Operative dentistry procedures will be discussed. This knowledge will be called upon throughout all four years of the dental curriculum.
0.75-4 Credit Hours

DENT 5841 Dental Auxiliary Utilization II
This course is designed to teach the first-year student a four-handed dental assisting technique which is used to assist third and fourth year students in clinical practice. In addition, skills such as patient communication, team building, and record keeping are taught. Students gain clinical experience and assist in the same procedures that they are encountering in GRD, thus forming a clinical bridge to pre-clinical learning. Lectures, a written exercise, a lab, clinical rotations and completion of a clinical exam make up the didactic portions of the course.
0.25-3 Credit Hours

DENT 5842 Clinical Prac II - Dau
This course is designed to teach the first-year student a four-handed dental assisting technique which is used to assist third and fourth year students in clinical practice. In addition, skills such as patient communication, team building, and record keeping are taught. Students gain clinical experience and assist in the same procedures that they are encountering in GRD, thus forming a clinical bridge to pre-clinical learning. Lectures, a written exercise, a lab, clinical rotations and completion of a clinical exam make up the didactic portions of the course.
0.75-4 Credit Hours

DENT 5862 Operative Dent. Lecture
The objective of the Freshmen Operative Dentistry lecture course is to give foundation knowledge of operative instrumentation, operative dentistry, terminology, principles of cavity preparations, and the basics of single tooth restorations.
0.75-4 Credit Hours

DENT 5870 Introduction to Caries Risk Assessment
This course provides students with GRD experience in order to gain additional knowledge, skills and values to develop competency in caries risk assessment. Classes are scheduled for the summer for the incoming second year and include the following topics: risk assessment for caries, health promotion care, and Axium. Students will be completing caries risk assessment in the simulation lab and record the completion of procedures in Axium using appropriate codes to document completion of required activities.
0.5 Credit Hours

DENT 5882 Dental Materials
The course is divided into two segments. The first segment teaches the principles of materials science. The second segment is designed to present topics in applied dental materials as students use these materials in General Restorative Dentistry (GRD). After successful completion, the student should understand how the basic principles aid in material selection, risk/benefit assessment, restoration design, patient information and evaluation of new materials and manufacturer's claims.
0.25-3 Credit Hours

DENT 5890 Restorative Microscopy I
The use of enhanced magnification with loupes is a widely accepted standard practice to perform restorative dentistry. The dental operating microscope can provide superior visual performance. For the endodontic specialty, the dental microscope has demonstrated significantly higher success rates compared to loupes. The success of endodontic therapy utilizing the dental microscope suggests that the dental clinician may achieve better outcomes with microscope implementation in restorative dentistry. This introductory course will provide each participant the ability to learn essential restorative microscope utilization techniques in combination with dental loupes for optimal precision dentistry.
Summer Term
0.5 Credit Hours

DENT 5912 Honors I
In line with PDM's vision to transform global oral health and well-being through exceptional clinical care, innovation, education, and research, the PDM Honors Course provides qualified students an enrichment experience designed to cultivate enhanced understanding of and a leadership outlook in Oral Health related disciplines. These disciplines include Basic and Translational Research, Clinical Dentistry, Clinical Research, Community Oral Health, Endodontics, Nutritional Sciences, Oral and Maxillofacial Surgery, Orthodontics, Pediatric Dentistry, Periodontics, Personalized Care, Radiology and Oral Medicine and Vulnerable Populations.
Spring
1.5-3.5 Credit Hours

DENT 5992 Selectives I
0.25-1.5 Credit Hour
DENT 6001 Biological Systems V
A comprehensive overview of the cardiovascular, respiratory, and renal organ systems will be discussed by faculty from the School of Dental Medicine. Lectures will also be given by faculty from the School of Medicine. Module 1, will provide the student with an introduction to histology, gross anatomy, and physiology of the cardiovascular system. Next, lectures will introduce the student to the common diseases that may involve the cardiovascular system that includes, atherosclerosis, conduction disorders, and valvular diseases. Lectures on pharmacology will be presented to apply understanding of normal physiology and mechanisms underlying disease processes. Module 2, will provide the student with an introduction to histology, gross anatomy, and physiology of the respiratory system. Next, lectures will introduce the student to the host defense of the pulmonary systems, and the infectious diseases that may occur when defense are defective. Additionally, lectures will introduce the small vessel vasculitides that can present with head and neck manifestations. Module 3, will provide the student with an introduction to histology, gross anatomy, and physiology of the renal system. Next, lectures will introduce the student to the fundamental physiologic processes that occur in the renal system, which includes glomerular function, regulation of potassium balance, and the buffering system. Lectures on pharmacology will be presented to apply understanding of normal renal physiology and drug mechanisms.
1.5-3.5 Credit Hours

DENT 6042 Oral & Maxil Complex II
This is a course that will apply what students have already learned in Foundation Sciences and Biologic Systems courses to the study, interpretation and diagnosis of oral disease. It is an essential link between the basic and clinical sciences concerned with the mechanisms of disease (e.g., inflammation, genetic disease, neoplasia, immunopathology) and the disease processes that students will encounter during their careers in dentistry. The emphasis will be on oral soft and hard tissue pathology, including oral manifestations of systemic diseases that may impact on the health of the patients.
1.5-3.5 Credit Hours

DENT 6062 Biological Systems VII
Cadaveric Anatomy is designed to facilitate integration of the gross anatomy learned systematically in the Biological Systems curriculum stream through the meticulous regional dissection of a human cadaver. In addition to enabling visualization of both anatomical structures and their clinically significant relationships in a three-dimensional context, the course provides initiation into the tactile manipulation of the human body.
0.25-2 Credit Hours

DENT 6101 Local, Public Health, Ethics
Lectures, seminars and community experiences provide students with foundation knowledge in general principles of public health and community health, with specific application to the following dental public health concepts: access to care, cost, quality of care and international health. Students complete community experiences that provide foundation experiences in developing and implementing community oral health promotion activities.
0.25-3 Credit Hours

DENT 6102 Local & Public Health II
Lectures, seminars and community experiences provide students with foundation knowledge in general principles of public health and community health, with specific application to the following dental public health concepts: access to care, cost, quality of care and international health. Students complete community experiences that provide foundation experiences in developing and implementing community oral health promotion activities.
Spring
0.25-1.5 Credit Hour

DENT 6110 Biological Systems IV
This course combines an introduction to the general principles of anatomy, histology, and physiology of the human cardiovascular, pulmonary and renal systems, with an extensive study of the pathology and therapeutics of these systems, with an explicit emphasis on their relationship to dental practice. This course is presented in three modules. We have assembled a diverse and experienced group of lecturers, including experts in oral medicine, oral surgery, anatomy, physiology, pharmacology and pulmonary and renal medicine.
1.25 Credit Hour

DENT 6160 Biological Systems VIII
This course combines an introduction to the general principles of anatomy, histology, and physiology of the human hematopoietic and lymphoid system and neurologic systems with an extensive study of the pathology and therapeutics of these systems, and with an explicit emphasis on their relationship to dental practice.
2 Credit Hours

DENT 6162 Behavioral Management
This course provides students with the knowledge and skills to communicate with and manage appropriately a diverse group of clinical patients. Eight hours of small group activity, including experiences with standardized patients, as well as twelve hours of large group activities provide the foundational knowledge and skills in patient management with diverse and challenging patients. Motivational interviewing is presented and discussed as a strategy for communication and management with patients.
0.5-3.5 Credit Hours

DENT 6202 Endodontics Lecture
The Department of Endodontics trains pre-doctoral students to become competent in basic endodontic procedures. This includes instruction in the foundational core of Endodontics, including pulp biology, primary non-surgical root canal treatment. Clinical Endodontics: The Department of Endodontics furthermore trains pre-doctoral students to understand advanced endodontic procedures. This includes instruction in trauma, resorption, retreatment, endodontic surgery, bleaching, etc. Our ultimate goal is to implement that treatment/education in a caring, respectful, and responsible manner.
2.5-5 Credit Hours

DENT 6222 Endodontics Lab
The pre-clinical endodontic laboratory course is designed to introduce endodontic concepts and techniques to a student under simulated conditions using extracted teeth.
0.25-2 Credit Hours
DENT 6240 Oral & Maxil Complex III
This course is designed to give the student exposure to all methods of anesthesia and pain control used in dentistry, as well as, various medical emergencies encountered in practice. In addition, the students will learn about the mechanisms and consequences of orofacial pain. All lectures will be presented by faculty members from the departments of Oral and Maxillofacial Surgery & Pharmacology and Oral Medicine.
1.5 Credit Hour

DENT 6280 Oral Diagnosis and Emergency Medical Clerkship
The purpose of this course is to give students a foundation for understanding physical diagnosis, medical work-ups, medical consultations and medical conditions which directly affect the medical management of the dental patient.
3 Credit Hours

DENT 6301 Biological Systems V
This course combines an introduction to the general principles of anatomy, histology, and physiology of the human cardiovascular, pulmonary and renal systems, with an extensive study of the pathology and therapeutics of these systems, with an explicit emphasis on their relationship to dental practice.
1.5-4 Credit Hours

DENT 6310 Fixed Prosthodontics Lab
The curriculum of Fixed Prosthodontics Laboratory deals with the building of knowledge, thought processes, skills and understanding the procedures required in the restoration of missing and/or badly broken-down teeth by the fabrication of non-removable prostheses. Student will gain hands-on experience in the clinical and technical aspects of fixed prosthodontics.
0.25-2.5 Credit Hours

DENT 6321 Biological Systems Vi
This course combines an introduction to the general principles of anatomy, histology, and physiology of the human gastrointestinal, hepatobiliary, and endocrine systems, with an extensive study of the pathology and therapeutics of these systems, with an explicit emphasis on their relationship to dental practice.
2.25-5 Credit Hours

DENT 6322 Medical Clerkship
The purpose of this course is to give student doctors a foundation for understanding physical diagnosis, medical work-ups, medical consultations and medical conditions which directly affect the medical management of the dental patient. Clinical Case of the Day examples are reviewed/discussed.
0.25-3 Credit Hours

DENT 6360 Fixed Prosthodontics II
The curriculum of the Fixed Prosthodontics Lecture Course deals with building knowledge, thought processes and understanding the procedures required in the restoration of missing and/or badly broken-down teeth by the fabrication of non-removable prostheses.
1.5 Credit Hour

DENT 6370 Fixed Prosthodontics Laboratory II
The curriculum of Fixed Prosthodontics Laboratory deals with the building of knowledge, thought processes, skills and understanding the procedures required in the restoration of missing and/or badly broken-down teeth by the fabrication of non-removable prostheses. Student will gain hands-on experience in the clinical and technical aspects of fixed prosthodontics.
Spring
1.75 Credit Hour

DENT 6401 Intro To Pharmacology
Neuropharmacology is both a basic science and a clinical science. It builds on the foundation of anatomy, biochemistry, physiology, and pathology and bridges the gap into clinical dentistry. This course in basic neuropharmacology will give the students a better understanding of drugs, interpreting complicated drug/medical histories, and understanding drug reactions. This module will focus on pharmacology of the central nervous system with lectures on analgesic agents, antianxiety drugs, general anesthetics, arthritis and gout drugs, prescription writing and a host of other agents used to treat diseases of the CNS including Parkinson’s, seizures, and a variety of psychiatric disorders. Clinically relevant drug-drug interactions will also be covered in this course.
0.25-3 Credit Hours

DENT 6421 Neuro,Neuropharm,Beh Mg
1.5-4.25 Credit Hours

DENT 6441 Oral & Maxil Complex II
This course will develop a general knowledge of fundamental concepts in orofacial function and occlusion. The course is presented in two modules, with an exam at the end of each module. The orofacial function module will focus on physiology anatomy and function of the facial structures, including saliva, mastication, speech, swallow, smell and taste. The goal is for the students to have a basic understanding of orofacial function. The occlusion module will discuss the role of occlusion in restorative dentistry with emphasis on the clinical application of fundamental biomechanical principles, techniques and instruments. By focusing on diagnosis, the student will be able to understand and develop the parameters to create successful restorative decisions and well-sequenced treatment plans. This module will provide a mandatory hands-on session for facebow transfer, unterocclusal record and articulator set-up.
0-3.75 Credit Hours

DENT 6460 Medical Emergencies
Oral and Pharmacology
1 Credit Hour

DENT 6502 Orthodontics I
The purpose of this course is to provide students with the knowledge of growth and development, concentrating on child somatic, craniofacial, and dental growth and development. The students build a solid foundation along the lines of diagnosing problems and understanding the etiology of malocclusion and space maintenance.
1-3.25 Credit Hours

DENT 6520 Ethics II
PEDM II focuses on preparing students to enter the clinical practice of dentistry; building relationships with patients, colleagues, and faculty; and developing and a moral framework for clinical decision making.
0.5 Credit Hours

DENT 6522 Adjunctive Ortho Lec/Lab
This course is designed to expose the student to basic orthodontic laboratory and clinical procedures and encourages the development of technical abilities in banding, bonding, wire bending, and removable appliance fabrication.
0.25-3 Credit Hours
DENT 6602 Pediatric Dentistry I
Pediatric Dentistry. This course will cover Fundamentals of Pediatric Dentistry that will allow you to have a working knowledge of how to manage infants, children, adolescents and patients with special needs that come into your office as a general dentist. The course also describes topics in pediatric relevant to a variety of dental specialties for those interested in pursuing post-graduate studies.
0.25-3 Credit Hours

DENT 6660 Recall Clinic
0.5 Credit Hours

DENT 6702 Periodontics II Lec/Lab
This course will be focused on non-surgical periodontal therapy. The macroscopic and microscopic effects of this modality of treatment will be discussed. Different forms of periodontal diseases and non-surgical therapeutic tools will also be presented as well as information on the prognosis of the periodontal therapy and the relevance of maintenance.
0:3.5 Credit Hours

DENT 6801 Fixed Prosthodontics
The curriculum of the Fixed Prosthodontics Lecture Course deals with the building of knowledge, thought processes and understanding the procedures required in the restoration of missing and/or badly broken-down teeth by the fabrication of non-removable protheses. Students will learn diagnosis, treatment planning, rehabilitation and maintenance of oral function, comfort, appearance and health of patients with clinical conditions associated with missing or deficient teeth using biocompatible substitutes. These restorations must provide an improved state of oral health, function and esthetics for patients.
2.5-5 Credit Hours

DENT 6802 Fixed Prosthodontics Lec Spring
This is the continuation of the fall lecture course. The curriculum of the Fixed Prosthodontics Lecture Course deals with the building of knowledge, thought processes and understanding the procedures required in the restoration of missing and/or badly broken-down teeth by the fabrication of non-removable protheses. Students will learn diagnosis, treatment planning, rehabilitation and maintenance of oral function, comfort, appearance and health of patients with clinical conditions associated with missing or deficient teeth using biocompatible substitutes. These restorations must provide an improved state of oral health, function and esthetics for patients.
0.5-3.25 Credit Hours

DENT 6811 Operative Dentistry II
This course will give a continuation of the D1 course dealing with the whole patient and the surgical and non-surgical treatment of the dental hard tissues. It builds on the foundation knowledge and experience from 1, exposing students to more complex cases. Both the classical and contemporary preparations of restorative dentistry are presented. Student will prepare for the patient care program by reviewing updates in cardiology, caries diagnosis; caries risk assessment, CAD/CAM and homecare procedures being reinforced in a simulated patient setting. All laboratory procedures will be “cased based” using a patient scenario. This training will take place in a simulation environment that develops good “clinical” habits and integrates “patient” data into the daily treatment. The course will also introduce the D2 student to the clinic Electronic Health Record (HER) using these same patient scenarios. The course finally transitions students to active patients care in the clinic. As a result of the emphasis on this “case-based approach” students will enhance their treatment planning skills by creating a complete EHR for reach of their assigned ‘patients.’ All records will be reviewed by faculty. Students will be encouraged to consult with their colleagues, and research needed information for input into all elements of treatment planning. This will also ensure a smoother transition to their clinic performance, clinic requirements, and to the electronic record system. Faculty feedback and mentoring will include the assembled patient records, and how they meet professional standards.
1.25-5 Credit Hours

DENT 6812 Partial Rem Dent Pros Lb
A combination of lectures, seminars and laboratory exercises provide the dental student with a fundamental understanding of the partially edentulous condition. Topics covered include classification, diagnosis, treatment planning and treatment of partially edentulous patients with RPDs. This course is designed to provide students with the terminology, concepts and principles necessary for case selection, design, construction of, and patient therapy with conventional RPDs. Upon completion of this course students will have the necessary didactic knowledge to successfully understand and treat removable partial denture cases in conjunction with the clinical faculty during their third and fourth years.
0.75-4 Credit Hours

DENT 6822 Complete Rem Dent Pros L
The goal of this course is to provide students with the foundation of knowledge needed to diagnose and treat edentulous patients. Students should be able to: 1. Recognize and define complete denture terminology deemed relevant in the classroom, course syllabus, and assigned readings. 2. Describe medical, emotional, and oral anatomic factors that aid in formulation of diagnostic considerations in the complete denture therapy. 3. Describe functional anatomy of the edentulous mouth. 4. Understand the clinical procedures performed during the construction of conventional complete dentures and during the maintenance phase of treatment. 5. List the fundamental clinical procedures performed during the construction of immediate complete dentures. 6. Understand the complete denture occlusion. Upon completion of this course, the students should have an in-depth understanding of: 1. The need for therapy in and restoration of the edentulous arch with complete protheses. 2. The significance of avoiding the edentulous condition in a patient wherever possible. 3. The dental materials that are used at the different stages of complete dentures therapy. 4. The concept and techniques of the clinical steps involved in the treatment of the edentulous patient.
0.25-3 Credit Hours
DENT 6831 Fixed Prosthodontics Laboratory
The curriculum of the Fixed Prosthodontics Laboratory deals with the building of knowledge, thought processes, skills and understanding the procedures required in the restoration of missing and/or badly broken down teeth by the fabrication of non-removable prostheses. Students will gain hands-on experience in the clinical and technical aspects of fixed prosthodontics.
1-4 Credit Hours

DENT 6832 Fixed Prosthodontics Laboratory Spring
This is a continuation of the fall lab course. The curriculum of the Fixed Prosthodontics Laboratory deals with the building of knowledge, thought processes, skills and understanding the procedures required in the restoration of missing and/or badly broken down teeth by the fabrication of non-removable prostheses. Students will gain hands-on experience in the clinical and technical aspects of fixed prosthodontics.
1 Credit Hour

DENT 6841 Clinical Practice I
Placeholer course description being finalized. Introduction to Clinical Practice for 2nd year DMD students.
0.25-3 Credit Hours

DENT 6842 Clinical Prac Ii-Dau
Dental Auxiliary Utilization for the sophomore class builds on the dental assisting skills the student has mastered in DAU 562. In 662, the student moves on from assisting to Expanded Functions Dental Auxiliary skills that have been taught in the General Restorative Dentistry course. Goals of the course include the goals of DRAUT 562, as well as the development of skills to restore prepared teeth, cement and fabricate temporary crowns, and obtaining, clinical patient records of third and fourth-year student patients. Emphasis is increased on the student’s independent completion of patient-centered tasks and preparation for becoming primary providers in the third year.
0.75-4 Credit Hours

DENT 6851 Fundamentals of Critical Thinking and Clinical Decision-Making
This course provides students with foundational knowledge and skills for evidence-informed clinical decision-making, critical thinking, and health literacy. The course presents a variety of clinical scenarios that guide the exploration of forms of evidence from primary and secondary research and their utilization to inform daily clinical and policy decision-making. The course provides the necessary skills for the students to become independent thinkers, efficiently navigate sources of evidence to inform practice, identify strengths and limitations of a variety of research study designs, master results interpretation, and apply study results and clinical practice guideline recommendations to patient care. In addition, the students will learn about the principles of health literacy and acquire the skills to contribute to their patients’ ability to make health decisions informed by evidence. Students attend weekly interactive lectures, seminars and need to pass a final exam.
1-2 Credit Hours

DENT 6852 Advanced Restorative Esthetics
tbd
Spring
1 Credit Hour

DENT 6862 Complete Rem Dent Pros B
The goal of this second-year course is to provide the dental students with the technical knowledge and skills needed to perform all the laboratory procedures used in the construction of complete dentures and apply the foundation knowledge learned in the lectures. Students should be knowledgeable and skilled in the following: 1. Describing and performing selected sequential clinical and laboratory procedures during the construction of complete dentures. 2. Applying the knowledge related to dental materials learned in the lectures. Upon completion of this course, the students should be able to: 1. Perform all the laboratory procedures used in construction of complete dentures. 2. Demonstrate the function and the usage of Hanau face bow and articulator in the construction of complete dentures. 3. Communicate with the laboratory technicians via properly written work authorizations.
0.75-4 Credit Hours

DENT 6872 Pass Preparatory Course
This is a preclinical laboratory course that consists of preclinical laboratory sessions and short presentations which include demonstrating and performing restorative and prosthetic procedures in a simulated environment (manikin and typodonts).
0-3 Credit Hours

DENT 6882 Intro To Clin Dent II
This course is offered by the Department of Preventive and Restorative Sciences at the University of Pennsylvania School of Dental Medicine. It is intended to integrate topics from General Restorative Dentistry courses and DAU courses at the PDM with clinical expectations and procedures of PDM clinics.
0.75-4 Credit Hours

DENT 6892 Professionalism, Ethics and Healthcare Communities
The Professionalism, Ethics and Healthcare Communities is comprised of ten Modules asynchronous online material designed to introduce incoming graduate and dental students to a range of concepts, theories and skills aimed at increasing their awareness issues of racism and oppression to promote inclusive and affirming classrooms and learning communities. The course material is delivered through a series of short videos and readings. Modules covers such topics as implicit bias, microaggressions conflict resolution and bystander intervention; free speech and inclusion, social media usage; racism and other forms of oppression; gender and gender identity; equity and access in healthcare; understanding and owning whiteness and racial literacy; and restorative justice. Students also attend 1 -in-person seminar titled “Restorative Practices, Conflict Skills and Responding to Harm” conducted by representatives from the Office of Restorative Practices and Student Conduct.
Spring
0.25-3 Credit Hours
DENT 6900 Oral Surgery I
This course is designed to give the student exposure to all aspects of the wide and varied scope of oral and maxillofacial surgery. The course also promotes the integration of the basic sciences and medicine into the daily practice of oral and maxillofacial surgery and dentistry. It builds upon and incorporates knowledge from many prerequisite courses, particularly the Pharmacology, Microbiology, and Anesthesia, Pain, and Anxiety courses. After successful completion of this course and its clinical counterpart (course #872), the student should be competent in the management of all aspects of oral and maxillofacial surgery as outlined above under the course goals. Lectures will be presented by faculty members of the department of Oral and Maxillofacial surgery. The lecture material and reading assignments are designed to be complementary. Examinations will encompass material from both sources. Additionally, at the request of the dean of academic affairs, the examinations will include questions that reinforce the knowledge obtained by completion of the prerequisite courses of PHARMACOLOGY, MICROBIOLOGY, and Anesthesia, Pain, and Anxiety. Students should review the material from those courses as both the midterm and final examinations will contain questions from knowledge obtained by their completion.
3 Credit Hours

DENT 6912 Honors II
In line with PDM’s vision to transform global oral health and well-being through exceptional clinical care, innovation, education, and research, the PDM Honors Course provides qualified students an enrichment experience designed to cultivate enhanced understanding of and a leadership outlook in Oral Health related disciplines. These disciplines include Basic and Translational Research, Clinical Dentistry, Clinical Research, Community Oral Health, Endodontics, Nutritional Sciences, Oral and Maxillofacial Surgery, Orthodontics, Pediatric Dentistry, Periodontics, Personalized Care, Radiology and Oral Medicine and Vulnerable Populations.
Spring
1.5-3.5 Credit Hours

DENT 6992 Selectives II
0.25-1.5 Credit Hour

DENT 7002 Differential Diagnosis
tbd
Spring
0.5 Credit Hours

DENT 7101 Health Promotion S
0.25-2 Credit Hours

DENT 7102 Health Promotion II Spring
This course provides students with both seminars and clinical experiences in order to gain additional knowledge, skills and values to develop competency in health promotion activities. Seminars are scheduled throughout the third year and include the following topics: risk assessment for caries, periodontal diseases and oral cancer; customized oral health promotion plans to address risks and promote health; health promotion care with dentures and implants; modifying health promotion for patients with physical, developmental and emotional disabilities. Discussions also focus on communication to meet the different social and cultural needs of patients. Clinical experiences in the Primary Care Units and Community Clinics provide students with opportunities to develop skills and competencies related to health promotion. Oral health promotional activities are an integral part of the care students provide with their patients. Students complete a Caries and Periodontal Risk Assessment with each patient and provide customized oral health promotional services periodically throughout treatment. Students provide fluoride treatments, tobacco counseling and nutritional counseling as appropriate for their patients. In addition, edentulous patients receive special advice regarding mouth care, denture care and oral cancer self-examination procedures. Students must record the completion of health promotion procedures in Axium using appropriate codes to document completion of required clinical activities. In addition, students must record the completion of appropriate health promotion activities on the clinical charts.
Spring
0.25-2 Credit Hours

DENT 7122 Community Oral Health
4-8 Credit Hours

DENT 7160 Professional Practitioner Development I
This course provides the foundation for students to understand knowledge, skills and attitudes that dental students must develop as professional dental care providers for success in dental practice. Three modules comprise this course: Ethics, Practice Management and Professionalism, and Behavior Management. Module 1 Ethics prepares students to enter the clinical practice of dentistry; build relationships with patients, colleagues and faculty; and develop a moral framework for clinical decision-making. The module follows the principle that by discussing ethical challenges and creating a plan for approaching them one can be a more ethical clinician when faced with dilemmas in real life. Module 2 Practice Management and Professionalism includes synchronous and asynchronous lectures and seminars on the following topics: developing career goals; concepts in leadership and mentorship; dental business basics; risk management and overview of dental insurance, CDT and coding. Seminars focus on application of lecture concepts to developing dental practice in leadership, insurance and risk management. Module 3: Behavior Management provides students with the knowledge and skills to communicate with and manage appropriately a diverse group of clinical patients at Penn Dental Medicine. Topics include discussion of patients’ perception of dentists and dental care, patient adherence and motivational interviewing, health disparities, management of diverse patients with psychiatric disorders, patients with fear, anxiety, phobias and pain, as well as review of the dentist’s role in identifying and managing patients experiencing abuse (child abuse and intimate partner violence) and addiction disorders. Experiences with four standardized patients are scheduled to provide the foundational knowledge and skills in patient management with diverse and challenging patients. Motivational interviewing is discussed as a strategy for communication and management of change with patients.
1.75 Credit Hour
DENT 7162 Professional Practitioner Development II
This course provides the foundation for students to understand knowledge, skills and attitudes that dental students must develop as professional dental care providers for success in dental practice. Three modules comprise this course: Ethics, Practice Management and Professionalism, and Behavior Management. Module 1 Ethics prepares students to enter the clinical practice of dentistry; build relationships with patients, colleagues and faculty; and develop a moral framework for clinical decision-making. The module follows the principle that by discussing ethical challenges and creating a plan for approaching them one can be a more ethical clinician when faced with dilemmas in real life. Module 2 Practice Management and Professionalism includes synchronous and asynchronous lectures and seminars on the following topics: developing career goals; concepts in leadership and mentorship; dental business basics; risk management and overview of dental insurance, CDT and coding. Seminars focus on application of lecture concepts to developing dental practice in leadership, insurance and risk management. Module 3: Behavior Management provides students with the knowledge and skills to communicate with and manage appropriately a diverse group of clinical patients at Penn Dental Medicine. Topics include discussion of patients' perception of dentists and dental care, patient adherence and motivational interviewing, health disparities, management of diverse patients with psychiatric disorders, patients with fear, anxiety, phobias and pain, as well as review of the dentist's role in identifying and managing patients experiencing abuse (child abuse and intimate partner violence) and addiction disorders. Experiences with four standardized patients are scheduled to provide the foundational knowledge and skills in patient management with diverse and challenging patients. Motivational interviewing is discussed as a strategy for communication and management of change with patients.
0-2 Credit Hours

DENT 7200 Endodontics
0.25-2 Credit Hours

DENT 7201 Endodontics Clinic
0.25-2 Credit Hours

DENT 7202 Endodontics II Clinical Spring
The Department of Endodontics trains pre-doctoral students to become competent in basic endodontic procedures on vital and non-vital teeth. This course includes clinical instruction in diagnosis, treatment planning, treatment/obturation, post-endodontic restoration and related entities (bleaching of non-vital teeth, treatment of traumatic injuries, etc.). This instruction begins at the pre-clinical in the second year endodontic lecture series (670) and is expanded and reinforced in pre-doctoral laboratory course (672). Students present to the Endodontic Clinic to render care either on their own patients or on patients referred for endodontic emergencies. Case assignment will be handled by clinical faculty and the endodontic business office based on the AAE case difficulty guidelines. In a student's Endodontic Emergency rotation, they are instructed in the proper diagnosis and assessment of emergency cases, appropriate treatment (both emergency and scheduled appointment visits), pertinent paperwork and follow up of emergency patients. The pre-doctoral student, at the discretion of the faculty member on duty, may elect to retain the emergency patient for further treatment or, if the case is deemed too difficult or the student elects not to treat that particular patient, the appropriate referral to another pre-doctoral or a post-doctoral student is made. Regularly scheduled patients are treated in the Endodontic Clinic. Appointments are made by the treating students through the Endodontic Business Office. Supervision ranges from chair-side direct supervision for those students identified as having limited endodontic experience, to that of indirect supervision for those having completed more cases involving anterior and posterior teeth. Attending instructors consist of full- and part-time faculty members and second-year postgraduate endodontic residents assigned to teach in the Endodontic Clinic on a rotational basis. The overall supervision of the clinic on a specific day is the responsibility of the appointed "day chief" (a faculty member). Management and administration of the clinic and all related decisions are the shared responsibility of the pre-doctoral and post-doctoral directors. During Endodontic Clinic rotations, pre-doctoral students do not treat emergency dental trauma cases. Post-doctoral students will treat these patients through the Emergency Clinic and endodontic emergency.
0.25-2.25 Credit Hours

DENT 7300 Oral Medicine
0.25-3 Credit Hours

DENT 7301 Oral Medicine L
The purpose of this course is to give students a foundation for common oral lesions, facial pain, and salivary gland disease as well as an understanding of medical conditions which directly affect the oral and maxillofacial structures.
0.25-3 Credit Hours
DENT 7302 Admissions and Emergency II Clinical
The Admissions & Emergency Care Clinic rotation (13 rotations for juniors) consists of separate clinical rotations in the Emergency Care Clinic and the Oral Diagnosis (Admissions) Clinic. The Emergency Care Clinic provides emergency care to appointed and walk-in non-registered patients. Emphasis is placed on efficient and thorough medical work-up and dental care to ensure that the patient receives the highest quality of emergency dental care in a timely manner. The dental students on rotation gain knowledge and experience in medical history acquisition, clinical pharmacology, general and specialty medicine, and physical examination, including a head and neck cancer examination and risk assessment, and emergency care of the dental patient. This also includes the appropriate selection and evaluation of radiography to assess the emergency. The Oral Diagnosis Clinic provides an initial evaluation for SDM patients who register for comprehensive dental care on an appointment basis. Students who rotate through the Oral Diagnosis Clinic assess the comprehensive medical and oral health status of the patients, gain knowledge of clinical pharmacology, general and specialty medical issues, associated laboratory and other studies. This also includes a head and neck cancer examination and risk assessment, and the taking of the indicated intra-oral and/or extra-oral dental radiographs. Additionally, the medical status of patients, when specifically designated by the faculty, is re-assessed annually, or other indicated frequency, in the Oral Diagnosis Clinic. Juniors must complete 10 H&P and 5 Emergencies. Oral Medicine faculty directly supervise all student activity with a faculty/student ratio of approximately 1:3.
Spring
0.5-3 Credit Hours

DENT 7322 Oral and Maxillofacial Medicine
The purpose of this course is to give students a foundation for common oral lesions, facial pain, and salivary gland disease as well as an understanding of medical conditions which directly affect the oral and maxillofacial structures.
0.25-3 Credit Hours

DENT 7340 Oral Medicine
0.25-3 Credit Hours

DENT 7341 Radiology Clinic/Seminar
Students are assigned 12-15 rotations in the Radiology Clinic during their third and fourth years. During these rotations, students take full-mouth x-ray series on newly admitted patients.
0.25-3 Credit Hours

DENT 7342 Radiology II Clinic Spring
Students are assigned 12-15 rotations in the Radiology Clinic during their third and fourth years. During these rotations, students take full-mouth x-ray series on newly admitted patients.
Spring
0.25-3.25 Credit Hours

DENT 7361 Personalized Care I
The Medically Complex, Infectious Diseases and Special Disability Patient Care Clinical Course consists of ~4 half day rotations. Attendance is required to pass this course. Your clinical rotation experience will include at least one or more of the following: Admission Care (Initial Patient visits) provides an initial evaluation for medically complex, infectious disease and special needs patients who register for comprehensive dental care. Student doctors will be involved in the process of obtaining and assessing the comprehensive medical and oral health status of the patients. Students gain knowledge of clinical pharmacology, general and specialty medical issues including physical examination findings, associated laboratory medicine and other medical studies. The rotation also includes experience in performing an oral and extraoral exam such that the student is able to recognize deviations from normal findings and is able to perform a head and neck cancer examination and issue a risk assessment. The student will also gain radiological experience including the appropriate selection and taking of radiographs. Additionally, the student will select the frequency of updating the complete medical history of the patient based upon complexity or at a minimum recommending that the patient be reassessed bi-annually. Informed Consent: Informed consent must be completed for special needs patients prior to completing care. Student doctors will be expected to become familiar with identifying patients who need to have informed consents signed by guardians/parents/others prior to procedures. Medical Consult Requests for patients Not Medically Cleared – The medical consult request is the mechanism used to communicate with peers and other healthcare professionals when appropriate. Students are expected to become familiar with the process of completing medical consult requests, which include: requesting appropriate medical information, reviewing obtained information and coming up with a dental and medical management plan that is specific to the patient. Patient care - Successful dental treatment of special needs and medically complex patients, requires a thorough understanding of behavior management, internal medicine and how medical conditions can potentially complicate dental care. The PCare clinic trains you with effective strategies to prevent medical emergencies in a dental clinic, as well as how to behaviorally manage patients with special needs so as to make them comfortable with treatment in a dental clinic. This is achieved by having adequate knowledge of: behavioral management methods, frequent medical conditions; making necessary treatment adjustments and closely monitoring patients during dental treatment. In the case of a medical emergency, students are trained under the supervision of faculty to manage such emergencies.
Fall
0.5-1.25 Credit Hour
DENT 7362 Personalized Care II
The Medically Complex, Infectious Diseases and Special Disability Patient Care Clinical Course consists of ~4 half day rotations. Attendance is required to pass this course. Your clinical rotation experience will include at least one or more of the following: Admission Care (Initial Patient visits) provides an initial evaluation for medically complex, infectious disease and special needs patients who register for comprehensive dental care. Student doctors will be involved in the process of obtaining and assessing the comprehensive medical and oral health status of the patients. Students gain knowledge of clinical pharmacology, general and specialty medical issues including physical examination findings, associated laboratory medicine and other medical studies. The rotation also includes experience in performing an oral and extraoral exam such that the student is able to recognize deviations from normal findings and is able to perform a head and neck cancer examination and issue a risk assessment. The student will also gain radiological experience including the appropriate selection and taking of radiographs. Additionally, the student will select the frequency of updating the complete medical history of the patient based upon complexity or at a minimum recommending that the patient be reassessed bi-annually. Informed Consent: Informed consent must be completed for special needs patients prior to completing care. Student doctors will be expected to become familiar with identifying patients who need to have informed consents signed by guardians/parents/others prior to procedures. Medical Consult Requests for patients Not Medically Cleared – The medical consult request is the mechanism used to communicate with peers and other healthcare professionals when appropriate. Students are expected to become familiar with the process of completing medical consult requests, which include: requesting appropriate medical information, reviewing obtained information and coming up with a dental and medical management plan that is specific to the patient. Patient care - Successful dental treatment of special needs and medically complex patients, requires a thorough understanding of behavior management, internal medicine and how medical conditions can potentially complicate dental care. The PCare clinic trains you with effective strategies to prevent medical emergencies in a dental clinic, as well as how to behaviourally manage patients with special needs so as to make them comfortable with treatment in a dental clinic. This is achieved by having adequate knowledge of: behavioural management methods, frequent medical conditions; making necessary treatment adjustments and closely monitoring patients during dental treatment. In the case of a medical emergency, students are trained under the supervision of faculty to manage such emergencies.

Spring
0.25-3 Credit Hours

DENT 7401 Oral Surgery L
This lecture-based course provides students exposure to all aspects of the wide and varied scope of oral and maxillofacial surgery. The course promotes the integration of the basic sciences and medicine into the daily practice of oral and maxillofacial surgery and dentistry.
0.25-3 Credit Hours

DENT 7402 Oral Surgery L II
This lecture-based course provides students exposure to all aspects of the wide and varied scope of oral and maxillofacial surgery. The course promotes the integration of the basic sciences and medicine into the daily practice of oral and maxillofacial surgery and dentistry.
0.25-3 Credit Hours

DENT 7410 Introduction to Oral Surgery and Medical Emergencies
The course is designed to give the students an introduction to oral surgery and the exposure to prevention, recognition and management of medical emergencies. Occupational health hazards will also be discussed.
Summer Term
1-3 Credit Hours

DENT 7420 Oral Surgery and Pharmacology
This course is designed to give the student exposure to all aspects of the wide and varied scope of oral and maxillofacial surgery. The course also promotes the integration of the basic sciences and medicine into the daily practice of oral and maxillofacial surgery and dentistry. It builds upon and incorporates knowledge from many prerequisite courses, particularly the Pharmacology, Microbiology, and Anesthesia, Pain, and Anxiety courses. After successful completion of this course and its clinical counterparts (courses #772/773/872/873), the student should be competent in the management of all aspects of oral and maxillofacial surgery as outlined above under the course goals. Lectures will be presented by faculty members of the department of Oral and Maxillofacial surgery. The lecture material and reading assignments are designed to be complementary. The examination will encompass material from both sources. The examination will include questions that reinforce the knowledge obtained by completion of the prerequisite courses of Pharmacology, Microbiology, and OMC V (Anesthesia, Pain, and Anxiety). Students should review the material from those courses as the final examination will contain questions from knowledge obtained by their completion.

Spring
0.25-3 Credit Hours

DENT 7421 Oral Surgery Clinic
Students perform uncomplicated exodontia and minor pre-prothetic surgical procedures that are approved by the clinical instructors, assist the instructors in complicated surgical procedures, and observe the administration of intravenous sedation and general anesthesia.
0.25-3 Credit Hours

DENT 7422 Oral Surgery II Clinic Spring
Students perform uncomplicated exodontia and minor pre-prothetic surgical procedures that are approved by the clinical instructors, assist the instructors in complicated surgical procedures, and observe the administration of intravenous sedation and general anesthesia.
0.25-3 Credit Hours

DENT 7461 Multidisciplinary Seminar
The main objective of this year-long seminar-based course is to ensure that students develop the ability to understand biomedical, behavioral and dental sciences and apply such information in a problem-solving context for the comprehensive treatment planning and management of their patients.
0.25-3 Credit Hours

DENT 7462 Multidisciplinary Seminar
The main objective of this year-long seminar-based course is to ensure that students develop the ability to understand biomedical, behavioral and dental sciences and apply such information in a problem-solving context for the comprehensive treatment planning and management of their patients.
Spring
0.25-3 Credit Hours

DENT 7501 Orthodontics II
0.25-3 Credit Hours
DENT 7502 Orthodontics II
The course will provide the student with experience in early orthodontic treatment, exposing him/her to malocclusions arising in a normally developing craniofacial complex. Management of these problems aims at providing an unimpeded eruption and alignment of the permanent dentition. Other topics include biological and mechanical principles of tooth movement as well as corrective orthodontics. 0.25-3 Credit Hours

DENT 7520 Ethics II
PEDM III focuses on responsibility transitioning into the post-graduation world of dentistry and covers a variety of topics such as licensure, residency applications, completing graduation requirements, as well as mentorship and real-world clinical practice dilemmas. 0.25 Credit Hours

DENT 7521 P and I Clinic
Through clinical rotation, the student is exposed to patients with malocclusions that arise in a normally developing craniofacial complex. Management of these problems aims at providing an unimpeded eruption and alignment of dentition. 0.25-3.25 Credit Hours

DENT 7522 Preventive and Interceptive Orthodontics II Clinic
The Preventive and Interceptive Orthodontic rotation consists of seven sessions in the Orthodontic clinic. During each rotation, students are assigned a minimum of two hours in a clinical setting and an additional hour or more in seminar to review the day's cases and any additional treatment planning information (ie, cephalometrics, space analysis). Through these rotations, students are exposed to patients with malocclusions that arise in a normally developing craniofacial complex. 0.25-3 Credit Hours

DENT 7501 Pediatric Dentistry L/B
0-3 Credit Hours

DENT 7520 Pediatric Dentistry
0.25-2.5 Credit Hours

DENT 7521 Pediatric Dentistry Clin
0.25-2.5 Credit Hours

DENT 7522 Pediatric Dentistry II Clinical
The Pediatric Dentistry Clinic offers students the opportunity to learn clinical dentistry for children and adolescents. Students will treat children from different cultural and socioeconomic backgrounds and will receive experience in many aspects of Pediatric Dentistry, including but not limited to diagnosis, prevention, restorative dentistry, pulpal therapy, routine oral surgery, management of the developing occlusion, and behavior guidance. Comprehensive care of the child is emphasized; however, patients are not typically assigned to students. Students are encouraged to speak to a clinic staff member one or two days prior to a rotation to obtain the name and telephone number of a patient whose appointment they may confirm themselves by telephone. Any patient who appears for a student-confirmed appointment will see that student. Students who wish to complete a patient's entire treatment plan may schedule to do so. Students may also have the opportunity to care for special needs children who are medically, physically, or emotionally compromised. Correlation between didactic and clinical courses is emphasized whenever possible and instruction in proper record completion and chart documentation is provided on a regular basis. 0.25-2.5 Credit Hours

DENT 7521 Periodontics Clinic
The Preventive and Interceptive Orthodontic rotation consists of seven sessions in the Orthodontic clinic. During each rotation, students are assigned a minimum of two hours in a clinical setting and an additional hour or more in seminar to review the day's cases and any additional treatment planning information (ie, cephalometrics, space analysis). Through these rotations, students are exposed to patients with malocclusions that arise in a normally developing craniofacial complex. Management of these problems aims at providing an unimpeded eruption and alignment of dentition. 0.25-3.25 Credit Hours

DENT 7522 Periodontics Clinic
The Preventive and Interceptive Orthodontic rotation consists of seven sessions in the Orthodontic clinic. During each rotation, students are assigned a minimum of two hours in a clinical setting and an additional hour or more in seminar to review the day's cases and any additional treatment planning information (ie, cephalometrics, space analysis). Through these rotations, students are exposed to patients with malocclusions that arise in a normally developing craniofacial complex. Management of these problems aims at providing an unimpeded eruption and alignment of dentition. 0.25-3.25 Credit Hours

DENT 7500 Partial Rem Dent Pros Lb
A combination of lectures, seminars and laboratory exercises provide the dental student with a fundamental understanding of the partially edentulous condition. Topics covered include classification, diagnosis, treatment planning and treatment of partially edentulous patients with RPDs. This course is designed to provide students with the terminology, concepts and principles necessary for case selection, design, construction of, and patient therapy with conventional RPDs. Upon completion of this course students will have the necessary didactic knowledge to successfully understand and treat removable partial denture cases in conjunction with the clinical faculty during their third and fourth years. 0.75-4 Credit Hours

DENT 7510 Partial Rem Dent Clin
A combination of lectures, seminars and laboratory exercises provide the dental student with a fundamental understanding of the partially edentulous condition. Topics covered include classification, diagnosis, treatment planning and treatment of partially edentulous patients with RPDs. This course is designed to provide students with the terminology, concepts and principles necessary for case selection, design, construction of, and patient therapy with conventional RPDs. Upon completion of this course students will have the necessary didactic knowledge to successfully understand and treat removable partial denture cases in conjunction with the clinical faculty during their third and fourth years. 0.75-4 Credit Hours

DENT 7701 Periodontics L
This course is designed to acquaint the student practitioner with the fundamentals of periodontal surgery necessary for the comprehensive practice of general dentistry. A major emphasis includes understanding the normal periodontium and a correlation of the events in the histopathology of inflammation, trauma and wound healing. 0.25-3 Credit Hours

DENT 7720 Periodontics
0.25-3 Credit Hours

DENT 7721 Periodontics Clinic
The Periodontics Clinic provides third year students the opportunity to treat patients with differences of severity in existing periodontal disease. 0.25-1.5 Credit Hour

DENT 7722 Periodontics Clinic
The Periodontics Clinic provides third-and fourth-year students the opportunity to treat patients with differences of severity in existing periodontal disease. 0.5-2.5 Credit Hours

DENT 7800 Partial Rem Dent Pros Lb
A combination of lectures, seminars and laboratory exercises provide the dental student with a fundamental understanding of the partially edentulous condition. Topics covered include classification, diagnosis, treatment planning and treatment of partially edentulous patients with RPDs. This course is designed to provide students with the terminology, concepts and principles necessary for case selection, design, construction of, and patient therapy with conventional RPDs. Upon completion of this course students will have the necessary didactic knowledge to successfully understand and treat removable partial denture cases in conjunction with the clinical faculty during their third and fourth years. 0.75-4 Credit Hours

DENT 7810 Advanced Restorative Esthetics
This course is designed to introduce third year students to the current concepts and principles that comprise a modern perception of esthetics. Students will learn the diagnostic process, indications, contra-indications and limitations of modern materials along with techniques utilized in esthetic restorations. Students will perform and understand the techniques and procedures necessary for the completion of cases involving basic esthetic modalities utilized effectively in practice such as porcelain veneers, diastema closures, CAD/CAM technology, inlays and onlays. Summer Term
0.75-2.5 Credit Hours

DENT 7821 Restorative Dentistry L
0.75-4 Credit Hours
DENT 7822 Comprehensive Care Spring
Comprehensive care is defined as the overall patient care delivery system that includes all dental services, including emergency care, treatment planning, general dentistry, specialty care, and maintenance programs. The delivery of such care revolves around the Primary Care Unit (PCU) Program, in which the Departments of Restorative Dentistry and Periodontics participate. Pre-doctoral students practice within one of six clinical groups within the Penn School of Dental Medicine. Within each unit, the students perform examination and diagnostic procedures, comprehensive treatment planning, all restorative dental procedures, fixed and removable prosthodontic procedures, including implant supported restorations, non-surgical periodontal procedures, and maintenance therapy. Faculty from the Department of Periodontics are also assigned to the units. Patient care is supervised and managed by the faculty in the PCU Program. The PCU leader is the final determinant in all Tx Plans, Procedures and referrals within the PCU group. The PCU Program is committed to graduating an excellent practitioner who is educated and trained to deliver comprehensive, preventive, therapeutic, and oral health maintenance services. The program strives to eliminate the fragmentation of treatment, integrate dental disciplines, and create faculty accountability and responsibility to both patients and students. The program goal is to produce a practitioner who can integrate basic science knowledge with clinical proficiency in all phases of general dentistry, based on the concept of recognition and treatment of oral disease, based on the best scientific evidence.
1.75-5 Credit Hours

DENT 7840 Preventive & Restorative Science
3.5-6.5 Credit Hours

DENT 7841 Comprehensive Care C Fall
Comprehensive care is defined as the overall patient care delivery system that includes all dental services, including emergency care, treatment planning, general dentistry, specialty care, new patient admissions and maintenance programs. The delivery of such care revolves around the Primary Care Unit (PCU) Program, in which the Departments of Restorative Dentistry and Periodontics participate. Pre-doctoral students practice within one of six clinical groups within the Penn School of Dental Medicine. Within each unit, the students perform examination and diagnostic procedures, comprehensive treatment planning, all restorative dental procedures, fixed and removable prosthodontic procedures, including implant supported restorations, non-surgical periodontal procedures, and maintenance therapy. Faculty from the Department of Periodontics are also assigned to the units. Patient care is supervised and managed by the faculty in the PCU Program. The PCU leader is the final determinant in all Treatment Plans, Procedures and referrals within the PCU group.
4.7 Credit Hours

DENT 7842 Restorative Dentistry Spring
4.5-7 Credit Hours

DENT 7861 Clinical Seminar
The seminar is an open forum discussion in which students make case presentations after which the diagnosis, treatment plan, and therapy are analyzed and evaluated. Initially, the PCU leader may present cases in order to establish the proper method of case presentation; thereafter, it is the student’s responsibility to present thoroughly documented cases which include photographic slides of pretreatment, a complete dental and medical evaluation, study models, radiographs, and other pertinent data.
0.25-2 Credit Hours

DENT 7862 Clinical Seminars II
The seminar is an open forum discussion in which students make case presentations after which the diagnosis, treatment plan, and therapy are analyzed and evaluated. Initially, the PCU leader may present cases in order to establish the proper method of case presentation; thereafter, it is the student’s responsibility to present thoroughly documented cases which include photographic slides of pretreatment, a complete dental and medical evaluation, study models, radiographs, and other pertinent data.
0.25-2 Credit Hours

DENT 7890 Restorative Microscopy III
The use of enhanced magnification with loupes is a widely accepted standard practice to perform restorative dentistry. The dental operating microscope can provide superior visual performance. For the endodontic specialty, the dental microscope has demonstrated significantly higher success rates compared to loupes. The success of endodontic therapy utilizing the dental microscope suggests that the dental clinician may achieve better outcomes with microscope implementation in restorative dentistry. This introductory course will provide each participant the ability to learn essential restorative microscope utilization techniques in combination with dental loupes for optimal precision dentistry.
Summer Term
0.25-1 Credit Hour

DENT 7912 Honors III
In line with PDM’s vision to transform global oral health and well-being through exceptional clinical care, innovation, education, and research, the PDM Honors Course provides qualified students an enrichment experience designed to cultivate enhanced understanding of and a leadership outlook in Oral Health related disciplines. These disciplines include Basic and Translational Research, Clinical Dentistry, Clinical Research, Community Oral Health, Endodontology, Nutritional Sciences, Oral and Maxillofacial Surgery, Orthodontics, Pediatric Dentistry, Periodontology, Personalized Care, Radiology and Oral Medicine and Vulnerable Populations.
Spring
1.5-3.5 Credit Hours

DENT 7992 Selectives III
0.5-2.5 Credit Hours

DENT 8101 Health Promotion
Health Promotion Clinical experiences provide students with the opportunity to apply knowledge and develop competencies related to oral health promotion and disease prevention activities with individual patients in the clinics at Penn Dental Medicine.
0.25-2 Credit Hours

DENT 8102 Health Promotion Practicum II
Health Promotion Clinical experiences provide students with the opportunity to apply knowledge and develop competencies related to oral health promotion and disease prevention activities with individual patients in the clinics at Penn Dental Medicine.
0.25-2 Credit Hours
DENT 8121 Community Oral Health
Community Oral Health Experiences in alternate oral health care delivery settings provide students with the opportunity to develop and expand their skills in providing comprehensive oral health care in community based settings under the direct supervision of faculty members. Students are scheduled in the mobile dental vehicle, PennSmiles, and are also scheduled at Community Volunteers in medicine, a community based medical and dental treatment facility in West Chester, PA. Students attend small group seminars to discuss their experiences and theoretical underpinnings of community oral health activities.
2-6 Credit Hours

DENT 8161 Professional Practitioner Development III
This 4th year course will cover the practice management topics a dentist needs to consider upon graduating from dental school, including leadership, career and business decisions, human relations/personnel issues, working in teams, issues of burnout and mentoring, handling medical errors, and an overview of relationships a dentist needs to develop with many different other types of professionals in the dental industry. 1. Describe the effective practice management principles, including financial, leadership and staff development, legal and risk management, and communication, necessary for successful dental practice. 2. Appraise legal contracts and employment situations for risk/benefit. 3. Explore basic financial principles relevant to clinical practice. 4. Understand how malpractice works in the United States and discuss best practices in risk management. Understand the role of the State Board of Dentistry in monitoring the dental professional. 5. Reflect on career goals and dental career trajectory.
0.5-3 Credit Hours

DENT 8162 Professional Practitioner III
We want this course to challenge you to grow personally and in how you interact with other members of the Penn community. We've designed it to help you prepare for difficult conversations—about race and racism, white supremacy, gender, and health inequities—in the classroom, your field work, clinical work, internships, and beyond. We anticipate you'll have a range of feelings while moving through the course. Be mindful of your reactions. Lean in to what you find new or uncomfortable, where you find yourself becoming defensive, where you feel your own resistance. Reach out to the course co-director Dr. Beverley Crawford beverlyc@upenn.edu if you want help processing what you are learning. You'll have a chance to share your feedback about the course at the end. You are also welcome to reach out to us via email with your thoughts and questions.
Spring
0.25-3 Credit Hours

DENT 8200 The Endodontic II Clinic
The Endodontic Clinic trains predoctoral students to become competent in basic endodontic procedures on vital and non-vital teeth. This includes instruction in diagnosis, treatment planning, treatment/obturation, post-endodontic restoration and related entities (bleaching of non-vital teeth, treatment of traumatic injuries, etc.). This instruction is expanded and reinforced in the fourth-year clinic.
0.25-2.25 Credit Hours

DENT 8201 The Endodontic Clinic
The Endodontic Clinic trains predoctoral students to become competent in basic endodontic procedures on vital and non-vital teeth. This includes instruction in diagnosis, treatment planning, treatment/obturation, post-endodontic restoration and related entities (bleaching of non-vital teeth, treatment of traumatic injuries, etc.). This instruction is expanded and reinforced in the fourth-year clinic.
0.25-2.5 Credit Hours

DENT 8202 The Endodontic II Clinic
The Endodontic Clinic trains predoctoral students to become competent in basic endodontic procedures on vital and non-vital teeth. This includes instruction in diagnosis, treatment planning, treatment/obturation, post-endodontic restoration and related entities (bleaching of non-vital teeth, treatment of traumatic injuries, etc.). This instruction is expanded and reinforced in the fourth-year clinic.
0.25-2.25 Credit Hours

DENT 8300 Oral Medicine
0.25-3 Credit Hours

DENT 8301 Admissions and Emergency
Admissions and Emergency The Admissions and Emergency Care Clinic rotation consists of combined rotations in the Emergency Care Clinic, and the Oral Diagnosis Clinic. The Emergency Care Clinic provides emergency care to "walk-in" non-registered patients. Emphasis is placed on efficient and thorough dental care to ensure that the patient receives the highest quality of emergency dental care in a timely manner. The Admissions or Oral Diagnosis Clinic provides an initial evaluation for Penn Dental Medicine patients who register for comprehensive care on an appointment basis. Students that rotate through the Oral Diagnosis Clinic assess the medical and oral health status of the patients. Additionally, the medical status of all patients (except ASA I patients) are reassessed annually in the Oral Diagnosis Clinic.
0.25-3 Credit Hours

DENT 8302 Admissions and Emergency II
Admissions and Emergency The Admissions and Emergency Care Clinic rotation consists of combined rotations in the Emergency Care Clinic, and the Oral Diagnosis Clinic. The Emergency Care Clinic provides emergency care to "walk-in" non-registered patients. Emphasis is placed on efficient and thorough dental care to ensure that the patient receives the highest quality of emergency dental care in a timely manner. The Admissions or Oral Diagnosis Clinic provides an initial evaluation for Penn Dental Medicine patients who register for comprehensive care on an appointment basis. Students that rotate through the Oral Diagnosis Clinic assess the medical and oral health status of the patients. Additionally, the medical status of all patients (except ASA I patients) are reassessed annually in the Oral Diagnosis Clinic.
Spring
0.25-3 Credit Hours

DENT 8340 Oral Medicine
0.25-3 Credit Hours

DENT 8341 Radiology Clinic
Students are assigned 12-15 rotations in the Radiology Clinic during their third and fourth years. During their rotations, they take full-mouth x-ray series on newly admitted patients who are sent to Radiology from the Admissions Clinic.
0.25-3 Credit Hours

DENT 8342 Radiology II Clinic
Students are assigned 12-15 rotations in the Radiology Clinic during their third and fourth years. During their rotations, they take full-mouth x-ray series on newly admitted patients who are sent to Radiology from the Admissions Clinic.
0.25-3 Credit Hours
DENT 8360 Personalized Care
The Medically Complex, Infectious Diseases and Special Disability Patient Care Clinical Course consists of ~20 half day rotations for the semester (~40 for the entire year). Each D4 student doctor is required to complete at least 2 med consult requests with interpretation of acquired medical information, 2 caries risk assessments and formulation of a personalized preventive regimen and 2 treatment modification plans (medical/behavioral/stabilization) during this semester. Initial patient visits provides an initial evaluation for medically complex, infectious disease and special needs patients who register for comprehensive dental care. Student doctors obtain and assess the comprehensive medical and oral health status of the patients. Students gain knowledge of clinical pharmacology, general and specialty medical issues including physical examination findings, associated laboratory medicine and other medical studies. The rotation also includes experience in performing an oral and extraoral exam such that the student is able to recognize deviations from normal findings, and is able to perform a head and neck cancer examination and issue a risk assessment. The student will also gain radiological experience including the appropriate selection and taking of radiographs. Additionally, the student will select the frequency of updating the complete medical history of the patient based upon complexity or at a minimum recommending that the patient be re-assessed annually. Medical consult requests for patients Not Medically Cleared – Each D4 student doctor is required to obtain at least 2 medical consultations. The medical consult request is the mechanism used to communicate with peers and other healthcare professionals when appropriate. These will be formative experiences and are separate from what is required in Admissions. Each of the 2 formative experiences must include requesting necessary medical information, reviewing the obtained information and formulating a management plan specific for the patient in the context of the necessary dental treatment. Patient care - Successful dental treatment of patients with disabilities and complex medical histories requires a thorough understanding of behavior management, internal medicine and how medical conditions can potentially complicate dental care. The PCare clinic trains you with effective strategies to prevent medical emergencies in a dental clinic, as well as how to behaviourally manage patients with special needs so as to make them comfortable with treatment in a dental clinic. This is achieved by having adequate knowledge of: behavioural management methods, frequent medical conditions; making necessary treatment adjustments and closely monitoring patients during dental treatment. In the case of a medical emergency, students are trained under the supervision of faculty to manage such emergencies.
0.25-4.25 Credit Hours

DENT 8361 Personalized Care
The Personalized Care Suite (PCare) patient care clinical course consists of ~20 half day rotations for the semester (~40 for the entire year). D4 student doctors are assigned a panel of patient and provide comprehensive dental care for patients with disabilities (IDD), medical complexities (MCC) and HIV (ICC). D4 students will be assigned sessions to provide an initial virtual encounter visit with new patients prior to the patient's in person appointment. Each D4 student is required to complete at least one formative evaluation in each of three areas (medical risk assessment including acquisition and interpretation of medical information; disease risk assessment with the formulation of a personalized preventive regimen with followup assessment and a treatment modification plan that includes assessment, formulation, implementation and evaluation of medical/behavioral/stabilization modifications necessary to provide dental care. These are evaluated using forms in axiUm-evaluation criteria can be found on CANVAS as well as in the student manual. Additionally, there will be a written mock OSCE given in December that will require the formulation of medical assessment, disease prevention and treatment modifications for simulated patients. Initial patient visits: Student doctors are required to obtain (if possible) information prior to patient's first in person appointment. Patients will be given a virtual appointment whenever possible to allow the student to collect pertinent information during an assigned teledentistry session. Information collected will include medical information as well as competition of the PCare intake form (as applicable). This will allow time to obtain necessary medical information prior to patient's initial in person appointment in order to facilitate delivery of actual dental care at the first clinic visit. At the initial in patient visit, students will complete a comprehensive oral exam (including a through extra and intra oral soft tissue exam) as well as dental and periodontal examination. Appropriate radiographs selection, acquisition and interpretation will be completed as well. All clinical and radiographic findings (including existing restoration, caries, defective restorations, fractures) will be entered into the odontogram along with the periodontal findings. The entered information will be used for the formulation of treatment plans. Medical consult requests for patients Not Medically Cleared – The medical consult request is the mechanism used to communicate with peers and other healthcare professionals when appropriate. These will be formative experiences and are separate from what is required in Admissions. The formative experience must include requesting necessary medical information, reviewing the obtained information and formulating a management plan specific for the patient in the context of the necessary dental treatment. Patient care - Successful dental treatment of special needs and medically complex patients requires a thorough understanding of behavior management, internal medicine and how medical conditions can potentially complicate dental care. The PCare clinic trains you with effective strategies to prevent medical emergencies in a dental clinic, as well as how to behaviourally manage patients with special needs so as to make them comfortable with treatment in a dental clinic. This is achieved by having adequate knowledge of: behavioural management methods, frequent medical conditions; making necessary treatment adjustments and closely monitoring patients during dental treatment. In the case of a medical emergency, students are trained under the supervision of faculty to manage such emergencies.
Fall
0.25-4.25 Credit Hours
DENT 8362 Personalized Care II
The Medically Complex, Infectious Diseases and Special Disability Patient Care Clinical Course consists of ~20 half day rotations for the semester (~40 for the entire year). Each D4 student doctor is required to complete at least 2 med consult requests with interpretation of acquired medical information, 2 caries risk assessments and formulation of a personalized preventive regimen and 2 treatment modification plans (medical/behavioral/stabilization) during this semester. Initial patient visits provide an initial evaluation for medically complex, infectious disease and special needs patients who register for comprehensive dental care. Student doctors obtain and assess the comprehensive medical and oral health status of the patients. Students gain knowledge of clinical pharmacology, general and specialty medical issues including physical examination findings, associated laboratory medicine and other medical studies. The rotation also includes experience in performing an oral and extraoral exam such that the student is able to recognize deviations from normal findings, and is able to perform a head and neck cancer examination and issue a risk assessment. The student will also gain radiological experience including the appropriate selection and taking of radiographs. Additionally, the student will select the frequency of updating the complete medical history of the patient based upon complexity or at a minimum recommending that the patient be re-assessed annually. Medical consult requests for patients Not Medically Cleared – Each D4 student doctor is required to obtain at least 2 medical consults. The medical consult request is the mechanism used to communicate with peers and other healthcare professionals when appropriate. These will be formative experiences and are separate from what is required in Admissions. Each of the 2 formative experiences must include requesting necessary medical information, reviewing the obtained information and formulating a management plan specific for the patient in the context of the necessary dental treatment. Patient care: Successful dental treatment of patients with disabilities and complex medical histories requires a thorough understanding of behavior management, internal medicine and how medical conditions can potentially complicate dental care. The PCare clinic trains you with effective strategies to prevent medical emergencies in a dental clinic, as well as how to behaviourally manage patients with special needs so as to make them comfortable with treatment in a dental clinic. This is achieved by having adequate knowledge of: behaviour management methods, frequent medical conditions; making necessary treatment adjustments and closely monitoring patients during dental treatment. In the case of a medical emergency, students are trained under the supervision of faculty to manage such emergencies.
0.25-3 Credit Hours

DENT 8370 Oral Medicine Clinical Rotation
The Oral Medicine Clinical Course consists of 5 rotations as assigned from the Office of Academic Affairs in the Summer, Fall, or Spring semesters of the Senior year (D4). Oral Medicine C includes evaluation of SDM patients with oral mucosal disorder(s), salivary gland disease(s), temporomandibular disorders, or facial pain. Student doctors obtain and assess the comprehensive medical and oral health status of the patients. Students gain knowledge of general and specialty medical issues including physical examination findings, associated laboratory medicine and other medical studies. The Oral Medicine clinical care rotation also includes experience in performing an intraoral and extraoral examination such that the student is to be able to recognize deviations from normal findings and perform a head and neck cancer examination and issue a risk assessment. Examination of the cranial nerves, temporomandibular joint, and masticatory muscles will be stressed when indicated by the patient’s symptoms. The student will also gain experience in differential diagnosis, the appropriate selection and ordering of indicated laboratory tests, advanced imaging and initiating a medical consult request as a mechanism used to communicate with peers and other healthcare professionals when appropriate. Additionally, the student will select the frequency of clinical monitoring of the patient based upon the patient’s complexity and clinical status. Upon completion of the Oral Medicine Clinical Rotation course, the student doctor will be able to: • Obtain all necessary subjective information from the patient including the chief complaint, history of present illness, medical history, and social and family history. • Perform a physical examination including both intraoral and head and neck examination in order to construct a differential diagnosis. • Perform an Oral Cancer Exam and Risk Assessment. • Identify those patients whose oral disease may indicate an underlying systemic disease. • Formulate a differential diagnosis and discuss possible treatment plans for the patient. • Obtain a medical and dental consultations and communicate with peers and other healthcare professionals when appropriate. • Utilize diagnostic and/or investigative modalities to enhance differential diagnosis of oral and maxillofacial pathologic conditions. • Recognize on a patient the normal range of clinical findings, recognize deviations, and establish a differential diagnosis for orofacial abnormalities and pathology. Recognize significant deviations that require monitoring, treatment, or management.
Fall
0.25-4.5 Credit Hours
DENT 8371 Oral Medicine Clinical Rotation
The Oral Medicine Clinical Course consists of 5 half-day rotations as assigned from the Office of Academic Affairs in the Summer, Fall, or Spring semesters of the Senior year (D4). During the fall semester, all students will be scheduled for one full day rotation. Oral Medicine C includes evaluation of SDM patients with oral mucosal disorder(s), salivary gland disease(s), temporomandibular disorders, or facial pain. Student doctors obtain and assess the comprehensive medical and oral health status of the patients. Students gain knowledge of general and specialty medical issues including physical examination findings, associated laboratory medicine and other medical studies. The Oral Medicine clinical care rotation also includes experience in performing an intraoral and extraoral exam such that the student is to be able to recognize deviations from normal findings and perform a head and neck cancer examination and issue a risk assessment. Examination of the cranial nerves, temporomandibular joint, and masticatory muscles will be stressed when indicated by the patient’s symptoms. The student will also gain experience in differential diagnosis, the appropriate selection and ordering of indicated laboratory tests, advanced imaging and initiating a medical consult request as a mechanism used to communicate with peers and other healthcare professionals when appropriate. Additionally, the student will select the frequency of clinical monitoring of the patient based upon the patient’s complexity and clinical status.

Fall
0.25-2.5 Credit Hours

DENT 8372 Oral Medicine Clinical Rotation
tbd
Spring
0.25 Credit Hours

DENT 8380 Hospital Assignment
During this course, D4 students participate in a two-week long hospital externship.
1.5-2.5 Credit Hours

DENT 8381 Hospital Assignment
Students spend four weeks in an extramural program at an affiliated hospital or a non-affiliated hospital program approved by Penn Dental Medicine. During the hospital rotation, students evaluate hospitalized patients to reinforce principles of physical and laboratory diagnosis, participate in dental treatment for patients with severe medical problems, and learn to request and answer consultations from other clinical departments such as radiology and otolaryngology.
0.25-3 Credit Hours

DENT 8382 Hospital Assignment
Students spend four weeks in an extramural program at an affiliated hospital or a non-affiliated hospital program approved by Penn Dental Medicine. During the hospital rotation, students evaluate hospitalized patients to reinforce principles of physical and laboratory diagnosis, participate in dental treatment for patients with severe medical problems, and learn to request and answer consultations from other clinical departments such as radiology and otolaryngology.
0.25-3 Credit Hours

DENT 8420 Oral Surgery and Pharmacology
0.25-3 Credit Hours

DENT 8421 Oral Surgery Clinic
Students perform uncomplicated exodontia and minor pre-prosthetic surgical procedures that are approved by the clinical instructors, assist the instructors in complicated surgical procedures, and observe the administration of intravenous sedation and general anesthesia. The bulk of the students’ clinical experience is delivered in a continuous 2-week block. This type of experience enables students to better understand the delivery of surgical care.
0.25-3 Credit Hours

DENT 8422 Oral Surgery II Clinic
Students perform uncomplicated exodontia and minor pre-prosthetic surgical procedures that are approved by the clinical instructors, assist the instructors in complicated surgical procedures, and observe the administration of intravenous sedation and general anesthesia. The bulk of the students’ clinical experience is delivered in a continuous 2-week block. This type of experience enables students to better understand the delivery of surgical care.
Spring
0.25-3 Credit Hours

DENT 8520 Adjunctive Orthodontics I
The Orthodontics Clinic rotation is a required course for all fourth-year students. The students are required to observe the comprehensive orthodontic treatment screening, diagnosis, treatment planning, treatment progress, and treatment outcome evaluation to enhance their knowledge on malocclusion recognition and diagnosis, and to familiar themselves with various of orthodontic appliances and instruments.
0.25-1 Credit Hour

DENT 8521 Adjunctive Orthodontics
Adjunctive orthodontic intervention involves the management of orthodontic problems prior to restorative treatment. Each student is required to complete the treatment of a clinical case which may involve the following: 1. repositioning teeth that have drifted after extraction or bone loss caused by periodontal disease. 2. forced eruption of broken teeth to expose sound root structure of which to place permanent restorations. 3. correction of crossbites which do not involve a skeletal discrepancy. 4. alignment of anterior teeth for more esthetic restorations.
0.25-2.5 Credit Hours

DENT 8522 Adjunctive Orthodontics II Clinic
Adjunctive orthodontic intervention involves the management of orthodontic problems prior to restorative treatment. Each student is required to complete the treatment of a clinical case which may involve the following: 1. repositioning teeth that have drifted after extraction or bone loss caused by periodontal disease. 2. forced eruption of broken teeth to expose sound root structure of which to place permanent restorations. 3. correction of crossbites which do not involve a skeletal discrepancy. 4. alignment of anterior teeth for more esthetic restorations.
Spring
0.25-2 Credit Hours

DENT 8620 Pediatric Dentistry
0.25-3 Credit Hours

DENT 8621 Pediatric Dentistry Clinic
The clinical course attempts to expose the student to many components of pediatric dentistry, including but not limited to diagnosis, prevention, restorative dentistry, pulp therapy, management of the developing occlusion, behavior guidance, and care of special children. Penn Dental Medicine competency statements, as they apply to children, adolescents, and special needs patients are teh focus. Competency examinations for this course relate to restorative dental care for the child patient.
0.25-3 Credit Hours
DENT 8622 Pediatric Dentistry II Clinical
The clinical course attempts to expose the student to many components of pediatric dentistry, including but not limited to diagnosis, prevention, restorative dentistry, pulp therapy, management of the developing occlusion, behavior guidance, and care of special children. Penn Dental Medicine competency statements, as they apply to children, adolescents, and special needs patients are the focus. Competency examinations for this course relate to restorative dental care for the child patient. 0.25-3 Credit Hours

DENT 8720 Periodontics
0.25-3 Credit Hours

DENT 8721 Periodontics Clinic
The Periodontics Clinic provides fourth-year students the opportunity to treat patients with differences of severity in existing periodontal disease. In most cases, the patients afford the students adequate experiences and impart to them comprehensive knowledge of the tissues of the periodontium and the fundamental principles underlying the prevention and treatment of diseases that affect the periodontal tissues. The seminar is an open forum discussion in which students make case presentations, after which the diagnosis, treatment plan, and therapy are analyzed and evaluated. Initially, the PCU leader may present cases in order to establish the proper method of case presentation; thereafter, it is the student’s responsibility to present thoroughly documented cases which include photographic slides of pretreatment, a complete dental and medical evaluation, study models, radiographs, and other pertinent data. 0.25-2 Credit Hours

DENT 8722 Periodontics II C
The Periodontics clinic provides the fourth year students with the opportunity to treat patients with differences of severity in existing periodontal disease. In most cases, the patients afford the students adequate experiences and impart to them comprehensive knowledge of the tissues of the periodontium and the fundamental principles underlying the prevention and treatment of diseases that affect the periodontal tissues. Periodontal therapy is an integral part of every patient’s treatment at Penn Dental Medicine. Periodontal treatment is carried out in predoctoral and postdoctoral clinics. 0.25-1.5 Credit Hour

DENT 8840 Preventive & Restorative Science
8-12 Credit Hours

DENT 8841 Comprehensive Care VII
Fourth-year students, within their PCU groups, continue to perform examination and diagnostic procedures, comprehensive treatment planning, all restorative dental procedures, fixed and removable prosthodontic procedures, including implant supported restorations, non-surgical periodontal procedures, and maintenance therapy. The PCU program goal is to produce a practitioner who can integrate basic science knowledge with clinical proficiency in all phases of general dentistry, based on the concept of recognition and treatment of oral disease. Through experiences in alternate oral health care delivery settings, students have the opportunity to develop and expand their skills in providing comprehensive oral health care in community based settings under the direct supervision of faculty members. Students will be scheduled in block rotations for one day per week at one of our community sites. 8-13 Credit Hours

DENT 8842 Comprehensive Care II Clinical
Fourth-year students, within their PCU groups, continue to perform examination and diagnostic procedures, comprehensive treatment planning, all restorative dental procedures, fixed and removable prosthodontic procedures, including implant supported restorations, non-surgical periodontal procedures, and maintenance therapy. The PCU program goal is to produce a practitioner who can integrate basic science knowledge with clinical proficiency in all phases of general dentistry, based on the concept of recognition and treatment of oral disease. 5-9 Credit Hours

DENT 8861 Clinical Seminar
The seminar is an open forum discussion in which students make case presentations, after which the diagnosis, treatment plan, and therapy are analyzed and evaluated. Initially, the PCU leader may present cases in order to establish the proper method of case presentation; thereafter, it is the student’s responsibility to present thoroughly documented cases which include photographic slides of pretreatment, a complete dental and medical evaluation, study models, radiographs, and other pertinent data. Spring 0.25-2 Credit Hours

DENT 8862 Clinical Seminar II Spring
The seminar is an open forum discussion in which students make case presentations, after which the diagnosis, treatment plan, and therapy are analyzed and evaluated. Initially, the PCU leader may present cases in order to establish the proper method of case presentation; thereafter, it is the student’s responsibility to present thoroughly documented cases which include photographic slides of pretreatment, a complete dental and medical evaluation, study models, radiographs, and other pertinent data. 0.25-2 Credit Hours

DENT 8920 Periodontics
0.25-3 Credit Hours

DENT 8921 Periodontics Clinic
The Periodontics Clinic provides fourth-year students the opportunity to treat patients with differences of severity in existing periodontal disease. In most cases, the patients afford the students adequate experiences and impart to them comprehensive knowledge of the tissues of the periodontium and the fundamental principles underlying the prevention and treatment of diseases that affect the periodontal tissues. Periodontal therapy is an integral part of every patient’s treatment at Penn Dental Medicine. Periodontal treatment is carried out in predoctoral and postdoctoral clinics. 0.25-2.5 Credit Hours

DENT 8922 Periodontics II C
The Periodontics clinic provides the fourth year students with the opportunity to treat patients with differences of severity in existing periodontal disease. In most cases, the patients afford the students adequate experiences and impart to them comprehensive knowledge of the tissues of the periodontium and the fundamental principles underlying the prevention and treatment of diseases that affect the periodontal tissues. Periodontal therapy is an integral part of every patient’s treatment at Penn Dental Medicine. Periodontal treatment is carried out in predoctoral and postdoctoral clinics. 0.25-1.5 Credit Hour

DENT 8970 Systematic Reviews
1 Credit Hour

DENT 8971 Selectives IV
1-2.5 Credit Hours

DENT 8991 Selectives IV
Spring

DENT 9960 Intro To Statistics
1 Credit Hour
GADS 5011 Systematic Reviews
The course introduces methods to perform systematic reviews and meta-analysis of clinical trials.
0.5-2 Credit Hours

GADS 5012 Systematic Review
An introduction to Evidence-Based Dentistry (EBD) Steps and description of the EBD process, benefits and challenges for the dental profession. Review EBD publications and how commentaries can be useful for understanding study methodology. Discuss the overall architecture of The Cochrane Library, introduction to formulation of the research question (PICO). Interactive discussion for selecting possible search terms in preparation for the database searches Introduction to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) tools.
2 Credit Hours

GADS 5021 Head and Neck Anatomy
The course will provide a review of principal anatomy comprising the stomatognathic system.
0.25-1.25 Credit Hour

GADS 5032 Osteoimmunology
The course will provide information about bone biology and metabolism and how it interfaces with the host immune response.
0.75-2 Credit Hours

GADS 5042 Pharmacology
The course will provide information about basic pharmacology and give the students a better understanding of drugs, interpreting complicated drug/medical histories, and understanding drug reactions.
0.75-2 Credit Hours

GADS 5052 Wound Healing
The course includes information given by experts in the basic and/or clinical sciences. The first seven lectures cover the basic biologic aspects of wound healing. These are followed by a series of five lectures discussing wound healing in a more clinical context covering the topics of fracture repair, osseointegration, orthodontics, endodontics and periodontics.
0.5-2 Credit Hours

GADS 5061 Maxillofacial Radiology
The course will provide in depth discussion about radiographic interpretation and differential diagnosis of various pathological conditions which show similarities on x-rays.
0.25-1.25 Credit Hour

GADS 5071 Ethics
The courses is to impart a general knowledge of fundamental concepts in principles of professionalism and ethical decision making with emphasis on care-based discussions.
0.25 Credit Hours

GADS 5081 Grand Rounds Conference
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.5 Credit Hour

GADS 5082 Interdisciplinary Seminars Grand Rounds
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.5 Credit Hours

GADS 5111 Adv Oral Surgery
Advanced oral surgery
0.5 Credit Hours

GADS 5201 Topic Presentation I
The students deliver evidence based Keynote or PowerPoint presentations on a topic of their choice followed by discussion.
1.5 Credit Hour

GADS 5212 Topics Presentation II
The students deliver evidence based Keynote or PowerPoint presentations on a topic of their choice followed by discussion.
2 Credit Hours

GADS 5221 Literature Review I
Review and discussion of current and classic literature topics
Fall
1 Credit Hour

GADS 5232 Literature Review II
Review and discussion of current and classic literature topics
1 Credit Hour

GADS 5241 Literature Review III
Review and discussion of current and classic literature topics
1 Credit Hour

GADS 5252 Literature Review IV
Review and discussion of current and classic literature topics
Spring
1 Credit Hour

GADS 5262 In-Service Exam
Pediatric dentistry comprehensive exam
0.25 Credit Hours

GADS 5271 Endodontic Rotation Fall
Clinical rotations in specific specialty clinics will provide clinical experience in diagnosis, treatment planning, and patient care through observation.
3-6 Credit Hours

GADS 5272 Endodontic Rotation
Endodontic Rotation
3 Credit Hours

GADS 5302 Pathology
The course will provide information about the link between the basic and clinical sciences concerned with the mechanisms of disease (e.g., inflammation, neoplasia, and immunopathology). While the emphasis will be on oral pathology, systemic diseases and their impact on overall health will also be discussed.
0.25 Credit Hours

GADS 5311 Biological Systems
The course combines an introduction to the general principles of anatomy, histology, and physiology of the human cardiovascular, pulmonary and renal systems, with an extensive study of the pathology and therapeutics of these systems, with an explicit emphasis on their relationship to dental practice.
4 Credit Hours

GADS 5322 Oral Medicine
The purpose of this course is to provide foundational and applied knowledge of common oral medicine-related conditions as well as an understanding of medical conditions which directly affect the oral and maxillofacial structures.
0.5-2 Credit Hours
GADS 5331 Brightman Conference
This conference provides residents with didactic training in the fundamentals of oral medicine.
1 Credit Hour

GADS 5332 Brightman Conference II
The conference provides information about the fundamentals of oral medicine.
1-2.5 Credit Hours

GADS 5341 S. Gary Cohen Conference
The course will allow academic discussion of disease, disease processes, and therapeutic management of a wide range of topics related to oral medicine.
1.5 Credit Hour

GADS 5342 Cohen Conference II
The course will allow academic discussion of disease, disease processes, and therapeutic management of a wide range of topics related to oral medicine.
1.5-3 Credit Hours

GADS 5351 Oral and Maxillofacial Complex I
The Diagnostic Oral pathology and Radiology course is designed to give the dental student an understanding of the diagnosis of diseases pertaining to head and neck as well as interpreting histologic and radiographic investigations.
3 Credit Hours

GADS 5352 Oral and Maxillofacial Complex
The course will provide in depth discussion about the link between the basic and clinical sciences concerned with the mechanisms of disease (e.g., inflammation, genetic disease, neoplasia, and immunopathology). The emphasis will be on oral soft and hard tissue pathology, including oral manifestations of systemic diseases that may impact overall health of the patients.
2-3.5 Credit Hours

GADS 5362 Oral Medicine Rotation
Clinical rotations in specific specialty clinics will provide clinical experience in diagnosis, treatment planning, and patient care through observation.
6 Credit Hours

GADS 5492 Clinopathologic Conference
Oral Surgery conference
0.25 Credit Hours

GADS 5501 Orthodontics
The course provides information about the growth and development, concentrating on child somatic, craniofacial, and dental growth and development. The students will build a solid foundation along the lines of diagnosing problems and understanding the etiology of malocclusion and space maintenance.
1.5-3.5 Credit Hours

GADS 5502 Adjunctive Ortho Technique
This course is designed to expose the student to basic orthodontic laboratory and clinical procedures and encourages the development of technical abilities in banding, bonding, wire bending, and removable appliance fabrication.
0.5 Credit Hours

GADS 5511 Penn Orthodontics CE – Fall
pending
0.75 Credit Hours

GADS 5512 Orthodontics II
The course will provide the student with experience in early orthodontic treatment, exposing him/her to malocclusions arising in a normally developing craniofacial complex. Management of these problems aims at providing an unimpeded eruption and alignment of the permanent dentition. Other topics include biological and mechanical principles of tooth movement as well as corrective orthodontics.
0.5-1.5 Credit Hour

GADS 5521 Case Presentation I
The students attend the case presentation seminars.
0.25-1 Credit Hour

GADS 5522 Case Presentation II
The students attend the case presentation seminars.
0.5 Credit Hours

GADS 5531 Growth & Development II
pending
0.75 Credit Hours

GADS 5532 Biomechanics
pending
0.75 Credit Hours

GADS 5541 Interceptive Orthodontics
pending
0.5 Credit Hours

GADS 5542 Literature Review
pending
0.5 Credit Hours

GADS 5551 Comprehensive Orthodontic Treatment
pending
0.5 Credit Hours

GADS 5552 Orthognathic Surgery/TMJ Lecture Series
The students attend the orthognathic surgery seminars and TMJ lecture series.
0.25-1 Credit Hour

GADS 5561 Penn Orthodontic Department Lecture Series I
The course will provide the students various topics in Orthodontics described above.
Fall
1.25 Credit Hour

GADS 5562 Case Presentation I
pending
0.25-1.5 Credit Hour

GADS 5571 Orthognathic Surgery/TMJ Lecture Series I
The students attend the orthognathic surgery seminars and TMJ lecture series.
0.25-1.5 Credit Hour

GADS 5572 TMD Diagnosis & Therapy
pending
0.75 Credit Hours

GADS 5582 Orthodontics Rotations
Clinical rotations in specific specialty clinics will provide clinical experience in diagnosis, treatment planning, and patient care through observation.
4-7 Credit Hours
**GADS 5591 Orthodontics II**
The course will provide the student with experience in early Orthodontic treatment, exposing them to malocclusions arising in a normally developing craniofacial complex. Other topics include biological and mechanical principles of tooth movement as well as interceptive and comprehensive corrective Orthodontics.
1-2.5 Credit Hours

**GADS 5592 Penn Orthodontic Department Lecture Series II**
The course will provide the students various topics in Orthodontics described above.
Spring
1.25 Credit Hour

**GADS 5601 Pathology**
Pathology is a course that will apply what students have already learned to the study of disease. It is an essential link between the basic and clinical sciences concerned with the mechanisms of disease (e.g., inflammation, neoplasia, and immunopathology) and the disease processes that students will encounter during their careers in dentistry. While the emphasis will be on oral pathology, one must also be familiar with systemic diseases that may impact on the health of the patients.
0.25 Credit Hours

**GADS 5602 Maxillofacial Trauma**
pending
0.25 Credit Hours

**GADS 5611 Embryology, Genetics, Congenital Malformation**
The program includes the core basic science courses, designed to encompass the various disciplines basic to advanced studies in the science and practice of dentistry. They are designed to expose students to modern concepts in the areas covered with the objective of updating and expanding upon their predoctoral knowledge of oral biology. The courses are designed to meet the requirements of the different specialty organizations. All programs are presented on an academic term basis.
0.25 Credit Hours

**GADS 5612 Nitrous Oxide Nitrous Oxygen Analgesia**
This course is designed to provide didactic and clinical instruction in nitrous oxide/oxygen analgesia in accordance with American Dental Association Guidelines. Upon completion of this course, the participant will be eligible for an Anesthesia Restricted Permit II from the Pennsylvania State Board of Dentistry. Participants will have the opportunity to administer (to each other and patients) and undergo nitrous oxide sedation under close supervision. The course is geared to general dentists and dental specialists.
1 Credit Hour

**GADS 5621 Introduction to Pediatric Dentistry Fall**
A comprehensive course to provide an overview of main topics in Pediatric Dentistry including diagnosis, rationale for treatment and description of basic treatment techniques.
2 Credit Hours

**GADS 5622 Introduction to Pediatric Dentistry Spring**
A comprehensive course to provide an overview of main topics in Pediatric Dentistry including diagnosis, rationale for treatment and description of basic treatment techniques.
2 Credit Hours

**GADS 5631 Comprehensive Review of Pediatric Dentistry I**
The course is a more in depth/advanced presentations in several areas of Pediatric Dentistry through case presentations by medical and dental professionals.
Spring
4-6.5 Credit Hours

**GADS 5632 Comprehensive Review of Pediatric Dentistry II**
The course is a continuation of the Introduction to Pediatric Dentistry course and includes a more in depth/advanced presentations in several areas of Pediatric Dentistry through case presentations by medical and dental professionals.
4-7 Credit Hours

**GADS 5642 Pediatric Rotation**
Clinical rotations in specific specialty clinics will provide clinical experience in diagnosis, treatment planning, and patient care through observation.
4-7 Credit Hours

**GADS 5652 Embryology, Genetics, and Congenital Malformation**
This course will provide information about the persistent problems associated with cleft lip/palate and other types of craniofacial anomalies throughout lifetime of patients and include a thorough discussion of past and current concepts.
0.25-1.5 Credit Hour

**GADS 5662 Trauma**
The course provides students with an understanding of how to evaluate a patient presenting with dental trauma, the review of biological sequelae, and formulate a treatment plan and prognosis.
0.25-1.5 Credit Hour

**GADS 5701 Implant Dentistry**
Begin to develop a didactic basis for the development of a clinical competency in providing patient care to dentate, as well as partially and totally edentulous patients. Utilizing operative dentistry, fixed prostodontics, removable prosthetics and dental implants as restorative modalities will be emphasized.
1 Credit Hour

**GADS 5702 Classic and Current Literature Review Spring**
Students gain a fundamental knowledge of periodontal diseases and treatments through review of classic periodontal literature.
3 Credit Hours

**GADS 5711 Introduction to Periodontology**
The course will provide information about the current basic biological concepts applied to the healthy and diseased periodontium, the etiology, pathogenesis, and epidemiology of periodontal diseases. Different forms of periodontal diseases, non-surgical and surgical therapeutic modalities, multidisciplinary treatment approaches, and information on the prognosis of periodontal therapy will be discussed.
3 Credit Hours

**GADS 5712 Periodontics Case Presentation Spring**
Critical review and discussion of current concepts of surgical techniques and treatment in periodontology through case presentation.
1.25 Credit Hour

**GADS 5721 Classic and Current Literature Review**
This course aims to review and critically analyze classic and current periodontal literature, to acquire thorough knowledge of periodontal disease onset, progression, and treatment modalities, and to prepare those who are eligible for certification by the American Board of Periodontology.
3 Credit Hours
GADS 5722 Periodontal Prosthesis Case Presentation Spring
Critical review and discussion of current concepts of surgical techniques and treatment in Periodontal Prosthesis through case presentation.
2.25 Credit Hours

GADS 5731 Periodontics Case Presentation
Critical review and discussion of current concepts of surgical techniques and treatment in periodontology through case presentation.
1.25 Credit Hour

GADS 5732 Fundamentals of Periodontics Spring
A comprehensive course to provide an overview of periodontal anatomy, diagnosis and classification, rationale and basic techniques for periodontal therapy. Special emphasis is given to the correlation between histologic and clinical characteristics.
3 Credit Hours

GADS 5741 Periodontal Prosthesis Case Presentation Fall
Critical review and discussion of current concepts of surgical techniques and treatment in Periodontal Prosthesis through case presentation.
2.25 Credit Hours

GADS 5742 Periodontics Rotation
Two 3 week observational periods in the Periodontics Clinic
6.25 Credit Hours

GADS 5751 Fundamentals of Periodontics Fall
A comprehensive course to provide an overview of periodontal anatomy, diagnosis and classification, rationale and basic techniques for periodontal therapy. Special emphasis is given to the correlation between histologic and clinical characteristics.
3 Credit Hours

GADS 5801 Introduction to Advanced Fixed Prosthodontics
The art and science of Fixed Prosthodontics is discussed with emphasis on the fundamental biomechanical principles, materials and techniques required to rehabilitate oral function and form with single and multiple unit fixed prostheses at the level of a specialist. Conventional and digital workflow for clinical and laboratory fixed prosthodontic procedures, concepts of occlusion, articulators, esthetics as well as implant-supported fixed prosthesis are also included.
1 Credit Hour

GADS 5802 Literature Review Seminar II
The seminar includes the review, critical evaluation and discussion of prosthodontic classic and current literature with an intent to help participants develop and comprehend an evidence-based approach to oral health care and patient management with a focus on prosthodontic procedures.
2.75 Credit Hours

GADS 5811 Introduction to Advanced Removable Prosthodontics
The fundamentals of removable prosthodontics (complete denture and partial removable dental prosthesis) and the concepts of occlusion, articulators as well as implant retained and supported removable prosthesis laboratory steps are discussed.
0.5-1.5 Credit Hour

GADS 5812 Treatment Plan Seminar II
The course involves clinical case presentations and aims to develop skills in diagnosis, prognosis, and treatment planning and maintenance and treatment outcomes assessment of patients with complex prosthodontic needs.
2.75 Credit Hours

GADS 5821 Literature Review Seminar
The seminar includes the review, critical evaluation and discussion of prosthodontic classic and current literature with an intent to help participants develop and comprehend an evidence-based approach to oral health care and patient management with a focus on prosthodontic procedures.
0.5-2 Credit Hours

GADS 5822 Occlusion
The Diagnostic Oral pathology and Radiology course is designed to give the dental student an understanding of the diagnosis of diseases pertaining to head and neck as well as interpreting histologic and radiographic investigations.
0.5 Credit Hours

GADS 5831 Treatment Plan Seminar
The course involves clinical case presentations and aims to develop skills in diagnosis, prognosis, and treatment planning and maintenance and treatment outcomes assessment of patients with complex prosthodontic needs.
0.5-2 Credit Hours

GADS 5832 Prosthodontics Rotation
Clinical rotations in specific specialty clinics will provide clinical experience in diagnosis, treatment planning, and patient care through observation.
5-7 Credit Hours

GADS 5841 Current Literature Review Seminar
A monthly seminar series discussing current literature in the full scope of prosthodontics and relevant sciences.
0.5 Credit Hours

GADS 5842 Current Literature Review Seminar II
A monthly seminar series discussing current literature in the full scope of prosthodontics and relevant sciences.
0.25-1.5 Credit Hour

GADS 5852 Current Literature Review Seminar pending
0.5 Credit Hours

Dental - Graduate Core Curriculum (DADE)

DADE 9100 Clinical Microbiology
The purpose of Microbiology is to provide modern information in five broad categories: 1. Molecular biology of prokaryotic cells as it relates to oral health. 2. Basic principles of immunology as they relate to infection and immunity. 3. Infectious diseases caused by microbial agents. 4. Relationship of microbes to oral health and how microbes cause caries and periodontal disease. 5. Basic aspects of viral infections and how they related to oral health (herpes, hepatitis B and HIV)
Fall
0.5-2 Credit Hours

DADE 9101 Grand Rounds I
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour
DADE 9102 Grand Rounds II
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9103 Grand Rounds III
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9104 Grand Rounds IV
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9105 Grand Rounds V
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9106 Grand Rounds VI
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9107 Grand Rounds VII
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9108 Grand Rounds VIII
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9110 Ethics
The program includes the core basic science courses, designed to encompass the various disciplines basic to advanced studies in the science and practice of dentistry. They are designed to expose students to modern concepts in the areas covered with the objective of updating and expanding upon their predoctoral knowledge of oral biology. The courses are designed to meet the requirements of the different specialty organizations. All programs are presented on an academic term basis.
Fall
0.25 Credit Hours

DADE 9120 Genetics, Embryology
The treatment of patients with cleft lip/palate and other types of craniofacial anomalies in the United States has improved dramatically, many children still receive care that is substantially inferior to what can or should be provided. Inadequate care results from diagnostic errors, failure to recognize and treat the full spectrum of health problems associated with these anomalies, unnecessary and poorly timed treatment, and inappropriate or poorly performed procedures. This course will inform of these persistent problems. Embryology lecture is an overview of the field from its 19th Century with Hegel and "Ontogeny recapitulates Phylogeny" to the 21st century research on "Evo-Devo" and the HOX development genes and their relations to the contemporary understanding of embryological development including stem cells.
Fall
0.25 Credit Hours

DADE 9140 Maxillofacial Radiology
This course is intended to supplement the basic science course by radiographically showing dissimilar pathoses that appear similar on x-rays.
Fall
0.25 Credit Hours

DADE 9150 Nitrous Oxide Analgesia
This course is designed to provide didactic and clinical instruction in nitrous oxide/oxygen analgesia in accordance with American Dental Association Guidelines. Upon completion of this course, the participant will be eligible for an Anesthesia Restricted Permit II from the Pennsylvania State Board of Dentistry. Participants will have the opportunity to administer (to each other and patients) and undergo nitrous oxide sedation under close supervision. The course is geared to general dentists and dental specialists.
0.75-1.5 Credit Hour

DADE 9160 Practice Management
Practice Management Lectures and clinical experiences provide students with foundation knowledge regarding the policies and procedure governing practice.
0.25-0.75 Credit Hours

DADE 9170 Pathology
Pathology is a course that will apply what students have already learned to the study of disease. It is an essential link between the basic and clinical sciences concerned with the mechanisms of disease (e.g., inflammation, neoplasia, and immunopathology) and the disease processes that students will encounter during their careers in dentistry. While the emphasis will be on oral pathology, one must also be familiar with systemic diseases that may impact on the health of the patients.
0.25 Credit Hours

DADE 9180 Pulp/Dentin Biology
Biology of Pulp/Dentin Complex Microcirculation COURSE GOALS/ OBJECTIVES: 1. To give the student an understanding of the normal and abnormal biology of the dentin pulp complex. 2. To provide the student with fundamental information on clinically related subjects such as pain control and pulp capping procedures. 3. To provide the student with a general knowledge of the literature related to pulp biology. 4. To review the various physiological methods of investigating pulpal tissue.
0.25 Credit Hours
DADE 9190 Head and Neck Anatomy
The purpose of this lecture series is to review the principal anatomy comprising the stomatognathic system. The lectures build on the knowledge of head and neck anatomy acquired in dental school and integrate clinical relevance to this important subject. Slide presentations are employed to teach the anatomical structures of the major head and neck morphologic systems.
0.75 Credit Hours

DADE 9191 Grand Rounds IX
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9192 Grand Rounds X
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9193 Grand Rounds XI
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9194 Grand Rounds XII
This conference based course will provide an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis. It will involve student presentations from each specialty followed by panel discussion.
0.25-1.25 Credit Hour

DADE 9200 Advance Library
0.25 Credit Hours

DADE 9210 Cultural Competency
Participants in this workshop will assess their beliefs and awareness around cross cultural communication and diversity and inclusiveness. Through lecture, group participation, skill practice, role-play, case studies, and coaching they learn to advance their skill levels and take communication to the next level. Participants will also be recorded at the opening and conclusion of the to assess skill development.
0.25 Credit Hours

DADE 9220 Pharmacology
Pharmacology is both a basic science and a clinical science. It builds on the foundation of anatomy, biochemistry, physiology, and pathology and bridges the gap into clinical dentistry. This course in basic pharmacology will give the students a better understanding of drugs, interpreting complicated drug/medical histories, and understanding drug reactions.
0.5 Credit Hours

DADE 9230 Osteoimmunology
This is a web based course with face to face review sessions prior to in class testing over course material. The material for the course will be presented to students via the online interface. This course covers topics from the text book “osteoimmunology” and from supplemental material provided on Canvas. The course directors will be available by phone, appointment or email for a one hour period each week to address questions. In addition, 90 minute review sessions will be held prior to each exam.
2 Credit Hours

DADE 9240 Oral Medicine
There are numerous conditions that affect the oral and maxillofacial region, including oral mucosal diseases, temporomandibular joint disorders, orofacial pain syndromes and salivary gland dysfunction. Patients presenting with these disorders can be challenging to diagnose and manage. Several techniques are available for evaluation of these conditions and will guide the clinician toward proper diagnosis. Management protocols vary based upon the specific affecting the oral and maxillofacial region. This course will highlight the etiology, clinical presentation, diagnostic techniques, and management protocols of several conditions including oral mucosal diseases, temporomandibular joint disorders, orofacial pain syndromes, and salivary gland disorders.
0.25 Credit Hours

DADE 9250 Nutrition & Oral Health
0.25 Credit Hours

DADE 9260 Wound Healing
The course includes information given by experts in the basic and/or clinical sciences. The first seven lectures cover the basic biologic aspects of wound healing. These are followed by a series of five lectures discussing wound healing in a more clinical context covering the topics of fracture repair, osseointegration, orthodontics, endodontics and periodontics.
2 Credit Hours

DADE 9280 Biostatistics
This course will provide a summary of the main statistical concepts needed to to make decisions based on data. Some of the material that will be covered includes: data displays, summary statistics, probability distributions and expectation, statistical inference procedures for univariate and bivariate data, linear regression models, and analysis of variance. You will learn how to test a hypothesis, which includes phrasing a hypothesis, making a rationale choice of experimental design, choosing the statistics best suited to test the hypothesis, and assessing the results with standard errors, confidence intervals, and p-values.
1 Credit Hour

DADE 9290 Pulp/Dentin Biology
0.25 Credit Hours

DADE 9300 Maxillofacial Trauma
0.25 Credit Hours

DADE 9310 Core Curriculum I
5.5 Credit Hours

DADE 9320 Core Curriculum II
5.5 Credit Hours

DADE 9701 Introduction to Biostatistics
Introduction to Biostatistics for MSOB students
2.5-4 Credit Hours

DADE 9702 Introduction to Systematic Reviews
Introduction to Systematic Reviews for MSOB students
2.5-4 Credit Hours
DADE 9713 Oral Biology Seminar I  
Oral Biology Seminar I  
0.5-1.5 Credit Hour

DADE 9714 Oral Biology Seminar II  
Oral Biology Seminar II  
0.5-1.5 Credit Hour

DADE 9721 MS Research Thesis Practicum I  
MS Research Thesis Practicum I  
4-7 Credit Hours

DADE 9722 MS Research Thesis Practicum II  
MS Research Thesis Practicum II  
4-7 Credit Hours

DADE 9723 MS Research Thesis Practicum III  
MS Research Thesis Practicum III  
8-12 Credit Hours

DADE 9724 MS Research Thesis Practicum IV  
MS Research Thesis Practicum IV  
8-12 Credit Hours

DADE 9725 MS Research Thesis Practicum V  
MS Research Thesis Practicum V - extension course  
13-16 Credit Hours

DADE 9731 Introduction to Systematic Reviews Fall  
Introduction to Systematic Reviews for MSOB students, fall course  
1-3 Credit Hours

DADE 9732 Introduction to Biostatistics Spring  
Introduction to Biostatistics for MSOB students, spring course  
1.5-3.5 Credit Hours

DADE 9801 Levy Research Seminars I  
Levy Research Seminars I  
0.25-1.5 Credit Hour

DADE 9802 Levy Research Seminars II  
Levy Research Seminars II  
0.25-1.5 Credit Hour

DADE 9803 Levy Research Seminars III  
Levy Research Seminars III  
0.25-1.5 Credit Hour

DADE 9804 Levy Research Seminars IV  
Levy Research Seminars IV  
0.25-1.5 Credit Hour

DADE 9805 Levy Research Seminars V  
Levy Research Seminars V  
0.25-1.5 Credit Hour

DADE 9806 Levy Research Seminars VI  
Levy Research Seminars VI  
0.25-1.5 Credit Hour

DADE 9807 Levy Research Seminars VII  
Levy Research Seminars VII  
0.25-1.5 Credit Hour

DADE 9808 Levy Research Seminars VIII  
Levy Research Seminars VIII  
0.25-1.5 Credit Hour

DADE 9809 Levy Research Seminars IX  
Levy Research Seminars IX  
0.25-1.5 Credit Hour

DADE 9810 Guest Lecture Series  
1 Credit Hour

DADE 9892 Levy Research Seminars X  
Levy Research Seminars X  
0.25-1.5 Credit Hour

DADE 9893 Levy Research Seminars XI  
Levy Research Seminars XI  
0.25-1.5 Credit Hour

DADE 9894 Levy Research Seminars XII  
Levy Research Seminars XII  
0.25-1.5 Credit Hour

DADE 9901 DScD Research I  
DScD Research I  
3-7 Credit Hours

DADE 9902 DScD Research II  
DScD Research II  
3-7 Credit Hours

DADE 9903 DScD Research III  
DScD Research III  
3-7 Credit Hours

DADE 9904 DScD Research IV  
DScD Research IV  
3-7 Credit Hours

DADE 9905 DScD Research V  
DScD Research V  
3-7 Credit Hours

DADE 9906 DScD Research VI  
DScD Research VI  
3-7 Credit Hours

DADE 9907 DScD Research VII  
DScD Research VII  
9-12 Credit Hours

DADE 9908 DScD Research VIII  
DScD Research VIII  
9-12 Credit Hours

DADE 9910 Guest Lecture Series  
1 Credit Hour

DADE 9991 DScD Research IX  
DScD Research IX  
14-18 Credit Hours

DADE 9992 DScD Research X  
DScD Research X  
14-17 Credit Hours

DADE 9993 DScD Research XI  
DScD Research XI  
14-17 Credit Hours

DADE 9994 DScD Research XII  
DScD Research XII  
14-17 Credit Hours

---

**Dental - Graduate Endodontics (GEND)**

GEND 9001 Introduction to Advanced Endodontics Textbook Review  
Introduction to Advanced Endodontics Textbook Review  
2.5-3.5 Credit Hours
GEND 9011 Introduction to Advanced Endodontics Lab
Introduction to Advanced Endodontics Lab
2.5-3.5 Credit Hours

GEND 9021 Topic Presentation I
Topic Presentation I
0.5-1.5 Credit Hour

GEND 9022 Topic Presentation II
Topic Presentation II
0.5-1.5 Credit Hour

GEND 9023 Topic Presentation III
Topic Presentation III
0.5-1.5 Credit Hour

GEND 9024 Topic Presentation IV
Topic Presentation IV
0.5-1.5 Credit Hour

GEND 9031 Clinical Conference I
Clinical Conference I
0.5-1.5 Credit Hour

GEND 9032 Clinical Conference II
Clinical Conference II
0.5-1.5 Credit Hour

GEND 9033 Clinical Conference III
Clinical Conference III
0.5-1.5 Credit Hour

GEND 9034 Clinical Conference IV
Clinical Conference IV
0.5-1.5 Credit Hour

GEND 9041 Literature Review I
Literature Review I
1-2 Credit Hours

GEND 9042 Literature Review II
Literature Review II
1-2 Credit Hours

GEND 9043 Literature Review III
Literature Review III
1-2 Credit Hours

GEND 9044 Literature Review IV
Literature Review IV
1-2 Credit Hours

GEND 9051 Guest Lecture Series I
Guest Lecture Series I
2-3 Credit Hours

GEND 9052 Guest Lecture Series II
Guest Lecture Series II
2-3 Credit Hours

GEND 9053 Guest Lecture Series III
Guest Lecture Series III
2-3 Credit Hours

GEND 9054 Guest Lecture Series IV
Guest Lecture Series IV
2-3 Credit Hours

GEND 9071 Pulp Biology Fall
Pulp Biology Fall
0.25-1 Credit Hour

GEND 9072 Pulp Biology Spring
Pulp Biology Spring
0.25-1 Credit Hour

GEND 9081 Dental Trauma Fall
Dental Trauma Fall
0.25-1 Credit Hour

GEND 9082 Dental Trauma Spring
Dental Trauma Spring
0.25-1 Credit Hour

GEND 9091 Clinical Endodontics I
Clinical Endodontics I
14-16 Credit Hours

GEND 9092 Clinical Endodontics II
Clinical Endodontics II
21-24 Credit Hours

GEND 9093 Clinical Endodontics III
Clinical Endodontics III
21-24 Credit Hours

GEND 9094 Clinical Endodontics IV
Clinical Endodontics IV
21-24 Credit Hours

GEND 9101 Endodontic Research I
Endodontic Research I
17-20 Credit Hours

GEND 9102 Endodontic Research II
Endodontic Research II
17-20 Credit Hours

GEND 9103 Endodontic Research III
Endodontic Research III
17-20 Credit Hours

GEND 9104 Endodontic Research IV
Endodontic Research IV
17-20 Credit Hours

Dental - Graduate Oral and Population Health (GOPH)

GOPH 5000 Epidemiology and Oral Health
The online course "Epidemiology and Research Methods in Oral Health" offers a comprehensive learning experience, blending asynchronous interactive lectures with synchronous seminars. Designed as an introductory course, its primary goal is to provide students with a holistic understanding of essential epidemiological and population research methods. The course content encompasses various key aspects, including study design, study conduct, and specialized analysis per design.
1.5-3 Credit Hours
GOPH 5001 Biostatistics and Oral Health
The online course “Biostatistics and Oral Health” comprises asynchronous interactive lectures complemented by synchronous seminars. Designed as an introductory course, its primary goal is to provide students with the fundamental knowledge and skills to design, conduct, and interpret statistical analyses in population research. The course content focuses on statistical methods from a frequentist approach, including numerical and graphical representation of data, probability and distributions, hypothesis testing, regression methods, and survival analysis.
1.5-3 Credit Hours

This course will provide foundational knowledge in community, population, and public health in the context of oral healthcare. The course will focus on the determinants of health, understanding population health from the elements that define population health progressing to systems that affect health, and will help students develop a framework to understand evidence-informed policies.
1.5-3.5 Credit Hours

GOPH 5003 Bioethics in Oral and Population Health
The online course “Bioethics in Oral and Population Health” uses asynchronous interactive lectures and synchronous seminars to equip students with the knowledge and skills required to address ethical considerations and challenges inherent in conducting research within diverse populations. This course provides students with a deep understanding of the ethical frameworks, principles, and practices that guide population research, fostering their ability to critically analyze and navigate complex ethical dilemmas.
1.5-3.5 Credit Hours

GOPH 5004 Essential Research Skills in Oral and Population Health: Seminar Series
The online seminar series (asynchronous interactive lectures and synchronous seminars), “Essential Research Skills in Oral and Population Health: Seminar Series,” is designed for aspiring health professionals and researchers in the field of oral and population health. The program aims to instill a comprehensive understanding of essential research skills, equipping students with complementary tools beyond health research methods. The series comprises five seminars: Scientific Writing, Grant Writing, Searching the Scientific Literature, Critical Thinking, and Introduction to Statistical Packages. By the end of the series, participants will have a solid foundation in research skills necessary for successful career progression in oral and population health.
0.5-3 Credit Hours

GOPH 5100 Systematic Reviews and Meta-analysis
The online course (asynchronous interactive lectures and synchronous seminars) “Systematic Reviews and Meta-analysis” is designed to provide participants with the knowledge and skills necessary to conduct comprehensive and rigorous systematic reviews in various fields. This course provides a deep understanding of the principles, methodologies, and practical techniques involved in conducting systematic reviews and meta-analyses. Participants will learn to formulate focused research questions, develop comprehensive search strategies, and systematically retrieve and assess relevant primary studies. They will gain proficiency in data extraction and analysis, including statistical techniques for meta-analysis. The course also covers methods for assessing the certainty of the evidence using the GRADE approach, and optimal protocol development and registration, and manuscript preparation.
1.5-3 Credit Hours

GOPH 5101 Health Economics and Oral Health
The online course “Health Economic and Oral Health” explores the intersection of health economics and oral health, providing participants with a deep understanding of the economic principles and policies shaping oral healthcare systems. The course uses a combination of asynchronous interactive lectures and synchronous seminars. Through sessions covering foundational topics such as health economics introduction, health production, and demand/supply of healthcare, participants gain the knowledge to analyze the impact of economic factors on patient and provider behavior in oral health care. The course further delves into evaluating interventions, conducting economic evaluations, and assessing risk of bias in model-based economic evaluations specific to oral health. Participants will develop the skills to conduct systematic reviews of economic evaluations and explore strategies for workforce planning within the context of oral health.
1.5-3 Credit Hours

GOPH 5102 Methodology of Healthcare Guidelines
The online course “Methods for healthcare guidelines” aims to provide students with the fundamental knowledge and practical skills to produce healthcare guidelines. Using asynchronous interactive lectures and synchronous seminars and role-play activities, students will learn about the role of guidelines in healthcare, their development process, critical appraisal skills, and stakeholder engagement. In addition, they will learn how to define clinical questions, design evidence synthesis strategies to inform the formulation of recommendations and apply the GRADE approach to assess the certainty of the evidence and move from the evidence to the decisions. By the end of the course, students will become familiar with key strategies for the dissemination, implementation, and evaluation of healthcare guidelines.
1.5-3 Credit Hours

GOPH 5103 Vulnerable Populations and Oral Health
The online course “Vulnerable Populations and Oral Health” uses a combination of asynchronous interactive lectures and synchronous seminars and aims to explore the unique oral health challenges faced by vulnerable populations. Students will gain a holistic understanding of how factors such as disease, socio-economic status, race, ethnicity, caste, age, gender, sexual orientation, and specific life circumstances impact oral health. Through this course, students will gain insights into conducting population-level research and the identification of oral healthcare strategies tailored to diverse needs.
1.5-3 Credit Hours

GOPH 5104 Integrative Global Oral Health
The online course “Integrative Global Oral Health” provides a synoptic view of global oral health, diving into topics like disease burden, care delivery systems, and major global health initiatives, policies, and the mission of key nongovernmental organizations and health care agencies. Through asynchronous interactive lectures and synchronous seminars, the course will address what are the needs of special populations, examine significant global oral health policies and reports, and connect oral health to larger issues like sustainable development goals and planetary health. This course is an essential journey for anyone committed to promoting oral health globally.
1.5-3 Credit Hours
GOPH 5105 Planetary Health and Oral Health
This innovative course provides a comprehensive understanding of the interconnectedness between planetary health and oral health. Engaging with global policies, stakeholder roles, conflict resolution, implementation strategies, and progress measurement, it equips learners to foster holistic health perspectives. Emphasizing leadership in the health sector, the course promotes advocacy and policy-making geared towards sustainable health outcomes at multiple levels.
1-3 Credit Hours

GOPH 5106 The Aging Process and Oral Health
The online course “The Aging Process and Oral Health” explores the intricacies of aging, health care, oral health, and population-based research. Through asynchronous interactive lectures and synchronous seminars, students will delve into the epidemiology of oral diseases in older people, the systemic consequences of poor oral health, preventive measures, and relevant policies. The course also covers the unique challenges frail and dependent populations face and ways to address them. The course provides students with the knowledge and skills to contribute meaningfully to oral health research and policy-making for older adult populations.
1.5-3 Credit Hours

GOPH 5201 Thesis I
Students will work on their thesis work, which is required to graduate.
8-11 Credit Hours

GOPH 5202 Thesis II
Students will work on their thesis work, which is required to graduate.
8-11 Credit Hours

GOPH 5203 Thesis III
Students will work on their thesis work, which is required to graduate.
8-11 Credit Hours

GOPH 5204 Thesis IV
Students will complete and defend their thesis work.
8-11 Credit Hours

Dental - Graduate Oral Health Sciences (GOHS)

GOHS 5011 Cellular & Molecular Biology
The objectives of the Cellular and Molecular Biology course are to develop a general knowledge of fundamental concepts in cell and molecular biology and metabolism. The course utilizes both lectures and seminars and is presented in three modules with an exam at the end of each module: Module I: Cell Biology. To develop a thorough understanding of the basic principles of molecular and cell biology. Module 2: Molecular Biology. Comprehension at an advanced level of selected topics in molecular biology including gene therapy.
Fall
1-4 Credit Hours

GOHS 5021 Microbiology & Immunology
This lecture course is structured to provide basic information in four broad categories relating to oral health. 1. The evolutionary relationship, structure, physiology and molecular biology of prokaryotic cells as it relates to oral health. This knowledge provides the rational basis for many aspects of chemotherapy, understanding mechanisms of microbial pathogenesis, sterilization and disinfection and the host response to infection. Emphasis is placed on bacterial genetics physiology and regulatory mechanisms [MODULE 1]. 2. The relationship, structure and molecular biology of viruses and in particular those infections that relate to oral health. This knowledge provides the rational basis for many aspects of understanding mechanisms of viral pathogenesis, the host response to viral infection, the basis of viral vaccines and chemotherapy [MODULE 1]. 3. The human immune system and its response to challenge by microorganisms. Emphasis is placed on the interactions between antibodies and antigens, the roles of the innate and cellular immunity and the activities of B and T cells. This information provides the foundation for understanding how the host responds to invasion by microorganisms to prevent or lessen the severity of infectious disease [MODULE 2].
Fall
1-4 Credit Hours

GOHS 5031 Anatomy, Histology & Physiology
This course will provide the student with an introduction to histology, gross anatomy and physiology of the human body. All basic tissue types, including epithelium, connective tissue and its specialized forms, muscle and nerve will be discussed in detail. This will be followed by a review of the major organ systems, including heart, lung, kidney, hepatobiliary (liver and gall bladder), gastrointestinal tract and endocrine system. Students will be introduced to histology and microscopic identification of anatomic structures using a digital atlas. In conjunction, lectures will introduce the student to the early mechanisms of embryonic development with a focus on tissue patterning and functional mechanisms that give rise to the developing human form including the head and neck and teeth.
Fall
1-4 Credit Hours
GOHS 5042 Cellular & Molecular Basis of Diseases
Cellular and Molecular Basis of Disease focuses on the underlying cellular and molecular basis of disease and is a critical component of a larger subject commonly known as Pathology. In its simplest terms, Pathology is the study of the structural, biochemical and functional abnormalities that develop within cells, tissues and organs resulting in the signs and symptoms of (i.e., clinical manifestations) disease. Traditionally, Pathology is divided into general and systemic pathology. General pathology focuses on the main causes of disease; specifically, the reactions of cells and tissues to abnormal stimuli and to inherited defects. Systemic pathology examines these same reactions as they apply to specific organs. The disease process forms the core of pathology and includes: etiology, pathogenesis, lesions (which may be biochemical and/or structural) and clinical manifestations. Common to all disease is an “initiating” event known as etiology which may be genetic or acquired. Virtually all disease develop through a process (or pathogenesis) that involves one (or more) of six basic mechanisms: inflammation, vascular disturbances, immune-mediated, abnormal growth (neoplasia), genetic defects and infection. General pathology is typically presented in the context of these six pathogenic mechanisms. Cellular and Molecular Basis of Disease will focus on the mechanisms by which cells may be injured and the relationship between cellular injury and the disease process. We will also study three (of six) pathogenic mechanisms: vascular disturbances, inflammation, and infectious diseases. The concepts presented in this course will prepare the student for understanding specific diseases as they apply to the various organ systems.
3.5-5 Credit Hours

GOHS 5051 Hard Tissue Biology
Hard tissue biology course will provide the student with foundational and applied knowledge of bone from anatomical, radiological and biological perspectives. Presented in lectures and seminars, the course will have a strong emphasis on craniofacial bones. The course will present a basic knowledge of bone based on developmental, anatomical, histological, radiological, molecular and functional perspectives. It will present fundamental principles of cell-cell interactions, extracellular matrix deposition and mineralization related to bone homeostasis, remodeling and healing. Concepts will be emphasized with relevant clinical and radiological presentation of bone diseases using different imaging modalities.
Fall
1-4 Credit Hours

GOHS 5072 Advanced Library, Biostatistics, and Nutrition
The course will provide information about the fundamentals of literature search, and appraisal and introduction to basic statistical methods and discuss the significance of nutrition for oral health.
0.5-1.25 Credit Hour

GOHS 5081 Clinical Rotations I
This course will provide an opportunity for chairside observation of initial patient visits, medical consultation requests for medically-compromised patients, treatment planning and ongoing patient dental care. Upon completion of this course, students should have a good knowledge of chair-side dentist-patient interactions.
Fall
1-3 Credit Hours

GOHS 5082 Clinical Rotations II
Introduction to dental practice. Students will rotate one day per week in the pre-doctoral clinic observing skills such as patient communication, team building, and record keeping.
1.5-2.5 Credit Hours

GOHS 5091 Capstone Course I
Capstone course will provide the student with foundational and applied knowledge needed to conduct a capstone research project. Presented in lectures and seminars, the course will guide the student on how to design and complete an oral health related project. Concepts learned will be emphasized by written and oral presentation of the student's capstone project proposal.
Fall
0.5-2.5 Credit Hours

GOHS 5092 Capstone Course II
Guiding students to design and complete an oral health related project and present it in the form of a thesis.
1-2 Credit Hours

GOHS 5102 Professionalism, Ethics, and Healthcare Communities
This course will provide foundational knowledge on the doctor patient relationship, medical history skills and the basics of dental orofacial physical exam and developing the doctor patient relationship. All throughout, students will receive instruction in the principles of professionalism and ethical decision making with emphasis on case-based discussions.
0.5-1.5 Credit Hour

GOHS 5501 Introduction to Professionalism, Community and Patient Management
Introduction to Professionalism, Patient Management, and Community is a mixed-methods course designed to introduce best practices in patient interaction and management, concepts of medical evaluation of the dental patient, and considerations around ethical and inclusive treatment of all patients. This course will provide foundational knowledge in: cultural competency, fundamental concepts in principles of professionalism and ethical decision making, the doctor patient relationship, considerations of academic integrity and professional communication, components and application of the medical history, basics of a dental/orofacial exam and components of a general physical exam, including the general survey, vital signs, cranial nerve exam, head and neck examination, and examination of the heart and lungs. The course is designed as an introduction to professionalism and patient evaluation. This module will consist of lectures, three seminar sessions devoted to an investigation of ethical decision making, and two mandatory small group practical rotations where you will be exposed to application of the medical history and physical examination in practice. The ethics seminars will ask you to practice the skills reviewed during ethics lecture 1 and applied in ethics lecture 2. These discussion-based gatherings have a goal of providing students with knowledge and experiences in identifying and resolving ethical dilemmas. This includes stating the facts of a given case, explaining any temptations that may interfere with ethical behavior, creating and applying strategies for effectively dealing with ethical dilemmas, identifying resources available for resolving ethical concerns, and understanding aspects of professional communication among patients, colleagues, faculty, and staff, such as verbal, non-verbal, and written communication (including use of social media), and diversity and inclusion. The first practical workshop will also take place in a seminar setting and review components of medical history and physical exam, providing an opportunity for practice on classmates. The second rotation will occur in the Personalized Care Suite where you will assist senior students as they take a medical history and perform a physical examination on comprehensive care patients.
Fall
1-4 Credit Hours
GOHS 5511 Multidisciplinary Seminars I
The main objective of this course is to ensure that you develop the ability to understand biomedical, behavioral and clinical sciences and apply such information in a problem solving context for the comprehensive treatment planning and management of your patients. This course is broken up into three different modules. Each module will be directed by three to four faculty members. The modules will consist of an online component and a seminar component. The online component will include review of a multi-disciplinary case, video lectures, pertinent research articles and a knowledge assessment. The module directors will be the primary knowledge experts and content providers for the course. The discussion leaders will facilitate the seminar component.
Fall
0.25-2 Credit Hours

GOHS 5512 Multidisciplinary Seminars II
Continuation of the fall semester seminars which will develop knowledge in biomedical, behavioral and dental sciences and practice management for comprehensive treatment planning and patient management.
0.5-1 Credit Hour

GOHS 5522 Clinical Seminars
The seminar is an open forum discussion in which students make patient case presentations including the diagnosis, treatment plan, and therapy.
0.75-1.5 Credit Hour

GOHS 5532 Advanced Library, Biostatistics, and Nutrition
The course will provide information about the fundamentals of literature search, and appraisal and introduction to basic statistical methods and discuss the significance of nutrition for oral health.
0.5-1.25 Credit Hour

GOHS 5541 Dental Auxiliary Utilization IA
DAU (Dental Auxiliary Utilization) is an interdisciplinary clinical course designed for MOHS students who have earned dental degrees in countries outside of the United States and who are enhancing academic and clinical skills in order to become familiar with US dentistry in clinical practice through participation and observation as a trained dental assistant in a multi-specialty practice setting at the University of Pennsylvania Family Dental Practice and selected post-graduate specialty clinics. MOHS students will learn the role of a trained dental assistant, as well as the roles of every auxiliary member of the dental care team: assistant, hygienist, EFDA assistant, front desk, billing office, etc. through lecture and then through completion of assigned rotations in the Family Practice and selected clinics. Coursework will include learning fundamentals of obtaining standard radiology views as identified by the Dental Assistant National Boards (DANB) and preparation for the exam and licensure. In addition, topics such as ergonomics, infection control, team building, materials management, and record keeping among others will be explored in the lecture series. Through hands-on assisting practicing dentists and dental residents, MOHS DAU students will learn US norms of dental practice care including patient communication and management, dental team roles and responsibilities, operatory management, infection control, commonly utilized dental materials management, standard radiology technique, and records management among others. Each MOHS student is required to attend all lectures where these topics will be introduced and explored, and prior to the first clinical rotation each student will be required to pass a written assignment to assess and document their understanding of the topics explored in lectures. Students are also required to comply with all Penn Dental and University requirements for immunizations, documentation and completion of onboarding coursework.
Fall
1-4 Credit Hours

GOHS 5542 Dental Auxiliary Utilization IB
Continuation of the fall semester course designed to teach four-handed dental assisting technique as well as skills such as patient communication, team building, and record keeping.
2-3 Credit Hours

GOHS 5552 Pharmacology
The student will gain understanding of the effect of drugs on human body.
0.25-1 Credit Hour

GOHS 5561 Clinical Rotations I
This course will provide an opportunity for one day per week of clinical rotations through specialty clinics in Endodontics, Oral Surgery, Orthodontics, Periodontics, Periodontal Prosthesis, Prosthodontics, other PDM extramural community sites and the PDM Office of Fiscal Operations.
Fall
1-4 Credit Hours

GOHS 5562 Clinical Rotations II
Rotations through specialty clinics in Endodontics, Oral Surgery, Orthodontics, Periodontics, Periodontal Prosthesis, Prosthodontics, other PDM extramural community sites and the PDM Office of Fiscal Operations.
1.5-2.25 Credit Hours

GOHS 5571 Dental Auxiliary Utilization
DAU (Dental Auxiliary Utilization) is an interdisciplinary clinical course designed for MOHS students who have earned dental degrees in countries outside of the United States and who are enhancing academic and clinical skills in order to become familiar with US dentistry in clinical practice through participation as a trained dental assistant in a multispecialty practice setting at the University of Pennsylvania Family Dental Practice. MOHS students will learn the role of a trained dental assistant, as well as the roles of every auxiliary member of the dental care team: assistant, hygienist, EFDA assistant, front desk, billing office, etc. through lecture and then through completion of assigned rotations in the Family Practice. In addition, topics such as ergonomics, infection control, team building, materials management, and record keeping among others will be explored in the lecture series. Through hands-on assisting practicing dentists in the Penn Dental Family Practice, MOHS DAU students will learn US norms of dental practice care including patient communication and management, dental team roles and responsibilities, operatory management, infection control, commonly utilized dental materials management, and records management among others. Each MOHS student is required to attend all lectures where these topics will be introduced and explored, and prior to the first clinical rotation each student will be required to pass a written assignment to assess and document their understanding of the topics explored in lectures. Students are also required to comply with all Penn Dental and University requirements for immunizations, documentation and completion of onboarding coursework. The course consists of 6.15 hour lectures, successful completion of the written evaluation, compliance with all Penn Dental Medicine and University onboarding coursework, and completion of a weekly assigned rotation in the Penn Dental Family Practice of four hours each following a clinical orientation.
Fall
0.25 Credit Hours
GOHS 5572 Behavioral Sciences I
Students will gain the necessary knowledge and skills in oral health promotion and disease prevention activities with individuals, communities and populations. Course topics include discussion of the philosophy, modalities, rationale and evaluation of health promotion and disease prevention activities related to caries, periodontal diseases and oral cancer.
1.5-2.5 Credit Hours

GOHS 5591 Capstone Course I
Capstone course will provide the student with foundational and applied knowledge needed to conduct a capstone research project. Presented in lectures and seminars, the course will guide the student on how to design and complete an oral health related project. Concepts learned will be emphasized by written and oral presentation of the student's capstone project proposal.
Fall
1-3 Credit Hours

GOHS 5592 Capstone Course II
Guided research or service project that addresses at least three competencies including literature review & synthesis, patient-based surveys & analysis, quantitative/qualitative analysis and others.
0.75-1.75 Credit Hour

Dental - Graduate Oral Medicine (GOMD)

GOMD 9001 OMFS History & Physical Exam
This course, offered through the Department of Oral and Maxillofacial Surgery at the Hospital of the University of Pennsylvania, is designed to cover topics relevant for residents involved in the on-call service, including maxillofacial infections, trauma, and advanced head and neck anatomy.
0.75-1.75 Credit Hour

GOMD 9011 S. Gary Cohen Conference I
This course in Oral Medicine meets weekly and will allow academic discussion of disease and disease processes, as well as therapeutic management of a wide range of topics related to the field of Oral Medicine including but not limited to, oral-mucosal disease, orofacial pain, salivary gland diseases, infectious disease, oral pathology, oral radiology, and internal medicine. In addition, this course allows students to present and discuss recent scientific articles related to the field of oral medicine. Students will develop the ability to critically review papers.
Residents will meet with faculty members to discuss recent literature in their field of interest and/or expertise.
0.5-2 Credit Hours

GOMD 9012 S. Gary Cohen Conference II
This course in Oral Medicine meets weekly and will allow academic discussion of disease and disease processes, as well as therapeutic management of a wide range of topics related to the field of Oral Medicine including but not limited to, oral-mucosal disease, orofacial pain, salivary gland diseases, infectious disease, oral pathology, oral radiology, and internal medicine. In addition, this course allows students to present and discuss recent scientific articles related to the field of oral medicine. Students will develop the ability to critically review papers.
Residents will meet with faculty members to discuss recent literature in their field of interest and/or expertise.
0.5-2 Credit Hours

GOMD 9013 S. Gary Cohen Conference III
This course in Oral Medicine meets weekly and will allow academic discussion of disease and disease processes, as well as therapeutic management of a wide range of topics related to the field of Oral Medicine including but not limited to, oral-mucosal disease, orofacial pain, salivary gland diseases, infectious disease, oral pathology, oral radiology, and internal medicine. In addition, this course allows students to present and discuss recent scientific articles related to the field of oral medicine. Students will develop the ability to critically review papers.
Residents will meet with faculty members to discuss recent literature in their field of interest and/or expertise.
0.5-2 Credit Hours

GOMD 9014 S. Gary Cohen Conference IV
This course in Oral Medicine meets weekly and will allow academic discussion of disease and disease processes, as well as therapeutic management of a wide range of topics related to the field of Oral Medicine including but not limited to, oral-mucosal disease, orofacial pain, salivary gland diseases, infectious disease, oral pathology, oral radiology, and internal medicine. In addition, this course allows students to present and discuss recent scientific articles related to the field of oral medicine. Students will develop the ability to critically review papers.
Residents will meet with faculty members to discuss recent literature in their field of interest and/or expertise.
0.5-2 Credit Hours

GOMD 9021 V.J. Brightman Conference I
This course meets weekly and provides residents with didactic training in the fundamentals of oral medicine, including oral mucosal diseases, orofacial pain syndromes, oral pathology, oral and maxillofacial radiology, laboratory medicine, internal medicine, pharmacology, and research methodology. The lectures are given by faculty within the Department of Oral Medicine and the University of Pennsylvania School of Dental Medicine.
0.5-2 Credit Hours

GOMD 9022 V.J. Brightman Conference II
This course meets weekly and provides residents with didactic training in the fundamentals of oral medicine, including oral mucosal diseases, orofacial pain syndromes, oral pathology, oral and maxillofacial radiology, laboratory medicine, internal medicine, pharmacology, and research methodology. The lectures are given by faculty within the Department of Oral Medicine and the University of Pennsylvania School of Dental Medicine.
0.5-2 Credit Hours

GOMD 9023 V.J. Brightman Conference III
This course meets weekly and provides residents with didactic training in the fundamentals of oral medicine, including oral mucosal diseases, orofacial pain syndromes, oral pathology, oral and maxillofacial radiology, laboratory medicine, internal medicine, pharmacology, and research methodology. The lectures are given by faculty within the Department of Oral Medicine and the University of Pennsylvania School of Dental Medicine.
0.5-2 Credit Hours

GOMD 9024 V.J. Brightman Conference IV
This course meets weekly and provides residents with didactic training in the fundamentals of oral medicine, including oral mucosal diseases, orofacial pain syndromes, oral pathology, oral and maxillofacial radiology, laboratory medicine, internal medicine, pharmacology, and research methodology. The lectures are given by faculty within the Department of Oral Medicine and the University of Pennsylvania School of Dental Medicine.
0.5-2 Credit Hours
GOMD 9031 Oral & Maxillofacial Pathology I
This course introduces residents to the techniques and principles needed for the histopathologic evaluation of biopsy specimens. These include grossing, orienting and mounting specimens, various staining techniques, and the principles of microscopic diagnosis.
0.5-2 Credit Hours

GOMD 9033 Oral & Maxillofacial Pathology II
This course introduces residents to the techniques and principles needed for the histopathologic evaluation of biopsy specimens. These include grossing, orienting and mounting specimens, various staining techniques, and the principles of microscopic diagnosis.
0.5-2 Credit Hours

GOMD 9041 Oral Medicine Clinics I
Residents will spend time with departmental faculty diagnosing and treating patients with a variety of disorders related to oral medicine.
17-19 Credit Hours

GOMD 9042 Oral Medicine Clinics II
Residents will spend time with departmental faculty diagnosing and treating patients with a variety of disorders related to oral medicine.
17-19 Credit Hours

GOMD 9043 Oral Medicine Clinics III
Residents will spend time with departmental faculty diagnosing and treating patients with a variety of disorders related to oral medicine.
17-19 Credit Hours

GOMD 9044 Oral Medicine Clinics IV
Residents will spend time with departmental faculty diagnosing and treating patients with a variety of disorders related to oral medicine.
17-19 Credit Hours

GOMD 9051 Off-Service Clinical Rotations I
Residents will be assigned to various medical services or outpatient clinics to function as an integral part of the health care system and participate in clinical patient care.
2-4.5 Credit Hours

GOMD 9052 Off-Service Clinical Rotations II
Residents will be assigned to various medical services or outpatient clinics to function as an integral part of the health care system and participate in clinical patient care.
2-4.5 Credit Hours

GOMD 9053 Off-Service Clinical Rotations III
Residents will be assigned to various medical services or outpatient clinics to function as an integral part of the health care system and participate in clinical patient care.
12-15 Credit Hours

GOMD 9054 Off-Service Clinical Rotations IV
Residents will be assigned to various medical services or outpatient clinics to function as an integral part of the health care system and participate in clinical patient care.
12-15 Credit Hours

Dental - Graduate Orthodontics (GORT)

GORT 9001 Research Seminars I
Research Seminars I
0.25-1 Credit Hour

GORT 9002 Research Seminars II
Research Seminars II
0.25-1 Credit Hour

GORT 9003 Research Seminars III
Research Seminars III
0.25-1 Credit Hour

GORT 9004 Research Seminars IV
Research Seminars IV
0.25-1 Credit Hour

GORT 9011 Growth & Development I
Growth & Development I
0.25-1.25 Credit Hour

GORT 9012 Growth & Development II
Growth & Development II
0.25-1.25 Credit Hour

GORT 9021 Biology of Tooth Movement
Biology of Tooth Movement
0.25-1.5 Credit Hour

GORT 9031 Diagnosis and Treatment Planning I
Diagnosis and Treatment Planning I
0.25-1.25 Credit Hour

GORT 9032 Diagnosis and Treatment Planning II
Diagnosis and Treatment Planning II
0.25-1.25 Credit Hour

GORT 9033 Diagnosis and Treatment Planning III
Diagnosis and Treatment Planning III
0.25-1.25 Credit Hour

GORT 9034 Diagnosis and Treatment Planning IV
Diagnosis and Treatment Planning IV
0.25-1.25 Credit Hour

GORT 9041 Biomechanics I
Biomechanics I
0.25-1.25 Credit Hour

GORT 9042 Biomechanics II
Biomechanics II
0.25-1.25 Credit Hour

GORT 9043 Biomechanics III
Biomechanics III
0.25-1.25 Credit Hour

GORT 9044 Biomechanics IV
Biomechanics IV
0.25-1.25 Credit Hour

GORT 9051 Appliance & Lab Technique
Appliance & Lab Technique
0.75-1.5 Credit Hour

GORT 9061 TMD Diagnosis & Therapy I
TMD Diagnosis & Therapy I
0.25-1.25 Credit Hour

GORT 9062 TMD Diagnosis & Therapy II
TMD Diagnosis & Therapy II
0.25-1.25 Credit Hour

GORT 9071 Ortho/Perio & Adult Orthodontics I
Ortho/Perio & Adult Orthodontics I
0.25-1.5 Credit Hour
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GORT 9072</td>
<td>Ortho/Perio &amp; Adult Orthodontics II</td>
<td>0.25-1.5</td>
</tr>
<tr>
<td>GORT 9073</td>
<td>Ortho/Perio &amp; Adult Orthodontics III</td>
<td>0.25-1.5</td>
</tr>
<tr>
<td>GORT 9074</td>
<td>Ortho/Perio &amp; Adult Orthodontics IV</td>
<td>0.25-1.5</td>
</tr>
<tr>
<td>GORT 9081</td>
<td>Orthodontic Literature Review I</td>
<td>0.25-1.25</td>
</tr>
<tr>
<td>GORT 9082</td>
<td>Orthodontic Literature Review II</td>
<td>0.25-1.25</td>
</tr>
<tr>
<td>GORT 9091</td>
<td>Orthognathic Surgery/TMJ Lecture Series I</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9092</td>
<td>Orthognathic Surgery/TMJ Lecture Series II</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9093</td>
<td>Orthognathic Surgery/TMJ Lecture Series III</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9094</td>
<td>Orthognathic Surgery/TMJ Lecture Series IV</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9101</td>
<td>Case Presentation Seminars I</td>
<td>1.5-3</td>
</tr>
<tr>
<td>GORT 9102</td>
<td>Case Presentation Seminars II</td>
<td>1.5-3</td>
</tr>
<tr>
<td>GORT 9103</td>
<td>Case Presentation Seminars III</td>
<td>1.5-3</td>
</tr>
<tr>
<td>GORT 9104</td>
<td>Case Presentation Seminars IV</td>
<td>1.5-3</td>
</tr>
<tr>
<td>GORT 9111</td>
<td>Craniofacial Orthodontic Seminars I</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9112</td>
<td>Craniofacial Orthodontic Seminars II</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9121</td>
<td>Early Treatment I</td>
<td>0.5-1.25</td>
</tr>
<tr>
<td>GORT 9122</td>
<td>Early Treatment II</td>
<td>0.5-1.25</td>
</tr>
<tr>
<td>GORT 9131</td>
<td>Six Elements and Adult Orthodontics I</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9132</td>
<td>Six Elements and Adult Orthodontics II</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9141</td>
<td>Clinical Orthodontic Training I</td>
<td>17-20</td>
</tr>
<tr>
<td>GORT 9142</td>
<td>Clinical Orthodontic Training II</td>
<td>32-35</td>
</tr>
<tr>
<td>GORT 9143</td>
<td>Clinical Orthodontic Training III</td>
<td>25-28</td>
</tr>
<tr>
<td>GORT 9144</td>
<td>Clinical Orthodontic Training IV</td>
<td>33-36</td>
</tr>
<tr>
<td>GORT 9145</td>
<td>Clinical Orthodontic Training V</td>
<td>24-27</td>
</tr>
<tr>
<td>GORT 9146</td>
<td>Clinical Orthodontic Training VI</td>
<td>30-34</td>
</tr>
<tr>
<td>GORT 9147</td>
<td>Clinical Orthodontic Training VII</td>
<td>24-27</td>
</tr>
<tr>
<td>GORT 9148</td>
<td>Clinical Orthodontic Training VIII</td>
<td>30-34</td>
</tr>
<tr>
<td>GORT 9153</td>
<td>Craniofacial Orthodontic Rotations I</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9154</td>
<td>Craniofacial Orthodontic Rotations II</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9163</td>
<td>Ethics in Orthodontics I</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9164</td>
<td>Ethics in Orthodontics II</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9173</td>
<td>Literature Review/ABO I</td>
<td>0.75-1.25</td>
</tr>
<tr>
<td>GORT 9174</td>
<td>Literature Review/ABO II</td>
<td>0.75-1.25</td>
</tr>
<tr>
<td>GORT 9183</td>
<td>Orthognathic Surgery and Practice Mgmt Workshop I</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9184</td>
<td>Orthognathic Surgery and Practice Mgmt Workshop II</td>
<td>0.25-1</td>
</tr>
<tr>
<td>GORT 9193</td>
<td>P &amp; I Clinic Teaching I</td>
<td>1-2</td>
</tr>
</tbody>
</table>
GORT 9194 P & I Clinic Teaching II
P & I Clinic Teaching II
1-2 Credit Hours

GORT 9203 Practice Management I
Practice Management I
0.25-1 Credit Hour

GORT 9204 Practice Management II
Practice Management II
0.25-1 Credit Hour

Dental - Graduate Pediatrics (GPED)

GPED 9001 Introduction to Pediatric Dentistry I
The course provides an overview of the main domains in Pediatric Dentistry including diagnosis, rationale for treatment and description of basic treatment techniques. The course consists of the following components: • Lectures • Examinations on the AAPD Guidelines • Laboratory exercise • Observing in the outpatient clinic
Fall
2-4 Credit Hours

GPED 9011 Comprehensive Review of Pediatric Dentistry I
A comprehensive course to provide an in depth knowledge of all areas of Pediatric Dentistry
Fall
2-4 Credit Hours

GPED 9012 Comprehensive Review of Pediatric Dentistry II
A comprehensive course to provide an in depth knowledge of all areas of Pediatric Dentistry
Spring
2-4 Credit Hours

GPED 9013 Comprehensive Review of Pediatric Dentistry III
A comprehensive course to provide an in depth knowledge of all areas of Pediatric Dentistry
Fall
2-4 Credit Hours

GPED 9014 Comprehensive Review of Pediatric Dentistry IV
A comprehensive course to provide an in depth knowledge of all areas of Pediatric Dentistry.
Spring
2-4 Credit Hours

GPED 9021 First and Second Year Rotations I
Didactic and Clinical Rotations which provide the residents with the didactic knowledge and clinical experiences for the care of infants, children and adolescents including patients with special health care needs.
Fall
8-10 Credit Hours

GPED 9022 First and Second Year Rotations II
First and Second Year Rotations II
Spring
8-10 Credit Hours

GPED 9023 First and Second Year Rotations III
Didactic and Clinical Rotations which provide the residents with the didactic knowledge and clinical experiences for the care of infants, children and adolescents including patients with special health care needs.
Fall
8-10 Credit Hours

GPED 9024 First and Second Year Rotations IV
First and Second Year Rotations IV
Spring
8-10 Credit Hours

GPED 9031 First Year Rotations I
Grand rounds help doctors and other healthcare professionals keep up to date in important evolving areas which may be outside of their core practice.
Fall
8-10 Credit Hours

GPED 9032 First Year Rotations II
First Year Rotations II
Spring
8-10 Credit Hours

GPED 9041 Sedation Seminar
Moderate Sedation for Pediatric Dentistry is a graduate course that fulfills the requirements set forth by the CODA Accreditation Standards for Advanced Education Programs in Periodontics/ Pediatric Dentistry. This educational program provides training for the student/ resident in the methods of pain control and sedation to achieve: 1. In-depth knowledge in all areas of minimal, moderate, and deep sedation as prescribed by the ADA Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students. 2. Clinical training to the level of competency in minimal enteral and moderate parenteral sedation as prescribed by the ADA Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students.
Fall
0.5-3 Credit Hours

GPED 9042 Sedation Seminar Spring
Moderate Sedation for Pediatric Dentistry is a graduate course that fulfills the requirements set forth by the CODA Accreditation Standards for Advanced Education Programs in Periodontics/ Pediatric Dentistry. This educational program provides training for the student/ resident in the methods of pain control and sedation to achieve: 1. In-depth knowledge in all areas of minimal, moderate, and deep sedation as prescribed by the ADA Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students. 2. Clinical training to the level of competency in minimal enteral and moderate parenteral sedation as prescribed by the ADA Guidelines for Teaching Pain Control and Sedation to Dentists and Dental Students.
Spring
0.5-2.5 Credit Hours

GPED 9051 Multidisciplinary Seminar I
This course will be in the form of a monthly Penn conference for all the residents of graduate specialty programs in PDM. Each conference will include residents presentations of patients treatment with complex dental needs that require multi-disciplinary approach and then open discussion with all involved specialties as panel. This conference is designed to provide residents with an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis.
Fall
0.5-1.5 Credit Hour
GPED 9052 Multidisciplinary Seminar II
This course will be in the form of a monthly Penn conference for all the residents of graduate specialty programs in PDM. Each conference will include residents presentations of patients treatment with complex dental needs that require multi-disciplinary approach and then open discussion with all involved specialties as panel. This conference is designed to provide residents with an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis.
Spring
0.5-1.5 Credit Hour

GPED 9053 Multidisciplinary Seminar III
This course will be in the form of a monthly Penn conference for all the residents of graduate specialty programs in PDM. Each conference will include residents presentations of patients treatment with complex dental needs that require multi-disciplinary approach and then open discussion with all involved specialties as panel. This conference is designed to provide residents with an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis.
Fall
0.5-1.5 Credit Hour

GPED 9054 Multidisciplinary Seminar IV
This course will be in the form of a monthly Penn conference for all the residents of graduate specialty programs in PDM. Each conference will include residents presentations of patients treatment with complex dental needs that require multi-disciplinary approach and then open discussion with all involved specialties as panel. This conference is designed to provide residents with an understanding of the sequential management of multidisciplinary cases from a diagnostic and treatment basis.
Spring
0.5-1.5 Credit Hour

GPED 9061 Trauma Fall
Trauma Fall
Fall
1.5-3 Credit Hours

GPED 9062 Trauma Spring
Trauma Spring
Spring
1.5-3 Credit Hours

GPED 9070 Intro To Ped Dent II
1.5 Credit Hour

GPED 9073 Second Year Rotations I
Second Year Rotations I
Fall
8-10 Credit Hours

GPED 9074 Second Year Rotations II
Second Year Rotations II
Spring
8-10 Credit Hours

Dental - Graduate Periodontics (GPRD)

GPRD 9001 Introduction To Periodontology
Introduction To Periodontology
6-9 Credit Hours

GPRD 9011 Introduction To Periodontal Prosthesis
Introduction To Periodontal Prosthesis
4-6 Credit Hours

GPRD 9021 Clinical Periodontics I
Clinical Periodontics I
5-7 Credit Hours

GPRD 9022 Clinical Periodontics II
Clinical Periodontics II
2.5-4.5 Credit Hours

GPRD 9023 Clinical Periodontics III
Clinical Periodontics III
2.5-4.5 Credit Hours

GPRD 9024 Clinical Periodontics IV
Clinical Periodontics IV
9-13 Credit Hours

GPRD 9025 Clinical Periodontics V
Clinical Periodontics V
9-13 Credit Hours

GPRD 9026 Clinical Periodontics VI
Clinical Periodontics VI
9-13 Credit Hours

GPRD 9031 Classic Literature Review I
Classic Literature Review I
0.75-1.25 Credit Hour

GPRD 9032 Classic Literature Review II
Classic Literature Review II
1.5-2.5 Credit Hours

GPRD 9033 Classic Literature Review III
Classic Literature Review III
1.5-2.5 Credit Hours

GPRD 9034 Classic Literature Review IV
Classic Literature Review IV
1.5-2.5 Credit Hours

GPRD 9041 Current Literature Review I
Current Literature Review I
0.75-1.25 Credit Hour

GPRD 9042 Current Literature Review II
Current Literature Review II
1.5-2 Credit Hours

GPRD 9043 Current Literature Review III
Current Literature Review III
1.5-2 Credit Hours

GPRD 9044 Current Literature Review IV
Current Literature Review IV
1.5-2 Credit Hours

GPRD 9051 Periodontics Case Presentation I
Periodontics Case Presentation I
0.5-1.25 Credit Hour

GPRD 9052 Periodontics Case Presentation II
Periodontics Case Presentation II
1-1.75 Credit Hour

GPRD 9053 Periodontics Case Presentation III
Periodontics Case Presentation III
1-1.75 Credit Hour
GPRD 9054 Periodontics Case Presentation IV  
Periodontics Case Presentation IV  
1-1.75 Credit Hour

GPRD 9055 Periodontics Case Presentation V  
Periodontics Case Presentation V  
1-1.75 Credit Hour

GPRD 9056 Periodontics Case Presentation VI  
Periodontics Case Presentation VI  
1-1.75 Credit Hour

GPRD 9061 Surgical Endodontic Rotation I  
Surgical Endodontic Rotation I  
0.25-1 Credit Hour

GPRD 9062 Surgical Endodontic Rotation II  
Surgical Endodontic Rotation II  
0.25-1 Credit Hour

GPRD 9063 Surgical Endodontic Rotation III  
Surgical Endodontic Rotation III  
0.25-1 Credit Hour

GPRD 9064 Surgical Endodontic Rotation IV  
Surgical Endodontic Rotation IV  
0.25-1 Credit Hour

GPRD 9065 Surgical Endodontic Rotation V  
Surgical Endodontic Rotation V  
0.25-1 Credit Hour

GPRD 9066 Surgical Endodontic Rotation VI  
Surgical Endodontic Rotation VI  
0.25-1 Credit Hour

GPRD 9071 Fundamentals Of Periodontics I  
Fundamentals Of Periodontics I  
1.75-2.5 Credit Hours

GPRD 9072 Fundamentals Of Periodontics II  
Fundamentals Of Periodontics II  
3-4 Credit Hours

GPRD 9081 Fundamentals Of Perio Surgery I  
Fundamentals Of Perio Surgery I  
1.75-2.25 Credit Hours

GPRD 9082 Fundamentals Of Perio Surgery II  
Fundamentals Of Perio Surgery II  
3-4 Credit Hours

GPRD 9091 Sedation Seminar I  
Sedation Seminar I  
0.25-1 Credit Hour

GPRD 9092 Sedation Seminar II  
Sedation Seminar II  
0.25-1 Credit Hour

GPRD 9101 Minor Adult Orthodontics I  
Minor Adult Orthodontics I  
0.75-1.25 Credit Hour

GPRD 9111 Advanced Topics In Periodontics I  
Advanced Topics In Periodontics I  
0.25-1 Credit Hour

GPRD 9112 Advanced Topics In Periodontics II  
Advanced Topics In Periodontics II  
0.25-1.25 Credit Hour

GPRD 9113 Advanced Topics In Periodontics III  
Advanced Topics In Periodontics III  
0.25-1.25 Credit Hour

GPRD 9114 Advanced Topics In Periodontics IV  
Advanced Topics In Periodontics IV  
0.25-1.25 Credit Hour

GPRD 9115 Advanced Topics In Periodontics V  
Advanced Topics In Periodontics V  
0.25-1.25 Credit Hour

GPRD 9116 Advanced Topics In Periodontics VI  
Advanced Topics In Periodontics VI  
0.25-1.25 Credit Hour

GPRD 9122 In-Service Examination I  
In-Service Examination I  
0.25-1.25 Credit Hour

GPRD 9124 In-Service Examination II  
In-Service Examination II  
0.25-1.25 Credit Hour

GPRD 9126 In-Service Examination III  
In-Service Examination III  
0.25-1.25 Credit Hour

GPRD 9141 P Care Clinic Rotation I  
P Care Clinic Rotation I  
0.25-1 Credit Hour

GPRD 9142 P Care Clinic Rotation II  
P Care Clinic Rotation II  
0.25-1 Credit Hour

GPRD 9143 P Care Clinic Rotation III  
P Care Clinic Rotation III  
0.25-1 Credit Hour

GPRD 9144 P Care Clinic Rotation IV  
P Care Clinic Rotation IV  
0.25-1 Credit Hour

GPRD 9145 P Care Clinic Rotation V  
P Care Clinic Rotation V  
0.25-1 Credit Hour

GPRD 9146 P Care Clinic Rotation VI  
P Care Clinic Rotation VI  
0.25-1 Credit Hour

GPRD 9151 Complications Seminar I  
Complications Seminar I  
0.25-1 Credit Hour

GPRD 9152 Complications Seminar II  
Complications Seminar II  
0.25-1 Credit Hour

GPRD 9153 Complications Seminar III  
Complications Seminar III  
0.25-1 Credit Hour

GPRD 9154 Complications Seminar IV  
Complications Seminar IV  
0.25-1 Credit Hour

GPRD 9155 Complications Seminar V  
Complications Seminar V  
0.25-1 Credit Hour
GPRD 9156 Complications Seminar VI  
Complications Seminar VI  
0.25-1 Credit Hour  
GPRD 9161 Periodontal Practice Management  
Periodontal Practice Management  
0.5-1.25 Credit Hour  
GPRD 9171 Treatment Plan Rotation I  
Treatment Plan Rotation I  
0.25-1 Credit Hour  
GPRD 9172 Treatment Plan Rotation II  
Treatment Plan Rotation II  
0.25-1 Credit Hour  
GPRD 9173 Treatment Plan Rotation III  
Treatment Plan Rotation III  
0.25-1 Credit Hour  
GPRD 9174 Treatment Plan Rotation IV  
Treatment Plan Rotation IV  
0.25-1 Credit Hour  
GPRD 9175 Treatment Plan Rotation V  
Treatment Plan Rotation V  
0.25-1 Credit Hour  
GPRD 9176 Treatment Plan Rotation VI  
Treatment Plan Rotation VI  
0.25-1 Credit Hour  
GPRD 9182 Oral Comprehensive Examination I  
Oral Comprehensive Examination I  
0.25-1 Credit Hour  
GPRD 9184 Oral Comprehensive Examination II  
Oral Comprehensive Examination II  
0.25-1 Credit Hour  
GPRD 9186 Oral Comprehensive Examination III  
Oral Comprehensive Examination III  
0.25-1 Credit Hour  
GPRD 9195 Board Review Seminar I  
Board Review Seminar I  
1.25-2.25 Credit Hours  
GPRD 9196 Board Review Seminar II  
Board Review Seminar II  
1.25-2.25 Credit Hours  
GPRD 9201 Fundamentals Of Periodontal Prosthesis I  
Fundamentals Of Periodontal Prosthesis I  
1.5-2.5 Credit Hours  
GPRD 9202 Fundamentals Of Periodontal Prosthesis II  
Fundamentals Of Periodontal Prosthesis II  
3-4 Credit Hours  
GPRD 9211 Perio-Prosth Case Presentation I  
Perio-Prosth Case Presentation I  
0.5-1.5 Credit Hour  
GPRD 9212 Perio-Prosth Case Presentation II  
Perio-Prosth Case Presentation II  
0.5-1.5 Credit Hour  
GPRD 9213 Perio-Prosth Case Presentation III  
Perio-Prosth Case Presentation III  
0.5-1.5 Credit Hour  
GPRD 9214 Perio-Prosth Case Presentation IV  
Perio-Prosth Case Presentation IV  
0.5-1.5 Credit Hour  
GPRD 9215 Perio-Prosth Case Presentation V  
Perio-Prosth Case Presentation V  
0.5-1.5 Credit Hour  
GPRD 9216 Perio-Prosth Case Presentation VI  
Perio-Prosth Case Presentation VI  
0.5-1.5 Credit Hour  
GPRD 9217 Perio-Prosth Case Presentation VII  
Perio-Prosth Case Presentation VII  
0.5-1.5 Credit Hour  
GPRD 9218 Perio-Prosth Case Presentation VIII  
Perio-Prosth Case Presentation VIII  
0.5-1.5 Credit Hour  
GPRS 9001 Introduction to Advanced Fixed Prosthodontics  
Introduction to Advanced Fixed Prosthodontics for PGY1 residents  
Fall  
4-7 Credit Hours  
GPRS 9011 Introduction to Advanced Removable Prosthodontics  
Introduction to Advanced Removable Prosthodontics for PGY1 residents  
Fall  
1.75-3.25 Credit Hours  
GPRS 9021 Introduction to Implant & Digital Prosthodontics  
Introduction to Implant & Digital Prosthodontics for PGY1 residents  
Fall  
0.25-1.5 Credit Hour  
GPRS 9031 Current Prosthodontics Lit Review I  
Current Prosthodontics Lit Review I  
Fall  
1-4 Credit Hours  
GPRS 9032 Current Prosthodontics Lit Review II  
Current Prosthodontics Lit Review II for PGY1 residents  
Fall  
1-4 Credit Hours  

Dental - Graduate Prosthodontics (GPRS)
GPRS 9033 Current Prosthodontics Lit Review III
Current Prosthodontics Lit Review II for PGY2 residents
Fall
1-4 Credit Hours

GPRS 9034 Current Prosthodontics Lit Review IV
Current Prosthodontics Lit Review II for PGY2 residents
Fall
1-4 Credit Hours

GPRS 9035 Current Prosthodontics Lit Review V
Current Prosthodontics Lit Review II for PGY3 residents
Fall
1-4 Credit Hours

GPRS 9036 Current Prosthodontics Lit Review VI
Current Prosthodontics Lit Review II for PGY3 residents
Fall
1-4 Credit Hours

GPRS 9041 Literature Review Seminar I
This seminar includes the review, critical evaluation and discussion of prosthodontic classic and current literature. The intent of the comprehensive literature review is to help students/residents develop and comprehend an evidence-based approach to oral health care and patient management with a focus on prosthodontic procedures. The evidence-based approach integrates a contemporary and classical scientific foundation into patient care concepts. The review will be considered a critical literature evaluation where students/residents will develop an ability to evaluate the scientific quality of the evidence. Each topic (fixed prosthodontics 1 and 2), partial removable prosthodontics, complete removable prosthodontics, biomaterials and occlusion) will be assigned once every 3-year cycle. Prior to seminars, one student/resident will be responsible for collecting and updating the articles’ list with the Program Director or assigned faculty member. Then the student/resident will distribute the articles to all students/residents for review and summary (“bullet” abstracts or take-home message) of select literature.
1-4 Credit Hours

GPRS 9042 Literature Review Seminar II
This seminar includes the review, critical evaluation and discussion of prosthodontic classic and current literature. The intent of the comprehensive literature review is to help students/residents develop and comprehend an evidence-based approach to oral health care and patient management with a focus on prosthodontic procedures. The evidence-based approach integrates a contemporary and classical scientific foundation into patient care concepts. The review will be considered a critical literature evaluation where students/residents will develop an ability to evaluate the scientific quality of the evidence. Each topic (fixed prosthodontics 1 and 2), partial removable prosthodontics, complete removable prosthodontics, biomaterials and occlusion) will be assigned once every 3-year cycle. Prior to seminars, one student/resident will be responsible for collecting and updating the articles’ list with the Program Director or assigned faculty member. Then the student/resident will distribute the articles to all students/residents for review and summary (“bullet” abstracts or take-home message) of select literature.
1-4 Credit Hours

GPRS 9043 Literature Review Seminar III
This seminar includes the review, critical evaluation and discussion of prosthodontic classic and current literature. The intent of the comprehensive literature review is to help students/residents develop and comprehend an evidence-based approach to oral health care and patient management with a focus on prosthodontic procedures. The evidence-based approach integrates a contemporary and classical scientific foundation into patient care concepts. The review will be considered a critical literature evaluation where students/residents will develop an ability to evaluate the scientific quality of the evidence. Each topic (fixed prosthodontics 1 and 2), partial removable prosthodontics, complete removable prosthodontics, biomaterials and occlusion) will be assigned once every 3-year cycle. Prior to seminars, one student/resident will be responsible for collecting and updating the articles’ list with the Program Director or assigned faculty member. Then the student/resident will distribute the articles to all students/residents for review and summary (“bullet” abstracts or take-home message) of select literature.
1-4 Credit Hours

GPRS 9044 Literature Review Seminar IV
This seminar includes the review, critical evaluation and discussion of prosthodontic classic and current literature. The intent of the comprehensive literature review is to help students/residents develop and comprehend an evidence-based approach to oral health care and patient management with a focus on prosthodontic procedures. The evidence-based approach integrates a contemporary and classical scientific foundation into patient care concepts. The review will be considered a critical literature evaluation where students/residents will develop an ability to evaluate the scientific quality of the evidence. Each topic (fixed prosthodontics 1 and 2), partial removable prosthodontics, complete removable prosthodontics, biomaterials and occlusion) will be assigned once every 3-year cycle. Prior to seminars, one student/resident will be responsible for collecting and updating the articles’ list with the Program Director or assigned faculty member. Then the student/resident will distribute the articles to all students/residents for review and summary (“bullet” abstracts or take-home message) of select literature.
1-4 Credit Hours

GPRS 9045 Literature Review Seminar V
This seminar includes the review, critical evaluation and discussion of prosthodontic classic and current literature. The intent of the comprehensive literature review is to help students/residents develop and comprehend an evidence-based approach to oral health care and patient management with a focus on prosthodontic procedures. The evidence-based approach integrates a contemporary and classical scientific foundation into patient care concepts. The review will be considered a critical literature evaluation where students/residents will develop an ability to evaluate the scientific quality of the evidence. Each topic (fixed prosthodontics 1 and 2), partial removable prosthodontics, complete removable prosthodontics, biomaterials and occlusion) will be assigned once every 3-year cycle. Prior to seminars, one student/resident will be responsible for collecting and updating the articles’ list with the Program Director or assigned faculty member. Then the student/resident will distribute the articles to all students/residents for review and summary (“bullet” abstracts or take-home message) of select literature.
1-4 Credit Hours
GPRS 9046 Literature Review Seminar VI
This seminar includes the review, critical evaluation and discussion of prosthodontic classic and current literature. The intent of the comprehensive literature review is to help students/residents develop and comprehend an evidence-based approach to oral health care and patient management with a focus on prosthodontic procedures. The evidence-based approach integrates a contemporary and classical scientific foundation into patient care concepts. The review will be considered a critical literature evaluation where students/residents will develop an ability to evaluate the scientific quality of the evidence. Each topic (fixed prosthodontics 1 and 2), partial removable prosthodontics, complete removable prosthodontics, biomaterials and occlusion) will be assigned once every 3-year cycle. Prior to seminars, one student/resident will be responsible for collecting and updating the articles' list with the Program Director or assigned faculty member. Then the student/resident will distribute the articles to all students/residents for review and summary ("bullet" abstracts or take-home message) of select literature.
1-4 Credit Hours

GPRS 9051 Treatment Plan Seminar I
This course is a student/resident presentation series that aims to provide in-depth instruction in diagnosis, diagnostic procedures and instruments, treatment planning and treatment options for patients with complex prosthodontic needs as well as prognosis, maintenance and treatment outcomes assessment. At each seminar, one student/resident will present at least one of their patients - of their selection - in a detailed and comprehensive manner. The presentation may include a patient in any stage of the treatment, as long as all diagnostic data have been collected and are clearly presented. This seminar could serve as treatment planning discussion among the students/residents, for patients who have not started treatment, or show completed cases and discuss complications, alternatives and prognosis. Over the course of the three years of the program, a student/resident will become competent in diagnosis and treatment planning for patients with complex prosthodontic needs.
1-4 Credit Hours

GPRS 9052 Treatment Plan Seminar II
This course is a student/resident presentation series that aims to provide in-depth instruction in diagnosis, diagnostic procedures and instruments, treatment planning and treatment options for patients with complex prosthodontic needs as well as prognosis, maintenance and treatment outcomes assessment. At each seminar, one student/resident will present at least one of their patients - of their selection - in a detailed and comprehensive manner. The presentation may include a patient in any stage of the treatment, as long as all diagnostic data have been collected and are clearly presented. This seminar could serve as treatment planning discussion among the students/residents, for patients who have not started treatment, or show completed cases and discuss complications, alternatives and prognosis. Over the course of the three years of the program, a student/resident will become competent in diagnosis and treatment planning for patients with complex prosthodontic needs.
1-4 Credit Hours

GPRS 9053 Treatment Plan Seminar III
This course is a student/resident presentation series that aims to provide in-depth instruction in diagnosis, diagnostic procedures and instruments, treatment planning and treatment options for patients with complex prosthodontic needs as well as prognosis, maintenance and treatment outcomes assessment. At each seminar, one student/resident will present at least one of their patients - of their selection - in a detailed and comprehensive manner. The presentation may include a patient in any stage of the treatment, as long as all diagnostic data have been collected and are clearly presented. This seminar could serve as treatment planning discussion among the students/residents, for patients who have not started treatment, or show completed cases and discuss complications, alternatives and prognosis. Over the course of the three years of the program, a student/resident will become competent in diagnosis and treatment planning for patients with complex prosthodontic needs.
1-4 Credit Hours

GPRS 9054 Treatment Plan Seminar IV
This course is a student/resident presentation series that aims to provide in-depth instruction in diagnosis, diagnostic procedures and instruments, treatment planning and treatment options for patients with complex prosthodontic needs as well as prognosis, maintenance and treatment outcomes assessment. At each seminar, one student/resident will present at least one of their patients - of their selection - in a detailed and comprehensive manner. The presentation may include a patient in any stage of the treatment, as long as all diagnostic data have been collected and are clearly presented. This seminar could serve as treatment planning discussion among the students/residents, for patients who have not started treatment, or show completed cases and discuss complications, alternatives and prognosis. Over the course of the three years of the program, a student/resident will become competent in diagnosis and treatment planning for patients with complex prosthodontic needs.
1-4 Credit Hours

GPRS 9055 Treatment Plan Seminar V
This course is a student/resident presentation series that aims to provide in-depth instruction in diagnosis, diagnostic procedures and instruments, treatment planning and treatment options for patients with complex prosthodontic needs as well as prognosis, maintenance and treatment outcomes assessment. At each seminar, one student/resident will present at least one of their patients - of their selection - in a detailed and comprehensive manner. The presentation may include a patient in any stage of the treatment, as long as all diagnostic data have been collected and are clearly presented. This seminar could serve as treatment planning discussion among the students/residents, for patients who have not started treatment, or show completed cases and discuss complications, alternatives and prognosis. Over the course of the three years of the program, a student/resident will become competent in diagnosis and treatment planning for patients with complex prosthodontic needs.
1-4 Credit Hours
GPRS 9056 Treatment Plan Seminar VI
This course is a student/resident presentation series that aims to provide in-depth instruction in diagnosis, diagnostic procedures and instruments, treatment planning and treatment options for patients with complex prosthodontic needs as well as prognosis, maintenance and treatment outcomes assessment. At each seminar, one student/resident will present at least one of their patients - of their selection - in a detailed and comprehensive manner. The presentation may include a patient in any stage of the treatment, as long as all diagnostic data have been collected and are clearly presented. This seminar could serve as treatment planning discussion among the students/residents, for patients who have not started treatment, or show completed cases and discuss complications, alternatives and prognosis. Over the course of the three years of the program, a student/resident will become competent in diagnosis and treatment planning for patients with complex prosthodontic needs.
1-4 Credit Hours

GPRS 9061 Advanced Clinical Prosthodontics I
The provision of clinical prosthodontic care during the Advanced Education Program in Prosthodontics occurs in the Clinic inside PDM and at the Philadelphia VA Medical Center. In those settings, prosthodontic students/residents will gain advanced-level experience in the management of complex edentulous, partially edentulous and dentate patients, including the surgical placement and restoration of dental implants. Detailed diagnostic information gathering and analysis of all dental problems will be emphasized. Diverse treatment approaches to complicated prosthodontic problems will be encountered. Clinical and photographic documentation of all procedures will be accomplished and careful evaluation is made of all treatment rendered. Extensive experience will be gained in diagnosis and treatment planning and multidisciplinary care coordination. Prosthodontic students/residents will plan, place, restore, and maintain a variety of different dental implant systems. This course for advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics in a progressively complex clinical prosthodontics curriculum. Each student/resident will have the opportunity to maintain a comprehensive prosthodontics practice involving fixed, removable, and implant treatment procedures.
14-18 Credit Hours

GPRS 9062 Advanced Clinical Prosthodontics II
The provision of clinical prosthodontic care during the Advanced Education Program in Prosthodontics occurs in the Clinic inside PDM and at the Philadelphia VA Medical Center. In those settings, prosthodontic students/residents will gain advanced-level experience in the management of complex edentulous, partially edentulous and dentate patients, including the surgical placement and restoration of dental implants. Detailed diagnostic information gathering and analysis of all dental problems will be emphasized. Diverse treatment approaches to complicated prosthodontic problems will be encountered. Clinical and photographic documentation of all procedures will be accomplished and careful evaluation is made of all treatment rendered. Extensive experience will be gained in diagnosis and treatment planning and multidisciplinary care coordination. Prosthodontic students/residents will plan, place, restore, and maintain a variety of different dental implant systems. This course for advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics in a progressively complex clinical prosthodontics curriculum. Each student/resident will have the opportunity to maintain a comprehensive prosthodontics practice involving fixed, removable, and implant treatment procedures.
24-30 Credit Hours

GPRS 9063 Advanced Clinical Prosthodontics III
The provision of clinical prosthodontic care during the Advanced Education Program in Prosthodontics occurs in the Clinic inside PDM and at the Philadelphia VA Medical Center. In those settings, prosthodontic students/residents will gain advanced-level experience in the management of complex edentulous, partially edentulous and dentate patients, including the surgical placement and restoration of dental implants. Detailed diagnostic information gathering and analysis of all dental problems will be emphasized. Diverse treatment approaches to complicated prosthodontic problems will be encountered. Clinical and photographic documentation of all procedures will be accomplished and careful evaluation is made of all treatment rendered. Extensive experience will be gained in diagnosis and treatment planning and multidisciplinary care coordination. Prosthodontic students/residents will plan, place, restore, and maintain a variety of different dental implant systems. This course for advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics in a progressively complex clinical prosthodontics curriculum. Each student/resident will have the opportunity to maintain a comprehensive prosthodontics practice involving fixed, removable, and implant treatment procedures.
24-30 Credit Hours

GPRS 9064 Advanced Clinical Prosthodontics IV
The provision of clinical prosthodontic care during the Advanced Education Program in Prosthodontics occurs in the Clinic inside PDM and at the Philadelphia VA Medical Center. In those settings, prosthodontic students/residents will gain advanced-level experience in the management of complex edentulous, partially edentulous and dentate patients, including the surgical placement and restoration of dental implants. Detailed diagnostic information gathering and analysis of all dental problems will be emphasized. Diverse treatment approaches to complicated prosthodontic problems will be encountered. Clinical and photographic documentation of all procedures will be accomplished and careful evaluation is made of all treatment rendered. Extensive experience will be gained in diagnosis and treatment planning and multidisciplinary care coordination. Prosthodontic students/residents will plan, place, restore, and maintain a variety of different dental implant systems. This course for advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics in a progressively complex clinical prosthodontics curriculum. Each student/resident will have the opportunity to maintain a comprehensive prosthodontics practice involving fixed, removable, and implant treatment procedures.
24-30 Credit Hours
**GPRS 9065 Advanced Clinical Prosthodontics V**
The provision of clinical prosthodontic care during the Advanced Education Program in Prosthodontics occurs in the Clinic inside PDM and at the Philadelphia VA Medical Center. In those settings, prosthodontic students/residents will gain advanced-level experience in the management of complex edentulous, partially edentulous and dentate patients, including the surgical placement and restoration of dental implants. Detailed diagnostic information gathering and analysis of all dental problems will be emphasized. Diverse treatment approaches to complicated prosthodontic problems will be encountered. Clinical and photographic documentation of all procedures will be accomplished and careful evaluation is made of all treatment rendered. Extensive experience will be gained in diagnosis and treatment planning and multidisciplinary care coordination. Prosthodontic students/residents will plan, place, restore, and maintain a variety of different dental implant systems. This course for advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics in a progressively complex clinical prosthodontics curriculum. Each student/resident will have the opportunity to maintain a comprehensive prosthodontics practice involving fixed, removable, and implant treatment procedures.

*22-26 Credit Hours*

**GPRS 9066 Advanced Clinical Prosthodontics VI**
The provision of clinical prosthodontic care during the Advanced Education Program in Prosthodontics occurs in the Clinic inside PDM and at the Philadelphia VA Medical Center. In those settings, prosthodontic students/residents will gain advanced-level experience in the management of complex edentulous, partially edentulous and dentate patients, including the surgical placement and restoration of dental implants. Detailed diagnostic information gathering and analysis of all dental problems will be emphasized. Diverse treatment approaches to complicated prosthodontic problems will be encountered. Clinical and photographic documentation of all procedures will be accomplished and careful evaluation is made of all treatment rendered. Extensive experience will be gained in diagnosis and treatment planning and multidisciplinary care coordination. Prosthodontic students/residents will plan, place, restore, and maintain a variety of different dental implant systems. This course for advanced prosthodontics students is designed to provide extensive clinical experience in the broad spectrum of prosthodontics in a progressively complex clinical prosthodontics curriculum. Each student/resident will have the opportunity to maintain a comprehensive prosthodontics practice involving fixed, removable, and implant treatment procedures.

*21-24 Credit Hours*

**GPRS 9071 Advanced Surgical Seminar I**
Advanced Surgical Seminar I

*Fall
0.5-3 Credit Hours*

**GPRS 9072 Advanced Surgical Seminar II**
Advanced Surgical Seminar II

*Fall
0.5-3 Credit Hours*

**GPRS 9073 Advanced Surgical Seminar III**
Advanced Surgical Seminar III

*Fall
0.5-3 Credit Hours*

**GPRS 9074 Advanced Surgical Seminar IV**
Advanced Surgical Seminar IV

*Spring
0.5-3 Credit Hours*

**GPRS 9075 Advanced Surgical Seminar V**
Advanced Surgical Seminar V

*Fall
0.5-3 Credit Hours*

**GPRS 9076 Advanced Surgical Seminar VI**
Advanced Surgical Seminar VI

*Spring
0.5-3 Credit Hours*

**GPRS 9082 Grand Rounds I**
Grand Rounds I

*Spring
0.25-1.5 Credit Hour*

**GPRS 9084 Grand Rounds II**
Grand Rounds II

*Spring
0.25-1.5 Credit Hour*

**GPRS 9086 Grand Rounds III**
Grand Rounds III

*Spring
0.25-1.5 Credit Hour*

**GPRS 9094 Predoctoral Teaching Rotation I**
Predoctoral Teaching Rotation I

*1-3 Credit Hours*

**GPRS 9095 Predoctoral Teaching Rotation II**
Predoctoral Teaching Rotation II

*1-3 Credit Hours*

**GPRS 9103 Hospital Rotation I**
The students/residents will be assigned to observe, assist and provide care for patients with maxillofacial defects under the supervision of the maxillofacial Prosthodontist at HUP. The student/resident must be at HUP from 8am-5pm on the assigned day of the week. During this rotation, he/she will also have the opportunity to work very closely with the OMFS residents to diagnose and treatment plan prior to the surgery and assist during the surgery of maxillofacial patients.

*1-3 Credit Hours*

**GPRS 9104 Hospital Rotation II**
The students/residents will be assigned to observe, assist and provide care for patients with maxillofacial defects under the supervision of the maxillofacial Prosthodontist at HUP. The student/resident must be at HUP from 8am-5pm on the assigned day of the week. During this rotation, he/she will also have the opportunity to work very closely with the OMFS residents to diagnose and treatment plan prior to the surgery and assist during the surgery of maxillofacial patients.

*1-3 Credit Hours*

**GPRS 9105 Hospital Rotation III**
The students/residents will be assigned to observe, assist and provide care for patients with maxillofacial defects under the supervision of the maxillofacial Prosthodontist at HUP. The student/resident must be at HUP from 8am-5pm on the assigned day of the week. During this rotation, he/she will also have the opportunity to work very closely with the OMFS residents to diagnose and treatment plan prior to the surgery and assist during the surgery of maxillofacial patients.

*1-3 Credit Hours*
GPRS 9106 Hospital Rotation IV
The students/residents will be assigned to observe, assist and provide care for patients with maxillofacial defects under the supervision of the maxillofacial Prosthodontist at HUP. The student/resident must be at HUP from 8am-5pm on the assigned day of the week. During this rotation, he/she will also have the opportunity to work very closely with the OMFS residents to diagnose and treatment plan prior to the surgery and assist during the surgery of maxillofacial patients.
1-3 Credit Hours

GPRS 9115 Prosthodontics Research I
Prosthodontics Research I
Fall
2-4 Credit Hours

GPRS 9116 Prosthodontics Research II
Prosthodontics Research II
Spring
2-4 Credit Hours

Design (DSGN)

DSGN 0010 Art, Design and Digital Culture
This course is an introduction to the fundamental perception, representation, aesthetics, and design that shape today's visual culture. It addresses the way artists and designers create images; design with analog and digital tools; communicate, exchange, and express meaning over a broad range of media; and find their voices within the fabric of contemporary art, design, and visual culture. Emphasis is placed on building an extended form of visual literacy by studying and making images using a variety of representation techniques; learning to organize and structure two-dimensional and three-dimensional space, and designing with time-based and procedural media. Students learn to develop an individual style of idea-generation, experimentation, iteration, and critique as part of their creative and critical responses to visual culture. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu
Fall or Spring
Also Offered As: VLST 2640
Mutually Exclusive: DSGN 5001
1 Course Unit

DSGN 0020 Design 21: Design After the Digital
Last century, the digital revolution transformed every aspect of our lives. It shaped every design discipline and defined the ways we imagine and fabricate anything from images to everyday products to clothing, cars, buildings and and megacities. Today, design is going through other technical and conceptual revolutions. We design with biotechnologies, fall in love in Virtual Reality with AI bots, rent our cognitive labor through cryptocurrencies. Our creative capabilities, on the other hand, are bounded by a polluted, over-crowded, and resource-constrained planet that is suffering major income and educational inequality. Design After the Digital interrogates the role of design for this century. The seminar surveys the conceptual and technical developments in the past decade to develop an interdisciplinary understanding of design, science and technology. We will study how new design and fabrication methods shape what we eat, what we wear, how we form opinions and express ourselves. The goal will be to develop new literacies of design that will help us acclimate better to the realities of the century as creative and critical citizens who can shape its products and values.
Fall
Mutually Exclusive: DSGN 5002
1 Course Unit

DSGN 1010 Digital Illustration
Digital Illustration is a course designed to expose students to the diverse techniques and approaches used in creating digital illustration for print publication. Course assignments will include two-dimensional animation storybording, figure illustration, technical diagram illustration, photographic retouching and enhancing. Digital applications will include morphing with layers, surface cloning, three-dimensional modeling and spatial transformation of scenes and objects. Students completing this course will possess the capability to design and place creatively and skilfully execute finished artwork.
Fall or Spring
1 Course Unit

DSGN 1011 Introduction to Design
An investigation of an object-oriented design process utilizing digital drawings, rapid prototyping, and digital fabrication techniques. This course introduces design as a creative act marking out a synthesis based on observation of a problem, interpretation of possibilities, and translation of a concept into meaningful three-dimensional objects that engage with society and social justice. The course includes a weekly lecture and studio component.
Fall
Also Offered As: ARCH 1010
1 Course Unit

DSGN 1020 Art of the web: Interactive Concepts for Art & Design
Art of the Web: Interactive concepts for art and design is a first step in learning how to create, analyze and discuss interactive content, as a visual creator. It is an exploration of the culture of the internet, the ideas behind its quirks, the dreams and freedoms it encapsulates, and the creative power it gives us. Students will be assigned projects that will challenge their current understanding of the web, and the ways it shapes human connectivity and interaction. Upon completion of this course, students will possess a working knowledge how to organize and design websites and learn to critique web-content including navigation, UX design and information architecture. The course will require analytical conceptual skills and foster creative thinking.
Fall or Spring
1 Course Unit

DSGN 1030 3-D Computer Modeling
Students will develop a comprehensive knowledge of how virtual worlds are constructed using contemporary computer graphics technique with a fine arts perspective. The course will offer the opportunity to explore the construction, texturing, and rendering of forms, environments, and mechanism while conforming to modeling specifications required for animation, real-time simulations or gaming environments, and rapid prototyping.
Fall or Spring
1 Course Unit

DSGN 1040 Open Book
"Open Book" will focus on visual communication of information. It will address two methods of inquiry and the corresponding means of visual representation: the objective, well structured research of facts and images, and the creative process of their subjective evaluation and restatement. Students will propose a topic based on their area of interest and engage in a focused, semester-long exploration, which they will present in the form of a designed and printed book.
Fall
Prerequisite: DSGN 0010
1 Course Unit
DSGN 1050 Typography
The study and practice of typography spans the history of individual letterforms through the typesetting of full texts. It is a complete immersion into type as an integral part of visual communication. Typesetting conventions and variables including legibility, readability, texture, color and hierarchy will be stressed, as well as a form for organizing information and expressing visual ideas. Studio work will include collection and analyzing type, designing an orginial typeface, researching type history and experimentng with typographic forms. Fall or Spring
1 Course Unit

DSGN 1060 Visual Narrative
Visual Narrative is an introduction to the practice of storytelling with images. From news and information to art, law, and science, visual storytelling is a critical aspect of creating and navigating contemporary culture. This course is situated at the intersection of design, art, and visual culture, focusing on relevant forms and topics including the photo essay, information design and visual explanation, the photographic sequence in contemporary art, scenario design and concept visualization. Visual Narrative focuses on traditional as well as emerging modes of production and distribution for documentary, visual storytelling, and photojournalism, exploring new aesthetics and the social impact of visual narratives. Visual Narrative immerses students in the study of narrative craft and creation of visual stories covering topics relevant to designers and photographers. Beginning with the photo series and the photo documentary tradition, the course evolves through multimedia narrative and non-narrative forms. Students will explore principles of narrative construction in design and photography through lecture, studio projects, and with presentations by visiting artists, designers, and photographers. Students will work within and across disciplines of art, design, and visual journalism, exploring topics including context, cause and effect, time, space, flow, picture-to-picture relationships, sequence, visual hierarchy, and linearity. Study of non-narrative systems- categorical, theoretical, abstract, and asscocional forms - as well as interactive narratives will also be included. Fall
1 Course Unit

DSGN 1070 Graphic Design I: Creative Technologies
This aim this course is to introduce students creative ways to use color, typography, and layout across new materials and media, ranging from print to physical objects. Students will explore visual design through a set of assignments and projects that are geared towards exploring the role of design in visual arts, interaction design, media design and architecture. The course introduces a number of design concepts such as content organization, navigation, interaction and date-driven design and show ways to develop new design metaphors, presentation techniques, and imagery using old and new technologies. Course is structured as a combination of lectures and hands on workshops where students will have the chance to work both individually and collaboratively to realize their projects. Fall, Spring, and Summer Terms
Prerequisite: DSGN 0010
1 Course Unit

DSGN 2010 Digital Figure Modeling
This course introduces methods of modeling, texturing, and rendering human and animal figures. Students will study anatomical bone and muscle structures, and then employ this knowledge as they develop polygonal models for real-time 3D simulations or gaming environments, high-resolution rendering, and rapid prototyping. Spring
Prerequisite: DSGN 1020
1 Course Unit

DSGN 2030 Book and Publication Design
Book and Publication Design will focus on the theory and professional practice of designing multi-page publications. Students will analyze formal structures of different types of books-literature and poetry, fiction and non-fiction compilations, illustrated volumes such as art catalogues, monographs and textbooks, and serial editions-discussing both traditional and experimental approaches. The format of the course will be split between theoretical and historical evaluations of book formats by drawing on the Van Pelt Rare Book Collection - and studio time where students will design books with attention to the format's conceptual relationship to the material at hand with a focus on typography and page layout, as well as on understanding production methods of printing and binding. In addition to the conventions of page layout, students will examine paratextual elements (title page, practice of pagination and other internal structuring, content lists and indexes, colophons, notes, and marginalia, and end-leaves binding, etc.). Fall
Prerequisite: DSGN 0010
1 Course Unit

DSGN 2040 Environmental Animation
Animation can be disarming and effective when used for climate communication. The animation toolkit includes the implementation of metaphor within stories, alluring hand-drawn visualizations, illustrative views, dynamic transformations of visual forms, and cinematic sequences that reveal the cause and effect of human action. As the instructors of this studio have discovered in their own work, it is crucial that animators collaborate with climate scientists and that research be a component throughout the whole process, from script-writing and storyboarding to the animatic and the final product. This collaboration guarantees accuracy, relevance, and effective audience-targeting. What scientists value is the ability of animation to convey complex information in engaging and comprehensible ways. In this course, we will form small production teams that will partner with climate researchers at Penn and other centers and institutions to produce animated videos that meet their communication needs. Students in the course will use hand-drawn and collage animation to produce persuasive videos that communicate emerging risks and obstacles to climate action as well as solutions and new perspectives. Spring
Mutually Exclusive: DSGN 5012
1 Course Unit
DSGN 2050 Graphic Design Practicum
Practicum provides a real world experience for students interested in solving design problems for non-profit and community organizations. The studio works with two clients each semester, and previous projects have included print design, web design, interpretive signage and exhibit interactivities. All projects are real and will result in portfolio-ready finished product. Students will participate in full design experience including design, client interaction, presentations, production and project management. In addition, students will take field trips, meet professionals and go on studio visits.
Fall or Spring
Prerequisite: DSGN 2520 OR DSGN 1040
1 Course Unit

DSGN 2060 Advanced 3-D Modeling
Advanced 3-D Modeling will give students the opportunity to refine skills in modeling, texturing, lighting and rendering with an emphasis on the evolution of ideas through constant revision based class critique. Students will use a variety of industry standard software packages, including but not limited to Maya and Mudbox to compose complex environments. Projects are designed to give students the opportunity to work with orginial content within a simulated production environment.
Fall or Spring
Prerequisite: DSGN 1020 OR DSGN 6350 OR DSGN 2010 OR DSGN 5360
1 Course Unit

DSGN 2070 Graphic Design II
This course will explore advanced commercial, public and personal forms of visual communication. Emphasis will be placed on creative problem solving with consideration for audience. Discussion of design history, current ideology and future design applications will inform individual student projects. Work generated in this studio can be used to build a portfolio.
Fall
Prerequisite: DSGN 1070 AND DSGN 1040
1 Course Unit

DSGN 2090 Projection as a Tool for Expression and Communication in the Public Space
The course will introduce students to projection as a tool of artistic expression and cultural communication. The purpose of the course is to prepare designers and artists for the projection-based Installations, and performances. Students’ projects will take form of projections-animations of interior or exterior architectural and sculptural sites as well as inventions and presentations of wearable, portable, or mobile performative projects. The projects may require specific cultural research and a creative use of basic software, hardware, and physical modeling. Students will be encouraged to experiment with video projectors and micro-projectors in connection with available media devices, such as smart phones, speakers, monitors, sensors, or other input and output components, as well as the use of unconventional materials, and forms as projection “screens.”
Mutually Exclusive: DSGN 5090
1 Course Unit

DSGN 2260 Pixel to Print
This studio course introduces students to the world of print media and circulation through techniques in Risograph (a high-speed digital printing system developed in Japan in the 1980s), xerography, and letterpress, focusing particularly on the format of posters and artists’ ephemera. Beginning with the Adobe Creative Suite, students will create their own broadsides, flyers, announcement cards, and print-based installations throughout the course, exploring ways in which artists and designers make use of the printed form to disseminate information; initiate happenings; advertise events; or foment change. Students will learn about some of the most significant producers working within this realm—from Dada to punk bands in the ’70s to contemporary hybrid publishing collectives—and develop skills in page layout, typography, and design; digital to analog pre-press and post-print production methods; and mechanized and hand-pulled press operations. The course includes a field trip to NYC.
1 Course Unit

DSGN 2500 Cultures of Making
Cultures of Making is an integrative studio that explores new frontiers of design that enable, empower, and interrogate the human in the 21st century. We will take the human body, identity, or image as a site of investigation and design new types of products for it. Through our designs, we will raise questions about the motivations behind quantifying ourselves, desires for being permanently available and connected, complacency with not having privacy or intimacy, and eagerness to substitute craft, labor, and decision-making with intelligent systems from self-driving cars to painting bots and trading algorithms. This studio will pursue a research - and production-oriented format. We will incorporate techniques and technologies from fields as diverse as printed electronics, biochemical fabrication, machine learning and robotics to develop applications that respond to the emergent perceptions of the human for its individual, social, or environmental identity.
Mutually Exclusive: DSGN 5016
1 Course Unit

DSGN 2510 Biological Design
This course is a research-based design studio that introduces new materials, fabrication, and prototyping techniques to develop a series of design proposals in response to the theme: Biological Design. The studio introduces life sciences and biotechnologies to designers, artists, and non-specialists to develop creative and critical propositions that address the social, cultural, and environmental needs of the 21st century.
Fall or Spring
Prerequisite: DSGN 0010
1 Course Unit

DSGN 2530 Functions for Form and Material
This studio course will introduce methods of material selection and fabrication with the goal of developing evocative and effective designs. We will learn parametric modeling techniques that allow visualization to begin before all the requirements of design are known. We will implement techniques that allow us to structurally test and optimize forms to be stronger, lighter, to fail more predictably, or to function efficiently. The class will work identity to materials with properties that introduce new structural or conceptual possibilities for our designs. For each project, we will use a broad range of fabrication techniques for metals, natural and synthetic materials. The goal of this course is to develop a creative approach towards learning to work with unfamiliar tools and materials.
1 Course Unit
DSGN 2540 Information Design and Visualization
Information Design and Visualization is an introductory course that explores the structures of information (text, numbers, images, sounds, video, etc.) and presents strategies for designing effective visual communication appropriate for various users and audiences. The course seeks to articulate a vocabulary of information visualization and find new design forms for an increasingly complex culture.
Fall or Spring
Prerequisite: DSGN 0010
1 Course Unit

DSGN 2550 Interfacing Cultures: Designing for Mobile, Web and Public Media
This course introduces students to advanced interface design topics. We'll examine digital interfaces in relation to contemporary media technologies such as mobile applications, websites, and new technology. Structured as a studio class, students will work to understand the impact interface design decisions have on people and society at varying scales. At the end of this course, students will have a basic working knowledge of equity-centered, trauma-informed, and accessible design practices to carry out research and present strategic concepts utilizing social and/or speculative design. Through theory and practice, students will cultivate skills to carry forward as critical design thinkers, makers, and leaders.
Spring
1 Course Unit

DSGN 2560 Design Future(s)
Design Future(s) is production-oriented studio which explores the relationship between critical design and emerging technologies. Students learn how to work with sensing, machine learning, robotics, and biofabrication to explore what it means to design in response to the social, cultural, and environmental realities of our times. The course is organized through hands-on workshops, lectures, design and critique sessions to develop both technical skills and learn about new design methodologies. Every semester, the studio is developed around a specific theme (i.e., future of body and labor, future of identity, future interfaces) and work towards developing a discursive and multi-disciplinary understanding of "future" that is informed by methodologies outside the traditional Western design canon.
Mutually Exclusive: DSGN 5010
1 Course Unit

DSGN 2570 User Experience (UX) and User Interface (UI) Design
Great user experience and user interface design are essential for creating digital products that people love. In this course, we'll cover a range of topics from user research through designing visual interfaces, as well as principles of human-centered design and the design process. We'll study existing products to understand the problems they solve and the elements that make them succeed. Lectures and coursework will include practical exercises with user journeys, flowcharts, style sheets, and prototyping tools. No design experience necessary.
Prerequisite: DSGN 0010
1 Course Unit

DSGN 3020 Contemporary Theories of Design
This seminar explores a range of theories, concepts, and thought patterns that shape different disciplines of design. From critical science studies to object-orient ontology and speculative design, it discusses how theoretical frameworks drive innovation, critique, and user experience.
1 Course Unit

DSGN 3030 Creative Research
This seminar explores different aspects of research—knowledge production and dissemination—across a variety of creative practices from the arts to the humanities, engineering, and sciences. Students investigate what it means to observe, measure, analyze, test, study, experiment, diagram, prototype, speculate, generate and criticize; apply multiple modes of inquiry; be conceptual, analytical, propositional and critical at the same time, all in order to develop their work from different perspectives. As students work across different methodologies, they also explore ways of making their work public through various social protocols, publications, and exhibitions that address different audiences.
Spring
1 Course Unit

DSGN 3040 Language of Design
This course will explore the changing relationship during the modern era between design (structure, model, plan of a work of art) and language (metaphor for a system of communication; speech, writing, literature). Our readings and visual presentations will focus on topics in the decorative arts, painting, architecture, typography and visual communication. We will focus on primary sources in order to situate our inquiry in a larger historical context. The discussion will center on claims about the inherent meaning of form, discuss different roles for design - as an ideological statement, as an agent of social change, and as an idiosyncratic expression. Topics will also include the search for a universal language, attempts at bridging the perceived gap between spoken and written language, and the impact of visual form on the meaning of literary texts (particularly when the author has been involved in the publication process). Students can suggest additional topics related to their field of study.
Spring
1 Course Unit

DSGN 3050 Design Tools and Technologies
This studio focuses on providing digital skills to conceptualize, produce and disseminate design products. Through workshops, software training sessions and labs, students will engage with different design professionals and learn state-of-the-art tools used in interactive media, UI/UX, modeling and fabrication design. Students will also learn ways to work with open source software and have a chance to build their own design tools through creative programming exercises. The course does not require any technical background, but assumes basic familiarity with visual design tools (i.e.,Adobe Creative Suite).
1 Course Unit

DSGN 3060 Futures for All: Reimagining social equality through art and technology
How can art become a form of activism? How does design shape social equality? This course investigates how technological media shape culture and society, and how artists and designers can actively reshape these dynamics through art and design. We will engage in the practice of "speculative design", and tactical design using various digital tools to envision different futures, reflecting on social, political, and ethical implications of various technologies. Exploring the relationship between digital and physical realities, students will utilize their skills in art and design while applying them to critical social discourse and activism. Students will also develop skills in active reading, critical analysis, and scholarly writing.
1 Course Unit
DSGN 3070 Feminist Technoscience: Art, Technology, & Gender
How does scientific research produce and reinforce concepts of gender? How is sexism propagated through technological media? This course investigates how scientific and technological media shape culture and society, particularly through the lens of gender and sexuality. Engaging in interdisciplinary art making, students will use various technological media to reflect on the social, political, and ethical domains of technoscientific feminism. Exploring the relationship between digital and physical realities, students will engage art and design with critical social discourse and gender theory. Students will also develop skills in active reading, critical analysis, and scholarly writing. By the end of the course, students will have created a unique work of art that imagines more empowered, equitable futures.
1 Course Unit

DSGN 3080 Care as Revolution: Socially Engaged Art and Design
In the exploitative cycles of production and consumption fueled by late stage capitalism, are there alternative ways to reimagine systems of support and mutual care? Through the lens of socially engaged art and design, students will look at a range of primary sources from artists and designers who have created participatory works that challenge traditional structures of power and integrate practices of care into their local communities. With a focus on decommodified labor and care work, students will analyze why and how certain types of labor have been devalued historically. Students will read and analyze historical and current texts related to feminist economics, art as social action, and socially engaged design. Through a scholarly lens, we will evaluate the radical nature of acts of care as a critical framework through which we can imagine more equitable futures. At the end of the semester, students will present their own unique works that contribute to this discourse.
1 Course Unit

DSGN 3100 Interrogative Design: Cultural Prosthetics
The course is open to students interested in pursuing artistic, design and research projects that interrogate, and proactively respond to the existential, communicative and survival needs of the estranged, marginalized and excluded persons and social groups, while addressing the unacceptability of conditions that produce such needs. In the words of art theorist Rosalyn Deutsche, the ‘utopia’ of interrogative design is ‘based on the hope that its very function will render it obsolete’. The course will consist of readings, discussions, and presentations related to the fields and methods of interrogative, critical and speculative design, ‘cultural prosthetics’, ‘scandalizing functionalism’, forensic design, monument participatory animation, and, most importantly, on the ideation, experimentation, development, and presentation of students’ original projects. After a short introductory assignment, the students - individually or in teams- will work on a selected by them project to be advanced and discussed in class during the semester, presented at the midterm and at the final review, with the response and input from guest critics.
Mutually Exclusive: DSGN 5100
1 Course Unit

DSGN 3120 Anthropology of Futurity
How should we think about the future amid worlds on edge? What is an inevitable versus a contingent course of events? What role do humans and non-humans, machines, animals, and plants play as agents of futurity in the context of the Anthropocene? This seminar explores these pressing questions, linking multiple sources of knowledge production—biological, medical, ecological, engineering, economic, and anthropological—with manifestations of the future. It starts with the basic premise that futures are made, molded by competing material, economic, and creative desires and possibilities, and not foreordained. Innovating futures also entails unexpected ethical and technical entanglements that current forms of knowledge cannot always anticipate. Drawing from readings in anthropology, the social studies of science and technology, Indigenous studies, as well as from engineering, AI, and scientific journals and films, we explore tensions between knowledge and uncertainty on the one hand, and ethics and innovation on the other. With these tensions in mind, we consider the myriad of agents whose role will be vital to shaping planetary futures— as well as how alternative futures, especially among communities confronting systemic inequalities and colonial and race-based injustices, are imagined and realized. From the climate crises to the ongoing pandemics, militarization, and mass migrations that have torn apart social fabrics, we will learn to become ‘technologists of the future’—that is, individuals and collectives with the tools to realize more inclusive, flourishing, and just futurities.
Not Offered Every Year
Also Offered As: ANTH 2080
1 Course Unit

DSGN 3250 MATTERS: Connecting Arts + Design to Materials, and Materials to Labor + Land
How does matter transform into material, and back again? What hidden labor, sites, social and ecological costs and processes go into the production of a “blank” canvas and other “raw” materials? And why--for artists, designers, architects, preservationists, creative educators, builders, and anyone working with materials-- do these realities matter? This course connects arts and design learners to considerations, sites, and cycles around production and disposal of the defining materials of their creative fields (ex. paper, wood, glass, pigment, "the internet"), laying groundwork for creative practice rooted in social and ecological awareness, repair and care. A hybrid research seminar, field exploration, and studio investigation, the structure of this course alternates between reading/response/research, field trips and guest visitors (including a partnership affiliation with RAIR Philly), and time for responsive “making” and material experimentation/synthesis. In this course, students will collaboratively define key terms and concerns around material sustainability, discard studies, land and labor relations vis-a-vis creative work. Students will experience local sites of material extraction, production and disposal (through approx 5 field trips taking place during class time). Students will formulate individual or group questions around a specific material, leading to a final independent project, and class exhibition. This course will engage students in forming a material ethics to guide future creative work.
Also Offered As: FNAR 3250
1 Course Unit

DSGN 4010 Independent Study
Undergraduate Fine Arts independent study course for students pursuing advanced, specialized, indecently-driven course work. This course must be taught by a full-time faculty member.
Fall or Spring
1 Course Unit
DSGN 4020 Design Senior Seminar Project (Fall)
This rigorous pair of courses, one offered in the Fall and one offered in the Spring semester, are designed as the capstone of the Design major and are required for all graduating Design seniors. They can only be taken in the senior year.
Fall
1 Course Unit

DSGN 4030 Design Senior Seminar Project (Spring)
This rigorous pair of courses, one offered in the Fall and one offered in the Spring semester, are designed as the capstone of the Design major and are required for all graduating Design seniors. They can only be taken in the senior year.
Fall
1 Course Unit

DSGN 5001 Art, Design and Digital Culture
This course is an introduction to the fundamental perception, representation, aesthetics, and design that shape today's visual culture. It addresses the way artists and designers create images; design with analog and digital tools; communicate, exchange, and express meaning over a broad range of media; and find their voices within the fabric of contemporary art, design, and visual culture. Emphasis is placed on building an extended form of visual literacy by studying and making images using a variety of representation techniques; learning to organize and structure two-dimensional and three-dimensional space, and designing with time-based and procedural media. Students learn to develop an individual style of idea-generation, experimentation, iteration, and critique as part of their creative and critical responses to visual culture. If you need registering for a closed section, please email the department at fnaruq@design.upenn.edu
Fall or Spring
Mutually Exclusive: DSGN 0010
1 Course Unit

DSGN 5002 Design 21: Design After the Digital
Last century, the digital revolution transformed every aspect of our lives. It shaped every design discipline and defined the ways we imagine and fabricate anything from images to everyday products to clothing, cars, buildings, and megacities. Today, design is going through other technical and conceptual revolutions. We design with biotechnologies, fall in love in Virtual Reality with AI bots, rent our cognitive labor through cryptocurrencies. Our creative capabilities, on the other hand, are bounded by a polluted, over-crowded, and resource-constrained planet that is suffering major income and educational inequality. Design After the Digital interrogates the role of design for this century. This seminar surveys the conceptual and technical developments in the past decade to develop an interdisciplinary understanding of design, science, and technology. We will study how new design and fabrication methods shape what we eat, what we wear, how we form opinions and express ourselves. The goal will be to develop new literacies of design that will help us acclimate better to realities of the century as creative and critical citizens who can shape its products and values.
Fall
Mutually Exclusive: DSGN 0020
1 Course Unit

DSGN 5003 Digital Illustration
Digital Illustration is a course designed to expose students to the diverse techniques and approaches used in creating digital illustration for print publication. Course assignments will include two-dimensional animation storyboard rendering, figure illustration, technical diagram illustration, photographic retouching and enhancing. Digital applications will include morphing with layers, surface cloning, three-dimensional modeling and spatial transformation of scenes and objects. Students completing this course will possess the capability to design and plan creatively and skillfully execute finished artwork.
Fall or Spring
Prerequisite: DSGN 6640 AND FNAR 0010
1 Course Unit

DSGN 5004 Art of the Web: Interactive Concepts for Art & Design
Art of the Web: Interactive concepts for art and design is a first step in learning how to create, analyze and discuss interactive content, as a visual creator. It is an exploration of the culture of the internet, the ideas behind its quirks, the dreams and freedoms it encapsulates, and the creative power it gives us. Students will be assigned projects that will challenge their current understanding of the web, and the ways it shapes human connectivity and interaction. Upon completion of this course, students will possess a working knowledge how to organize and design websites and learn to critique web-content including navigation, UX design and information architecture. The course will require analytical conceptual skills and foster creative thinking.
Fall or Spring
Prerequisite: FNAR 0010 AND DSGN 6360
1 Course Unit

DSGN 5005 3-D Computer Modeling
Students will develop a comprehensive knowledge of how virtual worlds are constructed using contemporary computer graphics technique with a fine arts perspective. The course will offer the opportunity to explore the construction, texturing, and rendering of forms, environments, and mechanisms while conforming to modeling specifications required for animation, real-time simulations or gaming environments, and rapid prototyping.
Fall or Spring
1 Course Unit

DSGN 5006 Open Book
“Open Book” will focus on visual communication of information. It will address two methods of inquiry and the corresponding means of visual representation: the objective, wll structured research of facts and images, and the creative process of their subjective evaluation and restatement. Students will propose a topic based on their area of interest and engage in a focused, semester-long exploration, which they will present in the form of a designed and printed book.
Fall
Prerequisite: DSGN 0010
1 Course Unit

DSGN 5007 Typography
The study and practice and typography spans the history of individual letterforms through the typesetting of full texts. It is a complete immersion into type as an integral part of visual communication. Typesetting conventions and variables including legibility, readability, texture, color and hierarchy will be stressed, as well as a form for organizing information and expressing visual ideas. Studio work will include collecting and analyzing type, designing and orginial typeface, researching type history and experimenting with typographic forms.
Spring
1 Course Unit
DSGN 5008 Visual Narrative
Visual Narrative is an introduction to the practice of storytelling with images. From news and information to art, law, and science, visual storytelling is a critical aspect of creating and navigating contemporary culture. This course is situated at the intersection of design, art, and visual culture, focusing on relevant forms and topics including the photo essay, information design and visual explanation, the photographic sequence in contemporary art, scenario design and concept visualization. It proposes that studying and making sequential images and visual essays in a wide range of media- comics and graphic novels, propaganda, environments and installations, social media, animation, video, and digital media- are critical to understanding culture. The course immerses students in the study of narrative craft and creation of usual stories covering topics relevant to designers and photographers. Beginning with the photo series as an the photo documentary tradition, the course evolves through multimedia narrative and non-narrative forms. Students will explore principles of narrative construction in design and photography through lecture, studio projects, and with presentations by visiting artists, designers, and photographers.
1 Course Unit

DSGN 5009 Digital Figure Modeling
This course introduces methods of modeling, texturing, and rendering human and animal figures. Students will study anatomical bone and muscle structures, and then employ this knowledge as they develop polygonal models for real-time 3D simulations or gaming environments, high-resolution renderings, and rapid prototyping.
Spring
Prerequisite: DSGN 1020
1 Course Unit

DSGN 5011 Book and Publication Design
Book and Publication Design will focus on the theory and professional practice of designing multi-page publications. Students will analyze formal structures of different types of book-literature and poetry, fiction and non-fiction compilations, illustrated volumes such as art catalogues, monographs, and textbooks, and serial editions-discussing both traditional and experimental approaches. The format of the course will be split between theoretical and historical evaluations of book formats by drawing on the Van Pelt Rare Book collection- and studio time where students will design books with attention to the format's conceptual relationship to the material at hand with a focus on typography and page layout, as well as understanding production methods of printing and binding. In addition to the conventions of page layout students will examine paratextual elements (title pages, practices of pagination and other internal structuring, content lists and indexes, and colophons, notes and marginalia, end-leaves, binding etc.). Prerequisite: DSGN 0010 or permission from the instructor.
Fall
1 Course Unit

DSGN 5012 Environmental Animation
Animation can be disarming and effective when used for climate communication. The animation toolkit includes the implementation of metaphor within stories, alluring hand-drawn visualizations, illustrative views, dynamic transformations of visual forms, and cinematic sequences that reveal the cause and effect of human action. As the instructors of this studio have discovered in their own work, it is crucial that animators collaborate with climate scientists and that research be a component throughout the whole process, from script-writing and storyboarding to the animatic and the final product. This collaboration guarantees accuracy, relevance, and effective audience-targeting. What scientists value is the ability of animation to convey complex information in engaging and comprehensible ways. In this course, we will form small production teams that will partner with climate researchers at Penn and other centers and institutions to produce animated videos that meet their communication needs. Students in the course will use hand-drawn and collage animation to produce persuasive videos that communicate emerging risks and obstacles to climate action as well as solutions and new perspectives.
Spring
1 Course Unit

DSGN 5013 Graphic Design Practicum
Practicum provides a real world experience for students interested in solving design problems for non-profit and community organizations. The studio works with two clients each semester, and previous projects have included print design, web design, interpretive signage and exhibit interactives. All projects are real and will result in a portfolio-ready finished product. Students will participate in a full design experience including design, client interaction, presentations, production, and project management. In addition, students will take field trips, meet professionals and go on studio visits.
Fall or Spring
Prerequisite: DSGN 1020 OR DSGN 6350 OR DSGN 2010 OR DSGN 5360
1 Course Unit

DSGN 5014 Advanced 3D Modeling
Advanced 3D Modeling will give students the opportunity to refine skills in modeling, texturizing, lighting, and rendering with an emphasis on the evolution of ideas through constant revision based on class critique. Students will use a variety of industry standard software packages, including but not limited to Maya and Mudbox to compose complex environments. Projects are designed to give students the opportunity to work with original content with a simulated production environment.
Fall or Spring
Prerequisite: DSGN 2520 AND DSGN 1040
1 Course Unit

DSGN 5015 Graphic Design II
This course will explore advanced commercial, public and personal forms of visual communication. Emphasis will be placed on creative problem solving with consideration for audience. Discussion of design history, current ideology and future design applications will inform individual student projects. Work generated in this studio can be used build a portfolio. Prerequisite: Permission from instructor if prerequisites are not met.
Fall
1 Course Unit
DSGN 5016 Cultures of Making
Cultures of Making is an integrative studio that explores new frontiers of design that enable, empower, and interrogate the human in the 21st century. We will take the human body, identity, or image as a site of investigation and design new types of products for it. Through our designs, we will raise questions about the motivations behind quantifying ourselves, desires for being permanently available and connected, complacency with not having privacy or intimacy, and eagerness to substitute craft, labor, and decision-making with intelligent systems from self-driving cars to painting bots and trading algorithms. This studio will pursue a research- and production-oriented format. We will incorporate techniques and technologies from fields as diverse as printed electronics, biochemical fabrication, machine learning and robotics to develop applications that respond to the emergent perceptions of the human for its individual, social, or environmental identity.
Spring
1 Course Unit

DSGN 5017 Biological Design
This course is a research-based design studio that introduces new materials, fabrication, and prototyping techniques to develop a series of design proposals in response to the theme: Biological Design. The studio introduces life sciences and biotechnologies to designers, artists, and non-specialists to develop creative and critical propositions that address the social, cultural, and environmental needs of the 21st century.
Fall or Spring
1 Course Unit

DSGN 5018 Graphic Design I: Creative Technologies
The aim of this course is to introduce students creative ways to use color, typography, and layout across materials and media, ranging from print to physical objects. Students will explore visual design through a set of assignments and projects that are geared towards exploring the role of design in visual arts, interaction design, media design and architecture. The course introduces a number of design concepts such as content organization, navigation, interaction and data-driven design and show ways to develop new design metaphors, presentation techniques, and imagery using old and new technologies. Course is structured as a combination of lectures and hands on workshops where students will have the chance to work both individually and collaboratively to realize their projects.
Fall or Spring
1 Course Unit

DSGN 5019 Functions for Form and Material
This studio course will introduce methods of material selection and fabrication with the goal of developing evocative and effective designs. We will learn parametric modeling techniques that allow visualization to begin before all the requirements of a design are known. We will implement techniques that allow us to structurally test and optimize forms to be stronger, lighter, to fail more predictably, or to function efficiently. The class will work to identify materials with properties that introduce new structural or conceptual possibilities for our designs. For each project, we will use a broad range of fabrication techniques for metals, natural and synthetic materials. The goal of the course is to develop a creative approach towards learning to work with unfamiliar tools and materials.
Spring
1 Course Unit

DSGN 5021 Information Design and Visualization
Information design and visualization is an introductory course that explores the structure of information (text, numbers, images, sounds, video, etc.) and presents strategies for designing effective visual communication appropriate for various users and audiences. The course seeks to articulate a vocabulary of information visualization and find new design forms for an increasingly complex culture.
Fall or Spring
1 Course Unit

DSGN 5022 Interfacing Culture: Designing for Mobile, Web and Public Media
This course introduces students to advanced interface design topics. We'll examine digital interfaces in relation to contemporary media technologies such as mobile applications, websites, and new technology. Structured as a studio class, students will work to understand the impact interface design decisions have on people and society at varying scales. At the end of this course, students will have a basic working knowledge of equity-centered, trauma-informed, and accessible design practices to carry out research and present strategic concepts utilizing social and/or speculative design. Through theory and practice, students will cultivate skills to carry forward as critical design thinkers, makers, and leaders.
Spring
1 Course Unit

DSGN 5023 User Experience (UX) and User Interface (UI) Design
Great user experience and user interface design are essential for creating digital products that people love. In this course, we'll cover a range of topics from user research through designing visual interfaces, as well as principles of human-centered design and the design process. We'll study existing products to understand the problems they solve and the elements that make them succeed. Lectures and coursework will include practical exercises with user journeys, flowcharts, style sheets, and prototyping tools. No design experience necessary.
1 Course Unit

DSGN 5024 Contemporary Theories of Design
This seminar explores a range of theories, concepts, and thought patterns that shape different disciplines of design. From critical science studies to object-oriented ontology and speculative design, it discusses how theoretical frameworks drive innovation, critique, and user experience.
1 Course Unit

DSGN 5025 Creative Research
This seminar explores what it means to do research in creative and critical practices. Students learn about different research methods from design, engineering, humanities and sciences; utilize them for developing and evaluating their individual creative work as cultural producers. This is an interdisciplinary course that encourages students to observe, measure, analyze, test, study, experiment, diagram, prototype, speculate, generate and critique; apply multiple modes of inquiry; be conceptual, analytical, propositional and critical at the same time to develop their work from different perspectives.
Fall
1 Course Unit
**DSGN 5026 Language of Design**
The course will explore the changing relationship during the modern era between design (structure, model, plan of a work of art) and language (metaphor for a system of communication; speech, writing, literature). Our readings and visual presentations will focus on topics in decorative arts, painting, architecture, typography and visual communication. We will focus on primary sources in order to situate our inquiry in a larger historical context. The discussion will center on claims about the inherent meaning of form, discuss different roles for design - as an ideological statement, as an agent of social change, and as an idiosyncratic expression. Topics will also include the search for a universal visual language, attempts at bridging the perceived gap between spoken and written language, and the impact of visual form on the meaning of literary texts (particularly when the author has been involved in the publication process). Students can suggest additional topics to their field of study.

Spring
1 Course Unit

**DSGN 5027 Design Tools and Technologies**
This studio focuses on providing digital skills to conceptualize, produce and disseminate design products. Through workshops, software training sessions and labs, students will engage with different design professionals and learn state-of-the art tools used in interactive media, UI/UX, modeling and fabrication design. Students will also learn ways to work with open source software and have a chance to build their own design tools through creative programming exercises. The course does not require any technical background, but assumes basic familiarity with visual design tools (i.e., Adobe Creative Suite).

1 Course Unit

**DSGN 5028 Futures for All: Reimagining social equality through art and technology**
How can art become a form of activism? How does design shape social equality? This course investigates how technological media shape culture and society, and how artists and designers can actively reshape these dynamics through art and design. We will engage in the practice of “speculative design”, and “tactical design” using various digital tools to envision different futures, reflecting on social, political, and ethical implications of various technologies. Exploring the relationship between digital and physical realities, students will utilize their skills in art and design while applying them to critical social discourse and activism. Students will also develop skills in active reading, critical analysis, and scholarly writing.

1 Course Unit

**DSGN 5029 Feminist Technoscience: Art, Technology, & Gender**
How does scientific research produce and reinforce concepts of gender? How is sexism propagated through technological media? This course investigates how scientific and technological media shape culture and society, particularly through the lens of gender and sexuality. Engaging in interdisciplinary art making, students will use various technological media to reflect on the social, political, and ethical domains of technoscientific feminism. Exploring the relationship between digital and physical realities, students will engage art and design with critical social discourse and gender theory. Students will also develop skills in active reading, critical analysis, and scholarly writing. By the end of the course, students will have created a unique work of art that imagines more empowered, equitable futures.

1 Course Unit

**DSGN 5042 Pixel to Print**
This studio course introduces students to the world of print media and circulation through techniques in Risograph (a high-speed digital printing system developed in Japan in the 1980s), xerography, and letterpress, focusing particularly on the format of posters and artists' ephemera. Beginning with the Adobe Creative Suite, students will create their own broadsides, flyers, announcement cards, and print-based installations throughout the course, exploring ways in which artists and designers make use of the printed form to disseminate information; initiate happenings; advertise events; or foment change. Students will learn about some of the most significant producers working within this realm—from Dada to punk bands in the ’70s to contemporary hybrid publishing collectives—and develop skills in page layout, typography, and design; digital to analog pre-press and post-print production methods; and mechanized and hand-pulled press operations. The course includes a field trip to NYC.

1 Course Unit

**DSGN 5080 Care as Revolution: Socially Engaged Art and Design**
In the exploitative cycles of production and consumption fueled by late stage capitalism, are there alternative ways to reimagine systems of support and mutual care? Through the lens of socially engaged art and design, students will look at a range of primary sources from artists and designers who have created participatory works that challenge traditional structures of power and integrate practices of care into their local communities. With a focus on decommodified labor and care work, students will analyze why and how certain types of labor have been devalued historically. Students will read and analyze historical and current texts related to feminist economics, art as social action, and socially engaged design. Through a scholarly lens, we will evaluate the radical nature of acts of care as a critical framework through which we can imagine more equitable futures. At the end of the semester, students will present their own unique works that contribute to this discourse.

1 Course Unit

**DSGN 5090 Projection as a Tool for Expression and Communication in the Public Space**
The course will introduce students to projection as a tool of artistic expression and cultural communication. The purpose of the course is to prepare designers and artists for the projection-based Installations, and performances. Students’ projects will take form of projections-animations of interior or exterior architectural and sculptural sites as well as inventions and presentations of wearable, portable, or mobile performative projects. The projects may require specific cultural research and a creative use of basic software, hardware, and physical modeling. Students will be encouraged to experiment with video projectors and micro-projectors in connection with available media devices, such as smart phones, speakers, monitors, sensors, or other input and output components, as well as the use of unconventional materials, and forms as projection "screens."

Mutually Exclusive: DSGN 2090

1 Course Unit
**DSGN 5100 Interrogative Design: Cultural Prosthetics**
The course is open to students interested in pursuing artistic, design and research projects that interrogate, and proactively respond to the existential, communicative and survival needs of the estranged, marginalized and excluded persons and social groups, while addressing the unacceptable conditions of production that produce such needs. In the words of art theorist Rosalyn Deutsche, the 'utopia' of interrogative design is 'based on the hope that its very function will render it obsolete'. The course will consist of readings, discussions, and presentations related to the fields and methods of interrogative, critical and speculative design, ‘cultural prosthetics’, ‘scandalizing functionalism’, forensic design, monument participatory animation, and, most importantly, on the ideation, experimentation, development, and presentation of students’ original projects. After a short introductory assignment, the students - individually or in teams - will work on a selected project to be advanced and discussed in class during the semester, presented at the midterm and at the final review, with the response and input from guest critics.

Mutually Exclusive: DSGN 3100

1 Course Unit

**DSGN 5250 MATTERS: Connecting Arts + Design to Materials, and Materials to Labor + Land**

How does matter transform into material, and back again? What hidden labor, sites, social and ecological costs and processes go into the production of a “blank” canvas and other “raw” materials? And why-- for artists, designers, architects, preservationists, creative educators, builders, and anyone working with materials-- do these realities matter? This course connects arts and design learners to considerations, sites, and cycles around production and disposal of the defining materials of their creative fields (ex. paper, wood, glass, pigment, "the internet"), laying groundwork for creative practice rooted in social and ecological awareness, repair and care. A hybrid research seminar, field exploration, and studio investigation, the structure of this course alternates between reading/response/research, field trips and guest visitors (including a partnership affiliation with RAIR Philly), and time for responsive “making” and material experimentation/synthesis. In this course, students will collaboratively define key terms and concerns around material sustainability, discard studies, land and labor relations vis-a-vis creative work. Students will experience local sites of material extraction, production and disposal (through approx 5 field trips taking place during class time). Students will formulate individual or group questions around a specific material, leading to a final independent project, and class exhibition. This course will engage students in forming a material ethics to guide future creative work.

1 Course Unit

**Digital Culture (DIGC)**

The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).

**DIGC 1200 Digital Literacy & Cultural Change**
The growing presence of technology in our personal and professional lives provides incontrovertible evidence of change. From individual reflections on the costs of innovation to meaningful connection through digital communication, each of us has an impulse to shape change. This impulse often pushes us to learn, adapt, and create. It also demands digital literacy. Together, we'll explore digital literacy as a concept and practice that offers tools for shaping cultural change, as we navigate the present and look toward the future. In DIGC 1200, students will learn to deconstruct, create, and remix projects using digital tools they'll encounter in a variety of settings outside of this course. Students will also grapple with concepts that shape our current technological and social landscape. Together, we'll question assumptions about digital citizenship and challenge claims about digital natives. I'll push students to think critically about audience, genre, rhetorical purpose, and design, along the way; and by semester's end, we'll have created various digital artifacts that speak to cultural change.

1 Course Unit

**DIGC 1600 A History of Digital Culture**
Technology is never just about the things we use or the things we do - what we see and do quickly become everyday occurrences. In our current world, this means the world of digital culture, but what led to this was a blending of technologies and material culture that we would not always consider as "technological." The cultural practices that go along with these technologies are invariably not visible to us without interrogation: the ways technological usage shapes and is shaped by the cultures that create them, as well as how technologies shape and are shaped by other cultures that adopt them. Oftentimes, technology tools practices are translated in ways that their creators never envisioned, and take on meanings that shift dramatically. Across time, even within a single culture, technology means very different things from one era to the next. Examples include the roles of basic tools like glass, to complex tools like audio tape. In DIGC 1600, students will explore and develop an understanding of contemporary digital culture based on the idea that media and information technologies operate in a cycle of constant dialogue with the communities and modes of cultural practice that surround them. Using case studies of technological innovation and transformation, we'll examine the political and social impacts of what has become our contemporary digital culture through the resulting material culture objects we use every day. Students will be encouraged to explore from their own experiences how they interact with, create, and understand technocultural objects in their active and living world from an interdisciplinary, social science-based perspective, drawing from disciplines across the humanities and social sciences. Some of the guiding questions for the course include: How do we understand something as a "new" technology? How can we analyze the ways that members of a culture use technology as a locus for evolving or conflicting cultural practices and social change? And, how does culture affect our understanding of a technology and how we use it?

Readings will consist of articles and book chapters provided in the course Canvas site. There will be no required synchronous sessions, though there will be optional synchronous sessions offered throughout the course. This course fulfills Qualitative Foundational Requirement (in Historical Perspectives) and to serve as a Gateway class. DIGC 1200 is recommended but not required.

1 Course Unit
DIGC 2000 Introduction to Working with Code
Code can seem intimidating, especially when it creates a barrier for customizing and completing important digital projects. In DIGC 2000, students develop a basic understanding of program code and structures that are common across all programming languages. This will enable students to build skills for communication among colleagues whose roles include working with code across skill levels and responsibilities. This course invites students to analyze some of the possibilities and uses of computer programs, while exploring strategies for engaging with digital development tools. It will introduce students to the Scientific Python Development Environment (Spyder), an open-source cross-platform Integrated Development Environment (IDE) used by computer programmers around the world. We tackle questions that encourage us to think critically about the programming decisions we make and about what effect these decisions may have on the work of our colleagues and customers who may have to maintain the code in the future. We also explore the opportunities and issues that advances in computer coding applications present in our increasingly digital culture. This course includes a required pre-course module in Canvas that opens a month before the course begins and is designed to walk students through downloading, installing, and using the Anaconda distribution of Python and the Spyder IDE. TEXTBOOK: https://www.amazon.com/Python-Programming-Introduction-Computer-Science/dp/1590282752/ref=sr_1_1?dchild=1&keywords=zelle&qid=1631898628&s=books&sr=1-1
Fall or Spring
1 Course Unit

DIGC 2200 Design Thinking for Digital Projects
Design thinking as a strategy and toolkit is usually defined as having five stages: Empathize, Define the problem, Ideate, Prototyping, and Testing. A crucial step in effective use of this toolkit is learning how to use empathizing with an audience or public, and learning what questions to ask in order to ideate. Students in DIGC 2200 will build on critical thinking and technological context from DIGC 1200 and DIGC 1600, applying these skills to understanding specific problems in digital spaces. We will examine case studies from this perspective, and unpack both the strengths and weaknesses of how each scenario was developed and executed, to build a lens students can apply to their own Design Thinking project, the culmination of the course. We will build on skills using an ethnographic approach to understanding communities and their diverse needs.
Fall or Spring
1 Course Unit

DIGC 2600 Diverse Projects for Digital Publics
Narratives matter. They encourage imagination and creativity through visions of what could be, even as they challenge us to think critically about the practical realities of everyday professional life. Narratives also connect us within a web of social and cultural relationships that shape the world around us. But some narratives are historically given more attention than others. This practice often leads to marginalization in digital public spaces. In response, DIGC 2600 centers a selection of diverse narratives that exemplify inclusive digital projects. This course invites students to explore how historically underrepresented narratives are created, curated, and shared in a range of digital formats using diverse forms of data. Surveying the broad concept of digital publics, I'll invite students to reflect on the ways race, gender, and sexuality intersect in a variety of digital environments. We'll examine interactive journalism, public scholarship, digital literature, and other types of media. Students will also have a chance to produce, workshop, and revise their own data-informed digital projects—from personal portfolios, to professional narratives—that communicate their perspectives as consumers, critics, and creators in digital publics. Prerequisite: Recommended - DIGC 1200 provides helpful foundational knowledge for materials and activities in this course.
Fall or Spring
1 Course Unit

DIGC 3000 Intermediate Coding for Digital Strategies
Building on the foundational concepts and approaches from experience gained through introductory coursework or prior coding experience, this course provides students with strategies for using Python to solve more complex problems. Students engage with applications of Python that help them expand their contextual knowledge and critical thinking skills, which are central to all DIGC certificate courses. By the end of the DIGC 3000 course, students can perform a functional analysis of a real-world problem and use Python to present results. Prior completion of DIGC 2000 or equivalent Python experience is required to enroll in this course.
Fall or Spring
Prerequisite: DIGC 2000
1 Course Unit
DIGC 3200 Designing Critical Futures
In her Nebula award-winning novel Parable of the Talents, Octavia Butler writes that "[w]e can, each of us, do the impossible as long as we can convince ourselves that it has been done before." But what if this "before" is located somewhere in critical futures? Why should these futures matter to people who are concerned with practicable strategies for building a more just world? DIGC 3200 invites students to imagine what "each of us" can do to reframe the possible by engaging with: (1) creative labor from sonic, literary, and visual artists; (2) critical labor from scholars, media experts, and non-profit professionals; and (3) social movement labor from activists, journalists, and civic participants. Along the way, students will design visions of critical futures that speak to the communities they hope to serve outside of the course. The course is organized around four essential units that each culminate in a creative project. The first unit focuses on place-making efforts that connect speculative design to community organizing and civic engagement. The second expands these connections through intersecting design discussions about queer community, disability justice, and feminist praxis. The third centers mutualistic collaboration and critical play as radical practices for advancing equity and affirming generative difference. These practices set up the final unit which invites students to make a digital object that engages with a critical future of their design. Each unit will frame speculative work and other materials as case studies for designing critical futures.

Fall or Spring
1 Course Unit

DIGC 3600 Applications of Digital Culture
The rapid pace of technological changes since the invention of the microchip in the 1970s has by some accounts outstripped society’s mechanisms for evaluating and managing the way we engage with one another and social systems in the larger world. When cell phones first became common in the early 2000s, taking a personal call in a restaurant was rude behavior—today it is rare that this same activity would be questioned or challenged. In short, the social, economic, and cultural parameters that define how we understand ourselves and our place in the world have been challenged and, in many cases, overthrown at all levels in our society. In this class, students take a deep dive into the implications and consequences of digital ethics and digital literacy as engaged citizens in four arenas: ethics and algorithms, ethics of privacy, ethics of identity, and ethics and professional practices. At the conclusion of the course, students work on developing a deeper understanding of ethical practices as they pertain to specialized arenas of digital culture with a framework and tools for engaging with technological change as a living component of their daily lives. Prerequisites: Students are expected to either have taken a minimum of either DIGC 1200 or DIGC 1600, or bring sufficient prior expertise to analyze the social implications of technological change.

Fall or Spring
Prerequisite: DIGC 1200 AND DIGC 1600
1 Course Unit

DIGC 4000 Advanced Work with Code
This course teaches you to understand code using Python at the 10,000 foot level. You’ll develop competencies to communicate with programmers and software engineers, to bridge the gap between the programmer and the client. It reinforces and builds upon the skills learned in previous coding courses in the DIGC cluster. Students will gain a deeper understanding of Python programming and develop the skills necessary to comprehend more complex Python programs. Throughout the course, students will develop a rudimentary understanding of specifications for code, which can be utilized to bridge the gap between knowledge domain experts and programmers. They will learn to discuss types and assignment, evaluate expressions, and practice logical reasoning through branches and loops. In addition, students will explore the development of small but structured programs, emphasizing ease of design, testing, and debugging through the formal description, and use, of functions. The course will also cover writing simple classes, which will help students to develop more complex programs and solve real-world problems. Upon completion of the course, students will have sufficient skills to understand, at a higher level, what a more professional Python program is doing. They will be able to read basic code and discuss it in detail. The course will provide students with a solid foundation for interfacing with programmers in a professional environment.

Fall or Spring
1 Course Unit

DIGC 4600 Practices in Digital Culture
Understanding literacy, having context for technocultures, telling stories, and exploring ethics are critical to being an informed individual in contemporary life; but becoming an active citizen in society requires the skills to engage on a deeper level with technologies. In this class, students will focus on living technocultures from 1970-present and engage in critical evaluation and analysis of technocultures in the modern and postmodern eras. Over the course of the term, students will focus on a particular technological category, located in its own cultural setting. They will develop, and implement their own project proposal for in-depth study of a specific technology or use-case that has application for their own interests or goals. Students will begin their exploration using grounded theory, though the nature of their projects will dictate what methodology they will employ. During the class, they will work in small groups with others using similar methods in the exploration of their research and course content. Students will be incorporating tools and skills developed in at least two of the DIGC track courses in their projects. Students are expected to either have taken at least two of the following: DIGC 1200, DIGC 1600, and/or DIGC 2000 or bring sufficient prior expertise to analyze and problematize a technological practice or arena in a real world setting with the guidance of the instructors of those courses. The full cluster is recommended.

Fall or Spring
1 Course Unit

Dutch (DTCH)

DTCH 0100 Elementary Dutch I
A first semester language course covering the core Dutch grammar and vocabulary with the goal of providing the corner stone for developing overall linguistic proficiency in Dutch.
Fall
1 Course Unit

DTCH 0200 Elementary Dutch II
Continuation of DTCH 0100.
Spring
1 Course Unit
**DTCH 0300 Intermediate Dutch I**
A third semester Dutch language course. The emphasis lies on vocabulary expansion through the use of audio-taped materials and readings. Grammar is expanded beyond the basics and focuses on compound sentences, features of text coherence and idiomatic language usage.
Fall
Prerequisite: DTCH 0200
1 Course Unit

**DTCH 0400 Intermediate Dutch II**
A fourth semester Dutch language course.
Spring
Prerequisite: DTCH 0300
1 Course Unit

**DTCH 1153 Is Europe Facing a Spiritual Crisis?**
Is Europe Facing a Spiritual Crisis? On Contemporary Debates about Secularization, Religion and Rationality. Point of departure for this course is the difference between Europe and the US as to the role of religion in the unfolding of their respective "cultural identities" (cf. Charles Taylor, A Secular Age, 522-530). As a rule, both the US and Western Europe are now defined as secularized cultures, even if their histories and specific identities are strongly rooted in the Christian heritage. Given this contemporary situation, four research questions will be dealt with in this course. 1) What is meant by secularization? In answer to that question, two secularization theories are distinguished: the classic versus the alternative secularization thesis; 2) What is the historical impact of the nominalist turning-point at the end of the Middle Ages in this process towards secularization? 3) How did the relation between rationality and religion develop during modern times in Europe? 4) What is the contemporary outcome of this evolution in so-called postmodern / post-secular Europe and US? We currently find ourselves in this so-called postmodern or post-secular period, marked by a sensitivity to the boundaries of (modern) rationality and to the fragility of our (modern) views on man, world and God. In this respect, we will focus on different parts of Europe (Western and Eastern Europe alike) and will refer to analogies and differences between Western Europe and US. This historical-thematic exposition is illustrated by means of important fragments from Western literature (and marginally from documents in other arts) and philosophy. We use these fragments in order to make more concrete the internal philosophical evolutions in relation to corresponding changes in diverse social domains (religion, politics, economy, society, literature, art...).
Spring
Also Offered As: GRMN 1153
1 Course Unit

**DTCH 2300 Topics in Dutch Studies**
Topics vary.
Not Offered Every Year
Also Offered As: GRMN 2300
1 Course Unit

**DTCH 2610 Early Netherlandish Painting: Angels, Demons, Nudes**
Over the course of the fifteenth and sixteenth centuries, painting in the Netherlands experienced dramatic technological advancements: the application of oil on panel allowed for an unprecedented richness of color; experiments with optics led to improved illusions of space; artists rendered light and reflections as never before. Did these advancements in depicting the natural world conflict with or enhance the portrayal of spiritual visions? Did realism pave the way for secular art? In this course, we will look critically at the relationship of science and art, tradition and innovation, the imagined and the experienced. The delicate preciousness of Jan van Eyck, the strange spaces of Petrus Christus, the bizarre hellscapes of Hieronymus Bosch, and the peasant festivals of Peter Bruegel will guide us through these themes.
Not Offered Every Year
Also Offered As: ARTH 2620
1 Course Unit

**DTCH 5010 Elementary Dutch I**
A first semester language course covering the core Dutch grammar and vocabulary with the goal of providing the cornerstone for developing overall linguistic proficiency in Dutch.
Fall
1 Course Unit

**DTCH 5020 Elementary Dutch II**
Continuation of DTCH 0100.
Spring
1 Course Unit

**DTCH 5030 Intermediate Dutch I**
A third semester Dutch language course. The emphasis lies on vocabulary expansion through the use of audio-taped materials and readings. Grammar is expanded beyond the basics and focuses on compound sentences, features of text coherence and idiomatic language usage.
Fall
Prerequisite: DTCH 5020
1 Course Unit

**DTCH 5040 Intermediate Dutch II**
A fourth semester Dutch language course.
Spring
1 Course Unit

**DTCH 5300 Topics in Dutch Studies**
Topics vary.
Not Offered Every Year
Also Offered As: COML 5550, GRMN 5550
1 Course Unit
DTCH 5710 Literature and Multilingualism
Since several years, the societal and cultural reality of multilingualism has become an important research field in linguistics and literary studies, as in cultural studies more generally. This graduate course will investigate how multilingual poetics challenge and resist paradigms and ideologies of innate monolingualism, linguistic mastery, absolute translatability and monocultural nationalism. To begin with, the course will introduce central aspects of scholarship on literature and multilingualism, covering concepts such as heteroglossia, code switching, translanguaging and macaronic language, and debates such as those on world literature, global English, foreignization, (un)translatability and non-translation, including their political and ethical importance. After a brief historical overview, glancing at western literary multilingualism in the Middle Ages, Romanticism and the avantgarde, the course will mainly focus on literature of the late 20th and 21st centuries taken from Germanic and Romance linguistic contexts. Using an exemplary selection, the course will cover prose, poetry and drama, and include excerpts of texts by authors such as Andrea Camilleri, Gino Chiellino, Fikry El Azzouzi, Ernst Jandl, Jackie Kay, Çağlar Köseoğlu, Monique Mojica, Melinda Nadj Abonji, Emine Sevgi Özdamar, Olivier Rolin, Yoko Tawada, Nicole van Harskamp, and others. Reading these texts, we will try to determine how multilingualism manifests itself (linguistically, discursively, rhetorically, thematically, contextually etc.) and how the texts engage with linguistic, cultural and social pluralities. The course will conclude with a focus on the translator as a central character in fictional prose and movies. Classes will take place in an interactive format that stimulates discussion and exchange. Students will get the respective excerpts – both in the original version and in English translation – one week at a time so that they can prepare themselves each week for the discussion. Theoretical and contextual information will be provided via Power Point presentations.
Not Offered Every Year
Also Offered As: COML 5710, FREN 5710, GRMN 5710, ITAL 5710
1 Course Unit

DTCH 5740 Politics and Societies in the Early Modern World
In this seminar, we will discuss how early modern globalization affected societies and the ways their members and rulers made politics. Following a historiographical introduction, it is divided in three sections. In the first, we will concentrate on empires and kings in order to detect common features of dynastic power across the globe and to explore how such characteristics influenced each other. Second, we will shift our attention to citizens and the ways they made politics in their city-states. For a long time, research on citizenship has been confined to the post-revolutionary nation states. However, recent research suggests that urban citizenship has far deeper roots in medieval and early modern cities. Up to now most research has focused on urban centers in Western Europe and more precisely on the so-called urban belt stretching from Central and North-Italy, over Switzerland and Southern Germany to the Rhineland and the Low Countries. Comparisons with urban centers in Asia and the colonial Americas will be needed to test that view. In the third section, we will study the people who provided information to societies and decision makers. Often, they held multiple identities or they acted as religious or ethnic outsiders. Therefore, we call them, with a term borrowed from anthropology 'brokers'. Taken together, the analysis of these aspects will deepen our understanding of politics and societies in the globalizing early modern world. Thus, the seminar will contribute to a more comprehensive, less Europe-centered view on that period.
Not Offered Every Year
Also Offered As: GRMN 5740
1 Course Unit

DTCH 5780 Privacy and Society in Seventeenth-Century Dutch Art Seminar
How do paintings offer occasions for personal reflection, and how do they construct social bonds? The aim of this seminar is to develop a set of critical skills for analyzing the different ways in which seventeenth-century Dutch paintings drew upon shared social values, national identity and economic pride, how they appealed to individual buyer tastes, and how they have engaged and continue to engage poetic minds. We will address these matters by paying particular attention to the representation of space, considering domestic interiors, urban settings, church architecture, imperial arenas, and landscapes both real and imagined. Our discussions of how paintings reflect and shape privacy and society will be informed by visits to the Philadelphia Museum of Art, by readings from methodologically diverse essays, and by writing frequently, which will provide us with occasions to test our ideas in response to what we see and read. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: ARTH 5610, GRMN 5781
1 Course Unit

DTCH 6610 Nature and Labor in Early Modern Art Seminar
In the sixteenth century, the notion of nature as fecund spawned not only images of lushness but also analogies to the artist’s mind as a fertile place. The idea of “natural law” was also extended to what is a presumably primal condition, one that established how the earth’s resources were to be distributed among its people. Yet the taste for artistic objects in gold, silver, wax, and wood—materials that could be worked into shapes attesting to the owner's dominion over land—led to harvesting processes which met the awareness that nature’s resources could run low or even run out. Untappable nature was a functional metaphor, but scarcity was a reality. As a collective effort to write the other side of the story of Renaissance abundance, this seminar will proceed by addressing the question of how the history of art might be told as a description of materials and their potential for the expenditure of natural and human resources. We will address this question by focusing on primary texts, theoretical interventions, and a selection of objects, images, and early books from collections near at hand. Open to graduate students only.
Not Offered Every Year
Also Offered As: ARTH 7610, GRMN 6850
1 Course Unit

DTCH 6650 Northern Baroque Art Seminar
This seminar will consider major themes in Northern art of the 16th and 17th centuries, essentially from Bruegel to Vermeer. The premise is that the Reformation altered certainties in knowledge and even in perception, especially in the wake of wars, newly discovered lands, changing science and collecting of Wonders. Among new imagery topics would include: melancholy, vanitas, witchcraft, travel images, and the status of the emblem as well as allegory. Students will select a topic for semester-long investigation and co-present a class with the instructor. Open to graduate students only.
Not Offered Every Year
Also Offered As: ARTH 7650
1 Course Unit

DTCH 9999 Independent Study
Independent Study
Fall or Spring
1 Course Unit
Earth and Environmental Science (EESC)

**EESC 1000 Earth Systems Science**
An introduction to Earth as a complex system through examination of its atmosphere, hydrosphere, lithosphere and biosphere, the interactions among these spheres, and of the human impacts on the planet and its responses.
Fall
1 Course Unit

**EESC 1002 Geology Laboratory**
Fall or Spring
1 Course Unit

**EESC 1030 Oceanography**
The oceans cover over 2/3 of the Earth's surface. This course introduces basic oceanographic concepts such as plate tectonics, marine sediments, physical and chemical properties of seawater, ocean circulation, air-sea interactions, waves, tides, nutrient cycles in the ocean, biology of the oceans, and environmental issues related to the marine environment.
Spring
1 Course Unit

**EESC 1050 Earth and Life Through Time**
Origin of Earth, continents, and life. Continental movements, changing climates, and evolving life.
Fall or Spring
1 Course Unit

**EESC 1060 Natural Disturbances and Disasters**
Natural disasters play a fundamental role in shaping landscapes and structuring ecosystems. The purpose of this course is to introduce you to both the natural and social science of disasters. This course will explore the geologic processes that cause natural disasters, the ecological and social consequences of disasters, and the role of human behavior in disaster management and mitigation. Through exploring these concepts, this class will provide you with a broad background in the geosciences and the basic tools needed to understand: how earthquakes, volcanoes, landslides, and hurricanes occur; the myriad of ways that we can mitigate against their impacts; and the way in which we can "calculate the cost" of these disasters.
Fall
1 Course Unit

**EESC 1090 Introduction to Geotechnical Science**
Open to architectural and engineering majors as well as Ben Franklin Scholars. Field trips. Relations of rocks, rock structures, soils, ground water, and geologic agents to architectural, engineering, and land-use problems.
Fall
1.5 Course Unit

**EESC 1500 Paleontology**
Geologic history of invertebrates and their inferred life habits, paleoecology, and evolution. Introduction to paleobotany and vertebrate paleontology.
Spring
1 Course Unit

**EESC 2100 Mineralogy**
Crystallography, representative minerals, their chemical and physical properties. Use of petrographic microscope in identifying common rock-forming minerals in thin section.
Fall
1 Course Unit

**EESC 2300 Global Climate Change**
Public perceptions and attitudes concerning the causes and importance of global warming have changed. Global Climate Change provides a sound theoretical understanding of global warming through an appreciation of the Earth's climate system and how and why this has changed through time. We will describe progress in understanding of the human and natural drivers of climate change, climate processes and attribution, and estimates of projected future climate change. We will assess scientific, technical, and socio-economic information relevant for the understanding of climate change, its potential impacts and options for adaptation and mitigation.
Spring
1 Course Unit

**EESC 2500 Earth and Life Through Geologic Time**
This course covers Earth System dynamics from the viewpoint of deep time. Specifically, the course focuses on (i) the history of our planet and its life, (ii) the physical, chemical and biological feedbacks driving evolution and (iii) the evidence that has given us access into the understanding of the Geologic Time Scale.
Spring
1 Course Unit

**EESC 2600 Stratigraphy**
Introductory sedimentary concepts, stratigraphic principles, depositional environments, and interpretation of the rock record in a paleoecological setting.
Fall
Mutually Exclusive: EESC 5600
Prerequisite: EESC 1000
1 Course Unit

**EESC 2800 Earth's Interior**
Introduction to deformation as a fundamental geologic process. Stress and strain; rock mechanics. Definition, measurement, geometrical and statistical analysis, and interpretation of structural features. Structural problems in the field. Maps, cross-sections, and three-dimensional visualization; regional structural geology.
Spring
1 Course Unit

**EESC 2999 Independent Study**
Directed study for individuals or small groups under close supervision of a faculty member.
Fall or Spring
1 Course Unit

**EESC 3003 Penn in the Alps**
The aim of this 10-day summer program is to introduce inquisitive students to the nature, culture, history and languages of the European Alps in Switzerland and Italy. We will be exploring the geology of the Alps and how it influences the development of wildlife, flora, history, religion, culture and of entire regions, how humans have altered the environment, and how humans respond to climate change in Alpine ecosystems. We will learn how to observe nature in a spectacular landscape, visit cultural sites off the beaten track and explore some of the well-known localities, such as Zurich, Valtellina, Bellinzona, and the Engadine.
1 Course Unit
EESC 3100 Petrology and Petrography
Occurrences and origins of igneous and metamorphic rocks; phase equilibria in heterogeneous systems. Laboratory study of rocks and thin sections as a tool in interpretation of petrogenesis.
Spring
1 Course Unit

EESC 3300 Glaciers, Ice & Climate
All forms of frozen water at Earth’s surface define the cryosphere. These icy environments are an integral part of the global climate system, with important linkages and feedbacks resulting from their influences on surface energy and moisture fluxes, clouds, precipitation, hydrology, and circulation in the atmosphere and oceans. This course will survey the various components of the cryosphere and their interactions with climate, with a strong emphasis on the dynamics of glaciers and ice sheets. Broad topics to be covered are: (1) the rudimentary mechanics of glacier and ice sheet flow, (2) fast-flowing ice streams and factors limiting their motion, (3) ice-rafting and its origins, (4) the nature of climate data recorded in natural ice bodies, (5) the influence of climate on the stability of ice sheets and glaciers, and (6) glacier-like flow on other planetary bodies. This will be a lecture-based course with written assignments and problems sets.
1 Course Unit

EESC 3600 Earth’s Surface
Patterns on the Earth’s surface arise due to the transport of sediment by water and wind, with energy that is supplied by climate and tectonic deformation of the solid Earth. This course presents a treatment of the processes of erosion and deposition that shape landscapes. Emphasis will be placed on using simple physical principles as a tool for (a) understanding landscape patterns including drainage networks, river channels and deltas, desert dunes, and submarine channels, (b) reconstructing past environmental conditions using the sedimentary record, and (c) the management of rivers and landscapes under present and future climate scenarios. The course will conclude with a critical assessment of landscape evolution on other planets, including Mars.
Not Offered Every Year
Mutually Exclusive: EESC 6600
1 Course Unit

EESC 3997 Environmental Studies Research Seminar for Juniors
This seminar is designed to help Juniors prepare for the Senior Thesis research. Topic selection, advisor identification, funding options, and basic research methods will be discussed.
Spring
Also Offered As: ENVIS 3997
1 Course Unit

EESC 4200 Geochemistry
This course provides a comprehensive introduction to theory and applications of chemistry in the earth and environmental sciences. Theory covered will include atomic structure, chemical bonding, cosmic abundances, nucleosynthesis, radioactive decay, dating of geological materials, stable isotopes, acid-base equilibria, salts and solutions, and oxidation-reduction reactions. Applications will emphasize oceanography, atmospheric sciences and environmental chemistry, as well as other topics depending on the interests of the class. Although we will review the basics, this course is intended to supplement, rather than to replace, courses offered in the Department of Chemistry. It is appropriate for advanced undergraduate as well as graduate students in Geology, Environmental Science, Chemistry and other sciences, who wish to have a better understanding of these important chemical processes.
Not Offered Every Year
1 Course Unit

EESC 4250 Our Water Planet
Water, the “universal solvent”, is a miraculous substance that makes Earth unique in the solar system and, possibly, the galaxy. This course will delve into the wondrous physical and chemical properties of water from the micro (water properties and composition) to macro (global water resources) scale and highlight its role in sculpting almost every facet of Earth’s environment. Water will be examined within a scientific framework, from wicked water problems to wondrous water bodies to the paradox of an abundant yet incredibly precious resource. We will study the vital role of water in life, its movement across around our planet, its part in the growth (and downfall) of civilizations, and the ways in which humans are having profound impacts on all aspects of the water cycle. We will also look at how water interacts with other Earth systems, use topical case studies to examine water issues in the Anthropocene and examine what lies in store for water quality and availability in the twenty-first century during an era of rapid environmental change. Assignments will include class presentations, an opinion piece, and a review article for a leading journal. This course will include a local field trip.
Not Offered Every Year
1 Course Unit

EESC 4320 Atmospheric Chemistry
An introduction to the chemistry of the earth’s atmosphere. Covers evolution of the earth’s atmosphere, its physical and chemical structure, its natural chemical composition and oxidative properties, and human impacts, including photochemistry, and aerosols; stratospheric ozone loss, tropospheric pollution; climate change, and acidic deposition.
Chemistry in the atmosphere of other planets in our solar system will be covered.
Fall
Mutually Exclusive: EESC 6320
1 Course Unit

EESC 4336 Ocean-Atmosphere Dynamics and Implications for Future Climate Change
This course covers the fundamentals of atmosphere and ocean dynamics, and aims to put these in the context of climate change in the 21st century. Large-scale atmospheric and oceanic circulation, the global energy balance, and the global energy balance, and the global hydrological cycle. We will introduce concepts of fluid dynamics and we will apply these to the vertical and horizontal motions in the atmosphere and ocean. Concepts covered include: hydrostatic law, buoyancy and convection, basic equations of fluid motions, Hadley and Ferrel cells in the atmosphere, thermohaline circulation, Sverdrup ocean flow, modes of climate variability (El-Nino, North Atlantic Oscillation, Southern Annular Mode). The course will incorporate student led discussions based on readings of the 2007 Intergovernmental Panel on Climate Change (IPCC) report and recent literature on climate change. Aimed at undergraduate or graduate students who have no prior knowledge of meteorology or oceanography or training in fluid mechanics. Previous background in calculus and/or introductory physics is helpful. This is a general course which spans many subdisciplines (fluid mechanics, atmospheric science, oceanography, hydrology).
Spring, odd numbered years only
Also Offered As: PHYS 3314
Mutually Exclusive: EESC 6336
Prerequisite: MATH 1410
1 Course Unit
EESC 4360 Environmental Fluid Dynamics
Environmental Fluid Dynamics (EFD) is an applied branch of fluid mechanics devoted to studying fluid systems in nature, including atmospheric boundary layers and aquatic environments, such as lakes, rivers, and coastal seas. In particular, EFD aims to characterize the mechanisms governing the transport of heat, dissolved, and suspended matter in fluid environments, which together play a critical role in the functioning of ecosystems. This course will introduce the underlying physics governing motion in natural fluids, with emphasis on water bodies. We will discuss the transport equations that model fluid flows affected by vertical and horizontal density gradients, the effect of Earth rotation in fluid trajectories, and the main natural drivers responsible for energizing fluid flows, such as wind and heat fluxes. The course will revisit analytical results characterizing specific type flows in nature, and we will discuss open topics that are under development.

Spring
Mutually Exclusive: EESC 6360
Prerequisite: MATH 1410
1 Course Unit

EESC 4400 Biogeochemistry
Humans have an enormous impact on the global movement of chemical materials. Biogeochemistry has grown to be the principal scientific discipline to examine the flow of elements through the global earth systems and to examine human impacts on the global environment. This course will introduce and investigate processes and factor controlling the biogeochemical cycles of elements with and between the hydrosphere, lithosphere, atmosphere and biosphere. Students will apply principles learned in lectures by building simple computer-based biogeochemical models.

Spring
Mutually Exclusive: EESC 6400
1 Course Unit

EESC 4440 Geomicrobiology
Microorganisms inhabit almost every conceivable environment on the planet’s surface, and extent the biosphere to depths of several kilometers into the crust. Significantly, the chemical reactivity and metabolic diversity displayed by microbial communities make them integral components of global elemental cycles, from mineral dissolution and precipitation reactions, to aqueous reduction-oxidation processes. In that regard, microorganisms have helped shape our planet over the past 4 billion years and made it habitable for higher forms of life. In this course we will evaluate the geological consequences of microbial activities, by taking an interdisciplinary and “global” view of microbe-environment interactions.

Mutually Exclusive: EESC 6440
1 Course Unit

EESC 4510 Introduction to Vertebrate Paleontology
Geologic history of invertebrates and their inferred life habits, paleoecology, and evolution. Introduction to paleobotany and vertebrate paleontology.

Not Offered Every Year
1 Course Unit

EESC 4540 Paleoecology Discovering Lost Ecosystems
Paleoecology, or ecology in the fossil record, is the study of how interactions between species have developed over time and how ecosystems and environmental change have shaped the evolution of life and biodiversity. It also involves rebuilding lost communities from fossil evidence to provide context for the origins of modern life and modern ecosystems. This seminar course will survey major topics in Paleoecology, including of ecosystems, the long-term connections between habitat, life mode and biodiversity as well as the distribution of life (e.g. paleobiogeography), escalation between predators and prey, competition between invasive and resident species, and how we can infer the ecology and behavior of long-dead organisms. Students will lead discussions on select concepts and choose one topic to investigate in depth.

Not Offered Every Year
1 Course Unit

EESC 4550 Macroevolution
Macroevolution, or evolution above the population level and on long timescales, as a field addresses fundamental questions about the origins of life, past and present. These include but are not limited to: How are highly dissimilar species related? Why are animals on distant continents so similar? How and when did major groups, like birds or mammals, originate? What drives evolutionary arms races? Why are there so many more species of beetle than crocodile? Why are there more species in the tropics than the Arctic? Did dinosaurs prevent the diversification of mammals? Why do some animals survive mass extinction? How can invasive species spread so rapidly? Students will learn important concepts underlying our understanding of modern biodiversity and the fossil record, as well as how to use different methods and lines of evidence, including evolutionary trees (phylogeny), fossil databases, past climate and global events, mathematical modeling, and even modern genomics, to answer fundamental questions about the evolution of life.

Spring, odd numbered years only
Also Offered As: BIOL 4450
1 Course Unit

EESC 4630 Hydrology
Introduction to the basic principles of the hydrologic cycle and water budgets, precipitation and infiltration, evaporation and transpiration, stream flow, hydrograph analysis (floods), subsurface and groundwater flow, well hydraulics, water quality, and frequency analysis.

Fall
Mutually Exclusive: EESC 6630
1 Course Unit

EESC 4660 Soil Science
Soil is considered the "skin of the Earth", with interfaces between the lithosphere, hydrosphere, atmosphere, and biosphere. It is a mixture of minerals, organic matter, gases, liquids and a myriad of organisms that can support plant life. As such, soil is a natural body that exists as part of the environment. This course will examine the nature, properties, formation and environmental functions of soil.

Mutually Exclusive: EESC 5660
1 Course Unit
EESC 4700 Remote Sensing
This course will introduce students to the principles of remote sensing, characteristics of remote sensors, and remote sensing applications. Image acquisition, data collection in the electromagnetic spectrum, and data set manipulations for earth and environmental science applications will be emphasized. We will cover fundamental knowledge of the physics of remote sensing; aerial photographic techniques; multispectral, hyperspectral, thermal, and other image analysis. Students will pursue an independent research project using remote sensing tools, and at the end of the semester should have a good understanding and the basic skills of remote sensing. Mutually Exclusive: EESC 6700 1 Course Unit

EESC 4800 Geophysics
This course will cover the application of geophysical investigation techniques to problems of the earth's planetary structure, local subsurface structure and mineral prospecting. The topics will include principles of geophysical measurements and interpretation with emphasis on gravity measurement, isostasy, geomagnetism, seismic refraction and reflection, electrical prospecting, electromagnetics and ground radar. Not Offered Every Year 1 Course Unit

EESC 4991 Topics in Earth Science
In depth examination of special topics in Earth Science. Topics will change with instructor and course offerings. 1 Course Unit

EESC 4997 Senior Thesis
The culmination of the Earth Science major. Students, while working with an advisor in their concentration, conduct research and write a thesis. Two Term Class, Student may enter either term; credit given after both terms are complete 1 Course Unit

EESC 5010 The Geology and Geography of Energy Resources
This course will survey the way geology controls the formation and location of energy resources. Questions we'll address include, "How are oil and gas fields formed?", "Why does the Middle East have so much oil?", "What are the best locations in the US for wind and solar energy generation, and why?". We will discuss hydrocarbon, nuclear, solar, wind, and tidal energy sources. Not Offered Every Year 1 Course Unit

EESC 5200 Aqueous Geochemistry
This course is designed to provide the graduate student with an understanding of the fundamentals of aqueous geochemistry. The chemistry of water, air and soil will be studied from an environmental perspective. The nature, composition, structure, and properties of pollutants coupled with the major chemical mechanisms controlling the occurrence and mobility of chemicals in the environment will also be studied. Upon completion of this course, students should expect to have attained a broad understanding of and familiarity with aqueous geochemistry concepts applicable to the environmental field. Environmental issues that will be covered include acid deposition, toxic metal contamination, deforestation, and anthropogenic perturbed aspects of the earth's hydrosphere. Not Offered Every Year 1 Course Unit

EESC 5320 Fundamentals of Air Pollution
This course will cover various topics related to Air Quality. Initial lectures will cover the history of air pollution, discussions of the Clean Air Act and composition of the atmosphere. We will then progress to discussion of atmospheric pollutants and sources of those pollutants. Additional topics will include: fate of atmospheric pollutants (transport and dispersion mechanisms will include: fate of atmospheric pollutants (transport and mechanisms), effects of air pollution (health and environmental effects), urban smog, acid rain, climate change, ozone depletion in the stratosphere, air quality criteria, and engineering controls. Spring 1 Course Unit

EESC 5400 Evolution/Revolution of Land Ecosystems
Origin and diversification of land ecosystems. Interaction between plants and animals. Effects of past climatic change and other external factors. The importance of past changes in land ecosystems to our understanding of current global change. Not Offered Every Year 1 Course Unit

EESC 5630 Hydrology
Introduction to the basic principles of the hydrologic cycle and water budgets, precipitation and infiltration, evaporation and transpiration, stream flow, hydrograph analysis (floods), subsurface and groundwater flow, well hydraulics, water quality, and frequency analysis. Fall 1 Course Unit

EESC 5660 Advanced Soil Science
Soil is considered the "skin of the Earth", with interfaces between the lithosphere, hydrosphere, atmosphere, and biosphere. It is a mixture of minerals, organic matter, gases, liquids and a myriad of organisms that can support plant life. As such, soil is a natural body that exists as part of the environment. This course will examine the nature, properties, formation and environmental functions of soil. Mutually Exclusive: EESC 4660 1 Course Unit
EESC 5700 Data Analysis in Earth Science
This course will introduce numerical techniques for analyzing data and formulating models in Earth Science. Students will first be introduced to Octave, a high level computer programming language (equivalent to Matlab, but free of cost) that allows data analysis and manipulation, sophisticated plotting and numerical modeling from the same interface. Data analysis will focus on time series, pattern recognition, image/topography analysis, and correlation statistics; modeling will include groundwater and surface water flow, random processes, diffusion, and erosion and deposition. This will be a seminar-style course where discussion will be encouraged, and additional topics may be covered depending on student interest. Through project-based learning exercises students will gain proficiency in Octave which will be useful for all aspects of Earth science.
Fall
1 Course Unit

EESC 5704 Geologic Field Methods
During six Saturday field trips, students will study field methods for the collection of geologic data. Use of the Brunton compass for basic surveying and collection of rock strata orientation will be stressed. Students will have an opportunity for field study of rocks and minerals, geomorphology, and geologic structures. This course is intended for MSAG students who do not have a degree in geology or need a field methods course for PG licensure.
1 Course Unit

EESC 5720 Role of the Environmental Professional in Managing Contaminated Site Liability
Evaluation of environmental contamination and liability is an important tool during acquisition of real estate property, and a standard work product in the environmental consulting field. This course will cover the purpose and history of the Superfund law, the various classifications of Superfund liable parties, and protections against Superfund liability, specifically with regard to bona fide prospective purchasers (BFPP). In the context of the BFPP liability defense the course will focus on the performance of “All Appropriate Inquiry” for the presence of environmental contamination (e.g. Phase I environmental site assessment). Our study of “All Appropriate Inquiry” will include evaluation of historical maps and other resources, aerial photography, chain-of-title documentation, and governmental database information pertaining to known contaminated sites in the area of select properties on or near campus. Site visits will be performed to gain experience and knowledge for the identification of recognized environmental conditions. Students will prepare environmental reports for select properties and will have an opportunity to hone technical writing skills.
Spring
1 Course Unit

EESC 5800 Geotectonics
Bulk structure of the Earth. Plate tectonics and plate boundaries. Plumes, rifting, and intraplate tectonics. Geotectonics and seismicity.
Not Offered Every Year
1 Course Unit

EESC 5830 Geophysical Fluid Dynamics
This class will discuss physical principles fundamental to the theoretical, observational, and experimental study of geophysical fluids, the equations of motion for rotating fluids; hydrostatic and Boussinesq approximations; circulation theorem; conservation of potential vorticity; scale analysis, geostrophic wind, quasigeostrophic system; wave theory and applications, flow instabilities, geophysical boundary layers. Depending on student interest, the class will be adapted to include applications from Oceanography, Meteorology, Geophysics or Engineering.
1 Course Unit

EESC 5999 Independent Study
Directed study for individuals or small groups under supervision of a faculty member.
Fall or Spring
1 Course Unit

EESC 6001 Topics Course in Applied Geosciences
This course will explore topics related to the Applied Geosciences Not Offered Every Year
1 Course Unit

EESC 6100 Petrology and Petrography
Occurrences and origins of igneous and metamorphic rocks; phase equilibria in heterogeneous systems. Laboratory study of rocks and thin sections as a tool in interpretation of petrogenesis.
Spring
1 Course Unit

EESC 6200 Advanced Geochemistry
This course provides a comprehensive introduction to theory and applications of chemistry in the earth and environmental sciences. Theory covered will include atomic structure, chemical bonding, cosmic abundances, nucleosynthesis, radioactive decay, dating of geological materials, stable isotopes, acid-base equilibria, salts and solutions, and oxidation-reduction reactions. Applications will emphasize oceanography, atmospheric sciences and environmental chemistry, as well as other topics depending on the interests of the class. Although we will review the basics, this course is intended to supplement, rather than to replace, courses offered in the Department of Chemistry. It is appropriate for advanced undergraduate as well as graduate students in Geology, Environmental Science, Chemistry and other sciences, who wish to have a better understanding of these important chemical processes. Not Offered Every Year
1 Course Unit
EESC 6206 Geochemical Modeling
This course is designed to introduce the major concepts regarding geochemistry and geochemical modeling. The course introduces two United States Geological Survey (USGS) computer models, PHREEQC, a geochemical speciation model, and PHAST, a transport module which is coupled with PHREEQC output. These are highly respected, world-renowned models that are free-ware via the USGS, complete with documentation. Once familiar with the models, the student can continue to work with them beyond the course experience. PHREEQC is designed to perform a wide variety of aqueous geochemical calculations and can be used to simulate chemical reactions and transport processes in natural or polluted waters. PHREEQC is capable of modeling both equilibrium and kinetic reactions. Some of the simulations pursued during the course include: Speciation of precipitation water; Iron speciation; Zinc sorption onto hydrous ferric oxide; Oxidation of organic carbon and the sequence of electron donors in natural waters; Benzene advective transport in groundwater; TCE transport and degradation.

Spring
1 Course Unit

EESC 6320 Advanced Atmospheric Chemistry
An introduction to the chemistry of the earth's atmosphere. Covers evolution of the earth's atmosphere, its physical and chemical structure, its natural chemical composition and oxidative properties, and human impacts, including photochemistry, and aerosols; stratospheric ozone loss, tropospheric pollution; climate change, and acidic deposition. Chemistry in the atmosphere of other planets in our solar system will be covered.

Fall
Mutually Exclusive: EESC 4320
1 Course Unit

EESC 6360 Advanced Environmental Fluid Dynamics
Advanced Environmental Fluid Dynamics (EFD) is an applied branch of fluid mechanics devoted to studying fluid systems in nature, including atmospheric boundary layers and aquatic environments, such as lakes, rivers, and coastal seas. In particular, EFD aims to characterize the mechanisms governing the transport of heat, dissolved, and suspended matter in fluid environments, which together play a critical role in the functioning of ecosystems. This course will introduce the underlying physics governing motion in natural fluids, with emphasis on water bodies. We will discuss the transport equations that model fluid flows affected by vertical and horizontal density gradients, the effect of Earth rotation in fluid trajectories, and the main natural drivers responsible for energizing fluid flows, such as wind and heat fluxes. The course will revisit analytical results characterizing specific type flows in nature, and we will discuss open topics that are under development.

Spring
Mutually Exclusive: EESC 4360
Prerequisite: MATH 1410
1 Course Unit

EESC 6400 Advanced Biogeochemistry
Humans have an enormous impact on the global movement of chemical materials. Biogeochemistry has grown to be the principal scientific discipline to examine the flow of elements through the global earth systems and to examine human impacts on the global environment. This course will introduce and investigate processes and factor controlling the biogeochemical cycles of elements with and between the hydrosphere, lithosphere, atmosphere and biosphere. Students will apply principles learned in lectures by building simple computer-based biogeochemical models.

Spring
Mutually Exclusive: EESC 4400
1 Course Unit

EESC 6404 Field Methods in Biogeochemistry
This field- and lab-based course will examine a set of methods for the study and quantification of biochemical processes in terrestrial and aquatic systems. We will focus on field-based measurements, as well as sample collection and laboratory analyses of fluxes of carbon and nutrient elements, including photosynthesis, respiration, dissolved and suspended nutrient fluxes in streams.

Summer Term
1 Course Unit

EESC 6440 Advanced Geomicrobiology
Microorganisms inhabit almost every conceivable environment on the planet's surface, and extent the biosphere to depths of several kilometers into the crust. Significantly, the chemical reactivity and metabolic diversity displayed by microbial communities make them integral components of global elemental cycles, from mineral dissolution and precipitation reactions, to aqueous reduction-oxidation processes. In that regard, microorganisms have helped shape our planet over the past 4 billion years and made it habitable for higher forms of life. In this course we will evaluate the geological consequences of microbial activities, by taking an interdisciplinary and "global" view of microbe-environment interactions.

Mutually Exclusive: EESC 4440
1 Course Unit

EESC 6510 Advanced Vertebrate Paleontology Seminar
Topics in vertebrate paleontology and paleoecology.

Fall or Spring
1 Course Unit

EESC 6540 Advanced Paleoecology Discovering Lost Ecosystems
Paleoecology, or ecology in the fossil record, is the study of how interactions between species have developed over time and how ecosystems and environmental change have shaped the evolution of life and biodiversity. It also involves rebuilding lost communities from fossil evidence to provide context for the origins of modern life and modern ecosystems. This seminar course will survey major topics in Paleoecology, including of ecosystems, the long-term connections between habitat, life mode and biodiversity as well as the distribution of life (e.g. paleobiogeography), escalation between predators and prey, competition between invasive and resident species, and how we can infer the ecology and behavior of long-dead organisms. Students will lead discussions on select concepts and choose one topic to investigate in depth.

Not Offered Every Year
1 Course Unit
EESC 6550 Advanced Macroevolution
Macroevolution, or evolution above the population level and on long timescales, as a field addresses fundamental questions about the origins of life, past and present. These include but are not limited to: How are highly dissimilar species related? Why are animals on distant continents so similar? How and when did major groups, like birds or mammals, originate? What drives evolutionary arms races? Why are there so many more species of beetle than crocodile? Why are there more species in the tropics than the arctic? Did dinosaurs prevent the diversification of mammals? Why do some animals survive mass extinction? How can invasive species spread so rapidly? Students will learn important concepts underlying our understanding of modern biodiversity and the fossil record, as well as how to use different methods and lines of evidence, including evolutionary trees (phylogeny), fossil databases, past climate and global events, mathematical modeling, and even modern genomics, to answer fundamental questions about the evolution of life.
Spring, odd numbered years only
1 Course Unit

EESC 6600 Advanced Earth's Surface
Patterns on the Earth's surface arise due to the transport of sediment by water and wind, with energy that is supplied by climate and tectonic deformation of the solid Earth. This course presents a treatment of the processes of erosion and deposition that shape landscapes. Emphasis will be placed on understanding landscape patterns as a tool for (a) understanding landscape patterns including drainage networks, river channels and deltas, desert dunes, and submarine channels, (b) reconstructing past environmental conditions using the sedimentary record, and (c) the management of rivers and landscapes under present and future climate scenarios. The course will conclude with a critical assessment of landscape evolution on other planets, including Mars.
Not Offered Every Year
Mutually Exclusive: EESC 3600
1 Course Unit

EESC 6606 Fate and Transport of Pollutants
This course covers basic groundwater flow and solute transport modeling in one-, two-, and three-dimensions. After first reviewing the principles of modeling, the student will gain hands-on experience by conducting simulations on the computer. The modeling programs used in the course are MODFLOW (USGS), MT3D, and the US Army Corps of Engineers GMS (Groundwater Modeling System).
Spring
1 Course Unit

EESC 6620 Environmental Groundwater Hydrology
This course is designed to introduce the major definitions and concepts regarding groundwater flow and contaminant transport. The theory and underlying concepts, including mathematical derivations of governing equations used to model groundwater flow and contaminant transport, will be discussed and applications to environmental problems addressed. Upon completion of this course, students should expect to have attained a broad understanding of and familiarity with groundwater flow and contaminant transport concepts, and to have acquired the skills necessary to pursue work in flow and transport modeling.
Spring
1 Course Unit

EESC 6664 Field Study of Soils
Processes of soil development in a variety of temperate environments. Effects of lithology and climate on soil properties.
Summer Term
1 Course Unit

EESC 6670 Advanced Remote Sensing
This course will introduce students to the principles of remote sensing, characteristics of remote sensors, and remote sensing applications. Image acquisition, data collection in the electromagnetic spectrum, and data set manipulations for earth and environmental science applications will be emphasized. We will cover fundamental knowledge of the physics of remote sensing; aerial photographic techniques; multispectral, hyperspectral, thermal, and other image analysis. Students will pursue an independent research project using remote sensing tools, and at the end of the semester should have a good understanding and the basic skills of remote sensing.
Mutually Exclusive: EESC 4700
1 Course Unit

EESC 6702 Instrumentation for the Geosciences
An introduction to the theory, operation and application of modern analytical instrumentation used in geo- and environmental sciences. Primarily focused on laboratory instrumentation such as mass spectroscopy, elemental analyses and x-ray techniques. Some field instruments will be introduced as well. Students will be expected to develop projects utilizing the various instruments.
Spring
1 Course Unit

EESC 6710 Environmental Statistical Analysis
Statistical analysis of data from geological, geotechnical, and geohydrologic sources.
Fall or Spring
1 Course Unit

EESC 6715 Water Resources for Geologists and Environmental Scientists
This class will provide an overview of water topics and issues and is intended to provide geologists and environmental scientists with a working understanding of current water resource issues and challenges ranging from stormwater and flooding to stream restoration, water re-use and ecological restoration. Starting with an understanding of hydrology, streams, and related ecosystems, the class will look at the various ways we use and depend on water, the ways in which water resources are degraded, and practices to restore and protect the resource. Topics to be covered include green infrastructure, water and wastewater sources and water reuse, stream health, stream channel restoration, riparian buffers, floodplains, best practices, and the concept of "one water". We will also cover current regulations, changing water policies, sustainability, and the implications of climate change.
Summer Term
1 Course Unit

EESC 6720 Landslides
Landslides are important geomorphic agents in mountainous terrain, mobilizing sediment and playing a key role in controlling relief and elevation. The work of landslides is often characterized by their magnitude-frequency, which also has direct implications for people, property, and infrastructure in mountainous terrain, and for the approaches taken to minimize the risk from landslides. This course will introduce students to a conceptual understanding of landslides at a range of spatial scales, including the mechanics of the processes governing landslides from trigger to deposition. Methods of slope monitoring and the varied approaches to landslide risk mitigation and management will be explored, with a range of geotechnical and environmental applications. This course includes lab-based sessions to demonstrate simple techniques to understand fundamental landslide processes, and applications of GIS technology to explore slope monitoring and failure prediction.
1 Course Unit
EESC 6730 Process Geomorphology
Geomorphology, the study of the Earth’s landforms and surface processes that have formed them, have evolved rapidly over the past decades. Traditionally, this sub-discipline of geology was largely descriptive, with the shape and relationships of various landforms attributed to the interplay of tectonic and climatic forces. In the 1950-60s, scientists began to quantify the processes operating at different spatial and temporal scales, and the field of Process Geomorphology replaced the descriptive framework. A quantitative approach is now integrating regional structural framework, climatology, and biologically mediated (including anthropogenic) processes to generate predictive models of landscape change. This course will include applications of high-resolution near-surface geophysical method, ground-penetrating radar (GPR), to help visualize the subsurface aspects of landform analysis. Along with understanding the morphodynamic feedbacks based on sediment transport, this geophysical application will help integrate the active earth surface processes with antecedent conditions (paleo-landscape). Lecture material will be complemented with manuscript analysis and the course will culminate with a rigorous research-based term project.
1 Course Unit

EESC 6770 Geocomputations
Review and applications of selected methods from differential equations, advanced engineering mathematics and geostatistics to problems encountered in geology, engineering geology, geophysics and hydrology.
Fall
1 Course Unit

EESC 6800 Advanced Geophysics
This course will cover the application of geophysical investigation techniques to problems of the earth's planitary structure, local subsurface structure and mineral prospecting. The topics will include principles of geophysical measurements and interpretation with emphasis on gravity measurement, isostasy, geomagnetism, seismic refraction and reflection, electrical prospecting, electromagnetics and ground radar. Not Offered Every Year
1 Course Unit

EESC 6810 Applied and Environmental Geophysics
The application of geophysical investigation techniques to problems of the local and shallow subsurface structure of the earth. The application of geophysical measurements and interpretation for environmental site characterizations, locating buried structures, groundwater investigations, and identifying geotechnical hazards with emphasis on gravity methods, seismic refraction and reflection, electrical resistivity, electromagnetic methods, ground penetrating radar, and borehole nuclear logging.
Fall
1 Course Unit

EESC 6820 Geomechanics: Solids
Mechanical properties of solid and fluid earth materials, stress and strain, earth pressures in soil and rock, tunnels, piles, and piers; flow through gates, weirs, spillways and culverts, hydraulics, seepage and Darcy’s law as applied to the hydrologic sciences.
Fall
1 Course Unit

EESC 6830 Geomechanics: Fluids
Static and Dynamic mechanical properties of fluid in earth materials, as applied to the Hydrologic Sciences; Principles of Fluid Mechanics and Hydraulics applied to open channel flow in earth materials; flow through gates, weirs, spillways, and culverts; Applications of Darcy’s Law to subsurface flow and seepage.
Spring
1 Course Unit

EESC 6840 Engineering Geology: Rock Mechanics
This course focuses on the rock mechanics aspects of Engineering Geology. The theme is characterization of the geologic environment for engineering and environmental investigations. Covered are the various exploration tools and methods, including: Collection and analysis of existing engineering data; Interpretation of remotely sensed imagery; Field and laboratory measurements of material properties; Measurement and characterization of rock discontinuities; Rock slope stability analysis; Stress, strain and failure of rocks and the importance of scale; Rock core logging; Rock mass rating; Rock support and reinforcement; Rock excavation, blasting and blast monitoring and control.
Fall
1 Course Unit

EESC 6850 Engineering Geology: Surficial Materials & Processes
As the human population continues to grow, the environment and earths resources become more important. This course will concentrate on the occurrence and distribution of earth's surficial materials and their engineering and environmental properties. The engineering classification, testing, and use of the earth materials will be emphasized. The geohazards of surficial processes will also be studied in the context of geologic history and the planning and use of the geologic environment.
Spring
1 Course Unit

EESC 6870 Interpretation of Near-surface Geologic Structure for Engineering and Environment
The course introduces the basic principles of structural geology and their applications to engineering and environmental site characterization. Includes the mechanisms for the deformation and failure of the earth's crust, folded and faulted structures, and the orthogonal and stereographic solutions to characterize near-surface geologic structure. It also includes the construction and interpretation of geologic maps, geologic cross sections and block diagrams. Emphasis is placed on the graphical representation of subsurface data, including the use of selected computer programs, and the integration of the data to solve problems encountered in engineering and environmental projects.
Spring
1 Course Unit

EESC 6904 Geology Field Work
Directed independent field work.
Fall or Spring
1 Course Unit

EESC 6909 Project Design
This course is designed to prepare Master of Science in Applied Geosciences students to undertake their Project Design exercise. In this course, we discuss how to identify an appropriate research project, how to design a research plan, and how to prepare a detailed proposal. By the end of the course, each student is expected to have completed a Project Design proposal.
Spring
1 Course Unit
EESC 7911 Research Topics in Earth Science
This seminar will familiarize new PhD students in Earth Science with the skills and knowledge needed to develop as professionals. Topics will include research ethics, the publication process, writing proposal for research funding, etc.
Two Term Class, Student may enter either term; credit given for either 1 Course Unit

EESC 7991 Topics in Earth Science
This course will use the weekly EES seminar series to survey historic breakthrough papers or topics in the earth sciences, as well as modern papers - written by the seminar speakers - that often put the classics in perspective. Graduate students (Ph.D. only) in the Department of Earth and Environmental Science will engage in the material through reading, presentation, and discussion. The course has several goals. (1.) To engender an understanding and appreciation of major breakthroughs in our field. (2.) To develop skills in presenting and discussing scientific results. And (3.) to refine students' understanding of what constitutes great science.
1 Course Unit

EESC 9999 Independent Study and Research
Directed study for individuals or small groups under supervision of a faculty member.
Fall or Spring
1-2 Course Units

East Asian Languages & Civilization (EALC)

EALC 0001 East Asia: Past and Present
This course surveys the history of East Asia from early times to the present. We will study the establishment of various sociopolitical orders and their characteristics alongside major cultural developments. Covered topics include: state formation and dissolution; the role of ideology and how it changes; religious beliefs and values; agriculture, commerce, and industry; changing family relations; responses to imperialism; and East Asia's growing stature in the modern world as well as future prospect. Although a main focus will be on understanding how the regions we now know as China, Japan, and Korea emerged with their respective identities, the course will also give attention to various groups that are rarely noticed in the contemporary world but nonetheless historically important, such as the Tibetans, Khitans, Jurchens, Mongols, and Manchus.
1 Course Unit

EALC 0020 Introduction to Chinese Civilization
This course introduces Chinese history from ancient to modern times. In addition to the political, social, economic, and intellectual developments, this course will look at Chinese history from the perspective of women, the peripheries, environment, and oceanic trade networks. It challenges the notion of "civilization" and the imagination of history as singular and monolithic. The lectures and readings will include some of the most up-to-date scholarship in Chinese and East Asian history. The recitations and short paper assignments are designed for students to practice historical analysis of primary sources.
Fall
1 Course Unit

EALC 0040 Introduction to Japanese Civilization
Survey of the civilization of Japan from prehistoric times to the present.
Spring
1 Course Unit

EALC 0060 Introduction to Korean Civilization
What is Korean civilization—is it a singular notion, or are there many that became what we know as South and North Korea today? How have Koreans interpreted and represented their own cultures, traditions, and history through the years? This introductory course offers a broad chronological survey of Korean history, arts, and culture from its early days to the present moment. Our readings will include a selection of literature—from foundation myths, poetry, to modern fiction—as well as royal edicts and political manifestoes and op-eds. Alongside the readings, we will also engage with multimedia resources including various artwork, film, and music. Through these cultural texts, we will explore the political, economic, and social order of different historical eras and identify major currents and events on the Korean peninsula such as shifting political climates, class struggles, gender dynamics, and complex relations with its East Asian neighbors and the West. We will also be treated to guest lectures from the interdisciplinary Korean studies scholars affiliated with the James Joo-Jin Kim Center for Korean Studies at Penn. By the end of the semester, students will become familiar with the many continuities and breaks that constitute Korean culture from ancient to modern times and gain good insight into where it might be headed in the future. No prior knowledge of Korea or the Korean language is required.
Spring
Also Offered As: HIST 0860
1 Course Unit

EALC 0080 Mongolian Civilization: Nomadic and Sedentary
This course will explore how two intertwined ways of life - pastoral nomadism and settling down for religious, educational, and economic reasons - have shaped the cultural, artistic, and intellectual traditions of Mongolia. In this course students will learn about Mongolian pastoral nomadism, and how the Mongolian economy, literature, and steppe empires were built on grass and livestock. We will also explore how Mongolians have also just as consistently used the foundations of empire to build sedentary monuments and buildings, whether funerary complexes, Buddhist monasteries, socialist boarding schools, and modern capitals. Over time, these cities have changed shape, location, and ideology, all the while remaining linked to the mobile pastoralists in the countryside. We will also explore how these traditions of mobile pastoralism and urbanism were transformed in the 20th century, by urbanization, communist ideology, and the new reality of free-market democracy, ideological pluralism, and a new mining dependent economy. We will meet modern painters and musicians who interweave Mongolian nomadic traditions with contemporary world trends, and consider the future of rural traditions in a modern world.
Spring, odd numbered years only
Also Offered As: HIST 0757
1 Course Unit

EALC 0100 Art and Civilization in East Asia
Introduction to the major artistic traditions of China and Japan and the practices of art history. We will also consider aspects of Korean and Indian artistic traditions as they relate to those of China and Japan. Our approaches will be methodological in addressing how we understand these objects through careful looking; chronological in considering how the arts developed in and through history; and thematic in studying how art and architecture were used for philosophical, religious and material ends. Special attention will be given to the relationship between artistic production and the afterlife; to the impact of Buddhism and its purposes; to painting traditions and their patronages; and to modernist transformations of traditions.
Not Offered Every Year
Also Offered As: ARTH 1030, VLST 2330
1 Course Unit
EALC 0120 Arts of China
A broad survey of Chinese architecture, sculpture, and painting from the Neolithic age through the nineteenth century. Topics include excavated material from China's Bronze Age, Chinese funerary arts, Buddhist caves and sculpture (including works in the University Museum), the Chinese city, the Chinese garden, and major masterpieces of Chinese painting.
Fall or Spring
Also Offered As: ARTH 2140
1 Course Unit

EALC 0140 Arts of Korea
The goal of this course is understanding the development of visual, performing, and literary arts in Korea and the historical, religious, and social contexts in which they flourished. It serves as an introduction to the arts of Korea, with emphasis on painting, sculpture, ceramics, and architecture and additional consideration of dance, drama, poetry, and culinary arts. Covers the whole history of Korea, from prehistoric times to the twenty-first century.
Not Offered Every Year
1 Course Unit

EALC 0160 Arts of Japan
This lecture course introduces the major artistic traditions of Japan, from the Neolithic period to the present, and teaches the fundamental methods of the discipline of art history. Special attention will be given to the places of Shinto, the impact of Buddhism, and their related architectures and sculptures; the principles of narrative illustration; the changing roles of aristocratic, monastic, shogunal and merchant patronage; the formation of the concept of the artist over time; and the transformation of tradition in the modern age.
Not Offered Every Year
Also Offered As: ARTH 2130
1 Course Unit

EALC 0355 Monsters of Japan
Godzilla! Mothra! Rodan! Totoro! Pikachu! If you know who they are, join us to discover the deeper meanings of monstrosity in Japan. If you don't know who they are, learn the literal, metaphorical, and cinematic implications of these giant (and not so giant) beasts. Watch Tokyo go down in flames, and discuss what that means for New York and Philadelphia! Explore the history, literature, and films of Japanese monsters in this undergraduate seminar.
Not Offered Every Year
1 Course Unit

EALC 0500 East Asian Religions
This course will introduce students to the diverse beliefs, ideas, and practices of East Asia's major religious traditions: Buddhism, Confucianism, Daoism, Shinto, Popular Religion, as well as Asian forms of Islam and Christianity. As religious identity in East Asia is often fluid and non-sectarian in nature, there religious traditions will not be investigated in isolation. Instead, the course will adopt a chronological and geographical approach, examining the spread of religious ideas and practices across East Asia and the ensuing results of these encounters. The course will be divided into three units. Unit one will cover the religions of China. We will begin by discussing early Chinese religion and its role in shaping the imperial state before turning to the arrival of Buddhism and its impact in the development of organized Daoism, as well as local religion. In the second unit, we will turn eastward into Korea and Japan. After examining the impact of Confucianism and Buddhism on the religious histories of these two regions, we will proceed to learn about the formation of new schools of Buddhism, as well as the rituals and beliefs associated with Japanese Shinto and Korean Shamanism. The third and final unit will focus on the modern and contemporary periods through an analysis of key themes such as religion and modernity, the global reception and interpretation of East Asian religions, and the relationship between religion and popular culture. The class will be conducted mainly in the form of a lecture, but some sessions will be partially devoted to a discussion of primary sources in translation. The course assignments are designed to evaluate the development of both of these areas. No previous knowledge of East Asian languages is necessary, and all readings will be available in English on the Canvas site in PDF form.
Fall
Also Offered As: RELS 0500
1 Course Unit

EALC 0501 Introduction to Buddhism
This course seeks to introduce students to the diversity of doctrines held and practices performed by Buddhists in Asia. By focusing on how specific beliefs and practices are tied to particular locations and particular times, we will be able to explore in detail the religious institutions, artistic, architectural, and musical traditions, textual production and legal and doctrinal developments of Buddhism over time and within its socio-historical context. Religion is never divorced from its place and its time. Furthermore, by geographically and historically grounding the study of these religions we will be able to examine how their individual ethic, cosmological and soteriological systems effect local history, economics, politics, and material culture. We will concentrate first on the person of the Buddha, his many biographies and how he has been followed and worshipped in a variety of ways from Lhasa, Tibet to Phrae, Thailand. From there we touch on the foundational teachings of the Buddha with an eye to how they have evolved and transformed over time. Finally, we focus on the practice of Buddhist ritual, magic and ethics in monasteries and among aly communities in Asia and even in the West. This section will confront the way Buddhists have thought of issues such as "Just-War" Women's Rights and Abortion. While no one quarter course could provide a detailed presentation of the beliefs and practices of Buddhism, my hope is that we will be able to look closely at certain aspects of these religions by focusing on how they are practiced in places like Nara, Japan or Vietnam, Laos.
Fall or Spring
Also Offered As: RELS 1730, SAST 1730
1 Course Unit
EALC 0502 Gods, Ghosts, and Monsters
This course seeks to be a broad introduction. It introduces students to the diversity of doctrines held and practices performed, and art produced about "the fantastic" from earliest times to the present. The fantastic (the uncanny or supernatural) is a fundamental category in the scholarly study of religion, art, anthropology, and literature. This course will focus both theoretical approaches to studying supernatural beings from a Religious Studies perspective while drawing examples from Buddhist, Shinto, Christian, Hindu, Jain, Zoroastrian, Egyptian, Central Asian, Native American, and Afro-Caribbean sources from earliest examples to the present including mural, image, manuscript, film, codex, and even comic books. It will also introduce students to related humanistic categories of study: material and visual culture, theology, cosmology, shamanism, transcendentalism, soteriology, eschatology, phantasmatagoria, spiritualism, mysticism, theophany, and the historical power of rumor. It will serve as a gateway course into the study of Religion among numerous Asian, and East Asian Studies, as well as Visual Culture and Film Studies. It will include guest lectures from professors from several departments, as well as an extensive hands-on use of the collections of the Penn Museum of Archaeology and Anthropology and the manuscripts held in the Schoenberg Collection of Van Pelt Library. It aims to introduce students to major, approaches, and terms in the study of religion and the supernatural, but inspire them to take more advanced courses by Ilya Vinitsky, Liliane Weissberg, Proijt Mukharji, Talya Fishman, Annette Reed, David Barnes, David Spafford, Frank Chance, Michael Meister, Paul Goldin, Renata Holod, Paul Rozin, among several others.
Fall
Also Offered As: RELS 0130
1 Course Unit

EALC 0730 History of Modern China
From an empire to a republic, from communism to socialist-style capitalism, few countries have ever witnessed so much change in a hundred year period as China during the twentieth century. How are we to make sense out of this seeming chaos? This course will offer an overview of the upheavals that China has experienced from the late Qing to the Post-Mao era, interspersed with personal perspectives revealed in primary source readings such as memoirs, novels, and oral accounts. We will start with an analysis of the painful transition from the last empire, the Qing Dynasty (1644-1911), to a modern nation state, followed by exploration of a century-long tale of incessant reform and revolution. The survey will focus on three main themes: 1) the repositioning of China in the new East Asian and world orders; 2) the emergence of a modern Chinese state and nationalistic identity shaped and reshaped by a series of cultural crises; and finally, 3) the development and transformation of Chinese modernity. Major historical developments include: the Opium War and drug trade in the age of imperialism, reform and revolution, the Nationalist regime, Mao's China, the Cultural Revolution, and the ongoing efforts of post-Mao China to move beyond Communism. We will conclude with a critical review of the concept of "Greater China" that takes into account Taiwan, Hong Kong, and the Chinese diaspora in order to attain a more comprehensive understanding of modern China, however defined, at the end of the last century.
Spring
Also Offered As: HIST 0550
1 Course Unit

EALC 0750 Modern Japanese History
This course will survey the major political, economic, social and intellectual trends in the making of modern Japan. Special emphasis will be given to the turbulent relationship between state and society from 1800 to the present.
Fall or Spring
Also Offered As: HIST 0560
1 Course Unit

EALC 0954 Sushi & Ramen: Making Japanese Food Global
Who defines Japanese food? Is it the chef at a top establishment in Tokyo, a home cook in Osaka, a tea master in Kyoto, the ancient capital? Or is it the midwestern American who thinks sushi means raw fish? Is it the person who scarfs cup noodles, or the devotee of artisan ramen stock? Perhaps it is the Japanese government, which in 2006 sent undercover agents abroad to guard against inferior Japanese food outlets. In this class we will consider how Japanese food came to be defined in distinction to Western and Chinese foods beginning in the nineteenth century, and how Japanese food became a global cuisine. Among our questions: What makes a dish Japanese? How did Portuguese or Spanish frying habits (tempura) and Chinese lamian (ramen) become hallmarks? How traditional is the diet of rice and fish, and in what ways does it interact with the environment? How did Buddhist vegetarians justify sukiyaki? What relationship does food have to the longevity of Japanese today? How does gender affect Japanese food cultures? What are the origins of Iron Chef and bento? We will survey the Philadelphia Japanese food scene and learn to make our own sushi. Some controversies we will discuss include the consumption of whale meat in Japan. We will also investigate Japanese government controls of food to combat obesity and to make food safe. after the Fukushima nuclear catastrophe. Materials include essays, films, novellas, menus, and cookbooks.
Not Offered Every Year
1 Course Unit

EALC 1098 Sports in East Asia
This course will examine sports in East Asia from the nineteenth century to the present. Recently, East Asia plays an important role in transforming the global geopolitics of sport. The post-war East Asian Olympic Games-1964 Tokyo Olympics, 1972 Sapporo Winter Olympics, 1988 Seoul Olympics, 1998 Nagano Winter Olympics, and 2008 Beijing Olympics-and the 2002 FIFA World Cup Korea/Japan illustrate the fact that a new global sports order led by East Asia has emerged. East Asia nations will play hosts to other major sporting events, including the 2018 Pyeongchang Winter Olympics, 2020 Tokyo Olympics, and 2022 Beijing Winter Olympics. Chinese, Japanese, and Korean athletes have been highly active in MLB, NBA, English Premier League, and LPGA. The popularity of the various martial arts proves that East Asian sports seem to be everywhere these days. This class will focus on helping students understand how sports have affected and transformed East Asia exploring various issues: imperialism, colonialism, race, class, gender, foreign policy, nationalism, religion, economics, industrialization, tourism, and urbanization. Course contents include lecture, discussions, secondary readings, primary source readings, documentaries, and films.
Not Offered Every Year
1 Course Unit
EALC 1101 Introduction to East Asian History
This course will provide an overview of early modern and modern East Asian history. We will discuss developments from ca. 1400 to the present as integrally bound to the history of the modern world. We will also introduce the craft of history and some basic tools and methods of humanities/social science research. By the end of this course you will be able to develop a basic understanding of major topics in early modern and modern East Asian history, learn critical approaches to both primary and secondary sources; compose coherent and persuasive reviews of scholarly works.
Not Offered Every Year
1 Course Unit

EALC 1102 East Asian History to 1750
This course surveys Chinese history to 1750 and introduces students to the fundamental features of this period. Lectures will be illustrated by photographs from dozens of sites in East Asia, and by a field trip to the Japanese House and Garden in Fairmount Park. The main body of the course will be a historical survey of the evolution of East Asian garden art forms from the sixth century to the present. Discussion will touch on geographic and climatic parameters, spiritual and aesthetic principles, practical limitations and creative innovations of East Asian gardens. There will be an additional fee for the Japanese House visit, and possibly for other field trips.
Not Offered Every Year
1 Course Unit

EALC 1103 Early Modern Japanese Art and the City of Edo
Study of the major art forms and architecture of Tokugawa (or Edo) period (1603-1868). In this lecture course, we will consider how the arts of this era occur within an increasingly urban and modern culture, particularly with regard to the city of Edo. Issues of the articulation of authority in the built environment, the reinvention of classical styles, and patronage will be raised. May include some visits to PMA, Penn Museum, or other local collections.
Not Offered Every Year
Also Offered As: ARTH 2580
1 Course Unit

EALC 1105 Buddhist Arts of East Asia: Sources, Iconography and Styles
Survey of art and architecture created for Buddhist religious purposes in China, Japan, and Korea from ancient times to the present. Lectures will be illustrated by photographs from dozens of sites in East Asia, and by a field trip to the Japanese House and Garden in Fairmount Park. The main body of the course will be a historical survey of the evolution of East Asian garden art forms from the sixth century to the present. Discussion will touch on geographic and climatic parameters, spiritual and aesthetic principles, practical limitations and creative innovations of East Asian gardens. There will be an additional fee for the Japanese House visit, and possibly for other field trips.
Not Offered Every Year
Also Offered As: RELS 1105
1 Course Unit

EALC 1106 Chinese Architecture
Survey of Chinese buildings and building technology from the formative period in the second millennium BCE through the twentieth century. The course will deal with well-known monuments such as the Buddhist monasteries of Wutai, imperial palaces in Chang' an and Beijing, the Ming tombs and the Temple of Heaven, and less frequently studied buildings. Also covered will be the theory and principles of Chinese construction. Not offered every year. Fall or Spring
Also Offered As: ARTH 2170
1 Course Unit

EALC 1107 Ancient Chinese Writing
In this course, we will study the material and ideological foundations of Chinese literacy and culture. We will read the earliest known Chinese inscriptions - oracle bones of the Shang dynasty - and learn how to read simple divination texts using modern methods. We will also study the evolution of Chinese writing, beginning with oracle bones and ending with the Chinese Classics. Not offered every year. Fall or Spring
Also Offered As: ARTH 2910, CIMS 2910
1 Course Unit

EALC 1108 Archaeology of Central Asia
A site by site investigation of Buddhist and non-Buddhist ruins in Central Asia. Included are Nisa, Khwarezm, Pyandzhikent, Khalchayan, Ay-Khanum, Bamiyan, Tumshuk, Kizil, Kucha, Khotan, Adzhina-Tepe, Khoch, Khara-Khoto, and Bezeklik. Fall or Spring
1 Course Unit
EALC 1242 Love and Loss in Japanese Literary Traditions: In Translation
How do people make sense of the multiple experiences that the simple words "love" and "loss" imply? How do they express their thoughts and feelings to one another? In this course, we will explore some means of interpreting and analyzing these experiences. Our materials will include a range of representative authors and cultural concerns that will help students develop a nuanced understanding of Japanese history and society. By the end of the semester, students will have been exposed to a diverse range of representative authors and cultural concerns that will help them develop a nuanced understanding of Japanese history and society.
Fall
Also Offered As: GSWS 1242
1 Course Unit

EALC 1251 Tokyo Stories in Contemporary Japanese Fiction
Tokyo is one of the largest and most vibrant cities in the world. It's also one of the most storied, laying claim to centuries of history and countless colorful districts and neighborhoods. In this class we will explore Tokyo by delving into a collection of stories set in and around the great metropolis. We will work our way forward in time, beginning from the city's roots as the samurai capital of Edo. Along the way, we will investigate contemporary themes such as demographic crisis, social stratification, gender trouble, and the ruins of neoliberal capitalism. By the end of the semester, students will have been exposed to a diverse range of representative authors and cultural concerns that will help them develop a nuanced understanding of Japanese history and society.
Fall, odd numbered years only
1 Course Unit

EALC 1321 18th-Century Seminar: China in the English Imagination
This course explores the material culture of china-mania that spread across England and Europe in the eighteenth century, from chinoiserie vogues in fashion, tea, porcelain, and luxury goods, to the idealization of Confucius by Enlightenment philosophers. The course texts include travel writing, poetry, essays, and plays, and is designed to provide historical background to contemporary problems of Orientalism, Sinophilia, and Sinophobia. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ASAM 2310, COML 2031, ENGL 2031
1 Course Unit

EALC 1322 Chinese Fiction and Drama in Translation
This course explores Romance of Three Kingdoms the most popular classical novel in East Asia and an important source for understanding Chinese culture, politics, history, and military strategy. We propose to read this work not only as a textbook of Chinese literature and culture, but also as a guidebook for career development and risk assessment. Why didn't Pang Tong have a career as successful as Zhuge Liang? Why didn't Ma Su volunteer in a project that he is not good at? If Cao Cao, Liu Bei, Sun Quan run for presidency in the U.S., who would you vote for and why? These are some of the questions that we will explore alongside our inquiry into the the historical development of various genres of Chinese fiction. In addition to Romance of Three Kingdoms, this course introduces Sun Tzu's The Art of War and other classical Chinese novels such as Dream of the Red Chamber and Strange Tales from a Chinese Studio, as well as classical literary criticism such as Cao Pi's On the Standard of Literature (Dian lun), Lu Ji's Essays on Literature (Wen lun), and Liu Xie's The Literary Mind and the Carving of Dragons.
Spring
1 Course Unit

EALC 1331 Chinese and Sinophone Cinemas
This course is a survey of Chinese and Sinophone cinemas from the silent era to the present. The Sinophone refers to Sinitic film cultures both inside and outside the People's Republic of China that have been in relatively marginalized positions against the Han-Chinese mainstream, such as Taiwanese, Hong Kong, Tibetan, and transpacific cinemas. One major goal of the course is to interrogate the national cinema framework and to show how the meaning of "Chineseness" has been problematized by filmmakers and critics throughout modern history. Students will learn about important film movements and trends such as leftist cinema from the 1930s, socialist cinema, Taiwanese and Hong Kong New Waves, the Fifth and Sixth Generation filmmakers, and contemporary transnational productions. Attention will be paid to both films known for awards and artistic achievements and popular genres including thrillers, horror, and wuxia (martial art).
Also Offered As: ARTH 3940, CIMS 3940
1 Course Unit

EALC 1335 Cultural Chinas: 20th Century Chinese Literature and Film
This course serves as a thematic introduction to modern Chinese literature and cinema in China, Hong Kong, Taiwan and other transnational Chinese communities in the twentieth century. By discussing a wide range of key literary and filmic texts, this class looks into major issues and discourses in China's century of modernization: enlightenment and revolution, politics and aesthetics, sentimental education and nationalism, historical trauma and violence, gender and sexuality, social hygiene and body politics, diaspora and displacement, youth sub-culture and urban imagination.
Spring
1 Course Unit
EALC 1340 Post War Japanese Cinema
Mizoguchi Kenji, Ozu Yasujirō, and Kurosawa Akira are recognized today as three of the most important and influential directors in Japanese cinema. In their films of the late 1940s and 1950s, these directors focused upon issues surrounding the human condition and the perception of truth, history, beauty, death, and other issues of the postwar period. This lecture course places their films in period context, and pays particular attention to the connections to other visual media, and to how “art” and “history” are being defined in the cinematic context. How other directors also took up these issues, and referred to the “big three” is also be discussed.
Not Offered Every Year
Also Offered As: ARTH 2900, CIMS 2900
1 Course Unit

EALC 1351 Contemporary Fiction & Film in Japan
This course will explore fiction and film in contemporary Japan, from 1945 to the present. Topics will include literary and cinematic representation of Japan’s war experience and post-war reconstruction, negotiation with Japanese classics, confrontation with the state, and changing ideas of gender and sexuality. We will explore these and other questions by analyzing texts of various genres, including film and film scripts, novels, short stories, manga, and academic essays. Class sessions will combine lectures, discussion, audio-visual materials, and creative as well as analytical writing exercises. The course is taught in English, although Japanese materials will be made available upon request. No prior coursework in Japanese literature, culture, or film is required or expected; additional secondary materials will be available for students taking the course at the 600 level. Writers and film directors examined may include: Kawabata Yasunari, Hayashi Fumiko, Abe Kobo, Mishima Yukio, Oe Kenzaburo, Yoshimoto Banana, Ozu Yasujirō, Naruse Mikio, Kurosawa Akira, Imamura Shohei, Koreeda Hirokazu, and Beat Takeshi.
Not Offered Every Year
Also Offered As: CIMS 1351, COML 1351, GSWS 1351
1 Course Unit

EALC 1359 Japanese Popular Culture
Today, Japanese manga, anime, J-pop, and film have a global audience. But these exports can only be truly understood in light of longstanding domestic anxieties about sex, violence, gender, and “the kids these days.” More recent concerns about the country’s declining birthrate, weakening geopolitical position, and vulnerability to natural and anthropogenic disaster also deeply influence Japanese media products. This course explores some of these anxieties through critical examinations of manga, anime, video games, television, music, and fashion in Japan. Film screenings include work by directors Kon Satoshi, Otomo Katsuhiro, Takahata Isao, Miyazaki Hayao; Itami Juzo, and Takita Yojiro; manga excerpts include work by Tezuka Osamu, Usuiwa Naoki, and Yazawa Ai. Secondary readings include scholarship in anthropology, history, sociology, literature, film studies and religious studies.
Not Offered Every Year
1 Course Unit

EALC 1371 New Korean Cinema
In 2019, Bong Joon-ho’s Parasite won the Palme d’Or at the 72nd Cannes Film Festival. This event marked the apex of South Korean cinematic renaissance, having steadily become a tour de force in the international film festival scene since 1997 onwards. This course explores the major auteurs, styles, themes, and currents of the so-called “New Korean Cinema” that emerged in the mid-to-late 1990s to continue to this day. Drawing from texts on critical film and Korean studies, we will pay particular attention to how the selected works re-present, resist, and interweave the sociopolitical climate they concern and are born out of. Using cinema as a lens with which to see the society, we will touch upon major events of the twentieth century including national division, military dictatorship and democratization movements, IMF economic crisis, youth culture, hallyu (the Korean wave), and more. In so doing, we will closely examine how each cinematic medium addresses the societal power structure and the role of the “Other” it represents in terms of class, race, gender, and sexuality in the construction of contemporary Korean society. No prior experience of Korean studies courses necessary; all films will be screened with English subtitles.
Also Offered As: CIMS 1371
Mutually Exclusive: EALC 6371
1 Course Unit

EALC 1379 Art, Pop, and Belonging: Or, How to Talk about Korean Popular Culture
From K-pop and film to fashion, cosmetics, food, and art, South Korean culture seems to be everywhere. In this course, we will discuss how the cadences of Korean culture shifted in tandem with the sheer amount of historical and social change experienced by the Korean people throughout the twentieth century. Specifically, we will look at art and talk to artists, listen to K-pop, and contemplate how these cultural representations activate a sense of belonging and social coalition for marginalized communities in Korea. Addressing topics such as gender and sexuality, modernity and national trauma, xenophobia and racial tensions, queer feminist movements, and cultural transnationalism in the neoliberal era, we will pay particular attention to the structures of power and the role of the “other” in the construction of contemporary South Korea. In so doing, we will also rethink our own positionality in consuming Korean popular culture as North America-based scholars “looking at” Korea from a geographic, cultural, and social distance. All class materials will be in English; no previous knowledge of Korean language is required.
Fall, even numbered years only
1 Course Unit

EALC 1411 Queer Chinas: Sexuality and Politics in the Sinophone World
This class examines queer phenomena in and around China, including Taiwan, Hong Kong, Singapore, and the queer Sinophone world more generally. Beyond seeking to understand sexual subcultures and sites of queer intimacies on their own terms, the course examines their relationship to political economy and geopolitics. In addition to filmic and literary texts, the course includes readings that are theoretical, anthropological, sociological, and comparative. While the focus is largely on modern China, the class also attends to historical reference points both inside and outside the Sinophone world. From a macro perspective, this course examines China’s place in discourses of development, focusing on the role of desire in constituting the sexual and political subject of modernity. The overall goal of this class is to develop alternative frameworks for understanding the relationship between sexuality and politics. The course does not require specialized knowledge of China.
Also Offered As: GSWS 1411
1 Course Unit
EALC 1520 What is Taoism?
This course introduces a wide variety of ideas and practices that have at one time or another been labeled as Daoist (or "Taoist" in the Wade-Giles Romanization), in order to sort out the different senses of the term, and consider whether these ideas and practices have had any common features. We will begin with the two most famous Daoist works—the Zhuangzi and the Daodejing (or Laozi). We will also survey other bio-spiritual practices, such as the meditational techniques of Inner Alchemy and the self-cultivation regimens known today as Qigong and Tai-chi, as well as the theological and ritual foundations of organized Daoist lineages, many of which are still alive across East Asia. We will conclude with a critical review of the twentieth-century reinvention of "Daoism," the scientization of Inner Alchemy, and the new classification of "religious" versus "philosophical Daoism." While familiarizing ourselves with the key concepts, practices, and organizations developed in the history of Daoism, this course emphasizes the specific socio-political context of each of them. Throughout the course, we will think critically about the label of "Daoist" (as well as "Confucian" and "Buddhist") in Chinese history and in modern scholarship. We will also question modern demarcations between the fields of philosophy, religion, and science.

Not Offered Every Year
Also Offered As: RELS 1520
1 Course Unit

EALC 1521 Introduction to Classical Chinese Thought
This course is intended as an introduction to the foundational thinkers of Chinese civilization, who flourished from the fifth to the second centuries B.C. No knowledge of Chinese is presumed, and there are no prerequisites, although Introduction to Chinese Civilization is recommended.

Spring, even numbered years only
1 Course Unit

EALC 1550 The Religion of Anime
Be it shrine maidens, gods of death, and bodhisattvas fighting for justice; apocalypse, the afterlife, and apotheosis... the popular Japanese illustrated media of manga and anime are replete with religious characters and religious ideas. This course uses popular illustrated media as a tool for tracing the long history of how media and religion have been deeply intertwined in Japan.

Fall
Also Offered As: CIMS 0790, RELS 0790
1 Course Unit

EALC 1623 Language, Script and Society in China
The Chinese writing system is the only major surviving script in the world that is partially picto-ideographic, Egyptian hieroglyphic and Sumero-Akkadian cuneiform having passed out of use about two millennia ago. Partly because it is so unique, a tremendous number of myths have grown up around the Chinese script. In an attempt to understand how they really function, this seminar will examine the nature of the sinographs and their relationship to spoken Sinitic languages, as well as their implications for society and culture. We will also discuss the artistic and technological aspects of the Chinese characters and the ongoing efforts to reform and simplify them. The use of sinographs in other East Asian countries than China will be taken into account. There are no prerequisites for this class.
Not Offered Every Year
1 Course Unit

EALC 1711 East Asian Diplomacy
Home to four of the five most populous states and four of the five largest economies, the Asia/Pacific is arguably the most dynamic region in the twenty-first century. At the same time, Cold War remnants (a divided Korea and China) and major geopolitical shifts (the rise of China and India, decline of the US and Japan) contribute significantly to the volatility of our world. This course will examine the political, economic, and geopolitical dynamism of the region through a survey of relations among the great powers in Asia from the sixteenth century to the present. Special emphasis will be given to regional and global developments from the perspective of the three principal East Asian states—China, Japan and Korea. We will explore the many informal, as well as formal, means of intercourse that have made East Asia what it is today. Graduate students should consult graduate syllabus for graduate reading list, special recitation time and graduate requirements.

Fall
Also Offered As: HIST 1550
Mutually Exclusive: HIST 5550
1 Course Unit

EALC 1712 China & USSR Compared
A comprehensive and multi-faceted survey of China and Russia, mostly in the twentieth century, through examining preludes and postludes, but focusing above all on their time as Communist states and sometimes quarreling Cold War allies. Of course we will cover the history, the geography, the economics, the leaders (Stalin, Mao), and the great events - not least the Second World War in each - always comparing, contrasting, and drawing linkages. We will also examine, however, daily life and work for ordinary people, developments in society, and not least their common attempts at revolution, at somehow creating new and unprecedented polities, having populations of radically transformed new people. This informative, fascinating quest will take us from folklore to literature and the arts to dissent and religion and ecology, among other topics. As far as possible we will let their people speak for themselves, by assigning mostly translations of original sources including novels and memoirs, even poetry. A comprehensive assessment of the strategically critical Asian heartland - which at over 14 million square miles is larger than Canada, the United States, and Western Europe combined. Lectures, readings, midterm, short paper, and in-class final.

Spring
Also Offered As: HIST 1790, REES 1580
1 Course Unit

EALC 1720 Late Imperial China
This lecture course – the first of a two-part sequence – examines the history of late imperial China through the early 19th century. We begin with the Song dynasty transformation: the rise of gentry society and imperial absolutism, the institution of Confucian orthodoxy, the shift of the population and the economic center of gravity to the south, the commercialization of the economy, and change in the relative status of women and men. We then trace China’s subsequent political and social history, including the following themes: inner vs. outer court politics; law, government, and society; intellectuals and political dissent; gender, family, and kinship practices; patterns of peasant life and rebellion; traditional foreign relations and first contacts with the West; internal sources of the decline of imperial order.

Fall or Spring
Also Offered As: HIST 0500
1 Course Unit
EALC 1731 20th Century China: Democracy, Constitutions, and States
Since 1900 four types of states have ruled China: dynastic, elective parliamentary, authoritarian nationalist, and communist. We will trace each from its intellectual origins to conclusion. By doing so we will present a solid and wide-ranging narrative of China’s past century, introducing newly discovered material, some controversial. Above all we will dig into the issues raised by the century’s mixture of regimes. Right now China is a dictatorship but once it was an imperfect democracy. Does this prove that Chinese are somehow incapable of creating democracy? That sadly it is just not in their DNA? Or only that the task is very difficult in a country nearly forty times the size of England and developing rapidly? That without dictatorship the Chinese almost inevitably collapse into chaos? Or only that blood and iron have been used regularly with harsh effectiveness? You will be given a solid grounding in events, and also in how they are interpreted, right up to the present. Readings will be mostly by Chinese authors (translated), everything from primary sources to narrative fiction. We will also use wartime documentary films. Two lectures per week, regular mid-term and final exams, and a paper on a topic of your own choice. No prerequisites.
Fall
Also Offered As: HIST 1593
1 Course Unit

EALC 1732 China and the World: Modern Times
History 1594 is a comprehensive introduction to the last hundred years of China’s relations with the world, with emphasis on American-Chinese relations, but within the necessary context of China’s relations with other countries from Asia to Europe to Africa and elsewhere (as well as Washington’s changing relations with China). China’s role in the world can be understood only when the full background and international context is made clear. This course has no prerequisites: first year and other students lacking background will find it manageable and interesting. Students who have successfully completed this course will be well positioned to understand some of the most important of current events, and if they like, pursue the topics as careers (there will be no shortage, I assure you). Although much will be said about diplomacy, and Chinese diplomatic strategy in particular, the mile-posts of the course will be a series of wars: World War I and its effects on China; the heroic Chinese war of resistance against Japan (1937-1945) in which, effectively without allies, the Chinese avoided defeat; the bitter Civil War that followed almost immediately (1946-1949) and brought Mao Zedong and his Communists to power while the predecessor Nationalist government fled to the island of Taiwan; then the Korean War (1950-1953) and the close Chinese-Soviet alliance that followed; The Taiwan Straits Crises (1954-1955, 1958, 1996); the Chinese-Indian war (1962) the origin of a situation now heating up; the Sino-Soviet border conflicts (1969); the Vietnam War (1955-1975) which changed the United States profoundly while reorientating China internationally; the (at the time) little noticed Chinese invasion of Vietnam (1979) - and finally the increasingly tense situation today, between Chine and India, and China and her maritime neighbors from Japan to Indonesia, many U.S. allies.
Also Offered As: HIST 1594
1 Course Unit

EALC 1733 Chinese Foreign Policy
An examination of China’s policies since 1950 not so much in general terms, but rather by looking at policies toward specific countries, such as Korea 1950-53, Taiwan 1958, India 1962, Japan 1963, USSR 1969, US recognition 1971-79 and failure of Kissinger policies. Vietnam both wars: i.e. we cover the ongoing conflict that began in 1979 as well as the war that ended in 1975, toward Cambodia, and not least the South China Sea and the whole world today. We will also examine China’s immense military build up (for what purpose?) the concept that China is rising, the US declining, and Beijing is foreordained lord of the East. The goal is to start from empirical information then build some sense of whether policy has continuity, common features etc. or not, and to what extent it is domestically driven or not. Lots of political background but little theory or grand generalization. A serious research paper will be required.
Fall or Spring
Also Offered As: HIST 3550
1 Course Unit

EALC 1742 From Shamans to Shoguns: The Texts that Made Pre-Modern Japanese History
This course tackles about a millennium of pre-modern Japanese political, social, and cultural history (roughly, 700-1700). Instead of attempting to cover the period chronologically, as an introductory survey might, this class is structured as a series of case studies. Each of these will take a primary source as its point of departure and explore one or more facets of Japanese history and writing. In the course of each case study, lectures and discussions will branch out from the main source to examine its historical context as well as the (political, cultural, textual) traditions that informed that source’s composition. In general, students will read the entire texts of the main sources (or significant portions of them), along with scholarly articles and shorter excerpts from other sources, composed at the same time or in the same vein/genre. During lectures and discussions alike, students will be asked to engage the readings, so as to grasp the specifics of Japanese history and practice the analytical skills required of historical discourse.
Not Offered Every Year
Also Offered As: HIST 0750
1 Course Unit

EALC 1746 Japan: The Age of the Samurai
Who (or what) where the samurai? What does it mean to say that Japan had an “Age of the Samurai”? In popular imagination, pre-modern Japan has long been associated with its hereditary warrior class. Countless movies have explored the character and martial prowess of these men. Yet warriors constituted but a tiny portion of the societies they inhabited and ruled, and historians researching medieval Japan have turned their attentions to a great range of subjects and to other classes (elite and commoner alike). This class is designed to acquaint students with the complex and diverse centuries that have been called the “Age of the Samurai”-roughly, the years between ca. 1110 and 1850. In the course of the semester, we will explore the central themes in the historiography of warrior society, while introducing some of the defining texts that have shaped our imagination of this age (from laws to epic poems, from codes of conduct to autobiographies).
Not Offered Every Year
Also Offered As: HIST 0751
1 Course Unit
EALC 1759 Current Issues in Contemporary Japan
In this course, we aim to understand what social issues in Japanese society exist and how they occur. Japan had experienced rapid industrial and economic developments until the 1980s. The Japanese systems of education, labor markets, and social security, which have continued until today, were established by this period approximately. Although people at that time were suffered from problems like harsh entrance examinations for secondary and higher educations, long working hours after they started a job, and gender inequality, they accepted these problems in exchange for their economic flourishing.
Also Offered As: SOCI 2700
Mutually Exclusive: SOCI 5690
1 Course Unit

EALC 1774 Two Koreas: The Politics of Division
In today’s world, the inter-Korean border or DMZ (demilitarized zone) is widely regarded as one of the most impermeable and conflictual frontiers. The purpose of this course is to explore the dynamics of its formation between, and impact within, the two Koreas. The course therefore proposes to analyze how the division of the Korean peninsula not only came into being but also how it has shaped the socio-political trajectories of both the North and the South since 1945. The course also aims at introducing students to conceptual frameworks and comparative debates relevant to understanding the Korean case(s) from a social science perspective.
Fall or Spring
1 Course Unit

EALC 1781 Silk Road: From the Mediterranean to the Pacific
A journey along the overland and sea routes that connected China, India, Iran, and Rome from 200-1000 CE and served as conduits for cultural exchange. Precursor and successor routes will also be taken into consideration. The lives of merchants, envoys, pilgrims, and travelers interacting in cosmopolitan communities will be examined. Exploration of long-known and newly discovered archaeological ruins, along with primary sources in translation, will be studied.
Also Offered As: SAST 1781
1 Course Unit

EALC 1791 The Vietnam War
The Vietnam war was a great watershed in twentieth century history that rearranged geo-politics while changing the United States through dissent and social unrest. Frankly, things have never quite recovered. It was a catastrophic and humiliating defeat, but that is all the more reason to study it, for failure often has more to teach us than success. This course provides a framework of free discussion and basic readings —ranging from battlefield memoirs to Graham Greene's great novel The Quiet American—in which to pursue research on whatever aspect of the war they choose, from strategy to cinema and the arts. We will start with a look at the Empire of Vietnam that lasted a millennium, producing a uniquely refined and pure culture. Then we turn to the century of French colonialism and its end in 1954, which was followed by an invasion of South Vietnam from the north, through Laos. American policy was both arrogant and uninformed, converting a protracted loss (1955-1975) into what could easily have been a relatively bloodless success. That process we trace in its many strands. Finally we spend some time on contemporary Vietnam, on how the war is now understood, remembered, and memorialized, as well as how the country seeks to advance. And not least, without removing our focus from Vietnam, we assess how the United States has been changed. For every Tuesday meeting we will have some reading, to provide a common time line and set of issues. As the semester progresses, students will make informal presentations about their work. This is a “Research Seminar” which means a 15-20 page paper on a topic you choose yourself. This can be the most enjoyable and interesting part of the course.
Fall or Spring
Also Offered As: HIST 3707
1 Course Unit

EALC 1792 Pacific World
Following ongoing attempts by historians to move beyond the confines of national and imperial histories, this research seminar highlights the interaction of peoples and cultures across what may be described as the most dynamic world region of the twenty-first century. While discussions of Mediterranean, Atlantic and Indian Ocean Worlds are now commonplace, scholars have, to date, paid less attention to the idea of a Pacific World. How useful is it to identify a “Pacific World” before and after the Age of Discovery—that is, to locate distinctive patterns of human, material and cultural exchange across the Pacific before and after the flood of European power from the fifteenth century? What has been the effect of the rise of the nation-state, modern empires, modern war and globalization? How critical are national and/or imperial legacies to enduring patterns of human interaction and exchange in the twenty-first century Pacific? As global economics, politics and culture increasingly tilt toward the Pacific, we will attempt to uncover the source of the region’s extraordinary energy.
Fall or Spring
Also Offered As: HIST 3551
1 Course Unit
EALC 1955 Environment, Climate, and Culture in Japan
This course explores how Japanese literature, cinema, and popular culture have engaged with questions of environment, ecology, pollution, and climate change from the wake of the dropping of the atomic bomb on Hiroshima in 1945 to the ongoing Fukushima nuclear power plant disaster in the present. Environmental disasters and the slow violence of their aftermath have had an enormous impact on Japanese cultural production, and we examine how these cultural forms seek to negotiate and work through questions of representing the unrepresentable, victimhood and survival, trauma and national memory, uneven development and discrimination, the human and the nonhuman, and climate change's impact on imagining the future. Special attention is given to the possibilities and limitations of different forms—the novel, poetry, film, manga, anime—that Japanese writers and artists have to think about humans' relationship with the environment.
Not Offered Every Year
1 Course Unit

EALC 2100 East Asian Art Seminar
Undergraduate seminar in East Asian art history. Topics vary from semester to semester.
Not Offered Every Year
Also Offered As: ARTH 3130
1 Course Unit

EALC 2101 Archaeology of Northeast Asia
This seminar explores the major civilizations of Northeast Asia (Beijing, Northern Hebei, Liaoning, Jilin, Heilongjiang, Korea, and Eastern Mongolia; and in the early period, Japan) from the early CE centuries through the seventeenth. The sources of evidence are archaeological sites, palaces, monasteries, tombs, and excavated objects.
Not Offered Every Year
1 Course Unit

EALC 2104 East Asian Funerary Arts
Study of tombs and tomb decoration of emperors and officials in China, Korea, and Japan from the pre-Buddhist era through the 19th century.
Not Offered Every Year
1 Course Unit

EALC 2109 East Asian Ceramics
History of ceramic forms, techniques, and aesthetic principles in China, Korea, and Japan from neolithic times to the present century, illustrated by slides and examples, augmented by readings, field trips, and student presentations. Aimed at students with general interest in Japan and/or ceramics history; particularly but not exclusively those majoring in Asian and Middle Eastern Studies, East Asian Area Studies or History of Art; also art majors interested in ceramics.
Not Offered Every Year
1 Course Unit

EALC 2121 Chinese Wall Painting
This course examines murals in Chinese temples and tombs from their earliest appearance in the first millennium BCE through the 20th century. Some are in situ; others are in museums. Murals are studied alongside paintings on silk and paper. Chinese wall painting is also studied alongside murals in temples and tombs in Korea, Japan, and Mongolia.
Not Offered Every Year
Mutually Exclusive: EALC 6121
1 Course Unit

EALC 2140 Japanese Art Seminar
Undergraduate seminar in early modern, modern, or contemporary Japanese art. Topics vary from semester to semester.
Not Offered Every Year
Also Offered As: ARTH 3150
1 Course Unit

EALC 2201 Modern East Asian Texts
This course is an introduction to and exploration of modern East Asian literatures and cultures through close readings and discussion of selected literary works from the early 20th century to the start of the 21st century. Focusing on China, Japan, and Korea, we will explore the shared and interconnected experiences of modernity in East Asia as well as broaden our perspective by considering the location of East Asian cultural production within a global modernity. Major issues we will encounter include: nation-building and the modern novel; cultural translation; media and technology; representations of gender, race, and class; history and memory; colonialism; war; body and sexuality; globalization. No knowledge of the original language is required.
Not Offered Every Year
Also Offered As: COML 2201
Mutually Exclusive: EALC 6201
1 Course Unit

EALC 2211 Colonial Japanese Literature
This course will explore the development of Japanese and colonial identities in literature produced in and about Japan's colonies during the first half of the 20th century. Throughout the semester, we will read works written during and about the Japanese empire by Chinese, Japanese, Korean, Okinawan, and Taiwanese writers. Looking at the different representations of empire, we will examine concepts such as assimilation, mimicry, hybridity, travel, and transculturation in the context of Japanese colonialism. By bringing together different voices from inside and outside of Japan's empire, students will gain a deeper understanding of the complexities of colonial hegemony and identity. In particular, reading works by Japanese, Okinawan, Korean, Taiwanese and Chinese subjects will enable students to transcend binary notions of colonizer and colonized while also acknowledging the realities of colonial complicity.
Not Offered Every Year
1 Course Unit

EALC 2221 Chinese Poetry & Prose: In translation
A wide variety of poetic & prose genres from the earliest times to the 19th century is introduced through English translation. A few selections will also be studied in Chinese characters with romanized transcriptions. There are no prerequisites for this course.
Fall
1 Course Unit
EALC 2236 Seminar in Modern Chinese Literature
Modern Chinese writers are known for their efforts in creating a literary revolution that sought to reformulate the paradigm of Chinese writing. However, these Chinese writers also endeavored to learn from other cultures such as the European and Indian civilizations. For example, Tagore was invited to visit to China in 1923 and was considered a cultural model by many Chinese cultural elites. Hu Shi, a leading Chinese intellectual, wrote The Indianization of China: A Case Study in Cultural Borrowing and India Our Great Teacher, to emphasize the Indian elements in Chinese culture. Other Chinese writers also sought to compare the European with Chinese cultures in different occasions in order to find a path for the rise of modern China. This course explores the ways in which foreign cultures were introduced and how they influence the way the Chinese see themselves in their search for a cultural identity free from the constraints of classical tradition. We will read a variety of papers from the Peoples Republic of China, Hong Kong, Taiwan and Malaysia, in order to examine how modern Chinese literature thrives on cross-cultural elements. All readings will be in English. No prior knowledge is required. Those who are proficient in Chinese are invited to read some of the texts in Chinese.
Not Offered Every Year
1 Course Unit

EALC 2243 Loyal Warriors in Japanese Literature
From the earliest literature to the latest think piece on Japanese society, the roles of the "warrior" and of "loyalty" in Japanese culture have fascinated those both inside and outside of Japan. In this course we will trace the development of paragons of loyalty and warrior prowess from the earliest literary works, through the epic Tales of the Heike, and on to the "Treasury of Loyal Retainers," theater, and film. We will read in the philosophy of fidelity and samurai codes to track the growing dedication to ideals of loyalty, exploring evidence of behavior less than loyal as we seek the real influence of these notions. Related topics include the extremes of vengeance and fanaticism.
Not Offered Every Year
1 Course Unit

EALC 2255 Modern Japanese Literature
This course surveys Japanese literature (novels, short stories, poetry, drama, essays) from 1868 to World War II. The purpose is not only to read some of the most important and interesting literary texts of this period, but also to reflect on the ways we read and study literature, and how we draw connections between literature, self, and society. The reading material will be entirely in English.
Not Offered Every Year
1 Course Unit

EALC 2314 Cinema and Socialism
Films from socialist countries are often labeled and dismissed as "propaganda" in Western democratic societies. This course complicates this simplistic view, arguing for the value in understanding the ties between socialist governments, the cinematic arts, and everything in between. We will examine films from past and present socialist countries such as the Soviet Union, China, North Korea, and Cuba, as well as films made with socialist aspirations. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3100, CIMS 3100, ENGL 2934, REES 3770
1 Course Unit

EALC 2501 Buddhist Literature
This course seeks to introduce students to the diversity of texts, textual practices, and textual communities in Buddhist Asia. We will look at cosmological, historical, narrative, psychological, grammatical, magical, didactic, and astrological genres to gain an understanding of how Buddhist writers from various places and times have expressed their views on the inner workings of the mind, the nature of action, the illusion of phenomena, the role of the ethical agent, the origin of chaos, the persistence of violence, the contours of the universe, and the way to Enlightenment.
Also Offered As: RELS 2730
1 Course Unit

EALC 2502 Science and Technology in Modern East Asia
Technology from East Asia is ubiquitous in everyday life in the 21st century. You may be reading these very words on a device designed or assembled in Japan, China, South Korea, or Taiwan. The region, now a global center of research and innovation, contains some of the modern world's most impressive technological and scientific achievements. It also exhibits some of the most distressing—from mass facial recognition surveillance in China to nuclear disaster in Japan. This course explores how this state of affairs has taken shape from the 19th century through the present. Topics include industrialization, military technology, science and the rise of nationalism, the proliferation of consumer electronics, and environmental engineering in a warming world.
Also Offered As: STSC 2146
1 Course Unit

EALC 2531 Religion in Modern China
This course focuses on the history and role of religion in the Chinese cultural sphere (Mainland China, Taiwan, and the Diaspora) from the mid-19th century to the present day, focusing on the relationship between religious institutions and the state during the imperial, republican, and communist regimes. We will learn about the impact of religious ideas, practices, and organizations on social, political and economic processes and inspect the role of religion in the consolidation of individual, communal, and national identity. Adopting a comparative and interdisciplinary approach, we will attempt to ascertain the impact of the various Chinese religious traditions: Confucianism, Daoism, Buddhism, and popular sects, as well as global religions such as Islam and Christianity, on the internal sociopolitical structure of the Chinese state and their role in shaping power relations on a transregional, national, and local level. Special emphasis will be given to the role and use of the grand narratives of secularism and modernity in the shaping of the Chinese nation-state, as well as the value of using these frameworks in the study of modern China. The class is discussion based, supplemented by lectures, student presentations, and documentary films. No knowledge of Chinese is presumed. All readings will be in English.
Not Offered Every Year
Also Offered As: RELS 2531
1 Course Unit
EALC 2550 The Politics of Shinto
Shinto-derived images and ideas frequently appear in Japanese anime and film, and journalists and academics frequently mobilize the term Shinto as a way of explaining Japan's past or envisioning its future. The environmentalist left champions a green Shinto while Shinto-derived ideas serve as red meat for politicians pandering to Japan's nationalist right. While the influential position Shinto occupies in Japanese sociopolitical life is therefore clear, the term Shinto itself is actually not. Depending on who one asks, Shinto is either the venerable indigenous religion of the Japanese archipelago, the irreducible core of Japanese culture, a tiny subset of Japanese Buddhism, an environmentalist ethic, or some combination of these. This course investigates the multifarious types of Shinto envisioned by these competing interest groups.
Spring
Also Offered As: RELS 2710
Mutually Exclusive: RELS 6710
1 Course Unit

EALC 2701 Innovation, Regulations, Technology, and Society: Experience from East Asia
Innovation and creativity are universally recognized as aspects of modern life. From stem cell research to nanotechnology and machine learning, innovation is heralded as a thing of value to be actively fostered, as a key ingredient for the betterment of the human condition, and often as a desirable process for economic growth. While existing innovative activities are often based in the so-called advanced economies, particularly the United States and the European Union, increasingly we see new players on the global scene ying for influence and offering new forms of innovation and upgrading. These new players are often countries from East Asia. What positions do these East Asian countries occupy in the global knowledge economy? How are they navigating a constantly evolving and competitive frontier technology market where ownership of intellectual property rights remains in the hands of a handful of advanced economies? Technological innovation can take a toll, not least in the form of increased level of risks that a society must bear, as well as in environmental degradation, worker strife stemming from a shortage of jobs, gender disparity, and expanding wealth and knowledge gaps (including access to knowledge) between different socioeconomic classes. In this course, we will consider how regional patterns (and national variations) of economic growth and sociocultural changes under way in East Asia have been influenced by the global technological revolution, as well as the infrastructure of power and governance. Particularly, the course exposes students to scholarship on the governance of the global political economy, with a focus on the socio-legal regulation of emerging science and technology. The course will begin with discussing how states strike a balance between innovation and protection through implementing relevant regulatory frameworks. In addition, we will explore what implications emerging technologies have for societies, as well as how these evolving dynamics impact the lived experience of local communities.
Also Offered As: SOCI 2691
1 Course Unit

EALC 2711 Knights with Katana: Medieval Japan and Europe Compared
This course aims to provide an overview of some of the main themes and problems in the history and historiography of medieval Japan by drawing on comparisons with European counterparts and interpretive models. To this end, each week's readings on Japan are paired with one or more works on medieval Europe dealing with a similar theme. The primary purpose is not only to draw comparisons between the two civilizations and their development but also to use the great riches of scholarship on the European Middle Ages to shed light on possible new avenues of inquiry and perspectives on Japan.
Not Offered Every Year
Also Offered As: HIST 0752
1 Course Unit

EALC 2721 History of Private Life in China
Underneath the grandeur of empires, war, revolutions, history eventually is about people's life. This seminar explores how the boundaries of private life in China intersect with the public arena and how such an intersection has significantly re-shaped Chinese private life between the 16th century and the present. The first half of the seminar will explore how the private realm in late imperial China was defined and construed by Confucian discourses, architectural design, moral regulation, cultural consumption, and social network. Moving into the twentieth century, the remaining part of the seminar will examine how the advent of novel concepts such as modernity and revolution restructured the private realm, particularly in regard to the subtopics outlined above. Organizing questions include: How did female chastity become the center of a public cult which then changed the life paths of countless families? How did the practice of female foot-binding intersect with marriage choices, household economy, and social status? How did print culture create a new space for gentry women to negotiate the boundaries between their inner quarters and the outside world? What was the ideal and reality of married life in late imperial China? How did people's life change when the collective pursuit for Chinese modernity placed romantic love, freedom to marry and divorce at the center of public debates? How was "Shanghai modern" related to the emerging middle class life style as evidenced in advertisement posters? How has the ideal of gender equality been re-interpreted and realized under the Communist regime? How have the current market reforms reformulated the contours of private life in China?
Fall or Spring
Also Offered As: GSWS 2500, HIST 2500
1 Course Unit
EALC 2722 Cities in Chinese History
This seminar will study the development of Chinese cities over the past two millennia with respect to their spatial structure, social constitution, economic system, political functions, and cultural representation (including cityscape paintings, maps, and films). As China transitioned from a collection of city-states to a united empire to nation state, Chinese urbanism underwent transformations as drastic as those of the country itself. Cities, which serve as a critical mechanism for the operation of a vast agrarian empire/nation like China, offer a unique vantage point for us to observe and analyze the continuities and discontinuities between dynastic empires as well as the radical transition from empire to modern nation state. Topics include: the city-state system in ancient China; the creation and evolution of imperial capitals; the medieval urban revolution and the subsequent collapse of classic city plans; the development of urban public sphere/public space in late imperial China; the rise of commercial power in urban politics; the negotiation of urban class and gender relations via cultural consumption; the role of cities in the building of a modern Chinese nation state; the anti-city experiment under the communist regime; urban citizenship in the reform era; as well as the expanding urbanization and shifting urbanism of Greater China as reflected in cinematic representations of Shanghai, Hongkong, and Taipei. Fall or Spring
Also Offered As: HIST 2501, URBS 2501
1 Course Unit

EALC 2732 History of Hong Kong
Hong Kong is almost explosively alive today, as Professor Waldron discovered on a recent trip to prepare for this course. From 1842-1997 the British Colony was a sleepy city having a mostly transient population until 1945; then she swelled with refugees after 1950 to become a rapidly growing economy now richer than Britain. In 1997 she was turned over to China under the “one country two systems” motto. Since then, however, relations with China have proven increasingly fraught. The legislative election of autumn 2016 saw the pro-China candidates crushed in a massive vote that returned a number of young people (Hong Kong politics are generational) to the Legislature who explicitly favor the independence of the city from China—the worst of heresies from Beijing’s point of view. Nearly all favor democracy and real law—also anathema to Beijing. As the course is being taught, a new Chief Executive election will be going on. Hong Kong is not simply a fascinating city. She is also a window of sorts into China and her politics. We will read everything from colonial accounts to campaign leaflets, examining the situation in three dimensions, integrated with China and the region. Seminar meets T 1:30-4:30; readings, discussion, and a short paper on a topic of your choice. Fall or Spring
Also Offered As: HIST 2551
1 Course Unit

EALC 2761 Traditional Korea and the Human Experience
This course provides a survey of Chosŏn Korea (1392-1910), focusing on the insights this period and place offer us into fundamental problems that have engaged societies throughout history, including those of our present time. Through translated primary-source readings, images, and objects, we will explore topics such as public duties and private desires, exclusion and belonging, the pursuit of power and wealth, legal justice, gender and class relations, the politics of language and writing, and ecological vulnerability and resilience. Students will be invited to contribute comparative perspectives that draw on their knowledge of other societies and times; they will also assess contemporary dramatizations of this period with the historical understanding they will develop throughout the course. On completion, students will gain an overview of politics, society, and culture in traditional Korea that will serve as the foundation for their further study of modern Korean history and contemporary affairs. No prior knowledge of Korea or the Korean language is required. Mutually Exclusive: EALC 6761
1 Course Unit

EALC 2763 Readings in Korean History
This course introduces students to English-language scholarship on social history of Korea from the founding of the Chosŏn dynasty (1392–1910) to the mid-nineteenth century. Conducted as a reading seminar, the course will examine status and gender in early modern Korean society by considering, among others, descent, kinship, marriage, education, and economy. A reading list of noteworthy studies is intended to help the students map some critical questions and debates that have shaped the historiography. Everyone must participate actively in discussions, provide oral presentations as a discussion leader, and submit two review essays. No knowledge of Korean language or culture is presumed. This course satisfies Cross Cultural Analysis requirement. Fall or Spring
1 Course Unit

EALC 2801 East Asian Digital Humanities
Are you interested in cutting-edge digital methods for the humanities in East Asia, but don’t know where to start? This course covers a wide range of current and emerging digital projects and topics in East Asian studies. Students will engage with digital projects focused on East Asia (encompassing Japan, China, Korea, and Taiwan) as well as research being done on Digital methodologies for the humanities in those areas. Coursework consists of project and research analysis, active discussion, and learning about the implementation of various digital projects. Example topics include text analysis, APIs, network analysis, digital literary studies, and mapping. No technical expertise is required but students must have reading knowledge of Chinese, Japanese, or Korean at the high-intermediate or advanced level. Class presentations, discussions, and all course readings will be in English, but midterm and final projects involve reading articles and midterm and final projects involve reading articles and/or critiquing projects. Prerequisite: Reading knowledge (intermediate or above) of East Asian language required. Not Offered Every Year
1 Course Unit

EALC 2764 Early Modern Korea
This course examines the early modern period of Korean history, from the founding of the Chosŏn dynasty (1392–1910) to the mid-twentieth century. We will study the political, social, and cultural developments of this period with the historical understanding they will develop throughout the course. On completion, students will gain an overview of politics, society, and culture in traditional Korea that will serve as the foundation for their further study of modern Korean history and contemporary affairs. No prior knowledge of Korea or the Korean language is required. Mutually Exclusive: EALC 6761
1 Course Unit
EALC 3111 Tang China and Nara Japan
This is a seminar about Tang China and Nara Japan, and Early Heian Japan, Unified Silla Korea, Northeast Asia under Parhae, and Uyghur Inner Asia through their cities, palaces, monasteries, Buddhist art, and painting. We begin by studying material remains of the two best-documented civilizations of East Asian in the seventh-ninth centuries. Using painting, sculpture, ceramics, and architecture of Tang China and Nara Japan, we investigate the validity of the frequent assessment of an international Tang through material remains in China and Japan. We then move to Korea, Mongolia, and Central Asia. Students will have a wide range of topics to work on. They will be encouraged to find comparative topics. This seminar is an opportunity for students to use Chinese, Japanese, or Korean in research papers. There are no exams. Readings will be assigned to the whole group and to individual students for short presentations every week. Undergraduates will write one short and write and present one long paper.
1 Course Unit

EALC 3116 Chinese Art Under the Mongols
The Yuan Dynasty (1257-1368), the period of Mongolian rule, was the only time in Chinese history when China was part of a larger empire that spanned the Asian continent. Using architecture, sculpture, painting, and excavated evidence, this course examines the unique results of an international Asian world centered in China.
Not Offered Every Year
1 Course Unit

EALC 3121 Life and Death in Han China
Using maps, city-panning, architecture, wall painting, sculpture, and minor arts as evidence, the course will examine the attitudes toward life and death in Han (206 BCE-AD 220) China.
Fall or Spring
1 Course Unit

EALC 3211 Modern Chinese Poetry in a Global Context
The tumultuous political and economic history of modern China has been mirrored in and shaped by equally fundamental revolutions in language and poetic expression. In this course, we will take Chinese poetry as a crucible in which we can observe the interacting forces of literary history and social change. From diplomats who saw poetry as a medium for cultural translation between China and the world, to revolutionaries who enlisted poetry in the project of social transformation, we will examine the lives and works of some of China's most prominent poets and ask, what can we learn about modern China from reading their poetry? In asking this question, we will also reckon with the strengths and limitations of using poetry as an historical source. In addition to poems, the course will include fiction, essays, photographs, and films by both Chinese and non-Chinese artists that place our poets in a broader context. We will pay close attention to how these poets represent China's place in the world, as well as the role of language in social change. Topics of discussion include: national identity, revolution, translation, gender, the body, ethnicity, and technology. Familiarity with Chinese or related cultural context is beneficial, but not required. This course introduces students to Chinese poetry in English translation. Students will leave the course with an in-depth understanding of the main figures, themes, and techniques of Chinese poetry, and will be introduced to some of the major developments in the history of China. Through a focus on primary texts, students will develop the vocabulary and analytical skills to appreciate and analyze poetry in translation and will gain confidence as writers thinking about literary texts.
Not Offered Every Year
Also Offered As: ASAM 3211, COML 3211
Mutually Exclusive: EALC 7211
1 Course Unit

EALC 3244 War and Literature in Japan: Tales of the Heike
Our subject is Tale of the Heike, a multifaceted narrative of the twelfth-century battles that brought the Taira clan down and led to the establishment of Japan's first military government. We will read the Heike tales with an eye toward how they fictionalize history and idealize certain types, most notably loyal women and warriors; the development of the warrior tale genre; central aspects of the Japanese ethos; and later works of literature based on episodes and characters from the Tale of the Heike. All material is in English translation. (Students of Japanese language may learn to read a famous section in the original.) There are no prerequisites.
Not Offered Every Year
1 Course Unit
EALC 3246 The Tale of Genji
"Crowning masterpiece of Japanese literature," "the world’s first novel," "fountainhead of Japanese literary and aesthetic culture," "a great soap opera in the vein of Jacqueline Susann." Readers over the centuries have praised the Tale of Genji, the monumental prose tale finished just after the year 1000, in a variety of ways. In this course we will read the latest English translation of Murasaki Shikibu’s work. We will watch as Genji loses his mother at a tender age, is cast out of the royal family, and begins a quest to fill the void she left. Along the way, Genji’s loyalty to all the women he encounters forges his reputation as the ideal lover. We will consider gender issues in the female author’s portrayal of this rake, and question the changing audience, from bored court women to censorious monks, from adoring nationalists to comic book adaptors. Study of the tale requires consideration of poetry, imagery, costume, music, history, religion, theater, political and material culture, all of which will be components of the course. We will also trace the effect of the tale’s many motifs, from flora and fauna to murderously jealous spirits, on later literature and conceptions of human emotions. All material is in English translation. There are no prerequisites.
Not Offered Every Year
Also Offered As: GSWS 3246
1 Course Unit

EALC 3251 Japanese Science Fiction and Fantasy
This course will provide an overview of the major tropes, themes, and interpretations of contemporary Japanese science fiction and fantasy. As we establish a foundational knowledge of the history and structural formulations of genre fiction in Japan, we will cover topics such as folklore, high fantasy, apocalypse, dystopia, magical realism, posthumanism, video games, and transnational media franchises and cross-cultural marketing. By the end of the semester, students will possess a deeper understanding and appreciation of the role that science fiction and fantasy play in shaping contemporary media cultures in Japan and around the world.
1 Course Unit

EALC 3252 Japanese Ghost Stories
This course offers a survey of the numinous and supernatural through Japanese fiction, films, drama, comics, and video games from ancient times to the present day. Students will assemble a foundational knowledge of Japanese mythology and folk religion while studying popular narrative traditions representative of their historical eras. By peering into the liminal spaces connecting the living with the dead, students will also develop critical thinking and media literacy through careful investigation into the matters that people of different times and places have perceived as monstrous, alien, and unspeakable. Issues of gender, sexuality, and ethnic minority status will receive special attention as we navigate theories relating to the cultural role and relevance of ghosts. Strong writing skills are recommended, but no prior knowledge of Japan or the Japanese language is required.
Not Offered Every Year
1 Course Unit

EALC 3355 Japanese Theater
Japan has one of the richest and most varied theatrical traditions in the world. In this course, we will examine Japanese theater in historical and comparative contexts. The readings and discussions will cover all areas of the theatrical experience (script, acting, stage design, costumes, music, and audience). Audio-visual material will be used whenever appropriate and possible. The class will be conducted in English, with all English materials.
Fall or Spring
Also Offered As: COML 3555, THAR 3355
1 Course Unit

EALC 3424 Gender and Sexuality in Chinese History
This course examines gender and sexuality in Chinese history from ancient to contemporary times. It focuses on historiographical developments and methods of studying gender and sexuality in history as well as in Chinese history. The readings will include, but not be limited to, works by Robin Wang, Paul Goldin, Jen-der Lee, Patricia Ebrey, Beverly Bossler, Charlotte Furth, Susan Mann, Dorothy Ko, Francesca Bray, Yi-Li Wu, Matthew Sommer, Janet Theiss, Siyen Fei, Judith Zeitlin, Keith McMahon, Nicole Barnes, Gail Hershatter, Tani Barlow, and Lisa Rofel.
Spring
Also Offered As: HIST 0756
1 Course Unit

EALC 3425 Gender, Religion, and China
This course examines the interrelationship among “gender,” “religion,” and “China” as conceptual and historical categories. We ask, for example, how gender plays critical and constitutive roles in Chinese religious traditions, how religion can be used both to reinforce and to challenge gender norms, how religious women impact Chinese society and culture, and what the construction of “China” as a cultural identity and as a nation-state has to do with women, gender, and religion. We will also think about what assumptions we have when speaking of gender, religion, and China, and the infinite possibilities when we strive to think beyond. We will read three kinds of materials: (1) scholarship on gender and religion in historical and contemporary China as well as the Chinese-speaking world, (2) scholarship concerning theories and methodology of gender and religious studies not necessarily focused on China, and (3) historical record of religious women in English translation.
Fall or Spring
Also Offered As: GSWS 3425, RELS 3425
1 Course Unit

EALC 3429 Sex and Society in Ancient China
Ancient Chinese writers considered sexual activity to be an essential component of humanity, and the study of human sexuality to be essential to the study of human history. Sexuality constituted a fundamental source of imagery and categories that informed the classical Chinese conception of social, political, and military relationships. This course will survey the major sources dealing with sex and society in ancient China. There are no prerequisites, and no knowledge of Chinese is presumed.
Not Offered Every Year
1 Course Unit
EALC 3522 Medicine and Healing in China
This course explores Chinese medicine and healing culture, its diversity, and its change over time. We will discuss topics including the establishment of canonical medicine, Daoist approaches to healing and longevity, diverse views of the body and disease, the emergence of treatments for women, medical construction of sex difference and imagination of female sexuality, the identity of scholar physicians, the transmission of medical knowledge, domestic and cross-regional drug market, healer-patient relations, and new visions of traditional Chinese medicine in modern China.
Not Offered Every Year
Also Offered As: HSOC 3326
1 Course Unit

EALC 3523 Chinese Aesthetics
This seminar investigates classical Chinese conceptions of art and beauty as exemplified in philosophy, literature, music, painting, calligraphy, and architecture. All readings will be in English, and no knowledge of Chinese is presumed. Graduate students should see the instructor to discuss requirements for graduate credit.
Not Offered Every Year
1 Course Unit

EALC 3524 Daoist Traditions
This course examines the history of various intellectual and religious traditions that came to be known as Daoist (or Taoist in the Wade-Giles Romanization). We will begin with a critical review of the twentieth-century reinvention of Daoism and the new classification of religious versus philosophical Daoism, before tracing chronologically the textual, institutional, and social history of Daoist traditions from the fourth century B.C.E. While familiarizing students with the key concepts, practices, and organizations developed in the history of Daoism, this class emphasizes the specific socio-political context of each of them. Throughout the course, we will think critically about the labeling of Daoist (as well as Confucian and Buddhist) in Chinese history and in modern scholarship. We will also question modern demarcations between philosophy, religion, and science, as well as that between the spiritual and the physical.
Not Offered Every Year
Also Offered As: RELS 3524
1 Course Unit

EALC 3528 Apocalypse and Utopia in China
Representations of a perfect society and imagined scenarios of a dystopian or apocalyptic future are a common feature of all human societies. Philosophical, religious, and literary attempts to imagine alternative futures and critique present conditions enjoyed wide popularity and considerable influence throughout Chinese history. The goal of this course will be to introduce students to the major themes and trends in utopian and apocalyptic thought in China, from the premodern age to our times. In the first part of the semester, we will learn about the utopian and apocalyptic narratives that emerged in early and medieval China. We will begin by discussing the two archetypal models of a utopian society in early China: the Confucian harmonious moral society and its Daoist counterpart of an idyllic secluded community located in faraway lands. We will then turn our attention to the emergence of organized religion and the utopian and apocalyptic scenarios promoted by Daoist and Buddhist writers and religious innovators. In the second part of the semester, we will focus on the modern and contemporary periods and the study the impact of the introduction of Western utopian and millenarian narratives on the Chinese imagination. In addition to surveying some real-world attempts to establish a utopian society, such as the 19th century Taiping Rebellion, Mao Zedong’s attempts to re-fashion China into a Community Utopia in the 20th century, and the 21st century eco-village green movement, students will be introduced to a wide variety of literary and cinematic texts that try to imagine a possible future - from the utopian sci-fi nationalism of The Wandering Earth to the dystopian fiction of leading writers such as Han Song, Chen Qiufan, and Han Jingfang. Using these works as case studies, we will strive to ascertain the role of utopianism as a tool of political, social, and environmental criticism and as a way to construct a better and more just society in the 21st century. No knowledge of Chinese is necessary - all readings will be in English. As a split-level seminar, the course will be discussion-based. Students will be asked to post weekly 500-word response papers in which they will analyze and critique the readings. The goal of this task is to help students familiarize themselves with the assigned sources before the in-class discussion thus facilitating a meaningful and productive discussion. For their final project, students will conduct their own research on a topic of their choice and present it during the last meeting. Undergraduate paper will be limited to 10- pages; graduate papers should be around 20-25 pages, including original-language research.
Not Offered Every Year
1 Course Unit
EALC 3531 Chinese Law and Society
This course is an introduction to the study of law and society in China in a comparative and global context. We will begin by considering the tradition of imperial Chinese law and its social and philosophical foundations. We will then turn to the confrontation between the Qing empire and Euro-American imperial powers in the nineteenth century and the attendant collision between European and Chinese notions of sovereignty. Next, we will consider early twentieth-century law reforms as the Qing empire was transformed into the constitutional form of a modern republic, followed by the introduction of socialist law and the establishment of the People's Republic of China. The course will conclude with post-Mao reforms and their implications for the future of Chinese law and society. Throughout the course, we will pay attention to the use of historical and comparative methods. What are the potentials and liabilities of using law as an analytical category in cross-cultural study? What happens when “Eastern” and “Western” legal cultures come in contact with each other? How is law related to capitalism and socialism? How does law structure political and socio-economic relations globally? How does law produce as well as constrain subjects and identities? What is the relationship between law, gender, and sexuality?
Spring
Mutually Exclusive: EALC 7531
1 Course Unit

EALC 3532 Constitutionalism and Democracy in China: 1900-present
Research on constitutional thought in China from the late Qing to the present, as well as the political and practical aspects of attempts at implementation. A presentation and a research paper of moderate length are expected. Chinese language is not necessary, though if you have it, that will be useful.
Also Offered As: HIST 3552
1 Course Unit

EALC 3559 Gender and Sexuality in Japan
If you have ever wondered about the following questions, then this is the right course for you: Is Japan a hyper-feminine nation of smiling geisha and obedient wives? Is it a hyper-masculine nation of samurai and economic warriors? Is it true that Japanese wives control the household? Is it true that Japanese men suffer from over-dependence on their mothers? What do young Japanese women and young men worry about? What does the government think about the future of Japanese women and men? Assuming that expressions of gender and sexuality are deeply influenced by cultural and social factors, and that they also show profound differences regionally and historically, this course examines a variety of texts—historical, biographical, autobiographical, fictional, non-fictional, visual, cinematic, analytical, theoretical—in order to better understand the complexity of any attempts to answer the above questions.
Not Offered Every Year
Also Offered As: GSWS 3559
1 Course Unit

EALC 3621 Introduction to Classical Chinese I
Introduction to the classical written language, beginning with Shadick, First Course in Literary Chinese. Students with a background in Japanese, Korean, Cantonese, Taiwanese, and other East Asian languages are welcome; it is not necessary to know Mandarin. The course begins from scratch, and swiftly but rigorously develops the ability to read a wide variety of classical and semi-classical styles. Original texts from the 6th century BC to the 20th century AD are studied. This course is taught in English and there are no prerequisites.
Fall
Also Offered As: CHIN 1050
1 Course Unit

EALC 3622 Introduction to Classical Chinese II
Continuation of Intro to Classical Chinese I, which is the only prerequisite for this course. Upon completion of Shadick, readings in a wide selection of texts with Chinese commentaries may be taken up. These readings are in part chosen to reflect student interest. This is the second half of a year-long course. Those who enroll must take both semesters.
Spring
Also Offered As: CHIN 1055
Mutually Exclusive: EALC 7622
Prerequisite: EALC 3621
1 Course Unit

EALC 3623 Advanced Classical Chinese I
Close reading and interpretation of texts in various styles of classical Chinese drawn from the Han, Wei, Tang, and Song periods. Focus on strengthening students’ reading ability in classical Chinese. Attention to questions of style, rhetoric, and syntax.
Fall
Also Offered As: CHIN 1150
Mutually Exclusive: EALC 8621
1 Course Unit

EALC 3624 Advanced Classical Chinese II
Close reading and interpretation of texts in various styles of classical Chinese drawn from the Han, Wei, Tang, and Song periods. Focus on strengthening students’ reading ability in classical Chinese. Attention to questions of style, rhetoric, and syntax. It is preferred, but not required, that students take Advanced Classical Chinese I first.
Spring
Also Offered As: CHIN 1155
Mutually Exclusive: EALC 8622
1 Course Unit

EALC 3641 Readings in Classical Japanese I
Readings in classical texts drawn from the Heian, Kamakura, Muromachi, and Edo periods. Introduction to the different styles of classical Japanese, and to classical Japanese as a whole.
Fall
Also Offered As: JPAN 1050
Prerequisite: JPAN 0600
1 Course Unit
EALC 3681 Introduction to Classical Mongolian
In this class students who already know some modern Mongolian in the Cyrillic script will learn how to transfer that knowledge to the reading of first post-classical, and then classical texts written in the vertical or Uyghur-Mongolian script. Topics covered will include the Mongolian alphabetic script, dealing with ambiguous readings, scholarly transcription, vowel harmony and syllable structure, post-classical and classical forms of major declensions, converbs, verbal nouns, and finite verbs, syntax, pronunciation and scribal readings. Readings will be adjusted to interests, but as a rule will include selections from short stories, diaries, chronicles, Buddhist translations, government documents, popular didactic poetry, ritual texts, and traditional narratives. Students will also be introduced to the most important reference works helpful in reading classical and post-classical Mongolian.

Fall
1 Course Unit

EALC 3682 Introduction to Classical Mongolian II
Continuation of EALC293/693, which is the only prerequisite for this course. Upon completion of the basic introduction to grammar, spelling rules, and diachronic levels (pre-classical, classical, post-classical), readings in a wide selection of texts with Mongolian commentaries may be taken up. These readings are in part chosen to reflect student interest. This is the second half of a year-long course. Those who enroll should take both semesters.

Spring
1 Course Unit

EALC 3720 Early Chinese History
This seminar covers the span of Chinese history from the Bronze Age to the end of the Han dynasty in A.D. 220. No knowledge of Chinese is presumed, but EALC 0020 (Introduction to Chinese Civilization) is a prerequisite. Graduate students who wish to enroll should meet with the instructor to discuss additional requirements for graduate credit.

Spring
1 Course Unit

EALC 3721 Law in Pre-Modern China
This course, intended for graduate students and advanced undergraduates, offers a survey of the sources and research problems of pre-modern Chinese law. For reasons to be examined in the course, traditional Sinological education has neglected law as a legitimate field of inquiry; consequently, the secondary literature is surprisingly meager. Our readings will take us from the Warring States Period to the Qing dynasty—an interval of over two millennia—and will cover several varieties of legal documents, including statutes, handbooks, court records, and theoretical treatises. All the readings will be in English, and no knowledge of Chinese is presumed. Graduate students should see the instructor to discuss requirement for graduate credit.

Not Offered Every Year
1 Course Unit

EALC 3722 Law in Pre-Modern China
EALC 3742 City & Citizenship: Samurai Politics and Commoner Culture in Early Modern Japan
In the early modern period (1600-1867), Japan underwent a staggering urban transformation. Edo, the shogunal capital, grew in barely a century from a new settlement to a sprawling metropolis of over a million. Indeed, most of Japan’s current urban centers descend directly from the castle towns built by regional warlords in the late sixteenth and early seventeenth centuries in an effort keep the peace after over a hundred years of civil war. As a result, Japanese cities in the early modern period became a central component of what historians have called a “re-feudalization” of society, and retained strong vestiges of their military origins. At the same time the samurai-centered space of the new cities created opportunities for the development of alternative cultural practices and values by urban commoners. The juxtaposition of the regimented, honor-driven society designed and longed for by samurai and the fluid, money-driven society that grew out of the burgeoning cities’ commoner quarters is one of the animating forces of the early modern period. Through study of scholarship and contemporary sources (laws and sumptuary regulations, codes of conducts, but also diaries, novels, plays), this course will explore the many facets of early modern urban society, its medieval antecedents, and its legacies in contemporary Japan.

Fall or Spring
Also Offered As: HIST 0753
1 Course Unit

EALC 3744 Law and Violence in Pre-Modern Japan
This course will be an exploration of premodern Japanese history through the lens of violence. The centuries under consideration (roughly, the eighth through nineteenth) were characterized by greatly varying levels of violence, both of the state-sanctioned variety (war, punishments for law-breakers and political losers) and of the non-sanctioned variety (piracy, banditry, warrior and peasant rebellions). Examining a wide variety of translated sources, from diaries to chronicles, from legal codes to fiction, we shall examine the changing social, political, economic, and cultural contexts of violence, in order to interrogate not only why certain periods were remarkably peaceful while others were not, but also why violence took different forms in relation to different circumstances. We shall consider how contemporaries made sense of the violence that surrounded them (or didn’t) and how they divided the acceptable use of force from the wanton and society-threatening abuse of it. The course will feature presentations and several (very short) papers.

Not Offered Every Year
Also Offered As: HIST 0754
1 Course Unit
EALC 3783 Pastoralism & Mobility
"Pastoralism and Mobility" will examine the society and history of mobile pastoralists (nomads) in Inner Asia from earliest times to the present. Peoples covered will include Mongols, Tibetans, Turkic nomads (such as Kazakhs, Kyrgyz, and Turkmen), and their ancestors and predecessors. The class will focus on questions such as: Is there a distinctive form of Inner Asian pastoralist society? At the grass roots level? At the elite level? How have states (native and foreign) influenced Inner Asian pastoralist society in pre-modern and modern contexts? How have Inner Asian pastoralists influenced neighboring states? What role does kinship play in governing group formation, property, and status in Inner Asian pastoralist society? Does this role vary over time, space, or ethnic background? If so, how? What purposes does mobility serve in Inner Asian societies? How have various forms of livestock lease-holding changed and shaped wealth in Inner Asian pastoralist society? How did class differentiation emerge & function in pre-modern pastoralist societies? What happens when pastoralists become farmers? How have modern schemes of social improvement and productivity, especially collectivization and decollectivization, shaped pastoralist lives?
Fall, odd numbered years only
1 Course Unit

EALC 4030 Major Seminar on China
This is a seminar required for all Chinese majors in the Department of East Asian Languages and Civilization. Topic varies year to year.
Fall or Spring
Prerequisite: EALC 0020
1 Course Unit

EALC 4050 Major Seminar on Japan
This is a seminar required for all Japanese majors in the Department of East Asian Languages and Civilization. Topic varies year to year.
Fall
Prerequisite: EALC 0040
1 Course Unit

EALC 4070 Major Seminar on Korea
This is a seminar required for all Korean majors in the Department of East Asian Languages and Civilization. Topic varies year to year.
Not Offered Every Year
1 Course Unit

EALC 4950 Honors Thesis
Course credit for EALC majors pursuing honors
Not Offered Every Year
1 Course Unit

EALC 4990 Transfer Credit Away: Free Elective
Course credit for courses taken in an approved program.
1 Course Unit

EALC 5000 East Asian History and Civilizations
This seminar is designed for incoming graduate students in the department of East Asian Languages and Civilizations, offering a thematic overview of the academic study of Chinese and Japanese history and cultures from the Neolithic period to the 21st century. Over the course of the semester, students will be introduced to different scholarly approaches to the study of East Asian history and culture through a close reading and analysis of the work of leading scholars in the fields of Sinology and Japanology. Together, we will learn about the diverse approaches to the study of China and Japan, from the various subfields of historical studies (such as social, intellectual, legal, and religious history) to other academic disciplines such as religious studies, anthropology, gender studies, and archaeology. We will examine the different methodological frameworks and tools used by past and present scholars and draw on them in order to problematize and enrich our understanding of East Asia. In addition, this seminar will provide incoming students with the relevant skills to produce their own original graduate-level research and present it in a clear and persuasive fashion both orally and in written form. While original-language research for the final project is encouraged, all weekly readings will be in English.
Fall
1 Course Unit

EALC 5020 Chinese History and Civilization
This seminar offers a thematic overview of the academic study of Chinese history from the Neolithic period to the 21st century. Over the course of the semester, students will be introduced to different scholarly approaches to the study of history through a close reading and analysis of the work of leading scholars in the field of Sinology. We will learn about the various subfields in the study of history, such as cultural history, social history, administrative and legal history, intellectual history, history of religion, literary history, history of gender, world history, and historiography, examine their different methodological frameworks and tools, and draw on them in order to problematize and enrich our understanding of Chinese culture. In addition, this seminar will provide incoming students with the relevant tools to produce original graduate-level research on all aspects of Chinese history, society, and culture and present it in a clear and persuasive fashion orally and in written form. While original-language research for the final project is encouraged, all course materials will be in English.
Fall
1 Course Unit

EALC 5040 Japanese History and Civilization
This seminar is designed for incoming graduate students in the department of East Asian Languages and Civilizations, offering a thematic overview of the academic study of Chinese and Japanese history and cultures from the Neolithic period to the 21st century. Over the course of the semester, students will be introduced to different scholarly approaches to the study of East Asian history and culture through a close reading and analysis of the work of leading scholars in the fields of Sinology and Japanology. Together, we will learn about the diverse approaches to the study of China and Japan, from the various subfields of historical studies (such as social, intellectual, legal, and religious history) to other academic disciplines such as religious studies, anthropology, gender studies, and archaeology. We will examine the different methodological frameworks and tools used by past and present scholars and draw on them in order to problematize and enrich our understanding of East Asia. In addition, this seminar will provide incoming students with the relevant skills to produce their own original graduate-level research and present it in a clear and persuasive fashion both orally and in written form. While original-language research for the final project is encouraged, all weekly readings will be in English.
Fall
1 Course Unit

EALC 5040 Japanese History and Civilization
This seminar introduces students to the graduate-level study of Japan. In addition to getting a broad overview of Japanese culture, students in the course will develop familiarity with major debates in the history of the field of Japanese studies. The course also provides basic training in using primary and secondary sources in Japanese, Japanese bibliographic conventions, and other skills necessary for pursuing advanced research or a teaching career in the field. Open to all graduate students and to undergraduates with permission from the instructor. Familiarity with Japanese language is a plus but is not required.
Not Offered Every Year
1 Course Unit
EALC 5060 Korean History & Civilization

This graduate-level seminar focuses on the political, social, and cultural history of the Korean Peninsula and the vicinity from early times to the contemporary era. Readings will consist of primary and secondary sources, including influential modern studies of Korean history and civilization. All course materials are in English and no knowledge of Korean is presumed.

Spring
1 Course Unit

EALC 5080 Introduction to Inner Asian Civilizations

This class is intended for new graduate students and upper-division undergraduates with some prerequisites who wish to get a solid grounding in the study of Inner Asia. The class will introduce Inner Asia as a coherent civilizations network, focusing on: 1) the steppe-imperial tradition; 2) the Tibetan-rite Buddhist commonwealth that developed from the Tibetan and Mongol empires; and 3) the increasing integration of these two Inner Asian civilizational patterns with that of imperial China. There will also be some consideration of the Islamic Turco-Mongolian synthesis that developed in the post-Mongol period. Regionally, the class will introduce: 1) core Inner Asia (the Mongolian plateau, the Tarim Basin, the Tibetan plateau, the Manchuria) and 2) the main dynasties of China that formed in the Mongolia and Manchuria (Liao, Jin, Yuan and Qing). There will also be some consideration of historically Inner Asian populations in Hexi (Gansu-Qinghai), and the North China plains and the Shanxi-Shanxi-Rehe uplands. Chronologically, the class will touch on prehistory and the contemporary period, but will mostly cover the period from the emergence of historical records on the Mongolian plateau and the Tarim basin to roughly 1500. Prehistory and the contemporary period will be given less detailed coverage.

Not Offered Every Year
1 Course Unit

EALC 5100 How to Look at and Write Asian Art

This seminar focuses on ten very different monuments of Asian art in order to learn how to ask questions about and write about painting, sculpture, and buildings. Following a general introduction to the art of East Asia and South Asia, each class will focus on a major monument and similar examples of it: a Chinese bronze vessel, the Tomb of the First Emperor, Sokkuram, Elephanta, Traveling through Famous Sites of Wu, Tale of Genji, Gold Pavilion, the Forbidden City, Taj Mahal, the city Xi'an. We will discuss why each is important, its religious or philosophical context, and assess how it has been discussed in literature and modern writing. We will then discuss optimal or innovative ways to present it and write about it. Each week students will analyze writing about that week’s subject and turn in a short evaluation of writings about the subject of the previous week’s class. The final paper will be an article of the kind one would submit to a newspaper or magazine. The class will be taught synchronously. However, students will be encouraged to write about an object in a local museum for the final project.

1 Course Unit

EALC 5106 East Asian Gardens

Explore the beauty of gardens (and associated buildings) in Japan, China, and Korea from ancient times to the present. Lectures will be illustrated by photographs from dozens of sites in East Asia, and by a field trip to the Japanese House and Garden in Fairmount Park. The main body of the course will be a historical survey of the evolution of East Asian garden art forms from the sixth century to the present. Discussion will touch on geographic and climatic parameters, spiritual and aesthetic principles, practical limitations and creative innovations of East Asian gardens. There will be an additional fee for the Japanese House visit, and possibly for other field trips.

Not Offered Every Year
1 Course Unit

EALC 5109 East Asian Ceramics

History of ceramic forms, techniques, and aesthetic principles in China, Korea, and Japan from neolithic times to the present century, illustrated by slides and examples, augmented by readings, field trips, and student presentations. Aimed at students with general interest in Japan and/or ceramics history, particularly but not exclusively those majoring in East Asian Languages & Civs, East Asian Area Studies or History of Art; also art majors interested in ceramics.

Not Offered Every Year
1 Course Unit

EALC 5116 East Asian Cinema

This survey course introduces students to major trends, genres, directors, and issues in the cinemas of East Asian countries/regions, including Japan, Korea, China, Hong Kong, and Taiwan. Charting key developments over more than a hundred years from the early twentieth century to the present, this course examines films as aesthetic objects, asking questions about film form, narrative, and style. It also pays attention to the evolution of cinema as an institution (e.g. modes of production, circulation, and exhibition) in different cultural and political contexts. Weekly course materials will include both films (primary sources) and analytical readings (secondary sources). By the end of the course, students are expected to gain broad knowledge of East Asian cinema, develop skills of film analysis, and apply these skills to perform historically informed and culturally sensitive analysis of cinema. Prior knowledge of East Asian languages is NOT required.

Also Offered As: ARTH 6910
Mutually Exclusive: ARTH 2910, CIMS 2910, EALC 1116
1 Course Unit

EALC 5120 Arts of China

A broad survey of Chinese architecture, sculpture, and painting from the Neolithic age through the nineteenth century. Topics include excavated material from China's Bronze Age, Chinese funerary arts, Buddhist caves and sculpture (including works in the University Museum), the Chinese city, the Chinese garden, and major masterpieces of Chinese painting.

Not Offered Every Year
1 Course Unit

EALC 5127 Chinese Painting

Study of Chinese painting and practice from the earliest pictorial representation through the late twentieth century. Painting styles are analyzed, but themes such as landscape and narrative are considered with regard to larger social, cultural, and historical issues. The class will pay particular attention to the construction of the concepts of the "artist" and "art criticism" and their impact on the field into the present. Visits to study paintings at the University of Pennsylvania Museum and Philadelphia Museum of Art.

Fall or Spring
1 Course Unit
EALC 5129 Chinese Architecture
Survey of Chinese buildings and building technology from the formative period in the second millennium BCE through the twentieth century. The course will deal with well-known monuments such as the Buddhist monasteries of Wutai, imperial palaces in Chang'an and Beijing, the Ming tombs and the Temple of Heaven, and less frequently studied buildings. Also covered will be the theory and principles of Chinese construction.
Fall or Spring
1 Course Unit
Not Offered Every Year
Also Offered As: ARTH 6130

EALC 5140 Arts of Japan
This lecture course introduces the major artistic traditions of Japan, from the Neolithic period to the present, and teaches the fundamental methods of the discipline of art history. Special attention will be given to the places of Shinto, the impact of Buddhism, and their related architectures and sculptures; the principles of narrative illustration; the changing roles of aristocratic, monastic, shogunal and merchant patronage; the formation of the concept of the artist over time; and the transformation of tradition in the modern age.
Not Offered Every Year
Also Offered As: ARTH 6580
1 Course Unit

EALC 5141 Early Modern Japanese Art and the City of Edo
Study of the major art forms and architecture of Tokugawa (or Edo) period (1603-1868). In this lecture course, we will consider how the arts of this era occur within an increasingly urban and modern culture, particularly with regard to the city of Edo. Issues of the articulation of authority in the built environment, the reinvention of classical styles, and patronage will be raised. May include some visits to PMA, Penn Museum, or other local collections.
Not Offered Every Year
Also Offered As: ARTH 6130
1 Course Unit

EALC 5160 Arts of Korea
The goal of this course is understanding the development of visual, performing, and literary arts in Korea and the historical, religious, and social contexts in which they flourished. It serves as an introduction to the arts of Korea, with emphasis on painting, sculpture, ceramics, and architecture and additional consideration of dance, drama, poetry, and culinary arts. Covers the whole history of Korea, from prehistoric times to the twenty-first century. Students enrolled in this graduate number are expected to do research in an East Asian language.
Not Offered Every Year
1 Course Unit

EALC 5129 Chinese Architecture
Survey of Chinese buildings and building technology from the formative period in the second millennium BCE through the twentieth century. The course will deal with well-known monuments such as the Buddhist monasteries of Wutai, imperial palaces in Chang'an and Beijing, the Ming tombs and the Temple of Heaven, and less frequently studied buildings. Also covered will be the theory and principles of Chinese construction.
Fall or Spring
1 Course Unit
Not Offered Every Year
Also Offered As: ARTH 6130

EALC 5140 Arts of Japan
This lecture course introduces the major artistic traditions of Japan, from the Neolithic period to the present, and teaches the fundamental methods of the discipline of art history. Special attention will be given to the places of Shinto, the impact of Buddhism, and their related architectures and sculptures; the principles of narrative illustration; the changing roles of aristocratic, monastic, shogunal and merchant patronage; the formation of the concept of the artist over time; and the transformation of tradition in the modern age.
Not Offered Every Year
Also Offered As: ARTH 6580
1 Course Unit

EALC 5141 Early Modern Japanese Art and the City of Edo
Study of the major art forms and architecture of Tokugawa (or Edo) period (1603-1868). In this lecture course, we will consider how the arts of this era occur within an increasingly urban and modern culture, particularly with regard to the city of Edo. Issues of the articulation of authority in the built environment, the reinvention of classical styles, and patronage will be raised. May include some visits to PMA, Penn Museum, or other local collections.
Not Offered Every Year
Also Offered As: ARTH 6130
1 Course Unit

EALC 5160 Arts of Korea
The goal of this course is understanding the development of visual, performing, and literary arts in Korea and the historical, religious, and social contexts in which they flourished. It serves as an introduction to the arts of Korea, with emphasis on painting, sculpture, ceramics, and architecture and additional consideration of dance, drama, poetry, and culinary arts. Covers the whole history of Korea, from prehistoric times to the twenty-first century. Students enrolled in this graduate number are expected to do research in an East Asian language.
Not Offered Every Year
1 Course Unit

EALC 5242 Love and Loss in Japanese Literary Traditions: In Translation
How do people make sense of the multiple experiences that the simple words "love" and "loss" imply? How do they express their thoughts and feelings to one another? In this course, we will explore some means Japanese culture has found to grapple with these events and sensations. We will also see how these culturally sanctioned frameworks have shaped the ways Japanese view love and loss. Our materials will sample the literary tradition of Japan from earliest times to the early modern and even modern periods. Close readings of a diverse group of texts, including poetry, narrative, theater, and the related arts of calligraphy, painting, and music will structure our inquiry. The class will take an expedition to nearby Woodlands Cemetery to experience poetry in nature. By the end of the course, you should be able to appreciate texts that differ slightly in their value systems, linguistic expressions, and aesthetic sensibilities from those that you may already know. Among the available project work that you may select, if you have basic Japanese, is learning to read a literary manga. All shared class material is in English translation.
Fall
1 Course Unit

EALC 5322 Chinese Fiction and Drama in Translation
This course explores Romance of Three Kingdoms the most popular classical novel in East Asia and an important source for understanding Chinese culture, politics, history, and military strategy. We propose to read this work not only as a textbook of Chinese literature and culture, but also as a guidebook for career development and risk assessment. Why didn't Pangtong have a career as successful as Zhuge Liang? Why did Ma Su volunteer in a project that he is not good at? If Cao Cao, Liu Bei, Sun Quan run for presidency in the U.S., who would you vote for and why? These are some of the questions that we will explore alongside our inquiry into the the historical development of various genres of Chinese fiction. In addition to Romance of Three Kingdoms, this course introduces Sun Tsu's The Art of War and other classical Chinese novels such as Dream of the Red Chamber and Strange Tales from a Chinese Studio, as well as classical literary criticism such as Cao Pi's On the Standard of Literature (Dian lun), Lu Ji's Essays on Literature (Wen lun), and Liu Xie's The Literary Mind and the Carving of Dragons.
Spring
1 Course Unit

EALC 5335 Cultural Chinas: 20th Century Chinese Literature and Film
This course serves as a thematic introduction to modern Chinese literature and cinema in China, Hong Kong, Taiwan and other transnational Chinese communities in the twentieth century. By discussing a wide range of key literary and filmic texts, this class looks into major issues and discourses in China's century of modernization: enlightenment and revolution, politics and aesthetics, sentimental education and nationalism, historical trauma and violence, gender and sexuality, social hygiene and body politics, diaspora and displacement, youth sub-culture and urban imagination.
Spring
1 Course Unit
EALC 5351 Contemporary Fiction & Film in Japan

This course will explore fiction and film in contemporary Japan, from 1945 to the present. Topics will include literary and cinematic representation of Japan’s war experience and post-war reconstruction, negotiation with Japanese classics, confrontation with the state, and changing ideas of gender and sexuality. We will explore these and other questions by analyzing texts of various genres, including film and film scripts, novels, short stories, manga, and academic essays. Class sessions will combine lectures, discussion, audio-visual materials, and creative as well as analytical writing exercises. The course is taught in English, although Japanese materials will be made available upon request. No prior coursework in Japanese literature, culture, or film is required or expected; additional secondary materials will be available for students taking the course at the 600 level. Writers and film directors examined may include: Kawabata Yasunari, Hayashi Fumiko, Abe Kobo, Mishima Yukio, Oe Kenzaburo, Yoshimoto Banana, Ozu Yasujiro, Naruse Mikio, Kurosawa Akira, Imamura Shohei, Koreeda Hirokazu, and Beat Takeshi.

Not Offered Every Year
Also Offered As: ARTH 6900
1 Course Unit

EALC 5501 Advanced Topics in Buddhism

This is an advanced course for upper level undergraduates and graduate students on various issues in the study of Buddhist texts, art, and history. Each semester the theme of the course changes. In recent years themes have included: Magic and Ritual, Art and Material Culture, Texts and Contexts. Manuscript Studies. Fall 2013 Topic: Buddhist repertoires (idiosyncratic and personal assemblages of beliefs, reflections, wonders, possessions, and practices) for a large part, material and sensual. Buddhists are often sustained by their collection, production, and trading of stuff amulets, images, posters, protective drawings, CDs, calendars, films, comic books, and even Buddhist-themed pillow cases, umbrellas, and coffee mugs. Aspirations are interconnected with objects. Beliefs are articulated through objects. Objects are not empty signifiers onto which meaning is placed. The followers and the objects, the collectors and their stuff, are overlooked in the study of religion, even in many studies in the growing field of material culture and religion. What is striking is that these objects of everyday religiosity are often overlooked by art historians as well. Art historians often remove (through photography or physical movement to museums or shops) images and ritual implements from their ritual context and are seen as objets d’art. While art historians influenced by Alfred Gell, Arjun Appadurai, and Daniel Miller have brought the study of ritual objects into the forefront of art historical studies, in terms of methodologies of studying Buddhist art, art historians have generally relegated themselves to the study of either the old and valuable or the static and the curated. This course aims to 1) bring a discussion of art into the study of living Buddhism. Art historians have primarily concentrated on the study of images, stupas, manuscripts, and murals produced by the elite, and primarily made before the twentieth century; 2) study art as it exists and operates in dynamic ritual activities and highly complex synchronic and diachronic relationships; 3) focus on the historical and material turn in the study of images, amulets, and murals in Buddhist monasteries and shrines.

Not Offered Every Year
Also Offered As: ARTH 5120, RELS 5710
1 Course Unit
EALC 5702 Economic Development, Education, and Inequality in East Asia
Where are East Asian economies and education headed? Can a new model of East Asian economy and education be established to achieve economic sustainability and equity in rapidly changing global contexts? In this seminar, we will survey 1) evolution of the East Asian economic model, focusing on changes in economic development strategies, labor market structures, and relationships with global economies; and 2) features of East Asian educational systems, focusing on educational opportunities and learning outcomes. In reviewing East Asian economy and education, a central question is not only how productive East Asian economy and education is but also how equal economic and educational opportunities are in the region. In the final part of the seminar, students will come up with some policy recommendations for East Asian economy and education to better achieve economic sustainability and equity. This graduate-level course is also open to advanced undergraduate students. Also Offered As: EDUC 5450, SOCI 5450 1 Course Unit

EALC 5711 East Asian Diplomacy
Home to four of the five most populous states and four of the five largest economies, the Asia/Pacific is arguably the most dynamic region in the twenty-first century. At the same time, Cold War remnants (a divided Korea and China) and major geopolitical shifts (the rise of China and India, decline of the US and Japan) contribute significantly to the volatility of our world. This course will examine the political, economic, and geopolitical dynamism of the region through a survey of relations among the great powers in Asia from the sixteenth century to the present. Special emphasis will be given to regional and global developments from the perspective of the three principal East Asian states—China, Japan and Korea. We will explore the many informal, as well as formal, means of intercourse that have made East Asia what it is today. Graduate students should consult graduate syllabus for graduate reading list, special recitation time and graduate requirements. Also Offered As: HIST 5550 Mutually Exclusive: HIST 1550 1 Course Unit

EALC 5742 From Shamans to Shoguns: The Texts that Made Pre-Modern Japanese History
This course tackles about a millennium of pre-modern Japanese political, social, and cultural history (roughly, 700-1700). Instead of attempting to cover the period chronologically, as an introductory survey might, this class is structured as a series of case studies. Each of these will take a primary source as its point of departure and explore one or more facets of Japanese history and writing. In the course of each case study, lectures and discussions will branch out from the main source to examine its historical context as well as the (political, cultural, textual) traditions that informed that source’s composition. In general, students will read the entire texts of the main sources (or significant portions of them), along with scholarly articles and shorter excerpts from other sources, composed at the same time or in the same vein/genre. During lectures and discussions alike, students will be asked to engage the readings, so as to grasp the specifics of Japanese history and practice the analytical skills required of historical discourse. Not Offered Every Year 1 Course Unit

EALC 5746 Japan: The Age of the Samurai
Who (or what) where the samurai? What does it mean to say that Japan had an “Age of the Samurai”? In popular imagination, pre-modern Japan has long been associated with its hereditary warrior class. Countless movies have explored the character and martial prowess of these men. Yet warriors constituted but a tiny portion of the societies they inhabited and ruled, and historians researching medieval Japan have turned their attentions to a great range of subjects and to other classes (elite and commoner alike). This class is designed to acquaint students with the complex and diverse centuries that have been called the “Age of the Samurai”-roughly, the years between ca. 1110 and 1850. In the course of the semester, we will explore the central themes in the historiography of warrior society, while introducing some of the defining texts that have shaped our imagination of this age (from laws to epic poems, from codes of conduct to autobiographies). Not Offered Every Year 1 Course Unit

EALC 5774 Two Koreas: The Politics of Division
In today’s world, the inter-Korean border or DMZ (demilitarized zone) is widely regarded as one of the most impermeable and conflictual frontiers. The purpose of this course is to explore the dynamics of its formation between, and impact within, the two Koreas. The course therefore proposes to analyze how the division of the Korean peninsula not only came into being but also how it has shaped the socio-political trajectories of both the North and the South since 1945. The course also aims at introducing students to conceptual frameworks and comparative debates relevant to understanding the Korean case(s) from a social science perspective. Not Offered Every Year 1 Course Unit

EALC 5780 Mongol Century
This course deals with the empire built by the Mongols in the 13th century - the largest land empire in the world. Most readings will be from translated primary sources of the 13th and 14th centuries, written by the Mongols themselves and also by Persians, Chinese, Eastern Christians, Europeans, and other peoples that fought, surrendered to, or traded with the Mongol conquerors. The course will explore the Mongols, the most spectacular example of the nomadic conquerors who played such a large role in all Eurasian history, and survey how their empire affected themselves and the peoples they conquered. By using primary sources, the course will also provide a survey of civilizations in Eurasia in the 13th and 14th centuries, and give a hands-on example of how historians build historical knowledge from varied sources. Graduate students will receive training in more advanced source critical methodologies for dealing with these sources and for beginning research in this topic. Spring 1 Course Unit

EALC 5781 Silk Road: From the Mediterranean to the Pacific
A journey along the overland and sea routes that connected China, India, Iran, and Rome from 200-1000 CE and served as conduits for cultural exchange. Precursor and successor routes will also be taken into consideration. The lives of merchants, envoys, pilgrims, and travelers interacting in cosmopolitan communities will be examined. Exploration of long-known and newly discovered archaeological ruins, along with primary sources in translation, will be studied. Also Offered As: SAST 5781 1 Course Unit
EALC 5801 East Asian Digital Humanities
Are you interested in cutting-edge digital methods for the humanities in East Asia, but don't know where to start? This course covers a wide range of current and emerging digital projects and topics in East Asian studies. Students will engage with digital projects focused on East Asia (encompassing Japan, China, Korea, and Taiwan) as well as research being done on digital methodologies for the humanities in those areas. Coursework consists of project and research analysis, active discussion, and learning about the implementation of various digital projects. Example topics include text analysis, APIs, network analysis, digital literary studies, and mapping. No technical expertise is required but students must have reading knowledge of Chinese, Japanese, or Korean at the high-intermediate or advanced level. Class presentations, discussions, and all course readings will be in English, but midterm and final projects involve reading articles and midterm and final projects involve reading articles and/or critiquing projects.

1 Course Unit

EALC 5955 Environment, Climate, and Culture in Japan
This course explores how Japanese literature, cinema, and popular culture have engaged with questions of environment, ecology, pollution, and climate change from the wake of the dropping of the atomic bomb on Hiroshima in 1945 to the ongoing Fukushima nuclear power plant disaster in the present. Environmental disasters and the slow violence of their aftermath have had an enormous impact on Japanese cultural production, and we examine how these cultural forms seek to negotiate and work through questions of the unrepresentable, victimhood and survival, trauma and national memory, uneven development and discrimination, the human and the nonhuman, and climate change's impact on imagining the future. Special attention is given to the possibilities and limitations of different forms—the novel, poetry, film, manga, anime—that Japanese writers and artists have to think about humans' relationship with the environment.

Not Offered Every Year
1 Course Unit

EALC 6104 East Asian Funerary Arts
Study of tombs and tomb decoration of emperors and officials in China, Korea, and Japan from the pre-Buddhist era through the 19th century.

Not Offered Every Year
1 Course Unit

EALC 6121 Chinese Wall Painting
This course examines murals in Chinese temples and tombs from their earliest appearance in the first millennium BCE through the 20th century. Some are in situ; others are in museums. Murals are studied alongside paintings on silk and paper. Chinese wall painting is also studied alongside murals in temples and tombs in Korea, Japan, and Mongolia.

Not Offered Every Year
Mutually Exclusive: EALC 2121
1 Course Unit

EALC 6201 Modern East Asian Texts
This course is an introduction to and exploration of modern East Asian literatures and cultures through close readings and discussion of selected literary works from the early 20th century to the start of the 21st century. Focusing on China, Japan, and Korea, we will explore the shared and interconnected experiences of modernity in East Asia as well as broaden our perspective by considering the location of East Asian cultural production within a global modernity. Major issues we will encounter include: nation-building and the modern novel; cultural translation; media and technology; representations of gender, race, and class; history and memory; colonialism; war; body and sexuality; globalization. No knowledge of the original language is required.

Not Offered Every Year
Also Offered As: COML 6201
Mutually Exclusive: EALC 2201
1 Course Unit

EALC 6211 Colonial Japanese Literature
This course will explore the development of Japanese and colonial identities in literature produced in and about Japan's colonies during the first half of the 20th century. Throughout the semester, we will read works written during and about the Japanese empire by Chinese, Japanese, Korean, Okinawan, and Taiwanese writers. Looking at the different representations of empire, we will examine concepts such as assimilation, mimicry, hybridity, travel, and transculturation in the context of Japanese colonialism. By bringing together different voices from inside and outside of Japan's empire, students will gain a deeper understanding of the complexities of colonial hegemony and identity. In particular, reading works by Japanese, Okinawan, Korean, Taiwanese and Chinese subjects will enable students to transcend binary notions of colonizer and colonized while also acknowledging the realities of colonial complicity.

Not Offered Every Year
1 Course Unit

EALC 6221 Chinese Poetry & Prose In Translation
A wide variety of poetic & prose genres from the earliest times to the 19th century is introduced through English translation. A few selections will also be studied in Chinese characters with romanized transcriptions. There are no prerequisites for this course.

Fall
1 Course Unit
EALC 6236 Seminar in Modern Chinese Literature
Modern Chinese writers are known for their efforts in creating a literary revolution that sought to reformulate the paradigm of Chinese writing. However, these Chinese writers also endeavored to learn from other cultures such as the European and Indian civilizations. For example, Tagore was invited to visit China in 1923 and was considered a cultural model by many Chinese cultural elites. Hu Shi, a leading Chinese intellectual, wrote The Indianization of China: A Case Study in Cultural Borrowing and India Our Great Teacher, to emphasize the Indian elements in Chinese culture. Other Chinese writers also sought to compare the European with Chinese cultures in different occasions in order to find a path for the rise of modern China. This course explores the ways in which foreign cultures were introduced and how they influence the way Chinese see themselves in their search for a cultural identity free from the constraints of classical tradition. We will read a variety of writers from the Peoples Republic of China, Hong Kong, Taiwan, and Malaysia, in order to examine how modern Chinese literature thrives on cross-cultural elements. All readings will be in English. No prior knowledge is required. Those who are proficient in Chinese are invited to read some of the texts in Chinese.
Not Offered Every Year
1 Course Unit

EALC 6255 Modern Japanese Literature
This course surveys Japanese literature (novels, short stories, poetry, drama, essays) from 1868 to World War II. The purpose is not only to read some of the most important and interesting literary texts of this period, but also to reflect on the ways we read and study literature, and how we draw connections between literature, self, and society. The reading material will be entirely in English.
Fall
1 Course Unit

EALC 6371 New Korean Cinema
In 2019, Bong Joon-ho’s Parasite won the Palme d’Or at the 72nd Cannes Film Festival. This event marked the apex of South Korean cinematic renaissance, having steadily become a tour de force in the international film festival scene since 1997 onwards. This course explores the major auteurs, styles, themes, and currents of the so-called “New Korean Cinema” that emerged in the mid-to-late 1990s to continue to this day. Drawing from texts on critical film and Korean studies, we will pay particular attention to how the selected works re-present, resist, and interweave the sociopolitical climate they concern and are born out of. Using cinema as a lens with which to see the society, we will touch upon major events of the twentieth century including national division, military dictatorship and democratization movements, IMF economic crisis, youth culture, hallyu (the Korean wave), and damunhwa (multiculturalism initiative). In so doing, we will closely examine how each cinematic medium addresses the societal power structure and the role of the “Other” it represents in terms of class, race, gender, and sexuality in the construction of contemporary Korean society. We will also briefly survey the history of South Korean cinema that has evolved hand-in-hand with the history of modern Korea itself, walking through its five different phases (1945-Korean War era; 1955-1972 “Golden Age”; 1973-1979 censorship era; 1980-1996 democratization era; and 1997 onwards). No prior experience of Korean studies courses necessary; all films will be screened with English subtitles.
Not Offered Every Year
Also Offered As: CIMS 6371
Mutually Exclusive: EALC 1371
1 Course Unit

EALC 6550 The Politics of Shinto
Shinto-derived images and ideas frequently appear in Japanese anime and film, and journalists and academics frequently mobilize the term Shinto as a way of explaining Japan’s past or envisioning its future. The environmentalist left champions a green Shinto while Shinto-derived ideas serve as red meat for politicians pandering to Japan’s nationalist right. While the influential position Shinto occupies in Japanese sociopolitical life is therefore clear, the term Shinto itself is actually not. Depending on who one asks, Shinto is either the venerable indigenous religion of the Japanese archipelago, the irreducible core of Japanese culture, a tiny subset of Japanese Buddhism, an environmentalist ethic, or some combination of these. This course investigates the multifarious types of Shinto envisioned by these competing interest groups.
Also Offered As: RELS 6710
Mutually Exclusive: RELS 2710
1 Course Unit

EALC 6761 Traditional Korea and the Human Experience
This course provides a survey of Chosŏn Korea (1392-1910), focusing on the insights this period and place offer us into fundamental problems that have engaged societies throughout history, including those of our present time. Through translated primary-source readings, images, and objects, we will explore topics such as public duties and private desires, exclusion and belonging, the pursuit of power and wealth, legal justice, gender and class relations, the politics of language and writing, and ecological vulnerability and resilience. Students will be invited to contribute comparative perspectives that draw on their knowledge of other societies and times; they will also assess contemporary dramatizations of this period with the historical understanding they will develop throughout the course. On completion, students will gain an overview of politics, society, and culture in traditional Korea that will serve as the foundation for their further study of modern Korean history and contemporary affairs. No prior knowledge of Korea or the Korean language is required.
Mutually Exclusive: EALC 2761
1 Course Unit

EALC 6763 Readings in Korean History
This course introduces students to English-language scholarship on social history of Korea from the founding of the Chosŏn dynasty (1392-1910) to the mid-nineteenth century. Conducted as a reading seminar, the course will examine status and gender in early modern Korean society by considering, among others, descent, kinship, marriage, education, and economy. A reading list of noteworthy studies is intended to help the students map some critical questions and debates that have shaped the historiography. Everyone must participate actively in discussions, provide oral presentations as a discussion leader, and submit two review essays. No knowledge of Korean language or culture is presumed, although graduate students will be encouraged to read selections in the original language. This course satisfies Cross Cultural Analysis requirement.
Fall or Spring
1 Course Unit
EALC 6926 Chinese Martial Arts
This course offers a thematic introduction to the history of martial arts in China. Throughout the semester, we will explore the social, political, and cultural contexts of martial arts practice, from the classical period to the 21st century. The course will take an interdisciplinary approach to situating martial arts practices in history through an examination of religious, literary, and visual sources, against the backdrop of theoretical approaches from across gender studies, anthropology, and cultural theory. The course will be divided into three units. The first unit will focus on the cultural background that led to the emergence of martial arts practices in the pre-modern period. We will examine classical discourses on the human body and its cultivation and the role of medical practices and religious institutions, such as the Shaolin Temple, in the development of martial arts regimens. In the second unit, we will discuss the spread and popularization of martial arts practices in late imperial and modern Chinese society through a close reading of literary sources, such as wuxia novels and other works of fiction. In addition, we will explore the modernization and re-invention of martial arts in the late 19th century and early 20th century, when China attempts to re-establish itself as a modern nation. The third and final unit will be devoted to the global impact of Chinese martial arts in contemporary popular culture. Through a discussion and analysis of Kung Fu films, as well as video games, we will explore the role of martial arts narratives and practices in the construction of gender, cultural, and national identity and the various ways in which they are used by the current Chinese regime to assert its influence in the global arena. No knowledge of Chinese is presumed, and all readings will be available in English on the Canvas website in PDF form. Graduate students may take this course as EALC 6926 and should see the instructor to discuss requirements for graduate credit. Not Offered Every Year 1 Course Unit

EALC 7101 Archaeology of Northeast Asia
This seminar explores the major civilizations of Northeast Asia (Beijing, Northern Hebei, Liaoning, Jilin, Heilongjiang, Korea, and Eastern Mongolia; and in the early period, Japan) from the early CE centuries through the seventeenth. The sources of evidence are archaeological sites, palaces, monasteries, tombs, and excavated objects. Not Offered Every Year 1 Course Unit

EALC 7111 Tang China and Nara Japan
This is a seminar about Tang China and Nara Japan, and Early Heian Japan, Unified Silla Korea, Northeast Asia under Parhae, and Uyghur Inner Asia through their cities, palaces, monasteries, Buddhist art, and painting. We begin by studying material remains of the two best-documented civilizations of East Asian in the seventh-nineteenth centuries. Using painting, sculpture, ceramics, and architecture of Tang China and Nara Japan, we investigate the validity of the frequent assessment of an international Tang through material remains in China and Japan. We then move to Korea, Mongolia, and Central Asia. Students will have a wide range of topics to work on. They will be encouraged to find comparative topics. This seminar is an opportunity for students to use Chinese, Japanese, or Korean in research papers. There are no exams. Readings will be assigned to the whole group and to individual students for short presentations every week. Graduate students will write and present research papers. 1 Course Unit

EALC 7116 Chinese Art Under the Mongols
The Yuan Dynasty (1257-1368), the period of Mongolian rule, was the only time in Chinese history when China was part of a larger empire that spanned the Asian continent. Using architecture, sculpture, painting, and excavated evidence, this course examines the unique results of an international Asian world centered in China. Not Offered Every Year 1 Course Unit

EALC 7121 Life and Death in Han China
Using maps, city-panning, architecture, wall painting, sculpture, and minor arts as evidence, the course will examine the attitudes toward life and death in Han (206 BCE-AD 220) China. Fall or Spring 1 Course Unit

EALC 7140 Japanese Art Seminar
Seminar in early modern, modern, or contemporary Japanese art. Topics vary from semester to semester. Not Offered Every Year Also Offered As: ARTH 5150 1 Course Unit

EALC 7141 Ukiyo-e: Beyond the Great Wave
In this seminar we will take a closer look at the prints, paintings, and illustrated books produced in the genre known as "ukiyo-e," the "pictures of the floating world." We'll begin by asking how the "Great Wave" became a global icon and we'll bust the myth of prints being used as wrapping paper. As we learn the history of the genre, from 1600 to ca. 1850, we'll also make critical interventions into that narrative, asking how "ukiyo-e" became a genre within a larger artistic sphere; how publishers collaborated with designers to construct artistic personae; how illustrated books contributed to knowledge formations; and how concepts of authenticity and authorship remain critical to its understanding. This course will also consider how internet resources affect our understanding of the work of art. Students need not have any Japanese language skills, but should have taken related courses in art history or East Asian Studies. Advanced undergraduates and graduate students preferred. Not Offered Every Year Also Offered As: ARTH 5130 1 Course Unit

EALC 7142 Utamaro and his Contemporaries
In this seminar we will take a closer look at the prints, paintings, and illustrated books produced by one of ukiyo-e's most famous artists, Kitagawa Utamaro (1753?-1806), with special focus upon works to be included in an upcoming exhibition. We will begin by surveying the larger history of the "pictures of the floating world" (ukiyo-e) and pay close attention to Utamaro's teacher and his contemporaries. The status of the artist, the role of the publisher, networks of possible patrons, and Utamaro's legacy are among the key issues the seminar will address. Our analysis will further attend to the ways in which works by Utamaro and other ukiyo-e artists were evaluated and appreciated in late 19th-century France by such figures as Edmond de Goncourt, Hayashi Tadamashi, and Siegfried Bing, among others. Students will have the opportunity to study works in local and regional collections, including the Kislak Center, the Philadelphia Museum of Art, and the Freer/Sackler Galleries. Undergraduate students admitted by permission only. Fall or Spring Also Offered As: ARTH 5140 1 Course Unit
EALC 7180 Archaeology of Central Asia
A site by site investigation of Buddhist and non-Buddhist ruins in Central Asia. Included are Nisa, Khwarezm, Pyandzhikent, Khalchayan, Ay-Khanum, Bamyan, Miran, Tumshuk, Kizil, Kucha, Khotan, Adzhina-Tepe, Khocho, Khara-Khoto, and Bezeklik.
Fall or Spring
1 Course Unit
EALC 7211 Modern Chinese Poetry in a Global Context
The tumultuous political and economic history of modern China has been mirrored in and shaped by equally fundamental revolutions in language and poetic expression. In this course, we will take Chinese poetry as a crucible in which we can observe the interacting forces of literary history and social change. From diplomats who saw poetry as a medium for cultural translation between China and the world, to revolutionaries who enlisted poetry in the project of social transformation, we will examine the lives and works of some of China's most prominent poets and ask, what can we learn about modern China from reading their poetry? In asking this question, we will also reckon with the strengths and limitations of using poetry as an historical source. In addition to poems, the course will include fiction, essays, photographs, and films by both Chinese and non-Chinese artists that place our poets in a broader context. We will pay close attention to how these poets represent China's place in the world, as well as the role of language in social change. Topics of discussion include: national identity, revolution, translation, gender, the body, ethnicity, and technology. Familiarity with Chinese or related cultural context is beneficial, but not required. This course introduces students to Chinese poetry in English translation. Students will leave the course with an in-depth understanding of the main figures, themes, and techniques of Chinese poetry, and will be introduced to some of the major developments in the history of China. Through a focus on primary texts, students will develop the vocabulary and analytical skills to appreciate and analyze poetry in translation and will gain confidence as writers thinking about literary texts.
Not Offered Every Year
Also Offered As: COML 7211
Mutually Exclusive: EALC 3211
1 Course Unit
EALC 7244 War and Literature in Japan: Tales of the Heike
Our subject is Tale of the Heike, a multifaceted narrative of the twelfth-century battles that brought the Taira clan down and led to the establishment of Japan's first military government. We will read the Heike tales with an eye toward how they fictionalize history and idealize certain types, most notably loyal women and warriors; the development of the warrior tale genre; central aspects of the Japanese ethos; and later works of literature based on episodes and characters from the Tale of the Heike. All material is in English translation. (Students of Japanese language may learn to read a famous section in the original.) There are no prerequisites.
Not Offered Every Year
1 Course Unit
EALC 7246 The Tale of Genji
"Crowning masterpiece of Japanese literature," "the world's first novel," "fountainhead of Japanese literary and aesthetic culture," "a great soap opera in the vein of Jacqueline Susann." Readers over the centuries have praised the Tale of Genji, the monumental prose tale finished just after the year 1000, in a variety of ways. In this course we will read the latest English translation of Murasaki Shikibu's work. We will watch as Genji loses his mother at a tender age, is cast out of the royal family, and begins a quest to fill the void she left. Along the way, Genji's loyalty to all the women he encounters forges his reputation as the ideal lover. We will consider gender issues in the female author's portrayal of this rake, and question the changing audience, from bored court women to censurios monks, from adoring nationalists to comic book adaptors. Study of the tale requires consideration of poetry, imagery, costume, music, history, religion, theater, political and material culture, all of which will be components of the course. We will also trace the effect of the tale's many motifs, from flora and fauna to murderously jealous spirits, on later literature and conceptions of human emotions. All material is in English translation. There are no prerequisites.
Not Offered Every Year
1 Course Unit
EALC 7251 Japanese Science Fiction and Fantasy
This course will provide an overview of the major tropes, themes, and interpretations of contemporary Japanese science fiction and fantasy. As we establish a foundational knowledge of the history and structural formulations of genre fiction in Japan, we will cover topics such as folklore, high fantasy, apocalypse, dystopia, magical realism, posthumanism, video games, and transnational media franchises and cross-cultural marketing. By the end of the semester, students will possess a deeper understanding and appreciation of the role that science fiction and fantasy play in shaping contemporary media cultures in Japan and around the world.
1 Course Unit
EALC 7255 Literary Criticism and Theory in Japanese Literature
While the focus of this seminar will shift from year to year, the aim is to enable students to gain 1) a basic understanding of various theoretical approaches to literature, 2) familiarity with the histories and conventions of criticism, literary and otherwise, in Japan; 3) a few theoretical tools to think in complex ways about some of the most interesting and controversial issues of today, such as nationalism, imperialism, colonialism, postmodernism, and feminism, with particular focus on Japan's position in the world. The course is primarily intended for graduate students but is also open to advanced undergraduates with permission of the instructor. The course is taught in English, and all of the readings will be available in English translation. An optional discussion section may be arranged for those students who are able and willing to read and discuss materials in Japanese.
Not Offered Every Year
Also Offered As: COML 7255
1 Course Unit
EALC 7355 Japanese Theater
Japan has one of the richest and most varied theatrical traditions in the world. In this course, we will examine Japanese theater in historical and comparative contexts. The readings and discussions will cover all areas of the theatrical experience (script, acting, stage design, costumes, music, and audience). Audio-visual material will be used whenever appropriate and possible. The class will be conducted in English, with all English materials.
Fall or Spring
1 Course Unit
EALC 7424 Gender and Sexuality in Chinese History
This course examines gender and sexuality in Chinese history from ancient to contemporary times. It focuses on historiographical developments and methods of studying gender and sexuality in history as well as in Chinese history. The readings will include, but not be limited to, works by Robin Wang, Paul Goldin, Jen-der Lee, Patricia Ebrey, Beverly Bossier, Charlotte Furth, Susan Mann, Dorothy Ko, Francesca Bray, Yi-Li Wu, Matthew Sommer, Janet Theiss, Siyen Fei, Judith Zeitlin, Keith McMahon, Nicole Barnes, Gail Hershatter, Tani Barlow, and Lisa Rofel. Spring
1 Course Unit

EALC 7425 Gender, Religion, and China
This course examines the interrelationship among “gender,” “religion,” and “China” as conceptual and historical categories. We ask, for example, how gender plays critical and constitutive roles in Chinese religious traditions, how religion can be used both to reinforce and to challenge gender norms, how religious women impact Chinese society and culture, and what the construction of “China” as a cultural identity and as a nation-state has to do with women, gender, and religion. We will also think about what assumptions we have when speaking of gender, religion, and China, and the infinite possibilities when we strive to think beyond. We will read three kinds of materials: (1) scholarship on gender and religion in historical and contemporary China as well as the Chinese-speaking world, (2) scholarship concerning theories and methodology of gender and religious studies not necessarily focused on China, and (3) historical record of religious women in English translation. Not Offered Every Year
Also Offered As: RELS 7425
1 Course Unit

EALC 7429 Sex and Society in Ancient China
Ancient Chinese writers considered sexual activity to be an essential component of humanity, and the study of human sexuality to be essential to the study of human history. Sexuality constituted a fundamental source of imagery and categories that informed the classical Chinese conception of social, political, and military relationships. This course will survey the major sources dealing with sex and society in ancient China. There are no prerequisites, and no knowledge of Chinese is presumed. Not Offered Every Year
1 Course Unit

EALC 7522 Medicine and Healing in China
This course explores Chinese medicine and healing culture, its diversity, and its change over time. We will discuss topics including the establishment of canonical medicine, Daoist approaches to healing, and longevity, diverse views of the body and disease, the emergence of treatments for women, medical construction of sex difference and imagination of female sexuality, the thriving and decline of female healers, the identity of scholar physicians, the transmission of medical knowledge, domestic and cross-regional drug market, healer-patient relations, and new visions of traditional Chinese medicine in modern China. Not Offered Every Year
1 Course Unit

EALC 7523 Chinese Aesthetics
This seminar investigates classical Chinese conceptions of art and beauty as exemplified in philosophy, literature, music, painting, calligraphy, and architecture. All readings will be in English, and no knowledge of Chinese is presumed. Graduate students should see the instructor to discuss requirements for graduate credit. Not Offered Every Year
1 Course Unit

EALC 7524 Daoist Traditions
This course examines the history of various intellectual and religious traditions that came to be known as Daoist (or Taoist in the Wade-Giles Romanization). We will begin with a critical review of the twentieth-century reinvention of Daoism and the new classification of religious versus philosophical Daoism, before tracing chronologically the textual, institutional, and social history of Daoist traditions from the fourth century B.C.E. While familiarizing students with the key concepts, practices, and organizations developed in the history of Daoism, this class emphasizes the specific socio-political context of each of them. Throughout the course, we will think critically about the labeling of Daoist (as well as Confucian and Buddhist) in Chinese history and in modern scholarship. We will also question modern demarcations between philosophy, religion, and science, as well as that between the spiritual and the physical. Not Offered Every Year
Also Offered As: RELS 7524
1 Course Unit

EALC 7528 Apocalypse and Utopia in China
Representations of a perfect society and imagined scenarios of a dystopian or apocalyptic future are a common features of all human societies. Philosophical, religious, and literary attempts to imagine alternative futures and critique present conditions enjoyed widespread popularity and considerable influence throughout Chinese history. The goal of this course will be to introduce students to the major themes and trends in utopian and apocalyptic thought in China, from the premodern age to our times. In the first part of the semester, we will learn about the utopian and apocalyptic narratives that emerged in early and medieval China. We will begin by discussing the two archetypal models of a utopian society in early China: the Confucian harmonious moral society and its Daoist counterpart of an idyllic secluded community located in faraway lands. We will then turn our attention to the emergence of organized religion and the utopian and apocalyptic scenarios promoted by Daoist and Buddhist writers and religious innovators. In the second part of the semester, we will focus on the modern and contemporary periods and the study the impact of the introduction of Western utopian and millenarian narratives on the Chinese imagination. In addition to surveying some real-world attempts to establish a utopian society, such as the 19th century Taiping Rebellion, Mao Zedong’s attempts to fashion China into a Community Utopia in the 20th century, and the 21st century eco-village green movement, students will be introduced to a wide variety of literary and cinematic texts that try to imagine a possible future - from the utopian sci-fi nationalism of The Wandering Earth to the dystopian fiction of leading writers such as Han Song, Chen Qufan, and Han Jingfang. Using these works as case studies, we will strive to ascertain the role of utopianism as a tool of political, social, and environmental criticism and as a way to construct a better and more just society in the 21st century. No knowledge of Chinese is necessary - all readings will be in English. As a split-level seminar, the course will be discussion-based. Students will be asked to post weekly 500-word response papers in which they will analyze and critique the readings. The goal of this task is to help students familiarize themselves with the assigned sources before the in-class discussion thus facilitating a meaningful and productive discussion. For their final project, students will conduct their own research on a topic of their choice and present it during the last meeting. Undergraduate paper will be limited to 10 pages; graduate papers should be around 20-25 pages, including original-language research. Not Offered Every Year
1 Course Unit
EALC 7531 Chinese Law and Society
This course is an introduction to the study of law and society in China in a comparative and global context. We will begin by considering the tradition of imperial Chinese law and its social and philosophical foundations. We will then turn to the confrontation between the Qing empire and Euro-American imperial powers in the nineteenth century and the attendant collision between European and Chinese notions of sovereignty. Next, we will consider early twentieth-century law reforms as the Qing empire was transformed into the constitutional form of a modern republic, followed by the introduction of socialist law and the establishment of the People's Republic of China. The course will conclude with post-Mao reforms and their implications for the future of Chinese law and society. Throughout the course, we will pay attention to the use of historical and comparative methods. What are the potentials and liabilities of using law as an analytical category in cross-cultural study? What happens when "Eastern" and "Western" legal cultures come in contact with each other? How is law related to capitalism and socialism? How does law structure political and socio-economic relations globally? How does law produce as well as constrain subjects and identities? What is the relationship between law, gender, and sexuality?
Spring
Mutually Exclusive: EALC 3531
1 Course Unit

EALC 7537 Asian Religions in the Global Imagination
This seminar critically examines the missionary impulses, colonial exploits, and translation endeavors that contributed to the rise of Asian studies and the emergence of the scholarly notion of "Asian religions." It shows the crucial roles played by Asian agents and their European counterparts in the formation of modern conceptions of "religion"; it also engages reflexive questions regarding theory, method, and the geopolitical underpinnings of both Asian studies and the non-confessional academic study of religion. Students will conduct sustained research projects on the country or region of their choice.
Not Offered Every Year
Also Offered As: RELS 7537
1 Course Unit

EALC 7559 Southeast Asian Manuscript Traditions
This is an advanced PhD seminar in which the students will need advanced proficiency in Pali and at least one Southeast Asian Language (Burmese, Thai, Khmer, Lao, Leu, Khoen, Shan, and/or Lanna). Original manuscripts from Penn's collection of Southeast Asian religious, medical, botanical, historical, art, and literary archives will be examined and discussed.
Not Offered Every Year
Also Offered As: RELS 7730, SAST 7730
1 Course Unit

EALC 7590 Gender and Sexuality in Japan
If you have ever wondered about the following questions, then this is the right course for you: Is Japan a hyper-feminine nation of smiling geisha and obedient wives? Is it a hyper-masculine nation of samurai and economic warriors? Is it true that Japanese wives control the household? Is it true that Japanese men suffer from over-dependence on their mothers? What do young Japanese women and young men worry about? What does the government think about the future of Japanese women and men? Assuming that expressions of gender and sexuality are deeply influenced by cultural and social factors, and that they also show profound differences regionally and historically, this course examines a variety of texts—historical, biographical, autobiographical, fictional, non-fictional, visual, cinematic, analytical, theoretical—in order to better understand the complexity of any attempts to answer the above questions.
Not Offered Every Year
1 Course Unit

EALC 7570 Introduction to Classical Chinese I
This course is an introduction to the classical written language, beginning with Shadick, and the attendant collision between European and Chinese notions of sovereignty. Next, we will consider early twentieth-century law reforms as the Qing empire was transformed into the constitutional form of a modern republic, followed by the introduction of socialist law and the establishment of the People's Republic of China. The course will conclude with post-Mao reforms and their implications for the future of Chinese law and society. Throughout the course, we will pay attention to the use of historical and comparative methods. What are the potentials and liabilities of using law as an analytical category in cross-cultural study? What happens when "Eastern" and "Western" legal cultures come in contact with each other? How is law related to capitalism and socialism? How does law structure political and socio-economic relations globally? How does law produce as well as constrain subjects and identities? What is the relationship between law, gender, and sexuality?
Spring
Mutually Exclusive: EALC 3531
1 Course Unit

EALC 7571 Introduction to Classical Chinese II
Continuation of Introduction to Classical Chinese I, which is the only prerequisite for this course. Upon completion of Shadick, readings in a wide selection of texts with Chinese commentaries may be taken up. These readings are in part chosen to reflect student interest. This is the second half of a year-long course. Those who enroll must take both semesters.
Spring
Mutually Exclusive: EALC 3531
1 Course Unit

EALC 7621 Introduction to Classical Chinese I
Introduction to the classical written language, beginning with Shadick, First Course in Literary Chinese. Students with a background in Japanese, Korean, Cantonese, Taiwanese, and other East Asian languages are welcome; it is not necessary to know Mandarin. The course begins from scratch, and swiftly but rigorously develops the ability to read a wide variety of classical and semi-classical styles. Original texts from the 6th century BC to the 20th century AD are studied. This course is taught in English and there are no prerequisites.
Fall
Mutually Exclusive: EALC 3621
1 Course Unit

EALC 7622 Introduction to Classical Chinese II
Continuation of Introduction to Classical Chinese I, which is the only prerequisite for this course. Upon completion of Shadick, readings in a wide selection of texts with Chinese commentaries may be taken up. These readings are in part chosen to reflect student interest. This is the second half of a year-long course. Those who enroll must take both semesters.
Spring
Mutually Exclusive: EALC 3622
Prerequisite: EALC 7621
1 Course Unit

EALC 7641 Readings in Classical Japanese I
Readings in classical texts drawn from the Heian, Kamakura, Muromachi, and Edo periods. Introduction to the different styles of classical Japanese, and to classical Japanese as a whole.
Fall
Prerequisite: JPAN 0600
1 Course Unit

EALC 7681 Introduction to Classical Mongolian
In this class students who already know some modern Mongolian in the Cyrillic script will learn how to transfer that knowledge to the reading of first post-classical, and then classical texts written in the vertical or Uyghur-Mongolian script. Topics covered will include the Mongolian alphabetic script, dealing with ambiguous readings, scholarly transcription, vowel harmony and syllable structure, post-classical and classical forms of major declensions, converses, verbal nouns, and finite verbs, syntax, pronunciation and scribal readings. Readings will be adjusted to interests, but as a rule will include selections from short stories, diaries, chronicles, Buddhist translations, government documents, popular didactic poetry, ritual texts, and traditional narratives. Students will also be introduced to the most important reference works helpful in reading classical and post-classical Mongolian.
Fall
1 Course Unit
EALC 7682 Introduction to Classical Mongolian II
Continuation of EALC 3681/EALC 7681, which is the only prerequisite for this course. Upon completion of the basic introduction to grammar, spelling rules, and diachronic levels (pre-classical, classical, post-classical), readings in a wide selection of texts with Mongolian commentaries may be taken up. These readings are in part chosen to reflect student interest. This is the second half of a year-long course. Those who enroll should take both semesters.
Spring
1 Course Unit

EALC 7720 Early Chinese History
This seminar covers the span of Chinese history from the Bronze Age to the end of the Han dynasty in A.D. 220. No knowledge of Chinese is presumed, but EALC 001 (Introduction to Chinese Civilization) is a prerequisite. Graduate students who wish to enroll should meet with the instructor to discuss additional requirements for graduate credit.
Spring
1 Course Unit

EALC 7721 Law in Pre-Modern China
This course, intended for graduate students and advanced undergraduates, offers a survey of the sources and research problems of pre-modern Chinese law. For reasons to be examined in the course, traditional Sinological education has neglected law as a legitimate field of inquiry; consequently, the secondary literature is surprisingly meager. Our readings will take us from the Warring States Period to the Qing dynasty—an interval of over two millennia—and will cover several varieties of legal documents, including statutes, handbooks, court records, and theoretical treatises. All the readings will be in English, and no knowledge of Chinese is presumed. Graduate students should see the instructor to discuss requirement for graduate credit.
Not Offered Every Year
1 Course Unit

EALC 7744 Law and Violence in Pre-Modern Japan
This course will be an exploration of premodern Japanese history through the lens of violence. The centuries under consideration (roughly, the eighth through nineteenth) were characterized by greatly varying levels of violence, both of the state-sanctioned variety (war, punishments for law-breakers and political losers) and of the non-sanctioned variety (piracy, banditry, warrior and peasant rebellions). Examining a wide variety of translated sources, from diaries to chronicles, from legal codes to fiction, we shall examine the changing social, political, economic, and cultural contexts of violence, in order to interrogate not only why certain periods were remarkably peaceful while others were not, but also why violence took different forms in relation to different circumstances. We shall consider how contemporaries made sense of the violence that surrounded them (or didn’t) and how they divided the acceptable use of force from the wanton and society-threatening abuse of it. The course will feature presentations and several (very short) papers.
Not Offered Every Year
1 Course Unit

EALC 7783 Pastoralism & Mobility
"Pastoralism and Mobility" will examine the society and history of mobile pastoralists (nomads) in Inner Asia from earliest times to the present. Peoples covered will include Mongols, Tibetans, Turkic nomads (such as Kazakhs, Kyrgyz, and Turkmen), and their ancestors and predecessors. The class on focus on questions such as: Is there a distinctive form of Inner Asian pastoralist society? At the grass roots level? At the elite level? How have states (native and foreign) influenced Inner Asian pastoralist society in pre-modern and modern contexts? How how Inner Asian pastoralists influenced neighboring states? What role does kinship play in governing group formation, property, and status in Inner Asian pastoralist society? Does this role vary over time, space, or ethnic background? If so, how? What purposes does mobility serve in Inner Asian societies? How have various forms of livestock lease-holding changed and shaped wealth in Inner Asian pastoralist society? How did class differentiation emerge & function in pre-modern pastoralist societies? What happens when pastoralists become farmers? How have modern schemes of social improvement and productivity, especially collectivization and decollectivization, shaped pastoralist lives?
Fall, odd numbered years only
1 Course Unit

EALC 8100 East Asian Art Seminar
Graduate seminar in East Asian art. Topics vary from semester to semester.
Not Offered Every Year
Also Offered As: ARTH 7140
1 Course Unit

EALC 8101 Seminar in East Asian Art
Seminar in East Asian Art: High-level, research-oriented seminar whose subject changes. Students must be fluent readers of at least one East Asian language.
Not Offered Every Year
1 Course Unit

EALC 8102 Twentieth-Century Art in East Asia: Modernity and Confrontation
This seminar considers modern and contemporary art in China, Japan and Korea over the course of the twentieth century. What does it mean to make modern art and whom should it serve were essential questions in this century in East Asia. In this course the confrontations between modernity and tradition, state and self, the colonizer and the colonized, and collecting and the market are all issues under consideration. We begin with a study of the way "modern art" was defined at the turn of the century, its place in the nation state, the promotion of oil painting in Academic styles, and the call to preserve "national" styles. We also consider how the avant-garde pursuit of individuality constituted a confrontation over state-sponsored "modernism," and how these confrontations played out in world's fairs and expositions (and continue today). We will further engage how Japan's imperialist actions against its neighbors had an impact on artistic development in territories it controlled, and the place of the work of art as propaganda in Japan's war effort. Turning to the postwar era, we will study how China's Communist Revolution, the Korean War, and the Occupation in Japan likewise established new paradigms for the production and reception of art, as well as more recent confrontations between art and politics in recent decades and the place of Chinese, Korean and Japanese art in the contemporary market.
Not Offered Every Year
Also Offered As: ARTH 7141
1 Course Unit
EALC 8140 Japanese Art Seminar
This seminar engages specific topics in Japanese art history from 1600 to the present, with the specific focus varying from year to year. Previous topics have included: the concept of the artist; gender and its representation; the visualization of place from the early modern to the present; collecting, the market, modernity, and the construction of the field; print cultures; among others. Sessions will be conducted on site, in museums, galleries, and libraries, as available. Assignments vary depending upon the focus of the seminar. Japanese language ability useful but not necessary; curiosity and engagement required.
Not Offered Every Year
Also Offered As: ARTH 7150
1 Course Unit

EALC 8211 Language, Nation, and Diaspora in East Asia and the World
This course examines the nexus between language, nation, and diaspora by bringing literary and cultural texts together with foundational and cutting-edge scholarship. Recent scholarship has attempted to account for the history, politics, aesthetics, and rich complexity of texts produced at or across the boundaries of national and linguistic communities. This course focuses on East Asia in the modern period and the texts produced by diasporic, migrant, exile, and other global communities thereof in order to investigate and reconsider how scholars might account for such texts. Topics for discussion include, for example: diaspora and migration, cosmopolitanism and universalism, nation and nationalism, translation and multilingualism, media and mediation, gender and sexuality, and the human and posthuman. Our readings will include a wide range of scholarship drawn from across disciplines and regions of focus, as well as literary, cultural, and cinematic texts which will allow us to think through the ideas put forth in scholarship.
1 Course Unit

EALC 8290 Approaches to Literary Texts
Most seminars focus on literary texts composed during a single historical period; this course is unusual in inviting students to consider the challenges of approaching texts from a range of different historical eras. Taught by a team of literary specialists representing diverse periods and linguistic traditions and conducted as a hands-on workshop, this seminar is designed to help students of literature and related disciplines gain expertise in analysis and interpretation of literary works across the boundaries of time, geography, and language, from classic to modern. Students will approach literature as a historical discipline and learn about key methodological issues and questions that specialists in each period and field ask about texts that their disciplines study. The diachronic and cross-cultural perspectives inform discussions of language and style, text types and genres, notions of alterity, fictionality, literariness, symbolism, intertextuality, materiality, and interfaces with other disciplines. This is a unique opportunity to learn in one course about diverse literary approaches from specialists in different fields.
Not Offered Every Year
Also Offered As: CLST 7601, COML 6160, ENGL 6160, REES 6450, ROML 6160
1 Course Unit

EALC 8301 History of the Book in East Asia
From handscrolls to manga, books play a vital role in East Asian societies. In this seminar we will introduce the spread of book cultures across East Asia and reconsider the role and impact of material texts on societies in China, Korea, and Japan. Among the questions we'll engage are: What is a book, an author, or an edition? How do readers affect books? How do publishers decide when to use illustrations, woodblock printing, or movable type? How has the history of books differed in China, Japan, and Korea from the history of the book in the West? We will consider various media (bamboo, paper, silk, and the digital), formats (scrolls, folded books, bound books, small to oversize), and the tensions between handwritten manuscript and printed pages. Hands-on sessions may include paper-making, bookbinding, and printing. This is an Objects-Based Learning course, using materials from the Kislak Center for Special Collections, Rare Books and Manuscripts, and the Penn Museum, with visits to the Philadelphia Museum of Art and the Free Library of Philadelphia. Requires no knowledge of any Asian language.
Not Offered Every Year
Also Offered As: ARTH 5170
1 Course Unit

EALC 8521 Tang-Song Religious and Medical Texts
This seminar aims at developing the skill in reading religious and medical texts of a range of different genres from the Tang-Song period, including treatises in medical theory, no sological texts, recipe compilations, material medical, macrobiotic texts, Buddhist and Daoist meditation and ritual instructions, as well as case histories in anecdotal forms. There are a variety of topics we can choose to focus on the studying those texts, and the choice will be made on the students' research interests. Each week we will look at one type of texts, consider its edition, textual history, chapter organization and genre (sometimes with background readings), read line-by-line a sample text assigned in advance, as well as sight-read short samples that students bring to class. At least one year Classical Chinese is required.
Not Offered Every Year
Prerequisite: CHIN 491 AND CHIN 492
1 Course Unit

EALC 8540 Japanese Religions
A broad survey of Japanese religions from ancient times to the present. Topics include kami worship, Buddhism, Shinto, Shugendo, Onmyodo, "new religions", and Japanese variants of Christianity and Islam. Students will make weekly presentations on reading material in class and will have two major written assignments. This course serves as preparation for a comprehensive exam in Japanese religions or for dissertation research on some aspect of Japanese religions.
Not Offered Every Year
1 Course Unit
EALC 8588 Religion & Ethnicity in Inner Asia  
"Religion and Ethnicity in Inner Asia" will examine these two phenomena and their interaction in Inner Asia from earliest times to the present. The class will cover Mongolia, Tibet, Kazakhstan, and Turkic and Mongolian peoples of Russia and China. Religions addressed primarily include Buddhism, Islam, shamanism, and secularism. Why "ethnicity and religion"? In practice the scholarly research and literature on these two topics in Inner Asia have been closely related. In addition to theoretical works on ethnicity, nationalism, religion and identity, the class will focus on issues such as ethnicity and religious conversions, place-based ethnic and religious identities, ethnicity and the Chinese and Russian states, nationalism, nationality policy, reformist and atheist secularisms, revivalist and apocalyptic movements, and the intersection of ethnicity, race, sexuality, and international networks.  
1 Course Unit

EALC 8600 Chinese Language Pedagogy and Methods  
This graduate course is designed to equip students with the most advanced and up-to-date theoretical knowledge and practical skills of teaching modern Chinese with emphasis on the instruction of beginning and intermediate levels. The theoretical component introduces you to both mainstream and innovative theoretical frameworks in second-language acquisition and sociology of education, including teaching within the National Standards; communication-based audio-lingo approach; backward design; prosodic syntax in Chinese; official knowledge; tracking; ecologies of resources; assessment and testing. The practical component emphasizes everyday classroom situations and discusses diverse teaching concepts and the development of individual teaching strategies and styles. Special attention will be given to concrete teaching and learning strategies within the communication-based audio-lingo approach, including Chinese grammar illustration, corrective feedback, teaching techniques, educational technologies, etc. Chinese proficiency at the advanced level is required because this course will be taught in both Chinese and English, and many of the reading materials are in Chinese.  
Fall, even numbered years only  
Also Offered As: CHIN 8600  
1 Course Unit

EALC 8621 Advanced Classical Chinese I  
Close reading and interpretation of texts in various styles of classical Chinese drawn from the Han, Wei, Tang, and Song periods. Focus on strengthening students' reading ability in classical Chinese. Attention to questions of style, rhetoric, and syntax.  
Not Offered Every Year  
Also Offered As: CHIN 8621  
Mutually Exclusive: EALC 3623  
1 Course Unit

EALC 8622 Advanced Classical Chinese II  
Close reading and interpretation of texts in various styles of classical Chinese drawn from the Han, Wei, Tang, and Song periods. Focus on strengthening students' reading ability in classical Chinese. Attention to questions of style, rhetoric, and syntax. It is preferred, but not required, that students take Advanced Classical Chinese I first.  
Not Offered Every Year  
Also Offered As: CHIN 8622  
Mutually Exclusive: EALC 3624  
Prerequisite: EALC 8621  
1 Course Unit

EALC 8627 Song Dynasty Texts  
The goal of this course is to gain a practical ability in doing research concerning the Song dynasty by utilizing Chinese primary sources. Each session we will take a type of source, look at examples of it in the library, consider indexes and other reference aids, consider historiographical uses and limitations, and do some communal reading of a sample text distributed in advance, as well as sight-reading of short samples students bring to class, prepared to translate for the class. We will cover sources including standard histories (Song shi, Liao shi, Jin shi), narrative history (Xu zizhi tongjian changbian), biographical accounts (epitaphs, index of Song biographies), diaries, letters, inscriptions, anecdotes, regional histories/gazetteers, and government documents (Song hui yao).  
Not Offered Every Year  
Prerequisite: CHIN 491 AND CHIN 492  
1 Course Unit

EALC 8629 Seminar on Middle Vernacular Sinitic  
Students will be introduced to works in Middle vernacular Sinitic. Specific readings will vary semester to semester.  
Not Offered Every Year  
Prerequisite: CHIN 491 AND CHIN 492  
1 Course Unit

EALC 8659 Japanese for Sinologists  
An accelerated course in scholarly Japanese for Sinologists and others with a knowledge of Chinese characters.  
Fall  
Prerequisite: JPAN 0400  
1 Course Unit

EALC 8725 Readings in Song Dynasty History  
This seminar will introduce graduate students to current scholarship on the Song dynasty (960-1276) by surveying both classic and recent work in the field. Students will gain a foundation in how historians have interpreted the Song period and learn the major debates within the field. Readings will be principally in English, and no background in Chinese studies is required.  
Not Offered Every Year  
1 Course Unit

EALC 8727 Chinese Economic History  
This seminar will introduce graduate students to current scholarship and major scholarly debates in the field of Chinese economic history, focusing on the imperial period up to 1900. The course will proceed chronologically, combining a survey of the historiography of the Chinese economy (principally in English) with extended discussion of the most significant disagreements within the field. No background in Chinese studies is required.  
1 Course Unit

EALC 8741 Readings in Early Modern Japanese History  
The selection of specific authors and their works varies semester to semester.  
Not Offered Every Year  
1 Course Unit
EALC 8747 Readings in Premodern Japanese History: War & Peace, 1000-1850
This seminar is an introduction to the most recent historiography on premodern Japan, with a special attention to work focused on the medieval and early modern periods (twelfth through nineteenth centuries). The course will range broadly from religious history to social history, from new takes on biography and material culture to new approaches to think of Japanese's relation to the other, within the archipelago and beyond. Each week will feature a monograph published in the last decade or so, alone or (when possible) in conversation with earlier pieces on similar subjects. Students will be expected to take turns presenting on readings, to write three short book reviews during the course of the semester and a longer seminar paper at the end of the semester (to be submitted by 12/15). The short papers should be handed in no more than three weeks after the book was discussed in class.
Not Offered Every Year
1 Course Unit

EALC 8765 Sources in Korean Studies
The selection of specific authors and their writings varies semester to semester.
Not Offered Every Year
1 Course Unit

EALC 8801 Theory in/and East Asia
"Theory" can be exciting and seductive to some scholars, but intimidating or pretentious to others. Unfortunately, this difference in feeling about theoretical scholarship and discussion has a tendency to produce a divide in academia between those who "do theory" and those who do not. This graduate seminar pursues the question of how theory can be engaged in the context of East Asian cultural studies, with the goal of collectively working through texts to understand how theoretical reflection opens up possibilities for productive conversations across disciplinary boundaries. Many critiques have been made of the way "traveling theory" serves as a Euro-American universal applied to the "raw material" of East Asian texts, or a transdisciplinary common language in the Humanities and Social Sciences. Instead, we will take such critiques as a starting point to pragmatically and creatively explore the intersections and interactions of "theory" and "East Asia," emphasizing the archival, historical, political, and institutional contexts that motivate theorization. In that spirit, special attention will be given to discussing what problems we find in our own work that require theoretical consideration, and how such considerations might contribute to, challenge, or transform theory originating outside of East Asia. Readings will primarily be in English, but may also include Japanese, Chinese, or Korean depending on student interest and language abilities.
Not Offered Every Year
1 Course Unit

EALC 8820 Sinological Methods
This seminar is designed to acquaint graduate students with the basic methods and resources of Sino logical research. The course will begin with an overview of essential reference works and aids to study, such as dictionaries and concordances, and continue with a survey of the major primary sources for the study of traditional Chinese history. Students are required to demonstrate the use of the methods learned in the course in a research paper, to be presented to the class in the form of a brief lecture at the end of the semester. Only graduate students may enroll in this course. The prerequisites are reading knowledge of modern Chinese and two years of the classical language. Familiarity with Japanese, though not required, would prove helpful.
Not Offered Every Year
1 Course Unit

EALC 8840 Japanese Literature: Research Methods in the Classical Tradition
Introduction to bibliographic tools for research in pre-modern literature. Emphasis on hands-on library work, including how to use libraries in Japan. Covers history and terminology of bibliography. Students may attend lectures in EALC 152/552 simultaneously, when offered. Final project will use reference tools for substantive research in individual student’s area of interest.
Not Offered Every Year
1 Course Unit

EALC 8841 Current Japanology
This is a course designed for advanced undergraduate students and graduate students, primarily those majoring in Japanese and East Asian Studies and related disciplines. The main objective of the course is to survey recent and current scholarship on Japan. Each week we will focus on one monograph or a set of chapters or essays, reading them closely not merely to acquire up-to-date knowledge, but to gain new frameworks for approaching the study of Japanese culture, history, and society. Japanese-reading ability is not assumed and discussions will be in English, but optional readings in Japanese will be available.
Not Offered Every Year
Also Offered As: GSWS 8841
1 Course Unit

EALC 8860 Korean Studies: Methods
A seminar on the methods and tools available for conducting research on issues related to Korea. Specific topics may vary according to student needs.
Not Offered Every Year
1 Course Unit

EALC 9997 Masters Thesis
Registration for MA students who have finished coursework and are writing their MA thesis or research papers.
Fall or Spring
0 Course Units

Economics (ECON)

ECON 0100 Introduction to Micro Economics
Introduction to economic analysis and its application. Theory of supply and demand, costs and revenues of the firm under perfect competition, monopoly and oligopoly, pricing of factors of production, income distribution, and theory of international trade. Econ 1 deals primarily with microeconomics.
Fall or Spring
Mutually Exclusive: ECON 0110
1 Course Unit
ECON 0120 Strategic Reasoning
This course is about strategically interdependent decisions. In such situations, the outcome of your actions depends also on the actions of others. When making your choice, you have to think what the others will choose, who in turn are thinking what you will be choosing, and so on. Game Theory offers several concepts and insights for understanding such situations, and for making better strategic choices. This course will introduce and develop some basic ideas from game theory, using illustrations, applications, and cases drawn from business, economics, politics, sports, and even fiction and movies. Some interactive games will be played in class. There will be little formal theory, and the only pre-requisites are some high-school algebra and having taken Econ 1. However, general numeracy (facility interpreting and doing numerical graphs, tables, and arithmetic calculations) is very important. This course will also be accepted by the Economics department as an Econ course, to be counted toward the minor in Economics (or as an Econ elective).

Fall
Also Offered As: PPE 3001
Prerequisite: ECON 0100
1 Course Unit

ECON 0200 Introductory Economics: Macro
Introduction to economic analysis and its application. An examination of a market economy to provide an understanding of how the size and composition of national output are determined. Elements of monetary and fiscal policy, international trade, economic development, and comparative economic systems.

Fall or Spring
Mutually Exclusive: ECON 0110
Prerequisite: ECON 0100
1 Course Unit

ECON 0410 Public Policy Analysis
This course provides an introduction to the economic method for analyzing public policy questions. It develops the implications of this method for the role of government in a market economy and for the analysis of specific public projects.

Fall or Spring
Prerequisite: (ECON 0100 AND ECON 0200) or ECON 0110
1 Course Unit

ECON 0420 Political Economy
This course examines the effects of strategic behavior on political outcomes and government policies. Topics and applications may include voting behavior, candidate competition, voting systems, social choice and welfare, policy divergence, redistributive policies and theories of political transitions.

Fall or Spring
Prerequisite: (ECON 0100 AND ECON 0200) or ECON 0110
1 Course Unit

ECON 0430 Labor Economics
The course begins with an extensive discussion of models of labor market demand and supply. The rest of the course addresses a variety of related topics including the school-to-work transition, job training, employee benefits, the role of labor unions, discrimination, workforce diversity, poverty, and public policy.

Spring
Prerequisite: ECON 0100 OR ECON 0110
1 Course Unit

ECON 0440 Law and Economics
The relationship of economic principles to law and the use of economic analysis to study legal problems. Topics will include: property rights and intellectual property; analysis of antitrust and economic analysis of legal decision making.

Fall or Spring
1 Course Unit

ECON 0450 Industrial Organization
Theories of various industrial organizational structures and problems are developed, including monopoly, oligopoly, moral hazard and adverse selection. These theories are then applied to the study of various industries, antitrust cases, and regulatory issues.

Fall or Spring
Prerequisite: ECON 0100 OR ECON 0110
1 Course Unit

ECON 0460 Economics and Theories of Fairness
Free markets excel at producing wealth, but seem to do so at the cost of economic inequality. Is this inequality unjust? Is it a problem economics and public policy should solve? Liberal democracies have traditionally had the protection of private property as a core mandate. But they also have varying degrees of redistribution in order to fund social welfare systems. How can we reconcile these objectives which seem to conflict? Is the protection of individual rights more important than the promotion of the greatest good for all? To what extent can personal liberty and the common good be reconciled? Are current entitlement programs like Medicare unfair to the younger generation? Is our current natural resource usage unfair to future generations? In this course, we will use the philosophical concept of justice to address these and other related questions. We will draw from the economic history, political theory, and the history of philosophy in order to acquire a framework for understanding the concepts of justice, liberty, rights, and equality. We shall then apply this historical and conceptual framework to discussion topics and case studies drawn from present day economics and contemporary social issues. In this way, we shall come to understand economics as more than a social science of laws and theorems. Instead we shall see how economics as an applied science influences the well-being of the whole of society.

Fall
1 Course Unit
ECON 0465 Economics and Philosophy
This course examines some of the ways in which economics as a social science is related to philosophy. We start with a discussion of the definition, scope, and methodology of economics, reading Robbins on the definition of economics, Mill on the science of political economy and Friedman’s essay on methodology, along with some of its critical responses. We then consider three central concepts of economics which have their roots in philosophy: rationality, utility, and welfare, and we examine the philosophical assumptions in each of these economic concepts. Economics assumes a form of instrumental rationality by which individuals seek to maximize their utility. We consider the origins of this concept of rationality, its extension into rational choice theory, and the critiques it has inspired. Our next topic is the concept of utility, which originates in philosophy but which receives a technical definition in economics. Finally, we turn to welfare economics, which is the most normative part of economic science, where we consider topics such as preference satisfaction and interpersonal comparisons of utility. We also raise the question throughout whether these concepts are rightly used in economics, and whether welfare economics can in fact promote well-being. In addition to the four major topics (methodology, rationality, utility, and welfare), we will also devote one class each to four topics debated in journal articles by some of the most important economists in recent history. These topics are: --Is underinvestment in basic research a market failure? (Arrow v. Demsetz); --What are the market consequences of imperfect information? (Hayek v. Stiglitz); --What are the moral dimensions of economic growth, specifically as it relates to the environment? (B. Friedman v. T. Jackson); --Is it ethical for the state to “nudge” citizens towards desired behaviors? (Thaler and Sunstein v. Grüne-Yanoff); and Reviewing the views expressed in these debates will allow students to form their own opinions on major topics in economics where the arguments are largely philosophical. The goal of the overall course is to help students develop a more critical understanding of the assumptions of economics as it’s practiced as a social science.
Spring
Prerequisite: ECON 0100 AND ECON 0200
1 Course Unit

ECON 0500 International Economics
Introduction to the theory of international trade and international monetary economics. The theoretical background is used as a basis for discussion of policy issues. Patterns of international trade and production; gains from trade; tariffs, and impediments to trade; foreign exchange markets, balance of payments, capital flows, financial crises, coordination of monetary and fiscal policy in a global economy.
Fall or Spring
Prerequisite: (ECON 0100 AND ECON 0200) OR ECON 0110
1 Course Unit

ECON 0510 Development Economics
This course presents an overview of the field of development economics. The general aim is to show how economic analysis has been applied to issues related to developing countries. Among the topics covered are: income distribution, poverty, health, population growth, migration, growth, and the rural economy.
Fall or Spring
Prerequisite: ECON 0100 OR ECON 0110
1 Course Unit

ECON 0610 American Capitalism
A broad overview of American economic history will be provided by focusing on the following topics: colonial trade patterns, the growth of the market economy, the political economy of slavery, industrial expansion, segmentation in the labor force and changes in work, technological and organizational innovations, business cycles, the rise of the corporate welfare state, the growth of monopoly capitalism, and current economic problems in historical perspective.
Fall or Spring
Also Offered As: HIST 1161
1 Course Unit

ECON 0615 The History of the International Monetary System and the Rise of the US Dollar
The course will cover the modern evolution of the international monetary system going all the way back to the era when sterling became the leading international currencies. It is arranged thematically and chronologically both. The lessons and readings will introduce students to the principal evolutions of the international monetary system and at the same time, it will give them an understanding of regimes, their mechanics and the geopolitical economies behind systemic shifts. Students need not have an economic background but must be prepared to read about exchange rates (and world politics). Special focus on: The early modern international monetary system. How Amsterdam and London captured the Spanish treasure. Beyond the West (Ottoman Empire, India, China). The Napoleonic wars and the rise of sterling. Hong-Kong: Silver, Opium, and the Recycling of Surpluses. The emergence of the Gold Standard. Bimetallism: The US election of 1796. Sterling and Key Currencies before WWI. The First World War and the origins of dollar supremacy. When the dollar displaced sterling (1920s). The collapse of the international gold standard (1930s). The Bretton Woods System. The rise and rise of the US dollar. Currency competition (Dollar, Euro, Yuan Renminbi). The meaning of cryptocurrencies.
Also Offered As: HIST 3965
1 Course Unit

ECON 0620 Financial Meltdown, Past and Present
Economic history is increasingly recognized as a crucial source of policy advice and is invoked with growing frequency in public debates. In particular, the subprime crisis in 2008 and after has generated a demand for “historical perspective” that would improve the understanding of the causes of financial turmoil and facilitate the prevention of comparable catastrophes. This course begins with a review of the principal features of the subprime crisis of 2008 and asks, so to speak, “how did we get there?” It answers by providing historical insights that shed light on crucial aspects of financial disasters. This is a history course, engaging with topics pertaining to economics, law and politics (national and international). Students with diverse backgrounds are expected to benefit from this course through acquiring a concrete knowledge of the historical evolution of fundamental institutions of financial capitalism. Ultimately, students enrolling in this course are expected to achieve proficiency in historically informed discussion of the mechanisms that were played out in the subprime crisis and beyond.
Not Offered Every Year
Also Offered As: HIST 1731
1 Course Unit
ECON 0625 Introduction to Business, Economic and Financial History

Business, Economic and Financial History plays a crucial role today in informing the views of business leaders, policy makers, reformers and public intellectuals. This seminar provides students with the opportunity to acquire a command of the key elements of this important intellectual field. The seminar format enables us to do this engagingly through reading and discussion. Students acquire a knowledge of the fundamental texts and controversies. Each meeting focuses on one foundational debate and provides a means to be up to date with the insights gleaned from rigorous economic history. We will examine twelve important debates and students will be asked to write a paper. The debates will include such questions as: What is growth and how can it be measured? What caused the "great divergence" in long run development among countries? How can we "understand" the rise and fall of slavery and its long shadow today? What is globalization and when did it begin? Did the Gold Standard and interwar fiscal and monetary policy orthodoxy cause the great depression? How can we explain the evolution of inequality in the very long run?

Also Offered As: HIST 3710
1 Course Unit

ECON 0630 The Economics and Financing of Health Care Delivery

The course provides an application of economic models to demand, supply, and their interaction in the medical economy. Influences on demand, especially health status, insurance coverage, and income will be analyzed. Physician decisions on the pricing and form of their own services, and on the advice they offer about other services, will be considered. Competition in medical care markets, especially for hospital services, will be studied. Special emphasis will be placed on government as demander of medical care services. Changes in Medicare and regulation of managed care are among the public policy issues to be addressed. Prerequisite: If course requirement not met, permission of instructor required.

Fall or Spring
Also Offered As: ECON 0390, HCMG 2020
Prerequisite: ECON 0100 OR ECON 0110
1 Course Unit

ECON 2100 Intermediate Microeconomics

Theories of consumer behavior, demand, production, costs, the firm in various market contexts, factor employment, factor incomes, elementary general equilibrium, and welfare.

Fall or Spring
Mutually Exclusive: BEPP 2500
Prerequisite: ECON 0100 AND ECON 0200 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 2200 Intermediate Macroeconomics

Facts and theories about the determination of per capita income and its differences across countries and across time. The study of economic fluctuations in output and employment. The role of government in influencing these aggregate variables: monetary and fiscal policy.

Fall or Spring
Mutually Exclusive: FNCE 1010
Prerequisite: ECON 2100 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 2300 Statistics for Economists

The course focuses on elementary probability and inferential statistical techniques. The course begins with a survey of basic descriptive statistics and data sources and then covers elementary probability theory, sampling, estimation, hypothesis testing, correlation, and regression. The course focuses on practical issues involved in the substantive interpretation of economic data using the techniques of statistical inference. For this reason empirical case studies that apply the techniques to real-life data are stressed and discussed throughout the course, and students are required to perform several statistical analyses of their own.

Fall or Spring
Prerequisite: ECON 0100 AND ECON 0200 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 2310 Econometric Methods and Models

This course focuses on econometric techniques and their application in economic analysis and decision-making, building on ECON 2300 to incorporate the many regression complications that routinely occur in econometric environments. Micro-econometric complications include nonlinearity, non-normality, heteroskedasticity, limited dependent variables of various sorts, endogeneity and instrumental variables, and panel data. Macro-econometric topics include trend, seasonality, serial correlation, lagged dependent variables, structural change, dynamic heteroskedasticity, and optimal prediction. Students are required to perform several econometric analyses in a modern environment such as R.

Fall or Spring
Prerequisite: ECON 2100 AND ECON 2300 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4100 Game Theory

An introduction to game theory and its applications to economic analysis. The course will provide a theoretical overview of modern game theory, emphasizing common themes in the analysis of strategic behavior in different social science contexts. The economic applications will be drawn from different areas including trade, corporate strategy and public policy.

Fall or Spring
Prerequisite: ECON 2100 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4101 Game Theory Honors

This is an honors game theory class; permission is necessary to enroll. An introduction to game theory and its applications to economic analysis. The course will provide a theoretical overview of modern game theory, emphasizing common themes in the analysis of strategic behavior in different social science contexts. The economic applications will be drawn from different areas including trade, corporate strategy and public policy.

Fall or Spring
1 Course Unit
ECON 4110 Economics of Family
This course will study modern family economics. The class will develop economic models to study topics such as female labor supply, fertility, marriage and divorce, women's liberation, premarital sex and parental socialization, investment in health, and retirement. This is an advanced undergraduate class. Calculus is an integral part of the course. Some elementary probability theory is drawn upon. Students unwilling to learn some of the tools used in modern economic should not take this class. Not Offered Every Year
Prerequisite: ECON 2100 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4120 Social Choice Theory
This course investigates a topic which lies at the heart of economic, social and political sciences, namely the aggregation of individual preferences. Can a society as a whole exhibit preferences as individuals do? Can these preferences be based on individual ones, and show the same level of coherence? Which process can lead from individual preferences to the preferences of the society? At the end of the 18th century, the pioneers in the field already realized that mathematics is the only language powerful enough to make deep progress in the understanding of these questions. The formalization involves pure logic as well as geometry and combinatorics. Not Offered Every Year
Prerequisite: ECON 2100 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4130 Market Design
Market design is broadly about designing interventions in economic systems so as to enhance their performance. The power and potential of market design has recently entered a new era of possibility with the rise of Artificial Intelligence. Artificial Intelligence is concerned with the design of intelligent autonomous systems. Such systems are rapidly transforming our society and economy and have been enabled by major advances in cloud computing and network telecommunications. Yet underlying the technological surface of many AI-oriented applications are fundamental economic and econometric principles which are central to their design and implementation. In short, to perform well, an AI system must "think like economists" - it must: 1. Make predictions about its environment; 2. Test causal hypotheses about the effect of various actions they can take, and; 3. Make decisions about an optimal plan of action in the face of uncertainty, which is a cycle that repeats and iteratively improves. Many of the established success stories in AI today have largely been focused on achieving (1), the trend is towards AI increasingly encompassing (2) and (3). In this course we aim to isolate these economic principles and understand their role in the modern development of AI, as well as gaining an appreciation for what the proliferation of AI based technologies means for the economy in which we live. Although the course will be principally interested in the former, we won't fully shy away from some discussion of the latter. Topics include human judgment and decision making biases (a light intro to behavioral economics), predictive machine learning and regularization, causal inference as distinct from prediction with application to product pricing, and reinforcement learning for dynamic decisions. Fall or Spring
Prerequisite: ECON 2100 AND ECON 2300 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4140 Decision Making Under Uncertainty
This course will show how individuals make decisions in a world full of uncertainties, both normatively and descriptively. This theory will help us build skills in understanding and analyzing a choice problem with uncertainty in a systematic fashion, as well as deepening our understanding of the fundamental concept of a utility function, which plays a critical role in economic modeling. The course requires a substantial ability of abstract thinking. Homework is intended to be thought-provoking rather than skill-sharpening. Not Offered Every Year
Prerequisite: ECON 2100 AND ECON 2300 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4150 Mathematical Economics
This semester long course will introduce students to a variety of mathematical topics associated with convexity, optimization and fixed points that are used in Economic theory. The use of these techniques will be illustrated with a host of economic applications. Students who have not taken ECON 2100 require instructor permission. Spring, odd numbered years only
Prerequisite: MATH 3140 AND MATH 3600 AND ECON 2100
1 Course Unit

ECON 4160 Behavioral Economics
People often systematically deviate from predictions of standard models in economics. Behavioral economics is an emerging subfield of modern economics that incorporates insights from psychology and other social sciences into economics to improve realism of standard models. This course reviews some of the standard assumptions in economics and evidence on how human behavior systematically departs from these assumptions. Several well-known behavioral theories that explain such deviations and their implications will be discussed. Topics may include (but not limited to) context-dependence, prospect theory, loss aversion, present bias, self-control, reference-dependence, limited attention, biased beliefs, fairness, and biases in strategic reasoning. Spring
Prerequisite: ECON 2100 AND ECON 2300 AND (MATH 1080 OR MATH 1410)
1 Course Unit

ECON 4200 Economic Growth
The process of economic growth and the sources of differences in economic performance across nations are some of the most interesting, important and challenging areas in modern social science. You cannot travel or read the news without wondering why differences in standards of living among countries are so large. The primary purpose of this course is to introduce undergraduate students to these major issues and to the theoretical tools necessary for studying them. The course therefore strives to provide students with a solid background in dynamic economic analysis, as well as empirical examples and data analysis. Fall or Spring
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND ECON 2300 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit
**ECON 4205 Structural changes in the modern macroeconomy**
Over the past few decades, the U.S. as well as other advanced economies have undergone a secular transformation: while overall economic growth has slowed down mildly, the fruits of economic growth have been spread unevenly. Income and wealth inequality have increased, the labor share of national income has decreased, economic activity has increasingly concentrated at a few superstar firms, and business dynamism has declined. The observed developments have generated strong reactions across the political spectrum. Is the American Dream really still alive, or might it be that a large fraction of the population simply will no longer be able to productively contribute to society? The aim of this course is to introduce advanced undergraduate students to the main empirical facts and theoretical tools involved in studying these developments through a macroeconomic lens. We will carefully analyze the data using the tools of applied (micro-)economics and interpret them using basic macroeconomic models. Interested students should have taken ECON 2100, ECON 2200, ECON 2300, MATH 1400, MATH 1410, or MATH 1510. Some basic knowledge of regression analysis is also recommended.
Fall
1 Course Unit

**ECON 4210 Numerical Methods for Macroeconomists**
This course will study numerical methods as used in modern macroeconomics. Students will learn how to solve nonlinear equations, difference equations, interpolate functions, smooth data, and conduct Monte Carlo simulations on the computer. This will be done while studying economic problems, such as the determination of labor supply, economic growth and business cycle analysis. Calculus is an integral part of the course and some elementary probability theory will be drawn upon. The MATLAB programming language will be used.
Fall or Spring
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND (MATH 1400 OR MATH 1070 AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

**ECON 4220 Monetary and Fiscal Policies**
This is an advanced course in macroeconomics. A relatively simple, but well defined and internally consistent model of the U.S. economy is set up and used to study how output is generated given the initial resources, how output is divided between consumption and addition to capital stock, and how this process accumulates over time. The role of prices including the rate of interest in this process is also reviewed, and monetary and fiscal policies needed to improve the performance of the economy under such circumstances are discussed.
Fall or Spring
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

**ECON 4230 Macro-Modeling**
This is an advanced undergraduate course in models of economic growth. Students will be introduced to the workhorse theoretical models that are used to understand growth by modern macroeconomic researchers and policy makers. The types of questions that we will address include: Why are some countries richer than others? Why do some countries grow quickly while others stagnate? Why did modern economic growth start in Western Europe? What can governments do to accelerate economic growth? How does economic growth interact with demographic and geographic factors? We will build theoretical models that can be used to answer these questions. There will be a strong focus on emphasizing the microeconomic foundations of models, and using the language of mathematics to express the underlying assumptions and assess their implications for policy. Hence, there are strict mathematical prerequisites. We will also compare the predictions of our models with the data. Thus, a fair amount of econometrics will be required. A class in statistics and econometrics is highly recommended.
Not Offered Every Year
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND (MATH 1400 OR MATH 1070 AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

**ECON 4240 Money and Banking**
Money and Banking. This course studies the role that financial markets, institutions, and money play in resource allocation. Financial intermediation and the role of banks in the economic system are analyzed and the economic rationale behind banking regulation is studies. The course examines how monetary policy influences interest rates and asset markets, such as the bond market and the stock market. Finally, the instruments and goals of monetary policy are discussed, focusing in particular on credibility and commitment for central banks. All of the questions are explored analytically, using the tools of economic theory.
Fall or Spring
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

**ECON 4310 Macro-Econometric Techniques and Applications**
This course provides a deeper treatment of time-series econometric methods used in macroeconomic and financial applications, such as nonstationarity, unit roots, and cointegration; structural evolution and breaks; point, interval and density forecasts; forecast evaluation and combination; vector autoregression including impulse-response estimation and analysis; dynamic factor models and dimensionality reduction; univariate and multivariate stochastic volatility models; and prediction markets.
Fall or Spring
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND ECON 2300 AND ECON 2310 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit
ECON 4320 Micro-econometric Techniques and Applications
This course provides a deeper treatment of econometric methods and issues as relevant for microeconomic applications, such as non-parametric function estimation; endogeneity and identification (strong and weak); generalized method of moments estimation; randomized and quasi-randomized methods for causal estimation; design strategies such as regression discontinuity and differences-in-differences; program evaluation; and quantile regression.
Fall or Spring
Prerequisite: ECON 2100 AND ECON 2310 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4330 Econometric Machine Learning Methods and Models
This course covers econometric methods, machine learning methods, and their interface, focusing on aspects of estimation, inference, and prediction in causal and non-causal environments. Topics may include Bayesian learning; recursive estimation and optimal filtering; randomized controlled trials and their approximation; latent variables; classification; topic analysis; LDA models; neural networks; random forests; regularization (shrinkage, selection, ...); network estimation and description.
Fall or Spring
Prerequisite: ECON 2300 AND ECON 2310 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1080)
1 Course Unit

ECON 4340 Empirical Economics of Climate Change
This course provides a broad introduction to the economics of climate change. The relevant theory is covered, but the emphasis throughout is empirical. Topics may include background in geophysics and econometrics; bi-directional feedback relationships between climate change and economic activity; global warming dynamics as manifest in temperature and sea ice dynamics; economic strategies, policies, and institutions for climate change mitigation and adaptation (including trading or taxing carbon, hedging climate risk in financial markets, and monetary and supervisory policy).
Fall
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND ECON 2300 AND ECON 2310 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4405 Economic Program Evaluation
Does increasing the minimum wage reduce employment? Do smaller class sizes improve students’ achievement? Does Medicare improve its recipients’ health status? Program evaluation is an essential part of policy making and the political debate. More generally, causality and the identification of causal effects are at the heart of many questions in economics. The goal of this class is to give students a precise understanding of what causality is, and a working knowledge of empirical methods used in economics to estimate causal effects and evaluate public policy. Recommended: ECON 2310.
Prerequisite: ECON 2100 AND ECON 2300 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4410 Public Finance
This course has two parts. The first looks at market and government failures and discusses the need for public policies as well as limits to their effectiveness including the evaluation of public projects using cost benefit analysis. The second part focuses on the economic analysis of taxation, including the economic incidence and efficiency of taxes.
Fall or Spring
Prerequisite: ECON 2100 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4420 Political Economy
This course examines the political and economic determinants of government policies. The course presents economic arguments for government action in the private economy. How government decides policies via simple majority voting, representative legislatures, and executive veto and agenda-setting politics will be studied. Applications include government spending and redistributive policies.
Fall or Spring
Prerequisite: ECON 2100 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4430 Labor Economics
Labor supply and labor demand, income distribution, labor market contracts and work incentives, human capital, labor market discrimination, job training and unemployment.
Fall or Spring
Prerequisite: ECON 2100 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4440 Law and Economics
This course will use basic microeconomic tools to understand how the law often, but not always, promotes economic efficiency. Among the areas to be discussed will be tort law, property law, intellectual property, antitrust cases, and regulatory issues. The distinction between common law and legislative law will be drawn.
Fall or Spring
Prerequisite: ECON 2100 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4450 Industrial Organization
Theories of various industrial organizational structures and problems are developed, including monopoly, oligopoly, nonlinear pricing and price discrimination. These theories are used to model various industries, antitrust cases, and regulatory issues.
Fall or Spring
Prerequisite: ECON 2100 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit
ECON 4460 Health Economics
In this course we will use the tools of microeconomics to analyze the functioning of the health care system. We will draw from the sub-disciplines of information economics, industrial organization, labor economics, public economics, and behavioral economics. The primary goal is to use these tools to develop a critical analysis of the functioning of the health care system as well as of the policies aimed at improving it. We will learn about US specific institutional details and policies (most notably the Affordable Care Act), and we will compare them to other important international experiences.
Fall or Spring
Prerequisite: ECON 2100 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4470 Urban Fiscal Policy
The purpose of this course is to examine the financing of governments in the urban economy. Topics to be covered include the causes and consequences of the urban fiscal crisis, the design of optimal tax and spending policies for local governments, funding of public infrastructures and the workings of the municipal bond market, privatization of government services, and public financial systems for emerging economies. Applications include analyses of recent fiscal crises, local services and taxes as important determinants of real estate prices, the infrastructure crisis, financing and the provision of public education, and fiscal constitutions for new democracies using South Africa as an example.
Fall or Spring
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND ECON 2300 AND ECON 2310 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4480 Economics of Education
The course focuses on the educational decisions, including individual choices, institutional strategies and government policies. It is an elective course in economics and it is designed for junior and senior students. During the first part of the course we will go over the mathematical and empirical tools needed to understand and perform quantitative analysis on topics in the economics of education. Students should expect to work on optimization methods, regression analysis and causal inference analysis. We will use Stata (https://www.stata.com/) as statistical software. After we have built a solid foundation of knowledge, we will cover the first "real" topic of the economics of education: the return to schooling. During this phase of the course we seek to address two questions: what are the benefits that an individual acquires (i.e. in terms of earnings in the labor market or career opportunities) by attending more years of school and what are the benefits for society as a whole? While these questions seem to have a simple explanation, we will discover that they are actually quite challenging and require a more complex explanation. Once we have analyzed the benefits of schooling, we will study what motivates some students to further their education for more years, as opposed to others. In particular, we will focus on the differences in the quality of environments that children face throughout childhood (e.g.: family environment and school/classroom environment) and the consequences for observed inequities. Finally, in the remaining portion of the course we will study the evaluations of different policies that have been implemented in the past from previous governments, with the goal of gaining insight for possible future policy recommendations.
Spring
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND ECON 2300 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4490 The Digital Economy
This is an advanced undergraduate course on the digital economy. Our two main goals are (a) to understand how people and companies interact in digital markets and (b) to understand how digital markets should be designed. The course uses a combination of theoretical modeling and empirical evidence in order to achieve those goals. We analyze some key features that are prevalent in digital markets, including network effects, two-sided markets, search and matching, reputation systems, and the use of data. We also zoom in on individual markets, such as search engines, e-commerce platforms, and the gig economy.
Spring
Prerequisite: ECON 2100 AND ECON 2310 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4510 International Trade
Structure of the world economy; theory of international trade; economic growth and international trade; international trade policy; developed countries; developing countries. Direct investment, technology transfers, and the multinational firm.
Fall or Spring
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit
ECON 4520 International Finance
International monetary economics with emphasis on economic policy in an open economy. Topics covered in the course include: balance-of-payments adjustment, theories of exchange rate determination, the effects of exchange rate devaluation, macroeconomic policy under fixed and floating exchange rates, the Euro-dollar market, currency and balance of payments crises.
Fall or Spring
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4530 Topics in Development
This course studies institutions in developing economies. The first section of the course will cover the organization of production in traditional agrarian societies. Topics will include land, labor and credit markets. The second section of the course will focus on the role of the community in facilitating the transition to the modern market economy. Here we will study how the community spreads information, permits the formation of informal networks and organizes collective institutions, allowing individuals to take advantage of new economic opportunities.
Not Offered Every Year
Prerequisite: ECON 2100 AND (ECON 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4540 China: Institutions and the Economy
The rise of China since its economic reform starting from 1978 is one of the most important developments the world witnessed in the twenty-first century. In this seminar course, we explore topics including the political logic of China's economic reform, the institutional foundations of the Chinese economic growth miracle, as well as detailed analysis of Chinese financial markets, housing markets, fiscal reform, corruption/anti-corruption, labor market transitions, China's integration into the world economy, village democracy and its impact on resource allocation, the impact of population ageing, the impact of China on US economy and politics, among others. The discussions will focus on China, but will relate broadly to emerging and developed economies. The course will be based on reading and discussing research articles and books selected by the instructors.
Prerequisite: ECON 2100 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4545 Finance and Growth from a Historical Perspective
This course focuses on the interception between finance and economic growth by studying some of the most important events in economic history that have taken place over the last few centuries. Starting with the emergence of the modern capital markets and economic growth, the course examines in depth, major developments in financial history, such as the classical gold standard, the origins of central banking, the Great Depression, and the Bretton Woods system. However, this course goes beyond any standard course on financial history and examines how finance has affected economic growth in the long-run, from an international perspective and starts in the seventeenth century in Europe, up to the 1990s in South-East Asia.
Spring
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND ECON 2300 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4550 The Political Economy of Early America
This course will study the political economy of Early America, from the British Settlement to c. 1820. In particular, we will explore the forces behind the economic growth of the British colonies, the economic forces behind the Revolution, the economic consequences of the Revolution, the political economy of the constitutional convention and ratification, the role of SCOTUS in creating a national market, and the opposing Hamilton-Jefferson views of an American economy. Early America is a fascinating and rich historical period, and we will need to skip many issues of interest. Nevertheless, we hope to provide you with a good overview of how a group of small peripheral colonies created an institutional arrangement that allowed them, in less than two centuries, to become the biggest economy in the world.
Spring
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4560 History of Economic Thought
This course surveys the history of the development of economic thought, beginning with the Classical school and the works of Smith, Ricardo, J.S. Mill, Marx and others and continuing to the 20th century thought, including Keynes, Hayek, and Arrow.
Spring, odd numbered years only
Prerequisite: ECON 2100 AND (ECON 2200 OR FNCE 1010) AND ECON 2300 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4610 Foundations of Market Economies
This course will study the historical and intellectual forces behind the appearance of market economies on the world stage. The voyages of exploration undertaken by Europeans in the 15th and 16th century created, in just a few decades, a global economy. By 1600, silver from Mexico was exchanged in Manila for ceramics made in Nanjing (China). After a long trip through the Pacific, Mexico, and the Atlantic, the ceramics ended up in the tables of prosperous merchants in Bruges (modern day Belgium). How did this integrated global economy appear? How did global interconnections over the centuries shape our current world? How did markets emerge and influence these interconnections? Who were the winners of globalization? And who were the losers? How did economists, political scientists, and others think about the strengths and weakness of market economies? This course will explore these questions and the role that markets have played in it from the late 15th century to the present. Even if the economic theory will structure much of the discussion, insights from intellectual history, cultural history, microhistory, legal history, and institutional history will help to frame the main narrative. The course will be, as well, truly global. First, beyond the traditional focus of economic history courses on Europe and the Americas, particular attention will be devoted to Africa and Asia. Second, the priority will be to highlight the interconnections between the different regions and to understand how the people living in them negotiated the opportunities and tensions created by the economic transformations triggered by globalization and how they conceptualized the changing lives around them. Finally, the class will highlight how diverse intellectual traditions handled the challenges presented by historical change.
Fall or Spring
Prerequisite: ECON 2100 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit
ECON 4900 Honors Seminar
Students prepare an honors thesis in economics over the academic year, supervised by a faculty member of their choice. In ECON 4900 (fall) and ECON 4910 (spring), students present their work in progress to the class. Any student intending to do empirical work in the thesis should have completed ECON 2300 and ECON 2310.
Fall
Prerequisite: ECON 2100 AND ECON 2200 AND ECON 2300 AND ECON 2310 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1510 OR MATH 1080)
1 Course Unit

ECON 4910 Honors Seminar (II)
Students prepare an honors thesis in economics over the academic year, supervised by a faculty member of their choice. In ECON 4900 (fall) and ECON 4910 (spring), students present their work in progress to the class. Any student intending to do empirical work in the thesis should have completed ECON 2300 and ECON 2310.
Spring
Prerequisite: ECON 2100 AND ECON 2200 AND ECON 2300 AND ECON 2310 AND MATH 1400 AND MATH 1410
1 Course Unit

ECON 4999 Independent Study
Individual study and research under the direction of a member of the Economics Department faculty. At a minimum, the student must write a major paper summarizing, unifying, and interpreting the results of the study. This is a one semester, one c.u. course.
Fall or Spring
Prerequisite: ECON 2100 AND ECON 2200 AND ECON 2300 AND (MATH 1400 OR MATH 1070) AND (MATH 1410 OR MATH 1080)
1 Course Unit

ECON 6100 Microeconomic Theory
Basic tools of microeconomic theory: consumer choice, firm behavior, partial and general equilibrium theory. This is a more theoretical treatment of the basic tools of microeconomic analysis than ECON 2100.
Fall
1 Course Unit

ECON 6110 Game Theory and Applications
A graduate level introduction to decision making under uncertainty, applied game theory, and information economics.
Spring
Prerequisite: ECON 6100
1 Course Unit

ECON 7100 Microeconomic Theory I
Nonlinear programming, theory of the consumer and producer, general equilibrium.
Fall
1 Course Unit

ECON 7110 Microeconomic Theory II
Game theory, decision making under uncertainty, information economics.
Spring
1 Course Unit

ECON 7200 Macroeconomic Theory I
Dynamic programming, search theory, neoclassical growth theory, asset pricing, business cycles.
Fall
0.5-1 Course Unit

ECON 7210 Macroeconomic Theory II
Spring
1 Course Unit

ECON 7300 Econometrics I: Fundamentals
Violations of classical linear regression assumptions, nonlinear regression models (including logit, probit, etc.), diagnostic testing, distributed lag models, panel data models, identification, linear simultaneous-equations model.
Fall
0.5-1 Course Unit

ECON 7310 Econometrics II: Methods & Models
Analysis in time and frequency domains, state space representations, Kalman filtering, conditional heteroskedasticity, nonlinear and nonparametric methods for time series, integration, co-integration, numerical and simulation techniques.
Spring
1 Course Unit

ECON 7500A Third Year PhD Seminar
The transition from student to frontier researcher is quite difficult. This course is aimed at starting graduates on their first major paper. It will meet once a week over the entire year. An important element in the course is developing what is essentially a study group of the participants to give each other feedback and suggestions. Students should anticipate doing a 30 minute presentation every 2-3 weeks. This gives you enough time to make progress, but also keeps you on pace to have a final project well advanced by the end of the course.
Fall
0.5 Course Units

ECON 7500B Third Year PhD Research Seminar
Transition from student to frontier researcher is quite difficult. This course is aimed at starting our graduate students on their first major paper. It will meet once a week over the entire year. Only offered to the Economics Department 3rd year PhD students. A important element in the course is developing what is essentially a study group of the participants to give each other feedback and suggestions. Students should anticipate doing a 30 minute presentation every 2-3 weeks.
Spring
0.5 Course Units

ECON 8000 Topics in Advanced Microeconomic Theory
Topics in Advanced Economic Theory and Mathematical Economics
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7110
0.5-1 Course Unit

ECON 8100 Economic Theory Workshop
Fall or Spring
1 Course Unit

ECON 8110 The Economics of Agency, Information, and Incentives
This course studies the economics of adverse selection and moral hazard in strategic settings. The primary focus is on the agency relationship and the structure of agency contracts. Other settings include auctions, bilateral trading, and the internal organization of the firm.
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7200
1 Course Unit
ECON 8200 Topics in Advanced Macroeconomics
Topics in Advanced Economic Theory and Mathematical Economics
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7200 AND ECON 7300 AND ECON 7110 AND ECON 7310 AND ECON 7210
0.5-1 Course Unit

ECON 8210 Quantitative Macroeconomic Theory
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7200 AND ECON 7110 AND ECON 7210 AND ECON 7300 AND ECON 7310
0.5-1 Course Unit

ECON 8300 Topics in Advanced Econometrics
Topics in Advanced Economic Theory and Mathematical Economics
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7200 AND ECON 7110 AND ECON 7210 AND ECON 7300 AND ECON 7310
0.5-1 Course Unit

ECON 8310 Econometrics III: Advanced Techniques of Cross-Section Econometrics
Qualitative response models, panel data, censoring, truncation, selection bias, errors in variables, latent variable models, survey design, advanced techniques of semiparametric estimation and inference in cross-sectional environments. Disequilibrium models. Methods of simulated moments.
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7200 AND ECON 7110 AND ECON 7210 AND ECON 7300 AND ECON 7310
1 Course Unit

ECON 8320 Econometrics IV: Advanced Techniques of Time-Series Econometrics
Focuses on macro-econometrics. Topics include comparison of Bayesian and frequentist inference in nonstandard settings (e.g. time series models with persistent roots), Bayesian inference in VARS and DSGE models including modern computational tools such as Gibbs sampling, MCMC, Sequential Monte Carlo, particle filtering, etc., and tools for evaluating DSGE models.
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7200 AND ECON 7110 AND ECON 7210 AND ECON 7300 AND ECON 7310
1 Course Unit

ECON 8400 Topics in Advanced Empirical Microeconomics
Topics in Advanced Economic Theory and Mathematical Economics
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7200 AND ECON 7110 AND ECON 7210 AND ECON 7300 AND ECON 7310
0.5 Course Units

ECON 8410 Public Economics
Public goods, externalities, uncertainty, and income redistribution as sources of market failures; private market and collective choice models as possible correcting mechanisms. Microeconomic theories of taxation and political models affecting economic variables.
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7200 AND ECON 7110 AND ECON 7210 AND ECON 7300 AND ECON 7310
0.5 Course Units

ECON 8411 Public Economics II
Expenditures: Alternative theories of public choice; transfers to the poor; transfers to special interests and rent seeking; social insurance; publicly provided private goods; public production and bureaucracy. Taxation: Tax incidence in partial and general equilibrium; excess burden analysis. Topics on tax incidence and efficiency: lifetime incidence and excess burden, dynamic incidence, the open economy. Normative theories of taxation: Optimal commodity and income taxation. The political economy of income taxation.
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7200 AND ECON 7110 AND ECON 7210 AND ECON 7300 AND ECON 7310
0.5 Course Units

ECON 8430 Economics of Labor I
Topics include: Theories of the supply and demand for labor; wage determination, wage differentials, labor market discrimination, unemployment, occupational choice and dynamics of specific labor markets, theory of matching, trade unions. The theory and empirics of human capital accumulation, intertemporal labor supply, search, intergenerational mobility of income and wealth, contracts and bargaining, efficiency wage models, principal/agent models, and signaling models.
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7200 AND ECON 7110 AND ECON 7210 AND ECON 7300 AND ECON 7310 AND ECON 8310
1 Course Unit

ECON 8431 Economics of Labor II
A continuation of ECON 8430.
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7200 AND ECON 7110 AND ECON 7210 AND ECON 7300 AND ECON 7310 AND ECON 8310 AND ECON 8430
0.5 Course Units

ECON 8450 Empirical Methods for Industrial Organization
The goal of the course is to explore links between theory and data in order to identify and test implications of economic models. Reduced form and structural approaches will be used to study a variety of topics that include: Estimation of multiproduct cost functions; detection of collusion, multmarket contact, and network externalities; asymmetric information; auctions and nonlinear pricing; price competition and product differentiation; and complementarities: innovation and organizational design.
Fall or Spring
Prerequisite: ECON 7100 AND ECON 7200 AND ECON 7110 AND ECON 7210 AND ECON 7300 AND ECON 7310 AND ECON 8310
1 Course Unit

ECON 9110 Applied Microeconomics Workshop
Workshop
Fall or Spring
1 Course Unit

ECON 9200 Monetary Economics
Workshop
Fall or Spring
1 Course Unit

ECON 9300 Econometrics
Workshop
Fall or Spring
1 Course Unit
ECON 9400 Empirical Microeconomics
Workshop
Fall or Spring
1 Course Unit

ECON 9450 Industrial Organization
Workshop
Fall or Spring
1 Course Unit

ECON 9999 Independent Study
Independent Study
Fall or Spring
0.5-3 Course Units

Education (EDUC)

EDUC 1450 (Re)Making U.S. Schools
What is the purpose of schooling? Why does education seem to be in a constant state of reform? How best to close the entrenched and pernicious opportunity gaps that characterize school systems in the United States? In this first-year seminar, we will consider and debate these questions as we explore the history and politics of schooling in the U.S. over the last half-century. Topics include political movements for racial justice in schools, policy and legal efforts addressing equal opportunity, the rise of standards-based reform, school choice dilemmas, and community control of schools. Our goal is to develop a deeper understanding of the processes by which U.S. society constructs, prioritizes, and addresses education.
1 Course Unit

EDUC 2002 Urban Education
This course explores the relationships between forms of cultural production and transmission (schooling, family and community socialization, peer group subcultures and media representations) and relations of inequality in American society. Working with a broad definition of "education" as varied forms of social learning, we will concentrate particularly on the cultural processes that produce as well as potentially transform class, race, ethnic and gender differences and identities. From this vantage point, we will then consider the role that schools can and/or should play in challenging inequalities in America.
Fall or Spring
1 Course Unit

EDUC 2445 Civil Dialogue Seminar: Civic Engagement In A Divided Nation
The goal of this course is to help students develop concepts, tools, dispositions, and skills that will help them engage productively in the ongoing experiment of American democracy. This nation's founders created a governmental structure that sets up an ongoing and expansive conversation about how to manage the tensions and tradeoffs between competing values and notions of the public good. These tensions can never be fully resolved or eliminated; they are intrinsic to the American experiment. Every generation must struggle to find its own balance, in no small part because in every era people who previously had been unjustly excluded from the conversation find a way to be heard. That inevitably introduces new values and changes how enduring ones get interpreted. The challenge of each generation is to develop that capacity to its fullest. The goal of this course is to equip you to engage fully in your generation's renewal of the conversation. Class sessions will use a variety of modalities: lecture, discussion, case studies, opportunities to experiment with the tools and techniques of civil dialogue and writing. Each session will include some theory or historical context, a case study, exploration of a key concept of civic dialogue with a related tool or technique, and an interactive exercise. This course is part of a larger effort by the university (called the Paideia program) to help Penn students build these skills.
Fall or Spring
Also Offered As: COMM 2445, URBS 2445
1 Course Unit

EDUC 2535 Psychology of Women
Critical analyses of the psychological theories of female development, and introduction to feminist scholarship on gender development and sexuality.
Fall or Spring
1 Course Unit

EDUC 2541 Educational Psychology
Current issues and research, applying psychological theory to educational practice. As such, this course will explore the fundamental themes in behavioral, developmental, and cognitive areas of psychology as they relate to education. Topics include: learning, motivation, growth and development, cognitive processes, intelligence tests, measurements, evaluations, etc.
Fall or Spring
1 Course Unit
EDUC 2551 SNF Paideia Course: Mindfulness and Human Development
This course will introduce the student to the many ways in which mindfulness is currently being implemented to support the health and success of students of all ages. Mindfulness-Based Stress Reduction (MBSR), which utilizes secularized practices from Asian and South Asian traditions for the remediation of various health concerns, has revolutionized behavioral medicine, and the scientific evaluation of MBSR has shed new light on the biomechanical pathways linking mind and body. This course will 1) explore fundamental principles underlying mindfulness, 2) the scientific data on its effects, and 3) the ways in which mindfulness is being applied to clinical and educational settings to support healthy human development. Contemplative practices include all forms of meditation, including contemplative dimensions of yoga, tai chi, qigong and other mind-body wellness activities. By far the most well known contemplative practice in the U.S. today is "mindfulness." Mindfulness meditation was introduced into clinical medicine in the 1980's in the form of Mindfulness-Based Stress Reduction (MBSR) by Jon Kabat-Zinn and his colleagues at U Mass; since that time it has had a significant impact on psychoneuroimmunology, clinical medicine, and especially behavioral medicine. Both psychological theory and practice have slowly been transformed by new findings emerging from mindfulness research. Brain imaging studies of persons engaged in meditation suggest that focused mental activities can actually change cerebral blood flow (Newberg et al. 2010), brain morphology and neural circuitry, in addition to strengthening the immune system (Davidson et al 2003) and improving attention skills (Jha et al 2007). MBSR has been repeatedly documented to be effective in treating mental health problems, particularly depression and anxiety, in numerous adult populations (Goyal et al 2014). Now, researchers are testing MBSR and other mindfulness approaches in children and adolescents as both a way to treat social-emotional dysfunction as well as to promote health and enhance social-emotional well-being. 
Fall
1 Course Unit

EDUC 3123 Tutoring School: Theory and Practic
This course represents an opportunity for students to participate in academically-based community service involving tutoring in a West Philadelphia public school. This course will serve a need for those students who are already tutoring through the West Philadelphia Tutoring Project or other campus tutoring. It will also be available to individuals who are interested in tutoring for the first time.
Spring
Also Offered As: URBS 3230
1 Course Unit

EDUC 3545 Psychology of Personal Growth
Intellectual, emotional and behavioral development in the college years. Illustrative topics: developing intellectual and social competence; developing personal and career goals; managing interpersonal relationships; values and behavior. Recommended for submatriculation in Psychological Services Master's Degree program.
Fall or Spring
Also Offered As: GSWS 3440
1 Course Unit

EDUC 3560 Human Development in Global Perspective
A life-span (infancy to adulthood) approach to development. Topics include: biological, physical, social and cognitive basis of development. Films and guest speakers are often included.
Fall or Spring
1 Course Unit

EDUC 3726 Tutoring in Urban Public Elementary Schools: A Child Development Perspective
The course provides an opportunity for undergraduate students to participate in academically-based community service learning. Students will be studying early childhood development and learning while providing direct, one-to-one tutoring services to young students in Philadelphia public elementary schools. The course will cover foundational dimensions of the cognitive and social development of preschool and elementary school students from a multicultural perspective. The course will place a special emphasis on the multiple contexts that influence children's development and learning and how aspects of classroom environment (i.e., curriculum and classroom management strategies) can impact children's achievement. Also, students will consider a range of larger issues impacting urban education embedded in American society. The course structure has three major components: 1) lecture related directly to readings on early childhood development and key observation and listening skills necessary for effective tutoring, 2) weekly contact with a preschool or elementary school student as a volunteer tutor and active consideration of how to enhance the student learning, and 3) discussion and reflection of personal and societal issues related to being a volunteer tutor in a large urban public school.
Fall
Also Offered As: URBS 3260
1 Course Unit

EDUC 4014 Children's Literature
Theoretical and practical aspects of the study of literature for children. Students develop both wide familiarity with children’s books, and understanding of how children's literature fits into the elementary school curriculum.
Fall or Spring
1 Course Unit

EDUC 5007 Teaching & Learning in Student Centered Classrooms
Most teachers have ambitious goals for their classrooms. They strive to make their classrooms spaces where students engage in authentic and meaningful work, where students collaborate on challenging and complex tasks, and where students develop deep disciplinary knowledge and the skills and mindsets that are necessary for their success in college, career, and society. However, many classrooms fall short of this ambitious vision. This course explores the challenges and opportunities teachers face when they attempt to build student-centered learning environments, and offers educators tangible insights and practices to support their work.
Fall
1 Course Unit

EDUC 5007A Teaching & Learning in Student Centered Classrooms
Most teachers have ambitious goals for their classrooms. They strive to make their classrooms spaces where students engage in authentic and meaningful work, where students collaborate on challenging and complex tasks, and where students develop deep disciplinary knowledge and the skills and mindsets that are necessary for their success in college, career, and society. However, many classrooms fall short of this ambitious vision. This course explores the challenges and opportunities teachers face when they attempt to build student-centered learning environments, and offers educators tangible insights and practices to support their work.
Two Term Class, Student must enter first term; credit given after both terms are complete
0-1 Course Unit
EDUC 5007B Teaching & Learning in Student Centered Classrooms  
Most teachers have ambitious goals for their classrooms. They strive to make their classrooms spaces where students engage in authentic and meaningful work, where students collaborate on challenging and complex tasks, and where students develop deep disciplinary knowledge and the skills and mindsets that are necessary for their success in college, career, and society. However, many classrooms fall short of this ambitious vision. This course explores the challenges and opportunities teachers face when they attempt to build student-centered learning environments, and offers educators tangible insights and practices to support their work.
Two Term Class, Student must enter first term; credit given after both terms are complete  
0-1 Course Unit

EDUC 5015 Field Seminar: Culturally Responsive Teaching  
This seminar is designed to integrate student teaching fieldwork and university course work through reading, discussion, and reflection. Central to this course will be teacher research, an inquiry stance toward learning how to teach, and a social justice approach to education. Throughout the semester, we will be examining a range of issues through theoretical and practice-oriented lenses that will deepen our understanding of teaching and learning. Offered within the Urban Teaching Apprenticeship Program.
Fall  
0.5-3 Course Units

EDUC 5016 STEM Field Seminar in Secondary Schools: Curriculum Design & Assessment  
This seminar is designed to integrate student teaching fieldwork and university course work through reading, discussion, and reflection. Central to this course will be teacher research, an inquiry stance toward learning how to teach, and a social justice approach to education. Throughout the semester, we will be examining a range of issues through theoretical and practice-oriented lenses that will deepen our understanding of teaching and learning. Offered within the Urban Teaching Apprenticeship Program.
Fall  
0.5-3 Course Units

EDUC 5017 Humanities Field Seminar in Secondary Schools: Curriculum Design & Assessment  
This seminar is designed to integrate student teaching fieldwork and university course work through reading, discussion, and reflection. Central to this course will be teacher research, an inquiry stance toward learning how to teach, and a social justice approach to education. Throughout the semester, we will be examining a range of issues through theoretical and practice-oriented lenses that will deepen our understanding of teaching and learning. Offered within the Urban Teaching Apprenticeship Program.
Fall  
0.5-3 Course Units

EDUC 5018 Integrating the Arts in the K-8 Classroom  
It is an unfortunate state of public elementary and middle level education that programs and time spent in arts education are becoming more and more limited, as school leaders feel the pressure to prepare their students for mandated assessments. In this context, it is essential that K-8 educators enter schools prepared to fill this gap through the development of opportunities for children to explore their worlds and express their knowledge through creative channels. This course has been designed to emphasize student-centered pedagogies and to prepare teachers to utilize the arts as one mechanism for building culturally responsive classrooms. This course will prepare K-8 teachers to enact lessons that support students in authentic, collaborative, iterative learning through the creative integration of visual arts and music. The course is split into two modules, one that focuses on visual arts and one that focuses on integration of music. Additionally, this course supports the development of Pennsylvania Department of Education (PDE) PreK-8 teacher competencies. Prerequisite: Admission to the UTAP program or permission of instructor.
Summer Term  
0.5-1 Course Unit

EDUC 5020 Literacy in Elementary/Middle Schools  
In this course, the interconnections of language, literacy and culture are explored in order to build a knowledge base and understanding of how children learn to read and write. Emphasis will be on how to teach and develop literacy curriculum in the elementary grades, and on how close listening and observation of children in their classroom contexts, combined with a critical reading of research and theory, can inform teaching practices. A central tenet of this course is that the best teachers of reading and writing are themselves active and engaged readers and writers. An important goal is to combine an inquiry approach to teaching and learning with an inquiry approach to thinking about how we teach. Offered within the Urban Teaching Apprenticeship Program.
Fall  
1 Course Unit

EDUC 5021 Science Methods: Project-Based Learning Approaches  
The goal of this course is to prepare teachers to facilitate science learning in the elementary and middle school. Special emphasis is placed on striving for a balance between curricular goals; individual needs and interests; and the nature of science. Offered within the Urban Teaching Apprenticeship Program.
Fall  
1 Course Unit

EDUC 5023 Social Studies in the Elementary and Middle Schools  
This course will focus on teaching and learning in the content area of social studies. Curricular and pedagogical theories and practices will be examined for their educational significance, meaningful integration of content areas, respect for students’ cultures (past and present), and contribution to social justice issues. Offered within the Urban Teaching Apprenticeship Program.
Spring  
0.5-1 Course Unit
EDUC 5030 Cultivating Creativity in the K-8 Classroom  
This course is an introduction to maker education and project-based learning, and will prepare K-8 teachers to enact classroom practices that support students in authentic, collaborative, iterative learning through the use of a variety of creative and technological mediums. Classes will consist of a combination of lecture, discussion, and maker lab. This course is about learning to teach and teach others how to make. Students will explore a variety of techniques including basic circuitry, coding, architecture, and design while seeking a balance between free exploration and discovery within parameters. Prerequisite: Admission to the UTAP program or permission of instructor required.  
Summer Term  
0.5-1 Course Unit

EDUC 5031 Mathematics in the Elementary and Middle Schools  
Learning to teach mathematics in ways that foster mathematical understanding and enjoyment for every student requires that teachers draw on different kinds of knowledge, skills, and dispositions. In addition to developing an understanding of central mathematical ideas, learning to teach math involves learning about learners, the understandings and conceptions they hold, and the processes through which they learn. It also involves developing skill in constructing tasks that engage students in mathematical exploration, creating an environment that facilitates reasoning, and finding ways to analyze and learn from one’s own teaching. Offered within the Urban Teaching Apprenticeship Program.  
Fall  
1 Course Unit

EDUC 5040 Differentiating Instruction for Diverse Learners/Special Education & Bilingual Students  
This course engages student teachers working with diverse learners, presenting factual information about specific areas of need situated within a socio-cultural framework. It addresses content related to both special education and English language learners in four areas: (1) Introduction to Special Education; (2) Learning Categories; (3) Issues in Special Education; and (4) Working with English Language Learners. Offered within the Urban Teaching Apprenticeship Program. Prerequisite: Permission needed from department  
Two Term Class, Student must enter first term; credit given after both terms are complete  
0.5-1 Course Unit

EDUC 5054 Managing Collaborative Learning Environments in Urban Contexts  
This course marks the beginnings of your year-long inquiry as preservice teachers, and hopefully your career-long inquiry as committed educational professionals, into the challenges of and opportunities for teaching and learning in urban settings. The theories and practices explored in this course are offered as foundations for instructional approaches that are intentional, reflective, inquiry-based, and learner-centered. As we investigate multiple dimensions of teaching and learning (curriculum design, learning theories, instructional techniques, etc.), you will have opportunities to both clarify and challenge the assumptions, beliefs, hopes, fears, and goals that you bring to your preparation to teach in urban secondary schools. Offered within the Urban Teaching Apprenticeship Program.  
Summer Term  
1 Course Unit

EDUC 5055 Advanced Field Seminar: Student-Centered Social Justice Pedagogy  
This course focuses on praxis—the mutually supporting roles of theory and practice that bring rigor and relevance to the work of educational professionals. This course is designed to give student teachers opportunities to develop pedagogical orientations, to learn from “problems of practice” at placement sites, and to enrich student teachers’ theoretical and practical knowledge. All of these experiences will inform the master’s portfolio and will prepare teachers to continue to see themselves and their practice as continuing sites for research. Offered within the Urban Teaching Apprenticeship Program.  
Spring  
1-3 Course Units

EDUC 5056 Advanced Field Seminar for STEM Inquiry in Secondary Schools  
This course focuses on praxis—the mutually supporting roles of theory and practice that bring rigor and relevance to the work of educational professionals. This course is designed to give student teachers opportunities to develop pedagogical orientations, to learn from “problems of practice” at placement sites, and to enrich student teachers’ theoretical and practical knowledge. All of these experiences will inform the master’s portfolio and will prepare teachers to continue to see themselves and their practice as continuing sites for research. Offered within the Urban Teaching Apprenticeship Program.  
Spring  
1-3 Course Units

EDUC 5057 Advanced Field Seminar for Humanities Inquiry in Secondary Schools  
This course focuses on praxis—the mutually supporting roles of theory and practice that bring rigor and relevance to the work of educational professionals. This course is designed to give student teachers opportunities to develop pedagogical orientations, to learn from “problems of practice” at placement sites, and to enrich student teachers’ theoretical and practical knowledge. All of these experiences will inform the master’s portfolio and will prepare teachers to continue to see themselves and their practice as continuing sites for research. Offered within the Urban Teaching Apprenticeship Program.  
Spring  
1-3 Course Units

EDUC 5065 Introduction to Teaching & Classroom Routines  
This course is designed to support summer fieldwork in libraries, and serves as a bridge between fieldwork and course and fieldwork that begins in the fall. The course begins with a set of experiences in local communities which, along with courses, helps apprentices learn about neighborhoods and communities in which schools are located. This course provides apprentices with approaches to establishing classroom/group norms and practices allowing teachers to develop relationships with children. Apprentices will learn to establish routines and activities to be used in summer and fall fieldwork, as well as the professional cycle of planning, enacting, observing, and reflecting in a professional learning community. This course will also contribute to apprentices’ understanding of literacy and math learning in the K-8 classroom. Prerequisite: Admission to the UTAP program or permission of the instructor.  
Summer Term  
1 Course Unit

EDUC 5100 Experimental Course (Teaching, Learning, and Leadership)  
1 Course Unit
EDUC 513 Development of the Young Child
This course will blend an explanatory and descriptive account of behavioral evolution over the early years of life. After a review of "grand" developmental theory and the major themes of child change (from images to representation; from dependence to independence; from instinctual to social beings), this course will survey the child's passage from infancy through the early school years. While the emphasis will be on the nature of the child--what she/he sees, feels, thinks, fantasizes, wants and loves--these realities will be understood in terms of developmental theory. At each stage, the course will review the development of cognition, personal identity, socialization, and morality in pluralistic contexts.
Fall
0.5-1 Course Unit

EDUC 514 Diversity and Social Justice in American K-12 Education
In this course, students will develop a critical understanding of how various markers of social difference mediate the privileging of some and the marginalization of others within K-12 schools. Additionally, by considering their potential to act as agents of change, students will devise and share strategies for anti-oppressive educational practices.
Fall
1 Course Unit

EDUC 515 Educational and Social Entrepreneurship
This course provides an understanding of the nature of entrepreneurship related to public/private/for profit and non-profit educational and social organizations. The course focuses on issues of management, strategies and financing of early stage entrepreneurial ventures, and on entrepreneurship in established educational organizations.
Spring
1 Course Unit

EDUC 5151 Outside the School Box: History, Policy and Alternatives
So, we all know that we've been educated by many factors - schools, family, media, community organizations, religious institutions, employers, health agencies, social movements, and so on. Yet when we speak about "education," we often collapse it instantly into "schooling." What if we didn't? This discussion-based course takes on that challenge. What if we look at education as it actually happens, in ways inclusive of but reaching well beyond schooling? What if we step outside the school box into which we're often putting education? What are the implications for how we think about education, about particular configurations of educating institutions in any current educational ecosystem, about public and private purposes, and about what it means to be a professional in education? How do we wrap our arms around "education" when it suddenly encompasses, well, all of those entities that intentionally educate us? Viewing education more broadly than schooling, we will pursue a conversation between historical and current challenges, toward understanding the present implications – for practice, for policy, for professions – if we were to make such a basic shift conceptually and operationally. Students will explore several historical case studies, conceptual frames, current models in the field, and policy challenges, culminating in a related research project of your choice.
Fall
1 Course Unit

EDUC 5152 Video Games and Virtual Worlds as Sites for Learning
Drawing on work from the education, psychology, communication, and the growing field of games studies, we will examine the history of video games, research on game play and players, review how researchers from different disciplines have conceptualized and investigated learning in playing and designing games, and what we know about possible outcomes. We will also address issues of gender, race and violence that have been prominent in discussions about the impact of games.
Spring
1 Course Unit

EDUC 5154 Dashboards for Discovery and Learning Applications
As online learning tools have become more prominent, dashboards have emerged as a way for helping students, teachers, and other stakeholders in navigating learning data. They can provide both formative and summative information about a wide range of data and a wide range of stakeholders. However, learning can take many forms and does not always require (or result from) a linear path. Successful learning often requires persevering in the face of obstacles, but allowing learners to stagnate in such a space for too long can be demotivating. Likewise, we have also seen research that suggests that results in short term learning gains do not always lead to long term success. Even digital learning systems with substantial automation require data to be presented in a way that is relevant for the given stakeholders. This course explores starts with an overview of the kinds of digital learning systems currently available and a high-level view of the kinds of measurement constructs that have been modeled using their data. It then covers the kinds of motivational principles, cognitive biases, and other data visualization principles that are important to communicating different kinds of data. Finally, it culminates in the development of a novel dashboard system, the design of which students will justify both with a review of the literature and with a mini-usability study.
Fall or Spring
1 Course Unit

EDUC 5155 Technology for Educators
The aim of this course is to provide educators with hands-on experience with a range of technologies. During the course we will explore and learn how to handle web-based, free technologies that can be used by educators to design educational activities appropriate for their students.
Summer Term
1 Course Unit

EDUC 5156 Technology for Educators
This course is designed to provide an overview of the major discussions in the field, and policy challenges, culminating in a related research project of your choice.
Fall
1 Course Unit

EDUC 5180 Gender & Education
This course is designed to provide an overview of the major discussions and debates in the area of gender and education. While the intersections of gender, race, class, ethnicity, and sexuality are emphasized throughout this course, the focus of the research we will read is on gender and education in English-speaking countries. We will examine theoretical frameworks of gender and use these to read popular literature, examine teaching practices and teachers with respect to gender, using case studies to investigate the topics.
Not Offered Every Year
1 Course Unit
EDUC 5183 Adaptive Learning
More and more education takes place asynchronously and online, but relatively little asynchronous instruction takes advantage of the technological advancements that have taken place in recent decades, replicating traditional models for instruction online. In this class, you will learn about the pedagogy and technology of adaptive learning systems, individualized and personalized technology that helps students construct understanding and develop skill. We will read and reflect on both classic and recent papers on this technology, and study many of the successful examples of adaptive learning systems, both systems that have scaled and systems that have failed to scale. We will investigate key methods this type of learning leverages, and key pedagogies it affords.
Fall
1 Course Unit

EDUC 5204 Citizen Sociolinguistics
In this course we will draw on the Internet and daily news (internet circulated, usually) to find “Citizen Sociolinguists” who speak with authority, while juxtaposing these media with the usual scholarly sources.
Not Offered Every Year
1 Course Unit

EDUC 5208 Classroom Discourse and Interaction
In this course students will read research that investigates the role of classroom interaction in learning and human development. Students will also learn how to “do” discourse analysis using real classroom data. Students will practice and critique methods for analyzing classroom discourse data as teachers, with an aim of developing a critical awareness of our own language use and role in society.
Fall
1 Course Unit

EDUC 5212 Communication and Culture in Context
This course brings together scholarship in pragmatics, interactional sociolinguistics, and critical discourse analysis to help language teachers and intercultural educators foster pedagogies that respond to the complexities of living in a multilingual/multicultural society. Through a series of readings, small research projects, and activities, participants will develop a collection of educational practices that focus on 1) raising metalinguistic awareness, 2) developing resources and strategies for communicating across perceived social and cultural boundaries, and 3) assessing intercultural interactional competence.
Not Offered Every Year
1 Course Unit

EDUC 5216 Content-Based Instruction
This course offers students opportunities to investigate, observe, design practice, and critically evaluate the integration of content and language teaching - Content Based Instruction. The settings investigated include thematic English Language teaching; co-teaching and peer coaching by ESL and content teacher teams; and sheltered content instruction, among others. Standards, integrations of tasks, and special language requirements in various content areas are reviewed.
Summer Term
1 Course Unit

EDUC 5220 Pedagogy and Action for Critical Education
This graduate-level course is designed in collaboration with students and is centered on student-facilitated critical dialogue. Students in this course will engage with salient dimensions and theoretical foundations of issues, such as social justice, diversity, intersectionality, oppression, and more, within educational spaces. Through course activities and discussions, as well as student designed and facilitated classes, students will examine issues related to anti-oppressive education and develop skills in workshop design and facilitation that will empower them to work towards social change as community members, educators, and/or researchers.
Spring
1 Course Unit

EDUC 5224 Curriculum and Materials Development for English Language Teaching
This course is designed for those who are ready to develop skills in curriculum, course and materials design. The objectives of the course include learning how (a) to become able to analytically respond to readings on curriculum, course and materials development; (b) to analyze the sociocultural, economic, linguistic and occupational contexts of language teaching programs; (c) to design an original semester-long ESL/EFL course; (d) to design original pedagogical tasks and supplementary materials; and (e) to design in a group. EDUC 527 & EDUC 537 provide essential background for this advanced course. Prerequisite: Permission from instructor is required.
Fall
Prerequisite: EDUC 6215 AND EDUC 6205
1 Course Unit

EDUC 5232 Indigenous Education and Language Revitalization
The course examines Indigenous education and language revitalization from an international perspective, considering questions like: What policies, ideologies, and discourses shape the history of Indigenous education? What roles do pan-Indigenous and international organizations play? What does decolonizing and Indigenizing schooling look like? How do Indigenous epistemologies, ways of knowing, being and relating influence education? What does culturally relevant schooling mean in Indigenous contexts? What are the roles of Indigenous communities in language revitalization and educational processes?
Not Offered Every Year
1 Course Unit

EDUC 5236 Intercultural Communication and Miscommunication
This course considers ways in which intercultural communication is inherently more troublesome than intra-cultural communication. The course examines various perspectives on the nature of culture, communication, “miscommunication” and inter-cultural relations. The course criticizes two commonly held assumptions: 1) that “cultures” are unitary and unchanging and 2) that inter-cultural contact and communication is inherently more problematic than intra-cultural communication. The course considers ways in which intercultural communication has important consequences in education, medicine, social services, business settings, and international contact situations.
Not Offered Every Year
1 Course Unit

EDUC 527 & EDUC 537 provide essential background for this advanced course. Prerequisite: Permission from instructor is required.

EDUC 5216 Content-Based Instruction
This course offers students opportunities to investigate, observe, design practice, and critically evaluate the integration of content and language teaching - Content Based Instruction. The settings investigated include thematic English Language teaching; co-teaching and peer coaching by ESL and content teacher teams; and sheltered content instruction, among others. Standards, integrations of tasks, and special language requirements in various content areas are reviewed.
Summer Term
1 Course Unit
EDUC 5240 Language and Gender
This course traces the development of research on language and gender, introducing key theoretical issues and methodological concerns in this area. Participants will consider how gender ideologies shape and are shaped by language use, with particular attention to how research findings can be applied to educational and other professional settings.
Not Offered Every Year
Also Offered As: GSWS 5720
1 Course Unit

EDUC 5248 Language Assessment
This course covers a basic theoretical and practical foundation in language assessment, with particular emphasis on assessments used in second and foreign language education. The course covers various kinds of testing (both formal testing and performance-based assessment), theoretical and technical issues associated with test development, administration, the social influences of testing, and future directions in language assessment.
Spring
1 Course Unit

EDUC 5252 Language Diversity and Education
Exploration of issues affecting educational policy and classroom practice in multilingual, multicultural settings, with an emphasis on ethnographic research. Selected U.S. and international cases illustrate concerns relating to learners' bilingual/bicultural/biliterate development in formal educational settings. Topics include policy contexts, program structures, teaching and learning in the multilingual classroom, discourses and identities in multilingual education policy and practice, and the role of teachers, researchers, and communities in implementing change in schools.
Fall
Also Offered As: LALS 6610
1 Course Unit

EDUC 5256 Linguistic Anthropology of Education
Linguistic anthropologists study the role of language use in culturally patterned behavior. The course focuses on recent research by linguistic anthropologists in educational settings in the US and Europe marked by increasing linguistic and cultural diversity. The goal of the course is to uncover useful tools that contemporary linguistic anthropology offers to educational research.
Spring
Prerequisite: EDUC 6210
1 Course Unit

EDUC 5264 Structure of English
The goal of this course is to increase students' explicit knowledge of selected isolatable parts of the English language and to identify their pedagogical applications with respect to the needs of learners of English as a foreign/second language. This goal is realized through an investigation of: 1) frequently occurring linguistic forms and the rules and principles that govern the way that these forms can be combined and ordered; 2) the meanings that can attach to these forms; and 3) the social functions associated with these forms.
Spring
1 Course Unit

EDUC 5268 Teaching Performance Art for Cross-Cultural Education
This class examines issues related to cultural communities and the arts, specifically performance, writing and storytelling as an educational tool for generating cross cultural and intercultural understanding, dialogue and exchange. Assignments will focus on, cross-cultural research and dialogue, and skill building in teaching, writing and performance. Students will also develop an understanding of how performance can be used to enhance classroom activities in elementary/middle/secondary/ post secondary classroom curricula.
Fall
1 Course Unit

EDUC 5270 Selected Topics in ELX: Adult Literacy for ELLs
The focus for each semester will vary to reflect those issues most relevant to current concerns in educational linguistics.
Fall or Spring
1 Course Unit

EDUC 5271 Selected Topics in ELX: Technology in Language Education
The focus for each semester will vary to reflect those issues most relevant to current concerns in educational linguistics.
Fall or Spring
1 Course Unit

EDUC 5272 Selected Topics in ELX: Conversation Analysis for Second Language Teaching and Research
The focus for each semester will vary to reflect those issues most relevant to current concerns in educational linguistics.
Fall or Spring
1 Course Unit

EDUC 5273 Selected Topics in ELX: Task Based Language Teaching
The focus for each semester will vary to reflect those issues most relevant to current concerns in educational linguistics.
Fall or Spring
1 Course Unit

EDUC 5280 Teaching Writing in Multilingual Contexts
This course introduces participants to a range of theoretical and practical issues related to second language literacy development, with a particular emphasis on writing instruction. An intensive service-learning project offers course participants the opportunity to work with developing writers in a bilingual community organization. The dual emphasis on theory and pedagogy is intended to create space for critical reflection on the characteristics, production, teaching, and assessment of written texts in bi/multilingual educational settings.
Not Offered Every Year
1 Course Unit
EDUC 5281 Teaching Multilingual Immigrant Youth
Immigrant youth often face the dual challenge of learning a new language and learning academic content in that language simultaneously. Many educators, however, struggle to identify and implement instructional practices that acknowledge immigrant learners’ strengths, while also attending to their linguistic, academic, and social needs. This course brings insights and findings from sociolinguistics to bear on research on teaching practices to develop a situated, interactionally mindful approach to supporting the language and literacy development of multilingual youth in contexts of migration. An intensive service-learning project offers course participants the opportunity to “learn by doing” by working closely with multilingual youth in a community-based, immigrant-serving organization. Although the course takes the case of immigrant and first-generation students attending U.S. elementary and secondary schools as its starting point, discussion of the implications and applications to other educational and national contexts is encouraged. The goal of this course is to prepare educators to work with multilingual immigrant youth in contextually sensitive, theoretically informed, interactionally attuned, and humanizing ways.
Fall
1 Course Unit

EDUC 5299 TESOL Classroom Fundamentals
This course focuses on the fundamental teaching skills that you need as a language educator. It is designed to help you develop effective ways of doing as much as knowing and thinking about language teaching and learning within a reflective practice framework.
Spring
Prerequisite: EDUC 6215 AND EDUC 6205
1 Course Unit

EDUC 5325 Fieldwork in Language in Education
Supervised fieldwork for individuals preparing to work with reading specialist/teachers in school settings.
Fall or Spring
1 Course Unit

EDUC 5333 Forming and Reforming the Elementary Reading/Writing/Literacy Curriculum
Students explore the theory and practice of constructivist approaches to teaching reading/writing/talking across the curriculum. They read widely and discuss issues that are informed by theory and research in many fields of inquiry including children's and adolescent literature, educational linguistics, cognitive psychology, curriculum, and anthropology and assessment. They write and share integrative journals; develop, teach and reflect upon holistic lessons; and complete an individual or group project of their own choosing.
Fall
1 Course Unit

EDUC 5335 Literature for Children and Adolescents
Theoretical and practical aspects of the study of literature for children and adolescents. Students develop both wide familiarity with children's/adolescents' books and understanding of how literature can be used in elementary/middle/secondary school curricula. Students complete course projects that focus on literature in specific classroom, research, home, or professional contexts.
Fall
1 Course Unit

EDUC 5378 Teaching Reading and Study in Colleges and Universities
This course is designed for both pre-service and experienced instructors and administrators who are interested in teaching and/or researching the concept of academic literacies and the array of academic skills in postsecondary settings, and/or directing programs in reading, writing and study strategies at the postsecondary level. The course presents theoretical frameworks relevant to the teaching of study strategies, theories of cognitive development, and practical instructional methods. Emphasis is placed on the process and content of such instruction, materials and methods for teaching, and ways to organize postsecondary literacy programs.
Fall
1 Course Unit

EDUC 5382 Theories and Pedagogies of Teaching Writing
This seminar examines various theories and pedagogies of teaching writing in multilingual, multimodal contexts. It explores the historical and ideological underpinnings of contemporary theories of writing and attends to how writing, and the teaching of writing, is shifting in a mobile, networked, and global age.
Fall
1 Course Unit

EDUC 5388 Digital Literacies in a Networked World
This graduate seminar is designed to explore how literacy and learning are changing as people participate with digital technologies across intersecting local and global networks. Participants will collaboratively investigate how young people's digital literacies—their culturally and socially situated meaning making practices mediated by digital tools—emerge in relation to constantly shifting technologies of communication and are constructed, reconstructed, negotiated, and embodied in multiple semiotic systems across everyday contexts. This course highlights how digital literacies are situated, and how these socio-cultural understandings illuminate issues of power and privilege.
Spring
1 Course Unit

EDUC 5404 Systems Thinking for International Development and Educational Change
This course explores what it means to take a "systems approach" to understanding international development, particularly as it relates to the design and implementation of projects supported at least in part by international aid and donor institutions. We focus overall on the education sector, but we begin with a broader view of complex adaptive systems and international development, drawing upon case studies about education, water, sanitation, health, savings groups, empowering the disabled, climate change and community radio, and others. There is ample room for the course to appeal to those focused on sectors other than education. We build upon a deep discussion of the complexity of development contexts. Next, we turn to systems thinking and "theories of change." We ultimately go deepest into educational processes, politics, systems and outcomes. Concerns for governance and accountability have increased attention to "systems thinking" in the design and implementation of public services, including education plans and educational reform; therefore, reformers must grasp the range of meanings of an "education system" as complex, multidimensional processes, interactions, and institutional structures. Students will learn to use systems thinking to approach, define, understand and analyze the biggest challenges to improving social outcomes—so called "wicked problems".
Fall or Spring
1 Course Unit
EDUC 5406 International Early Childhood Policies and Programs
This course focuses on early childhood development research, policies, and practices in low and middle-income countries. The first part of the course reviews the evidence for investing in young children from economic, health, and education perspectives. The second part of the course discusses current issues related to designing, implementing, and evaluating quality, contextually-appropriate early childhood interventions.
Fall
1 Course Unit

EDUC 5412 Policy Planning in International Educational Development: Theory and Practice
This course focuses on education policy in low and middle-income countries. The first part examines global policy frameworks and international institutions/actors that shape education reform efforts. The second part covers the contexts, processes, and tools for national education policy planning. The third part analyzes a series of current cross-national education policy issues.
Spring
1 Course Unit

EDUC 5414 Economics of Education in Developing Countries
This is a course on economics of education, a field within the subject of economics that draws upon many areas of economic specialization. The course focuses on developing countries and includes papers and case-studies covering themes such as returns to investment in education, production, costs and financing of education, teacher labor markets, economic growth, education markets, and equity issues.
Fall
1 Course Unit

EDUC 5418 Global Governance and Cooperation: International Education Policy and Practice
This course focuses on the intersection of global education policy and international development. Drawing on diverse disciplinary perspectives – including policy sciences, international relations, and development studies – students will explore the role of global governance institutions and international development policy in facilitating or constraining progress toward the Sustainable Development Goals. Through course assignments and in-class discussions with development practitioners, students will examine how actors and institutions influence the global governance of education and its implementation in low- and middle-income countries. By the end of the course, students will have deepened their understanding of the history, current status, and future directions of international cooperation in education and acquired analytical skills to contribute to the global education policy field. The course is open to all graduate students with interests in global education, public policy, and international development. The format includes mandatory synchronous sessions twice a week along with weekly asynchronous assignments.
Summer Term
1 Course Unit

EDUC 5428 Participatory Educational Research in Global Perspective: Theory and Practice
This course examines participatory models and frameworks in relation to international applied educational development research. Through a critical examination of approaches to international applied development research, the course examines real-world models of development research in order to examine questions regarding the nature of knowledge, post-colonial histories, researcher positionalities, and the relationships between concepts, theory, methodology, community, and identity. Course focuses on participatory methodologies as cross-sector strategy frameworks for sustainable, equitable, locally driven educational development efforts.
Fall
1 Course Unit

EDUC 5430 Migration, Displacement, and Education
This course examines the effects of migration (forced and voluntary) on education in a variety of contexts across the world (including the United States). The course reviews sociological and anthropological theories of immigrant incorporation and inclusion. Such frameworks are then applied to migration through case studies of im/migrants, refugees, and displaced persons in order to consider educational practices, programs and policies that address the effects of migration and displacement on education in diverse contexts.
Fall
Also Offered As: LALS 5430
1 Course Unit

EDUC 5431 Global Citizenship
This course examines the possibilities and limitations of conceiving of and realizing citizenship on a global scale. Readings, guest lecturers, and discussions will focus on dilemmas associated with addressing issues that transcend national boundaries. In particular, the course compares global/local dynamics that emerge across different types of improvement efforts focusing on distinctive institutions and social domains, including: educational development; human rights; humanitarian aid; free trade; micro-finance initiatives; and the global environmental movement. The course has two objectives: to explore research and theoretical work related to global citizenship, social engagement, and international development; and to discuss ethical and practical issues that emerge in the local contexts where development initiatives are implemented.
Spring
Also Offered As: ANTH 5460, URBS 5460
1 Course Unit
EDUC 5433 Decolonizing Education
Frantz Fanon (1963) writes that decolonization "sets out to change the order of the world." This course approaches decolonization in and around Education not as a "metaphor" for "civil and human rights-based social justice projects" couched in diversity, inclusion, and equity (Tuck and Yang 2012), but as part of a range of political projects and experiments that have sought to fundamentally reorder global structures, systems, and relations of power. Though prevailing philosophies about the meaning and purpose of Education cast schooling as a critical pathway to democratic, socially just, and inclusive societies, the historical foundations and contemporary realities of formal education in the Global South complicate theses ideals. For much of the formerly colonized world, Western education was one of the earliest and most enduring imperial projects, which deliberately undermined indigenous systems of knowing and learning in order to produce "good" subjects for incorporation into colonial regimes. Despite the promises of post-colonial nationhood, in most parts of the world, education still retains this function as the primary instrument of elite re/production and social stratification. And, yet, education is also typically imagined as central to decolonial and anti-imperial projects, improving social conditions, and forms of social and political belonging. This course interrogates histories and contemporary realities related to the politics and possibilities of Education from the vantage point of the Global South, which here signals a geography of relative geopolitical power indexing relations of development/underdevelopment, core/periphery, and empire/colony. By considering the various ways education has been part of decolonizing projects, we will investigate the relationships between education and indigenous ways of knowing and learning, colonialism, nationalism, conflict, class re/production, spatial and social mobilities, among other thematic strands. Moreover, in centering the periphery, we will explore the theoretical openings that "theory from the (Global) South" offers for decolonial epistemologies and pedagogies.
Not Offered Every Year
1 Course Unit

EDUC 5435 Youth Cultural Formations
This course explores anthropological perspectives on peer-based youth cultures. It explores how educational institutions, media (fashion, music, magazines), and states shape youth cultures in cross-cultural contexts through social processes such as capitalism, nationalism, and increasing globalization. The course emphasizes ethnographies and histories which explore the relationship of these wider social processes to the lived realities of young people, situated in class, gender, national and race-specific contexts.
Fall or Spring
1 Course Unit

EDUC 5436 Philosophical Aspects of Education Policy
This course, which is unofficially titled 'Justice goes to School' explores the philosophical or normative foundations of educational policy decisions. School choice, standards-based reform, civic education, children's and parents' rights, school finance reform - how do different arguments for these policies view the role of schools in society? What are their concept of the person, and their view of the educated person? We will consider arguments for and against a variety of contemporary educational policies. Students are encouraged, if they are interested, to bring to class educational policy decision that perplex or intrigue them.
Fall or Spring
1 Course Unit

EDUC 5437 Interfaith Dialogue in Action
This ABCS course explores religious pluralism and interfaith dialogue and action on college campuses. It brings together students with diverse faith commitments (including atheism) to engage with and learn from one another in academic study, dialogue, and service.
Spring
1 Course Unit

EDUC 5438 Education Law and Policy
This course examines major court cases in the United States and considers their impact on education policy and practice. We consider the arguments for different court decisions in light of normative principles, precedents, and both intended and actual consequences. The court cases discussed will vary, including topics such as school finance litigation and its impact on equity since Rodriguez; speech protections for students and teachers in K-12 and in higher education since Tinker; integration, affirmative action and racial equity since Brown in both K-12 and higher education; and other cases.
Fall, even numbered years only
1 Course Unit

EDUC 5439 Examining the School to Prison Pipeline: Implications of History, Policy, and Race
The term school-to-prison pipeline typically refers to a disturbing trend in which punitive policies have led to children being funneled out of schools and into the criminal justice system at an alarming rate. This course: 1. Examines the historical context and policies that have contributed to the school-to-prison pipeline.
Fall or Spring
1 Course Unit

EDUC 5443 Education and the American Metropolis
Education and the American City centers on major trends and factors that have shaped cities and their preK-16 school systems since the Second World War, including racial discrimination, migration and immigration, suburbanization, deindustrialization, U.S. housing policy, social welfare policy, and urban renewal.
Not Offered Every Year
1 Course Unit
EDUC 5445 Ethics & Schools
This course explores the ethical elements of the work of schooling by examining ethical dilemmas faced by teachers, administrators, and policy makers. This course also explores how ethics should be taught in schools (and if it should be taught at all). The course raises and engages with the following questions: How can educators approach ethical dilemmas in their everyday work? How might an educator respond when she believes school-based policies and procedures are not in a student’s best interest? How might an educator balance responses to particular events with system’s level transformation? Should policy makers pander to upper-middle class parents to attract them to urban districts? How can individual teachers and entire schools teach ethics?
Not Offered Every Year
1 Course Unit

EDUC 5449 The Social & Political Philosophy of Education
Is the purpose of education to allow individuals to better themselves by pursuing personal tastes and interests, or should education be primarily aimed at creating good citizens or good members of a group? Is there a way of reconciling these two aims? Assuming that adult relations with children are inherently paternalistic, is it possible for children to be educated for future autonomy to pursue major life goals free from such paternalistic control; and if so, how? How much, if any control over education can be allocated to the state, even when this conflicts with the educational goals parents have for their children? Such questions are especially relevant in multicultural or pluralistic societies in which some groups within a liberal state are non-liberal. Should a liberal democratic state intervene in education to ensure the development of children’s personal autonomy, or must toleration of non-liberal groups prevail even at the expense of children’s autonomy?
Not Offered Every Year
1 Course Unit

EDUC 5450 Economic Development, Education, and Inequality in East Asia
Where are East Asian economies and education headed? Can a new model of East Asian economy and education be established to achieve economic sustainability and equity in rapidly changing global contexts? In this seminar, we will survey 1) evolution of the East Asian economic model, focusing on changes in economic development strategies, labor market structures, and relationships with global economies; and 2) features of East Asian educational systems, focusing on educational opportunities and learning outcomes. In reviewing East Asian economy and education, a central question is not only how productive East Asian economy and education is but also how equal economic and educational opportunities are in the region. In the final part of the seminar, students will come up with some policy recommendations for East Asian economy and education to better achieve economic sustainability and equity. This graduate-level course is also open to advanced undergraduate students.
Also Offered As: EALC 5702, SOCI 5450
1 Course Unit

EDUC 5451 Politics and Education
How is education a form of political action? In this course we look at the governance of schools, the trust in them and their relations to socioeconomic conditions in society, among other topics, using research in education, political science, and political theory.
Fall
Also Offered As: PSCI 5450
1 Course Unit

EDUC 5453 History of American Education
This course will examine the growth and development of American schools, from the colonial era into the present. By 1850, the United States sent a greater fraction of its children to school than any other nation on earth. Why? What did young people learn there? And, most of all, how did these institutions both reflect and shape our evolving conceptions of "America" itself? In an incredibly diverse society, the answers were never simple. Americans have always defined their nation in a myriad of contrasting and often contradictory ways. So they have also clashed vehemently over their schools, which remain our central public vehicle for deliberating and disseminating the values that we wish to transmit to our young. Our course will pay close attention to these education-related debates, especially in the realms of race, class, and religion. When immigrants came here from other shores, would they have to relinquish their old cultures and languages? When African-Americans won their freedom from bondage, what status would they assume? And as different religious denominations fanned out across the country, how would they balance the uncompromising demands of faith with the pluralistic imperatives of democracy? All of these questions came into relief at school, where the answers changed dramatically over time. Early American teachers blithely assumed that newcomers would abandon their old-world habits and tongues; today, "multicultural education" seeks to preserve or even to celebrate these distinctive patterns. Post-emancipation white philanthropists designed vocational curricula for freed African-Americans, imagining blacks as loyal serfs; but Black citizens demanded a more academic education, which would set them on the road to equality. Protestants and Catholics both used the public schools to teach their faith systems until the early 1960s, when the courts barred them from doing so; but religious controversies continue to hound the schools, especially on matters like evolution and sex education. How should our public schools address such dilemmas? How can the schools provide a “common” education, as Horace Mann called it, melding us into an integrated whole while still respecting our inevitable differences?
Spring
1 Course Unit

EDUC 5455 Merit and America
What constitutes merit? What should constitute merit? These questions are both philosophical and practical - and are faced by every educator in some form. The notion of meritocracy has long been at the heart of varied discourses about the place of education in American society. Merit is most often understood as inhering in consistent and individual personality traits such as competency, intelligence, and diligence. And yet, every individual is embedded in complex social worlds that are culturally specific and historically contingent. Drawing on a broad array of disciplines and literatures, this seminar-style course challenges students to consider how ideas of merit and its measurement are shaped by American history, culture, and society, and to articulate their own views as they move toward their professional goals.
Not Offered Every Year
1 Course Unit
EDUC 5457 Education and the Culture Wars: Historical and Contemporary Perspectives
America is wracked by "culture wars," pitting different moral and religious values against each other. But these conflicts are hardly new. Since the founding of the Republic, we have battled over religion, sex, gender, and race. And many of these conflicts have entered our schools, which remain our primary vehicle for deliberating and determining who we are. What languages should we use in school? What should we teach young people about sex? About race? About religion? Most of all, what stories should we tell about the nation itself? This course will probe these issues and also help students write primary-source research papers that examine different culture wars in American education.
Fall
1 Course Unit

EDUC 5459 Activism Beyond the Classroom
ACTIVISM BEYOND THE CLASSROOM (ABC) invites you to engage in participatory inquiry and public scholarship related to grassroots activism around education and social justice, in collaboration with Philadelphia community activists and one another. Together, we will explore how to form the coalition(s), theory, and praxis necessary to transform social conditions. In the first part of the course, we critically examine theories of power, resistance, and liberatory transformation to share knowledges and build a critical vocabulary with which we will investigate the contested rhetorical and political terrain of our present moment. The notion of praxis, a guiding principle of the course, signals the processes through which "theory" is both embodied and realized. As such, in the second part of the course, we will experiment with how theory can be brought to bear on contemporary struggles around education—and, conversely, how the practices of activism can inform our learning, scholarship, and pedagogies. ABC is an Academically Based Community Service course supported by the Netter Center for Community Partnerships. Our work will crosscut three areas: (1) inquiry-based working groups, (2) community engagements, and (3) public forms of scholarship, including a class podcast, opinion essays, and a course website located at: www.activismbeyondtheclassroom.com.
Not Offered Every Year
1 Course Unit

EDUC 5466 Ethnographic Filmmaking
This ethnographic methodology course considers filmmaking/videography as a tool in conducting ethnographic research as well as a medium for presenting academic research to scholarly and non-scholarly audiences. The course engages the methodological and theoretical implications of capturing data and crafting social scientific accounts/narratives in images and sounds. Students are required to put theory into practice by conducting ethnographic research and producing an ethnographic film as their final project. In service to that goal, students will read about ethnography (as a social scientific method and representational genre), learn and utilize ethnographic methods in fieldwork, watch non-fiction films (to be analyzed for formal properties and implicit assumptions about culture/sociality), and acquire rigorous training in the skills and craft of digital video production. This is an ABCS course, and students will produce short ethnographic films with students in Philadelphia high schools as part of a partnership project with the School District of Philadelphia. Due to the time needed for ethnographic film production, this is a year-long course, which will meet periodically in both the fall and spring semesters.
Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: ANTH 5830
1 Course Unit

EDUC 5467 Community Youth Filmmaking
This course focuses on how the filmmaking medium and process can provide a means for engaging youth in ethnographically grounded civic action projects where they learn about, reflect on, and communicate to others about their issues in their schools and communities. Students receive advanced training in film and video for social change. A project-based service-learning course, students collaborate with Philadelphia high school students and community groups to make films and videos that encourage creative self-expression and represent issues important to youth, schools, and local communities. Stories and themes on emotional well-being, safety, health, environmental issues, racism and social justice are particularly encouraged. A central thread throughout is to assess and reflect upon the strengths (and weaknesses) of contemporary film (digital, online) in fostering debate, discussion and catalyzing community action and social change. The filmmaking medium and process itself is explored as a means to engage and interact with communities. This course provides a grounding in theories, concepts, methods and practices of community engagement derived from Community Participatory Video, Youth Participatory Action Research (YPAR) and Ethnographic methods. For the very first time, Penn students will be trained to operate a state-of-the-art TV studio at PSTV (Philadelphia Schools TV). At the end of the semester approved films will be screened with an accompanying panel discussion at an event at the School District of Philadelphia (SDP). These films will also be broadcast on Comcast Philadelphia's PSTV Channel 52 and webcast via the district's website and YouTube channel. This is an ABCS course, and students will produce short ethnographic films with students in Philadelphia high schools as part of a partnership project with the School District of Philadelphia. EDUC 5466 Ethnographic Filmmaking (or equivalent) is a pre-requisite or permission of instructor.
Spring
Also Offered As: ANTH 5467
1 Course Unit

EDUC 5480 Inter/National Development and Education
In recent years the construct of "global development" has come under increasing scrutiny, leading some scholars and practitioners to wonder whether development remains a useful concept. In this course, we will actively engage in this debate through a survey of the development literature in the field of education. We will examine theoretical frameworks and historical perspectives that will allow us to develop a better understanding of what is meant by "development" as well as recognize how these concepts relate to basic educational planning and practice in various international contexts. Prerequisite: Prior graduate work in related areas recommended. The course will work from primary and secondary materials on theories, research, and applications used to promote global development and basic education. Some programs are carried out by multinational/bilateral agencies such as World Bank, Unicef, UNESCO, and USAID, while others are undertaken by intermediary organizations (such as NGOs and universities) and local organizations or individual specialists. Issues include a range of social, economic and political obstacles to the provision of quality education. The goal of this course is to improve your understanding of how different theories of education and development influence educational policy, priorities, and programs of international, national, and local institutions. Prerequisite: Prior graduate work in related areas recommended.
Fall
1 Course Unit
EDUC 5490 School and Society in America  
This course reviews the major empirical and theoretical research from the social history, and social theory on the development, organization and governance of American education, and the relationship between schooling and the principal institutions and social structures of American society.  
Fall, Spring, and Summer Terms  
1 Course Unit

EDUC 5495 Anthropology and Education  
An introduction to the intent, approach, and contribution of anthropology to the study of socialization and schooling in cross-cultural perspective. Education is examined in traditional, colonial, and complex industrial societies.  
Fall, Spring, and Summer Terms  
Also Offered As: ANTH 5470, URBS 5470  
1 Course Unit

EDUC 5522 Psychology of the African-American  
Using an Afro-centric philosophical understanding of the world, this course will focus on psychological issues related to African Americans, including the history of African American psychology, its application across the life span, and contemporary community issues.  
Spring  
Also Offered As: AFRC 5220  
1 Course Unit

EDUC 5538 Stereotype Threat, Impostor Phenomenon, and African Americans  
This course critically examines stereotype threat and impostor phenomenon as they relate to African Americans. Both stereotype threat and impostor phenomenon negatively affect African Americans. The apprehension experienced by African Americans that they might behave in a manner that confirms an existing negative cultural stereotype is stereotype threat, which usually results in reduced effectiveness in African Americans' performance. Stereotype threat is linked with impostor phenomenon. Impostor phenomenon is an internal experience of intellectual phoniness in authentically talented individuals, in which they doubt their accomplishments and fear being exposed as a fraud. While stereotype threat relies on broad generalization, the impostor phenomenon describes feelings of personal inadequacy, especially in high-achieving African Americans. This course will explore the evolving meanings connected to both stereotype threat and impostor phenomenon in relation to African Americans.  
Fall  
Also Offered As: AFRC 6020  
1 Course Unit

EDUC 5552 Foundations of Education for Diverse Learners  
An introduction to Special Education including the history, the legal regulation of Special Education, and an examination of critical issues.  
Not Offered Every Year  
1 Course Unit

EDUC 5553 Developmental Theories: Applications with Adolescents  
Focuses on theories of adolescent development and the nature of transactions among adolescents, peers, teachers, specialists, and significant others. Also covers methods of intervening to promote psychological growth.  
Fall  
0.5-1 Course Unit

EDUC 5558 Developmental Theories: Applications with Young Adults  
This course is designed as a collaborative inquiry toward constructing and elaborating upon theories of young adult development and interactions with young adults as counselors, teachers, family members, and higher education administrators. Using a seminar or working group format, participants explore the relationships among developmental theory, sociocultural contexts of young adults, practice (e.g., interventions, relationships), and research. Using literature from empirical and popular, mainstream sources, participants will engage in learning of how young adults navigate the transition from adolescence to adulthood. Specific topics to be addressed include, “the quarterlife crisis,” financial needs of young adults, relationships, family, and career exploration and crystallization.  
Not Offered Every Year  
1 Course Unit

EDUC 5560 Human Development  
Provides an introduction to physical, social, cognitive, emotional and linguistic development from infancy to adulthood. Major theories related to human development will be discussed along with methods of intervention for individuals in various life stages.  
Fall or Spring  
1 Course Unit

EDUC 5561 Adolescent Development  
An interdisciplinary view will be used to frame biological, psychological, and social development among adolescents. Special emphasis will be placed on how contextual factors influence developmental outcomes. Theories of adolescent development and methods of intervention will also be discussed.  
1 Course Unit

EDUC 5562 Personality & Social Development  
The effects of social processes on human development in the interlocking contexts of parents, family, peers, school, communities and culture are considered during the major developmental periods of infancy, childhood, adolescence and adulthood. The course examines what is unique about social developments, how social relationships can be defined, and what are the social precursors and consequences of specific developmental changes.  
Fall  
1 Course Unit

EDUC 5568 Cognitive Development  
This course examines the cognitive development of the child from infancy to adolescence with an emphasis on cultural context. Topics include: origins of thinking, Piaget, Vygotsky, intelligence, development of learning and memory, language development, and moral development.  
Fall  
Prerequisite: EDUC 5560  
1 Course Unit

EDUC 5570 Qualitative Studies of Developmental Interventions  
This course is designed to introduce students to innovative approaches to the psychology of education, especially with regard to populations from at-risk contexts, sociocultural dimensions of education, and social-emotional learning.  
Not Offered Every Year  
1 Course Unit
EDUC 5571 Topics of Psychology in Education: Mindfulness and Healthy Development
This course is designed to introduce students to innovative approaches to the psychology of education, especially with regard to populations from at-risk contexts, sociocultural dimensions of education, and social-emotional learning.
Not Offered Every Year
Also Offered As: AFRC 5573
1 Course Unit

EDUC 5573 Psychoeducational Interactions with Black Males
The purpose of this course is to provide students with an opportunity to consider mandates, models, and methods related to enhancing the learning and development of preschool and early elementary school children. This course emphasizes the application of developmental psychology and multicultural perspectives to the design of effective classroom-based strategies. Students will consider a "whole-child" approach to understanding children's classroom behavior in context. Major assignments will involve gathering and synthesizing information about children in routine classroom situations. This information will be used to better understand children's needs and strengths and how they are manifested in transaction with classroom contexts. Students will focus on one or more students to conduct a comprehensive child study of the child in context. This contact must include opportunities to observe children in a natural setting and interact with them on a regular basis throughout the semester. The placement needs to be approved by the professor. If students do not have a regular classroom contact, one will be arranged.
Spring
1 Course Unit

EDUC 5580 Developmental Theories & Applications with Children
The purpose of this course is to provide students with an opportunity to consider mandates, models, and methods related to enhancing the learning and development of preschool and early elementary school children. This course emphasizes the application of developmental psychology and multicultural perspectives to the design of effective classroom-based strategies. Students will consider a "whole-child" approach to understanding children's classroom behavior in context. Major assignments will involve gathering and synthesizing information about children in routine classroom situations. This information will be used to better understand children's needs and strengths and how they are manifested in transaction with classroom contexts. Students will focus on one or more students to conduct a comprehensive child study of the child in context. This contact must include opportunities to observe children in a natural setting and interact with them on a regular basis throughout the semester. The placement needs to be approved by the professor. If students do not have a regular classroom contact, one will be arranged.
Spring
1 Course Unit

EDUC 5581 Advanced Psychology of Women
The course is intended for those who already have a foundation in the study of the psychology of women and want to expand their understanding of the provision of psychological services to include a contextual, feminist, and relational perspective. Theoretical and applied practices regarding women's mental health, issues of diversity, sexuality and relationships for women will be addressed. Prerequisite: Introduction to Psychology and an undergraduate course in the Psychology of Women or approval by professor.
Also Offered As: GSWS 5810
1 Course Unit

EDUC 5584 Basic Counseling Skills
This course will teach basic counseling skills to students not seeking a license in professional counseling as a way to help them connect with and work well with others. It will predominantly be oriented towards skill building. We will review/discuss a selection of basic counseling skills and use in-class demonstrations to practice these skills. This course is required for the Counseling and Human Development Skills Concentration.
Spring
1 Course Unit

EDUC 5585 Advanced Group and Family Counseling
This course focuses on the basics of systems intervention with a specific focus on families and groups. The purpose is to develop more advanced knowledge of practical therapeutic problem-solving skills at the graduate student level using ecological, systemic, and cultural perspectives. Students will be exposed to advanced group therapy strategies with children, youth, and adults, with family interventions across various mental health diagnostic populations, and how to intervene within groups and families in which cultural differences and styles are key themes. Prerequisite: Students must be enrolled in the M. Phil. Ed. in Professional Counseling Program. Students will also be challenged to develop a preliminary rationale for a systemic theory of behavior change. Given the diversity of clients that counselors see professionally, some advanced and demonstrated knowledge of how cultural differences will be addressed in the counseling session and in the relationships of larger societal institutions will be expected. This course will satisfy the Group work II requirement of the MPE program in Professional Counseling and Psychology. The course also fits within the APHD theme of Applied Psychology: Intervention and Certification. Prerequisite: Students must be enrolled in the M. Phil. Ed. in Professional Counseling Program.
1 Course Unit

EDUC 5587 Human Sexuality
All persons have moments that elicit reflection on issues related to myriad aspects of sexuality. When working with people in clinical or school settings, these issues are ubiquitous. This course will provide a broad understanding of sexuality and specific ways to address sexuality problems.
Spring
1 Course Unit
EDUC 5588 Autism, Language, and Reasoning
The field of autism has generated growing interest, with increases in diagnosed cases, increased inclusion in regular education classrooms of students with autism spectrum disorders, growing recognition of neurodiversity and concomitant attempts to improve accommodations for and acceptance of adults with autism in society at large, an ever broadening repertoire of interventions and accommodations for autism, and ongoing discoveries in cognitive science and neurobiology. In many ways, examining the issues surrounding autism spectrum disorders provides insights into special needs, neurodiversity, and disability rights in general. This course focuses on the social, linguistic, cognitive, educational, and disability rights aspects of autism, including implications for treatment, accommodation, and counseling. We examine the challenges that individuals with autism have in acquiring language, in deducing the perspectives of other people (Theory of Mind), in engaging in certain types of cognitive tasks, and in having their voices heard by others. We examine, as well, the unusual talents and intellectual strengths that many ASD individuals exhibit. Students interested in working with individuals on the autism spectrum in educational and counseling settings will gain insight into: • How autism spectrum disorders affect the acquisition of social and academic skills • The availability and efficacy of different types of interventions and accommodations • Issues relating to neurodiversity and disability rights • Strategies for guiding students with autism spectrum disorders through K12 schools and beyond
Fall
1 Course Unit

EDUC 5594 Race/Ethnicity in Human Development
This interdisciplinary course will employ a critical perspective on minority youth development, analyze the existing literature, and propose alternative explanations for observed phenomena. It will consider pertinent issues and theories of middle childhood, adolescent and young adult development.
Not Offered Every Year
1 Course Unit

EDUC 5730 The Evolution of Assessment: Classroom and Policy Uses
This course explores the evolution and diverse uses of assessment in four major areas: the historical roots of testing and the development of the achievement testing industry; the rising interest and exploration of alternative forms of assessment; how teachers employ a variety of assessments in their classrooms; and how policymakers use assessment for decision-making and accountability purposes. Prerequisite: Permission needed from department.
Not Offered Every Year
1 Course Unit

EDUC 5760 Applied Research Methods to Inform Policy and Practice
The class is designed to provide students with a grounding in the theory and application of policy creation and implementation processes, as well as the knowledge and tools to guide program and policy evaluation, including the alignment of questions to appropriate methods of research; judging the quality of research evidence; and designing strong analysis and evaluation strategies.
Fall
1 Course Unit

EDUC 5780 American Education Reform: History, Policy, Practice
An examination of major trends, central tendencies, and turning points in American education reform, giving particular attention to contemporary developments such as accountability laws and school choice. This historical development of the federal role in American schooling is also considered, as is the history of school desegregation. What is the purpose of "school"? How have schools evolved across time, and how have Americans tried to change them? And what can we learn from this long history of reform?
Fall
1 Course Unit

EDUC 5782 Sociology of Education
This course provides an overview of key theoretical perspectives and topics in the sociology of education, including expansion of formal educational systems; the extent to which educational systems contribute to or inhibit social mobility; inequality of educational inputs and outcomes by race, social class, and gender; and the social organization of educational institutions, including sources of authority, community, and alienation. The course includes both K-12 and higher education topics.
Fall
1 Course Unit

EDUC 5804 Contemporary Issues in Higher Education
An introduction to the central issues and management problems in contemporary American higher education.
Fall or Spring
1 Course Unit

EDUC 5805 Globalization & the University
The aim of this course is to help students understand the basic concept of globalization, how it impacts higher education in general, and how it shapes the global market for human capital and fosters private sector and for profit provision and diversifies modes of delivery of higher education. The seminars cover the nature of globalization and the way it affects the movement of people between economies to gain and apply skills and knowledge, the creation of branch campuses, the growth of transnational education and the importance of brands and information in the global higher education market.
Fall
1 Course Unit

EDUC 5812 University-Community Partnerships
Ranging from civic engagement to economic development, institutions of higher education in the United States have long been involved in a variety of relationships with their local communities; in recent years, there has been increasing attention paid to the opportunities and challenges implicit in those relationships. In this course, students will study and discuss the history, rationales, and manifestations of the partnerships that have developed. Through readings, faculty-and student-led discussions, guest lecturers, and policy-oriented projects, students will develop better understandings of the many topics surrounding university-community partnership activities. Among other themes we will consider institutional roles and relationships, service learning, community perspectives, issues relevant to diverse populations, policy, and evaluation.
Fall
1 Course Unit
EDUC 5832 Pursuing Institutions of Excellence: Strategies, Choices, Pitfalls & Possibilities
The aim of this course is to help students understand how universities pursue excellence by examining national and institutional strategies to become high performing institutions. The seminar series will look at the basic concepts of organizational culture and the merits and flaws of different conceptions of excellence.
Fall
1 Course Unit

EDUC 5841 Access & Choice in American Higher Education
College enrollment is a complex process that is shaped by the economic, social and policy context, higher education institutions, K-12 schools, families, and students. The course will examine the theoretical perspectives that are used to understand college access and choice processes. The implications of various policies and practices for college access and choice will also be explored, with particular attention to the effects of these policies for underrepresented groups. As an Academically Based Community Service (ABCS) course, this course is also designed to generate tangible recommendations that program administrators and institutional leaders may be used to improve college access and choice.
Not Offered Every Year
1 Course Unit

EDUC 5843 Understanding Minority Serving Institutions
Students taking this course will learn about the historical context of HBCUs in educating African Americans, and how their role has changed since the mid-1800's. Specific contemporary challenges and successes related to HBCUs will be covered and relate to control, and enrollment, accreditation, funding, degree completion, and outreach/retention programming. Students will become familiar with MBCUs in their own right, as well as in comparison to other postsecondary institutions.
Spring
1 Course Unit

EDUC 5853 Academic Advising in Higher Education
Academic advising in higher education differs within and across institutions and has evolved in its method of delivery, yet consistently focuses on and is attributed to student success. Key advising concepts, theoretical approaches, and relational skills to support students in the college environment will be examined in this course. Attention will be given to best practices and advising diverse student populations with academic planning, goal setting, and decision-making. An understanding of policies related to privacy, confidentiality, and university considerations will also be discussed. This course provides a foundation in academic advising, strategies and skills needed to promote institutional mission and goals, and equips aspiring and current professional advisors with the resources to assist collegians in having holistic and gratifying experiences in higher education.
Fall or Spring
1 Course Unit

EDUC 5856 Higher Education Finance
Designed for non-financial managers, this course provides students with an introduction to basic concepts related to the finance of higher education. It examines the forces that influence the financing of higher education at both the state and federal levels. It addresses both the macro-economic and micro-economic issues related to higher education finance. In addition, students will be introduced to issues related to institutional finance.
Fall
1 Course Unit

EDUC 5869 Administration of Student Life
This course covers a variety of issues in the management of student services on campus. After examining the historical context of student affairs and the theoretical frameworks of student development, students explore ways to most effectively administer the numerous activities that comprise student affairs programs.
Fall or Spring
1 Course Unit

EDUC 5873 Higher Education Policy: What Can We Learn from Other Countries?
This course examines the proposition that policy makers, educational leaders and practitioners can learn from what has worked and failed in higher education policy and practice in other nations.
Fall
1 Course Unit

EDUC 5892 Professional Development in Higher Education
To prepare for a career in higher education, students are engaged in a 20-hour a week assistantship in the field. This course complements and enhances the graduate assistantship. Emphasizing practical application of theory and skill development, the course does the following: provides students with tools to embark on a successful job search; offers networking opportunities with administrators in higher education; and introduces students to relevant and timely literature and resources in higher education professional development.
Fall
1 Course Unit

EDUC 5894 Diversity in Higher Education
This course explores issues of diversity as they pertain to higher education, including race, ethnicity, gender, class, religion, sexual orientation, ideology, etc. Rather than focusing on specific populations of people, the course will tackle issues of diversity within the context of concrete higher education functions and problems.
Fall
Also Offered As: LALS 5940
1 Course Unit

EDUC 6027 Teaching in the Middle and Secondary Schools: Math
Content-specific sections of this course (math, social studies, science) will examine approaches in planning, implementing and evaluating methods for teaching science, mathematics and social studies in middle and secondary schools. This course is grounded in the belief that teaching and learning require educators to question our teaching purposes and practices through a process of self-reflection, collegial and student-teacher interactions as well as personal and professional growth. Using a variety of learning theories and perspectives as the foundation for interactive teaching strategies, the stories, questions and contradictions of each content area are examined from a variety of perspectives. Offered within the Urban Teaching Apprenticeship Program.
Fall
1 Course Unit
EDUC 6028 Teaching in the Middle and Secondary Schools: Science
Content-specific sections of this course (math, social studies, science) will examine approaches in planning, implementing and evaluating methods for teaching science, mathematics and social studies in middle and secondary schools. This course is grounded in the belief that teaching and learning require educators to question our teaching purposes and practices through a process of self-reflection, collegial and student-teacher interactions as well as personal and professional growth. Using a variety of learning theories and perspectives as the foundation for interactive teaching strategies, the stories, questions and contradictions of each content area are examined from a variety of perspectives. Offered within the Urban Teaching Apprenticeship Program. Fall
1 Course Unit

EDUC 6029 Teaching in the Middle and Secondary Schools: Social Studies
Content-specific sections of this course (math, social studies, science) will examine approaches in planning, implementing and evaluating methods for teaching science, mathematics and social studies in middle and secondary schools. This course is grounded in the belief that teaching and learning require educators to question our teaching purposes and practices through a process of self-reflection, collegial and student-teacher interactions as well as personal and professional growth. Using a variety of learning theories and perspectives as the foundation for interactive teaching strategies, the stories, questions and contradictions of each content area are examined from a variety of perspectives. Offered within the Urban Teaching Apprenticeship Program. Fall
1 Course Unit

EDUC 6030 Teaching in the Middle and Secondary Schools: English
This course is a collaborative inquiry into the dynamic concept of adolescent literacy and its potential as an organizing construct for improving teaching and learning. It provides opportunities to investigate a variety of resources including our own histories as well as a range of print, digital and visual texts and to conduct fieldwork in various middle and secondary school classrooms where youth are being positioned (and positioning themselves) as literacy learners and literacy being defined, performed, practiced, interrogated, and interpreted, within and beyond the school curricula. By engaging with youth, in various texts and contexts and for a range of purposes, participants will try to make sense of how adolescents negotiate their worlds, in school and out. The approach to literacy is interdisciplinary, drawing from the domains of literature, composition, linguistics, curriculum theory, anthropology and psychology and from theory, research and practice of both university-based and school-based teachers, writers and researchers. The intent is to pose and refine questions about what it means to teach literacy in ways that take seriously what youth bring to school as their own knowledge and passions, cultural and linguistic resources. Fall
1 Course Unit

EDUC 6041 Culturally Responsive Pedagogy in Urban Secondary Schools
While a wealth of evidence has illustrated the role of culture in mediating learning & engagement in educational spaces, responding to the pedagogical impact of culture remains challenging for many educational practitioners and institutions. This course will tackle that challenge by exploring the affordances of culturally responsive pedagogies, defined briefly as the philosophical beliefs and conceptual understandings of the interactions between cultures, learners, and educational contexts that guide the design and facilitation of learning experiences. Through course texts and discussions, dialogue with local educators, and inquiry- and practice-oriented assignments, this course will expose students to culturally responsive strategies for engaging, educating, and empowering students in urban secondary schools. Prerequisite: Admission to the UTAP program or permission of instructor. Fall
1 Course Unit

EDUC 6042 School, Society & Self
Teaching is a work of the whole self; and teachers are the lynchpins of schools and schooling in American society. The purpose of this course is to develop a critical understanding of the larger forces at play in our work as educators, and conceptualize what that means for the day-to-day of our teaching practice. In this course, we will explore the ways in which American schools have been molded by the social, political, economic, cultural, and ideological forces in society at large. By historically linking the development of educational initiatives to notions of power, nation building, and citizenship, this class furthers an understanding of the assumptions about the purpose of education within this democratic nation, and its role(s) within our current social and political climate. Additionally, we will explore how the work of teaching can support transformation, rather than reproduction, of these macro-level injustices and inequalities. We will draw on students’ experiential knowledge of schools and teaching to imagine how urban educators can transform the socially reproductive practices of schools. The work of increasing access to opportunity has been a path walked by educators, individually and collectively, and schools, by leaders and as organizations, and by reformers. With these understandings about self, school, and society, we seek to create a community of practice of equity- and justice-minded teachers, driven by the belief that we are all co-learners in our endeavor as teachers and as citizens, and that we are all co-participants in a democratic society. Prerequisite: Admission to the UTAP program or permission of department. Summer Term
1 Course Unit

EDUC 6057 Advanced Methods in Middle & Secondary Schools: Math
Formal teaching and learning are on-going processes that require an examination of our practice and purpose through self-reflection, self-evaluation, collegial and student/teacher interaction, and personal and professional growth. This course is the second half of a content-specific secondary methods sequence that is geared toward teaching middle and high school English, math, science and social studies in an urban setting. Special focus will be on content, pedagogical strategies as well as specific skills and Pennsylvania and national standards. We will work together as teacher-researchers to combine theory with practice to increase our understanding and utilization of an inquiry based, multiple perspective, constructivist approach to teaching. Offered within the Urban Teaching Apprenticeship Program. Spring
1 Course Unit
EDUC 6058 Advanced Methods in Middle & Secondary Schools: Science
Formal teaching and learning are on-going processes that require an examination of our practice and purpose through self-reflection, self-evaluation, collegial and student/teacher interaction, and personal and professional growth. This course is the second half of a content-specific secondary methods sequence that is geared toward teaching middle and high school English, math, science and social studies in an urban setting. Special focus will be on content, pedagogical strategies as well as specific skills and Pennsylvania and national standards. We will work together as teacher-researchers to combine theory with practice to increase our understanding and utilization of an inquiry based, multiple perspective, constructivist approach to teaching. Offered within the Urban Teaching Apprenticeship Program.
Spring
1 Course Unit

EDUC 6059 Advanced Methods in Middle & Secondary Schools: Social Studies
Formal teaching and learning are on-going processes that require an examination of our practice and purpose through self-reflection, self-evaluation, collegial and student/teacher interaction, and personal and professional growth. This course is the second half of a content-specific secondary methods sequence that is geared toward teaching middle and high school English, math, science and social studies in an urban setting. Special focus will be on content, pedagogical strategies as well as specific skills and Pennsylvania and national standards. We will work together as teacher-researchers to combine theory with practice to increase our understanding and utilization of an inquiry based, multiple perspective, constructivist approach to teaching. Offered within the Urban Teaching Apprenticeship Program.
Spring
1 Course Unit

EDUC 6060 Advanced Methods in Middle & Secondary Schools: English
Formal teaching and learning are on-going processes that require an examination of our practice and purpose through self-reflection, self-evaluation, collegial and student/teacher interaction, and personal and professional growth. This course is the second half of a content-specific secondary methods sequence that is geared toward teaching middle and high school English, math, science and social studies in an urban setting. Special focus will be on content, pedagogical strategies as well as specific skills and Pennsylvania and national standards. We will work together as teacher-researchers to combine theory with practice to increase our understanding and utilization of an inquiry based, multiple perspective, constructivist approach to teaching. Offered within the Urban Teaching Apprenticeship Program.
Spring
1 Course Unit

EDUC 6101 Curriculum Development and Enactment
The purpose of this course is to advance students’ understanding of curriculum as a phenomenon and artifact of educational practice. Students will explore curriculum as a social and cultural phenomenon, be introduced to an approach to developing curriculum, and examine factors that influence how curriculum is enacted.
Fall or Spring
1 Course Unit

EDUC 6108 MaKer Studio
In this seminar, we will discuss and design projects related to the "maker movement" in education using various materials and technologies as we consider issues of access and diversity around making.
Spring
1 Course Unit

EDUC 6111 Educational Assessment of and for Learning
This course introduces the essential theories and practices of cognition based educational assessment and the focus will be on exploring the implications of recent developments in cognitive psychology and learning theories for educational assessment by reviewing available assessment examples and research assessment prototypes. It includes topics like, what is the purpose of assessment, how can we design fair and valid assessments to elicit student cognition, how technologies can support the measurement of student cognition and learning processes, and assessment and social justice and accessibility issues.
Spring
1 Course Unit

EDUC 6116 Master’s Foundations of Teaching and Learning
The course explores theoretical and empirical perspectives on the questions: What is knowledge and knowing? What is teaching? How do contexts influence teaching, knowing, and learning? A central goal of the course is to encourage students to consider these questions and their interconnections for themselves, to examine ways scholars and practitioners have answered them, and to develop an analytical framework to use in examining contemporary practices in settings that include formal and informal, urban and international. Prerequisite: Permission needed from department.
Fall
1 Course Unit

EDUC 6118 Leadership in Educational Institutions
In this course class members will simultaneously engage in an academic study of educational leadership focusing on Pre-K-12 schools and school districts, and in a continuing leadership development laboratory experience designed to increase one's personal efficacy as leader. A basic assumption for the course is that leadership is a central component of schooling; teaching is considered as foremost a leadership activity, whether with five year olds or high school seniors, and successful schools and districts are assumed to have capable leaders. The course will give particular attention to the recent shift in role expectations for school leaders - from competent manager to accountable instructional leader - and what this shift means in relation to the day-to-day work of educational leaders.
Spring
1 Course Unit

EDUC 6123 Big Data, Education, and Society
This class discusses the potential and risks of big data-based learning analytics. We will discuss the uses, applications, and benefits of analytics, the relationship between validity and risk, and potential ways to mitigate and reduce risks. We will discuss these issues in the context of existing and emerging educational systems.
Spring
1 Course Unit

EDUC 6130 Introduction to Mixed-Methods Research
This course introduces students to the theory, history, and practice of mixed methods research. Students will build skills in design and implementation of studies that incorporate both qualitative and quantitative methods. Theoretical framing, research questions, design and selection of methods, sampling, instrumentation and data collection, and analysis are addressed.
Spring
1 Course Unit
EDUC 6137 Contemporary Issues in Science and Technology Education Research
This course focuses on topics that represent some of the most salient and contemporary issues in science education research today. The syllabus moves through four sections that address: 1) Curriculum and Content (What and Why); 2) Learning Processes (How); 3) Contexts (When and Where); and 4) Teaching and Teacher Education (Who). Not Offered Every Year
1 Course Unit

EDUC 6139 Design of Learning Environments
This course is a survey of the kinds of theories, methods, design considerations, and applications through which educational researchers understand and design environments to improve learning. The course features the most recent trends in learning primarily through educational technologies. It includes perspectives that consider, who is learning, how it is being learned, what design characteristics are needed to ensure learning takes place in different learning environments, and societal and technological influences on learning. Four main learning goals underpin the course content: 1) Understanding learning needs of youth and adults as they interact in school and in society; 2) Investigating the main learning theories and methods influencing the field and how they are instantiated in practice; 3) Examining and reflecting on how technologically designed learning environments address important learning challenges; and 4) Evaluating how these learning environments and applications have helped learning, how they have not, and how they can be improved. Prerequisite: EDUC 616 or learning theories is preferred and will be reviewed at registration.
Fall or Spring
Prerequisite: EDUC 6116
1 Course Unit

EDUC 6144 Learning Sciences: Past, Present, Future
This course is a survey of the kinds of theories, methods, and applications through which educational researchers understand learning and how to improve it. The course is designed to provide information about how the field of the learning sciences emerged, has evolved, and is growing to address current and future learning needs. The learning sciences is a relatively new field of research in education that began in the late 80s. It is an interdisciplinary field consisting of researchers who study among other things, cognition, science and math education, language literacy, anthropological and sociological perspectives, computer science, and educational psychology. Learning scientists study learning as it happens in real world contexts and design resources and environments to improve learning in those contexts. This can happen in school, in informal places, at work, and online. Although the learning sciences is continually evolving, what remains true of the tenets of this educational field is that learning happens through mediated processes that most often require collaboration with others whereby learning is inextricably linked to context and culture. Prerequisite: EDUC 6116 or learning theories course is preferred and will be reviewed at registration.
Fall or Spring
1 Course Unit

EDUC 6150 Technologies for Language Learning and Teaching
In the last decade, the landscape of second language learning and teaching has moved online. Numerous edtech ventures have funneled hundreds of million dollars into online tutoring in English for young students by companies like VIPKid, mobile apps like DuoLingo have used gamification to keep millions of learners of second languages motivated, and social robots are being developed to support young children's language development. In this course we address critical questions: How can technology applications be supportive of second language learning and teaching for young and adult learners? What works and what doesn’t work? What evidence do we have? To answer these questions, we bring together research and design two academic fields: (1) Theories and instructional approaches for teaching and learning a second language; and (2) Theories and designs using technologies for learning and teaching. Our goal is to examine how the integration of these two efforts can result in more supportive and effective learning and teaching in a time, in which technologies provide new opportunities and challenges for second language learning and teaching.
Fall
1 Course Unit

EDUC 6159 How Innovations Flourish
A common misconception is that innovations are self-contained ideas, but in fact they arise from the more complex interplay between the ideas and the surrounding environment. This course is a survey of contemporary innovative developments, topics, and trends taking place in education across the world. It focuses on the education innovations themselves, the conditions under which they succeed or not, their interactions with context, and their underlying processes and mechanisms for change. Close analysis will be directed at the core mechanisms for change. Close analysis will be directed at the core methods people use to bring these current innovations to the field in a variety of new ways to improve learning and the multiple frameworks by which they can be assessed and applied to real-world examples. The course examines new pedagogies and approaches to teaching and learning, learning sciences research and its growing influence on solution development, technologies that continually respond to and lead change, and an emerging culture where learning takes place anytime, anywhere. The course will explore how these innovations can transform education systems to offer equitable access, experiences and outcomes for all.
Spring
1 Course Unit

EDUC 6160 Museum Education
Since the nineteenth century, museums have played a key role in the collection and dissemination of knowledge, and today their educational programs play a vital role for an array of communities. This seminar provides an introduction into museum education, the fields that influence it, pedagogical approaches used, and contemporary challenges.
Spring
1 Course Unit

EDUC 6165 Research on Teaching
This course is designed to explore the research literature on classroom teaching processes as well as the contrasting conceptual and methodological approaches upon which this literature is based. The course introduces students to the major substantive areas in the field, develops a critical perspective on contrasting paradigms, and raises questions about the implication of research on teaching for curriculum, instruction, evaluation, and teacher education.
Spring, even numbered years only
1 Course Unit
EDUC 6168 Master's Seminar in Teaching, Learning, and Leadership
This seminar explores key foundational questions for graduate-level work: How is academic knowledge formed and reproduced? How do we engage with and interrogate the scholarly research? And, how do we participate in the academic conversation around a topic? The Master’s Seminar introduces students to academic discourse, disciplinary writing conventions, and research practices. As part of this course, students are guided through preparing a literature review on a topic of their choice. This review, in turn, forms the foundation for their Capstone Proposal and Project that are required for the completion of the M.S.Ed. degree.
1 Course Unit

EDUC 6177 Whiteness and Education
Whiteness as a sociopolitical formation has shaped the very essence of educational spaces and processes in the United States. Drawing upon scholarly perspectives from whiteness studies and educational studies, this course will examine the material and ideological effects of whiteness on teaching and learning in American K-12 and higher educational institutions. By identifying the dilemmas associated with uncritical attitudes toward whiteness as a sociopolitical and pedagogical phenomenon, this course will encourage students to consider more liberatory approaches to naming and negotiating whiteness in American education. This is a graduate-level course that presumes introductory-level prior knowledge in educational studies and critical studies of race.
Not Offered Every Year
1 Course Unit

EDUC 6178 Gender and Sexuality in Education
This seminar gives an overview of the intersections and interplay among gender, sexuality, and education through theory, practice, current discussions, and analysis of varied contexts in English speaking countries (e.g. the United States, Canada, Great Britain, and Australia). After examining the theoretical foundations of genders and sexualities, we will look at their histories and effects in K-12 schools and colleges and universities as well as explore special topics.
Fall
Also Offered As: GSWS 6780
1 Course Unit

EDUC 6186 In/Informal Learning Experience
The In/Informal Learning Experiences Internship covers the theory, research, and practice of informal learning. The course is designed to provide background readings, a discussion forum of central issues in informal learning, and a place to share and exchange internship experiences. This course does not provide students with an internship. Internships are optional and must be secured independently.
1 Course Unit

EDUC 6188 Politics of School Reform
In this seminar we’ll explore the political causes and consequences of school reform in the post-Brown era. Coverage will be eclectic so as to give participants a broad, interdisciplinary background in the field. We’ll draw primarily from politics of education scholarship, but we’ll reach beyond and examine work from political science, sociology, and history. We’ll structure our exploration by considering five fundamental approaches to school reform: (1) equal opportunity, (2) standards and accountability, (3) professionalization and teacher effectiveness, (4) marketization and private sector initiatives, and (5) community control.
Fall or Spring
1 Course Unit

EDUC 6189 Contemporary Issues in Mathematics Curriculum
Educational leaders and policy makers in the U.S. have long used curriculum reform to drive change in K-12 teaching and schooling practices. This course examines the assumptions underlying this approach and examines the related research evidence.
Spring, even numbered years only
1 Course Unit

EDUC 6191 Core Methods in Educational Data Mining
Students will learn how to execute core educational data mining methods in standard software packages, the limitations of existing implementations of these methods, and when and why to use these methods. The course will also cover how EDM differs from more traditional statistical and psychometric approaches. Prerequisite: Prior experience with either statistics or computer science recommended.
Fall
Prerequisite: EDUC 6667
1 Course Unit

EDUC 6200 Introduction to Applied Linguistics
This course introduces first year students in the ICC and TESOL specializations to critical issues, perspectives, and practices central to the study of applied linguistics. The purpose of this course is to build a preliminary conceptual framework and strong practical foundation for understanding the interactional dynamics of intercultural encounters and the socio-cognitive dimensions of language education. Through weekly readings, brief lectures, and discussions, students will explore the origins and purposes of applied linguistics as an academic discipline, analyze some ways in which applied linguists have conceptualized language and language learning, and consider how perspectives from applied linguistics can be used to understand and address questions and problems involving language in educational, institutional, and community settings. In addition, through in-class activities, short homework assignments, and focused writing tasks, students will examine, engage in, and reflect on an array of linguistic issues and practices central to the work of applied linguistics and begin to form their own identities as applied linguists.
Fall
1 Course Unit

EDUC 6205 Linguistics in Education
For students with little or no linguistics background. An introduction to the basic levels of language (phonetics and phonology, morphology and semantics, syntax, pragmatics) with special emphasis on the relevance of linguistic concepts to education. Other topics may include bi/multilingualism, language variation, and language acquisition.
Fall
1 Course Unit

EDUC 6210 Sociolinguistics in Education
The educational consequences of linguistic and cultural diversity. A broad overview of sociolinguistics, introducing both early foundational work and current issues in the field. Topics include language contact and language prestige, multilingualism and language ecology, regional and stylistic variation, verbal repertoire and communicative competence, language and social identity, codeswitching and diglossia, language socialization and language ideology, as they relate to educational policy and practice in the United States and around the world.
Fall or Spring
1 Course Unit
EDUC 6215 Approaches to Teaching English and Other Modern Languages
This course provides students with an introduction to theory and practice in second and foreign language teaching. Students will (a) develop an understanding of the history of language teaching practice and how such a perspective informs current day approaches, (b) explore the relationship between the context in which the language is learned and taught and classroom practice, and (c) develop an awareness of teaching principles central to a personal pedagogical approach and teaching philosophy. Students should have a field site where they can observe, participate, and collect classroom data.
Fall
1 Course Unit

EDUC 6216 Approaches to Teaching Chinese
This course provides an overview of the theory and practice of Chinese language teaching. Students will explore current issues pertaining to Chinese teaching pedagogy and curricular. There will be opportunities for students to lead discussions, observe classes, create lesson plans, and teach Chinese classes at local Chinese schools.
Spring
1 Course Unit

EDUC 6220 Discursive Approaches in Intercultural Communication
This course offers a discourse-based approach and hands-on introduction to the field of intercultural communication, from the micro-level of interpersonal interaction to the macro-level of institutional practice. Through a series of readings and service learning projects in multicultural settings, students will hone their observational and analytic abilities, while gaining an appreciation of and facility for participating in the communicative diversity around them. Topics will include a repertoire approach to examining language in use, interpretation and metacommentary, and the possibility of intervention to facilitate new communicative patterns.
Fall
1 Course Unit

EDUC 6229 Ethnography for Intercultural Communication
This course is for practitioners and researchers engaging in and thinking about mentoring, supervision, and fieldwork in teacher education and counseling as well as in social work and other applied development fields.
Fall
1 Course Unit

EDUC 6306 Literacy Research, Theory, and Practice
This graduate seminar is a capstone course in the Reading, Writing, and Literacy master's program, designed to help students develop understandings about key theoretical underpinnings of literacy research. As a foundational course, the seminar will explore how literacy has been conceptualized over time and across disciplines, examining how literacy has functioned as a touchstone issue in policy and practice as people debate what 'counts' as literacy. While we explore these debates, we focus particularly on contemporary literacy theories that understand literacy to be multiple, ideological, and socially situated practices grounded in specific contexts that are fundamentally linked to broader social, cultural, and political power structures. Inquiry sits at the heart of the course, with students developing an online learning portfolio centered around their individual research, course readings, and prior experiences. Students will reflect on their RWL program of study, write about conceptual territories at the heart of the program, and curate materials from the semester and their program of study to demonstrate their learning and development over time. Students will work with coaches as well as engage in a workshop learning environment, culminating in an online learning portfolio and presentation to RWL faculty.
Prerequisite: EDUC 5333
1 Course Unit

EDUC 6326 Literacy, Discourse, and Interaction
This course draws on varying pedagogical and personal perspectives to explore conceptions of reading comprehension and how it can be taught to children and adolescents. Focus will be given to how certain ways of structuring dialogue about a text profoundly change how readers think about and do reading.
1 Course Unit

EDUC 6329 Teaching English/Language and Literacy in Middle and Secondary Schools
This course is a collaborative inquiry into the dynamic concept of adolescent literacy and its potential as an organizing construct for improving teaching and learning. It provides opportunities to investigate a variety of resources including our own histories as well as a range of print, digital and visual texts and to conduct fieldwork in various middle and secondary school classrooms where youth are being positioned (and positioning themselves) as literacy learners and literacy being defined, performed, practiced, interrogated, and interpreted, within and beyond the school curricula. By engaging with youth, in various texts and contexts and for a range of purposes, participants will try to make sense of how adolescents negotiate their worlds, in school and out. The approach to literacy is interdisciplinary, drawing from the domains of literature, composition, linguistics, curriculum theory, anthropology and psychology and from theory, research and practice of both university-based and school-based teachers, writers and researchers. The intent is to pose and refine questions about what it means to teach literacy in ways that take seriously what youth bring to school as their own knowledge and passions, cultural and linguistic resources.
Fall
1 Course Unit

EDUC 6333 Selected Topics in RWL: Literacy and Learning Differences
Examines a topic of current interest to theory, research, and practice in writing.
Summer Term
1 Course Unit
EDUC 6334 Selected Topics in RWL: Critical Literacies
Examines a topic of current interest to theory, research, and practice in writing.
Summer Term
1 Course Unit

EDUC 6335 Assessing Language and Learning Differences
This course exposes students to a wide variety of assessments used to look closely at growth in reading/writing/literacy. Students critique both formal and informal approaches to assessment as well as complete structured observations of learners within diverse instructional contexts. Emphases include contextual and affective components of reading/language difficulties, innovative assessment procedures, observational strategies and collaborative inquiry. Auditors not permitted.
Spring
Prerequisite: EDUC 5333
1 Course Unit

EDUC 6336 Young Adult Literature, Media & Culture
This course acquaints students with the ever-expanding body of literature written for young adults, considering the theoretical and pedagogical issues it raises. Readings include many young adult novels; empirical research on adolescent response to literature; and literary theory.
Spring
1 Course Unit

EDUC 6345 Issues in Education and Health: Disparities and Prevention in Schools and Communities
Drawing upon research and scholarship in health and education, this course aims to deepen our knowledge, understanding, and ability to effect positive change in the health and health practices of students and families in urban settings, using schools and community agencies as sites of engagement.
Spring
1 Course Unit

EDUC 6346 Seminar in Practitioner Inquiry
This course is designed as a collaborative investigation into practitioner inquiry and the work of inquiry communities in K-16 and graduate/professional school settings, professional networks and community-based organizations. The focus is on conceptual and methodological frameworks and methods of practitioner inquiry and the contexts, purposes and practices of differently situated inquiry communities. Participants will explore a range of practitioner inquiry traditions and texts that go by terms such as action, collaborative, critical, community-based, participatory, autobiographical, emancipatory, narrative and pedagogical. They will also conduct an inquiry based on their particular interests and contexts. The course will emphasize practitioner inquiry that intentionally engages issues of equity, access and culture in educational settings.
Spring, odd numbered years only
1 Course Unit

EDUC 6371 Adult Literacy
Teaching reading/writing/literacy to adults for whom English is a first or second language. Topics include contrasting conceptions of literacy and learning; participatory literacy programs; instruction and curriculum for adults with diverse cultural and linguistic backgrounds and nationalities; alternative/performance-based assessment; and practitioner research in adult literacy education.
Fall
1 Course Unit

EDUC 6381 Literacy and Illustrated Texts: Picturebooks, Comics and Graphic Novels
Students develop familiarity with illustrated materials - including picture books, comics, and graphic novels - while cultivating understanding of how illustrated texts like these can be used in 21st century elementary/middle/secondary literacy curricula. Students complete individualized and group course projects that focus on illustrated texts in specific classroom, research, critical, theoretical, home, community, and/or professional contexts.
Not Offered Every Year
1 Course Unit

EDUC 6402 Curriculum & Pedagogy in International Contexts
This course provides an international and comparative perspective on school climate using available case studies, examples and relevant articles from developed as well as developing countries. Topics include definitions and models of school climate, trends in the field, assessment mechanisms, policy discussions, challenges in the field, etc.
Spring
1 Course Unit

EDUC 6410 Global Perspectives on School Climate
This course explores the problems, issues, and approaches to teacher preparation and the development of curricula and instructional materials, particularly (though not exclusively) in developing country contexts through a seminar styled class and a hands-on semester long project.
Spring
1 Course Unit

EDUC 6420 Curriculum & Pedagogy in International Contexts
This course surveys the field of qualitative research and focuses on foundational philosophies of and approaches to qualitative research. The course focuses on the stages of qualitative research including the development of researchable questions, research designs, conceptual frameworks, methodological stances, data collection and analysis and instrument design and implementation.
Fall, Spring, and Summer Terms
1 Course Unit

EDUC 6460 Qualitative Methods: Principles and Techniques
This course covers theories, methods, and applications of monitoring and evaluation for educational and social programs, with special emphasis on international education development. Topics include basic statistical concepts, program theory, process and outcome assessment, concepts in survey methods, introduction to causal inference, introductory regression analysis, and an overview of impact assessments and cost-benefit/cost-effectiveness analysis.
Fall
0-1 Course Unit
EDUC 6480 International Educational Development in Practice: Tools, Techniques and Ethics
This course covers the broad arena of international educational development practice by introducing students to a variety of tools used in international educational development work. It is a required course for IEDP Masters students and is offered in the Fall semester only. Coursework is built around the project cycle and will acquaint you with current approaches to development and accompanying tools employed by a variety of international development organizations. Specifically, you will gain skills to determine how to gather adequate information, interpret information and put this information into clear and helpful frameworks for formulating recommendations for action. To learn these skills, you will work in small groups on a technical proposal throughout the semester. Throughout the semester, we will seek a more nuanced understanding of the general context and the role of institutions in global development work, while being aware of local realities and ethical issues that make development as contested locally as it is at national and global levels. Development from this perspective is not primarily a technical enterprise, although it does require skill with "techniques". Rather it involves a process of heralding the best available information to facilitate the mobilization of resources and people to engender development - a development process whose focus is broadening people's capacities, opportunities, choices, and access to social justice.
Spring
0-1 Course Unit

EDUC 6482 Masters Proseminar in International Educational Development
This course covers the broad professional arena of international educational development. It is designed to provide an analytical perspective on applied research and policy as undertaken by UN, donor and non-profit agencies, with a focus on developing countries. Such work will require analyzing intellectual and technical challenges of working in international education and human development, especially around issues of social and public policy as developed through writing policy briefs. Several specialists and speakers will be invited as guests throughout the semester.
Spring
1 Course Unit

EDUC 6490 Master's Seminar in Education, Culture, and Society
This seminar explores key foundational questions for graduate-level work: How is academic knowledge formed and reproduced? How do we engage with and interrogate the scholarly research? And, how do we participate in the academic conversation around a topic? The Master's Paper Seminar introduces students to academic discourse, disciplinary writing conventions, and research practices. As part of this course, students are guided through preparing a Capstone Project on a topic of their choice (TLL MSEd and LST MSEd students) or a literature review of a topic of their choice (ECS MSEd students). This review, in turn, forms the foundation of their Capstone Proposal and Capstone Project (TLL and LST students) or 30-40 page paper (ECS students) that are required for the completion of the M.S.Ed degree.
0.5-1 Course Unit

EDUC 6503 Wellness and Addictions Counseling
This course will provide an overview of addictions and addiction counseling from research, theory, and applied perspectives. It will also explore contemporary conceptions of “wellness” and wellness-promotion strategies, particularly for people struggling with addictions. Applied skills for addressing wellness and addiction will be framed within current evidence-based research. Prerequisite: Students must be enrolled in the M. Phil. ED. in Professional Counseling Program.
Fall
1 Course Unit

EDUC 6510 Cultural Perspectives on Human Development
This course focuses on children’s and adolescents’ development from cultural and cross-cultural perspectives. Topics include traditional and recent theories of cultural influence on development, research strategies, socialization values and practices, and socioemotional and cognitive functions such as aggression and conflict, shyness, and academic achievement in cultural context. Issues involving ethnicity and social and cultural changes are also discussed.
1 Course Unit

EDUC 6512 LGBT Counseling & Development
In the past quarter century, the awareness of the unique issues facing lesbian, gay, bisexual and transgender (LGBT) individuals has expanded and become essential knowledge in our work as educators, providers of psychological services, and other service provision fields. This course provides a contextual and applied understanding the interactional processes facing LGBT individuals.
Not Offered Every Year
Also Offered As: GSWS 6120
1 Course Unit

EDUC 6513 Group Counseling
Through didactic and experimental learning activities, students will explore various theoretical approaches to groups, learn and apply principles of group dynamics, develop familiarity with ethical, legal and professional standards relative to group leadership, learn member roles and functions in group, examine group counseling in a multicultural context, and relate these issues to the leader’s interpersonal style and behavior. Applications to specific developmental stages and contexts will be explored.
1 Course Unit

EDUC 6515 Parenting and Children's Educational Development
Theory and research on family influences on achievement development, models of the home-learning environment; parental involvement in schools.
Not Offered Every Year
1 Course Unit

EDUC 6517 Counseling for School to Career Transitions
This psychology course will focus on the developmental and emotional changes that coincide with adolescents’ conceptions of work and work-related activities. As a course in career psychology, students will be exposed to readings from multiple disciplinary perspectives and will be expected to learn how to work with youth as they struggle through decisions on career and moving beyond the safety of childhood and adolescence. In addition, students will learn about the family-youth and school-student relational dynamics and that occur simultaneous to the adolescent’s development of a work ethic.
Spring
1 Course Unit
EDUC 6558 Diagnosis and Psychopathology
In this course, students will explore the etiology, course, and prevalence of psychological disorders of childhood and adolescence. Particular focus is on the role of these issues in the developing person within the context of family, school, and culture. Major clinical and empirical classification systems (DSMIV and the new DSM5) are examined, as well as some of the diagnostic and assessment strategies used to aid the conceptualization and treatment of these disorders.
1 Course Unit

EDUC 6563 Sociocultural Foundations in Counseling
The course provides an understanding of sociocultural concepts essential to the work of counselors and providers of psychological services. This course provides a contextual and applied understanding of working with socioculturally diverse clients. The purpose of this course is to expand one's understanding of the impact of sociocultural and contextual factors, social-psychological influences, the role of values, and the interaction of identities in counseling and psychological services. Both intervention and prevention strategies will be addressed. The student will be required to demonstrate a working knowledge of key concepts in sociocultural psychology and the topical areas addressed in the course.
Spring
1 Course Unit

EDUC 6577 Information and Communications Technologies for Education and Development in Global Perspective
The importance of the relationship between education, technology, and social-economic development is increasing in the U.S. and around the world. What are new information and communications technologies (ICTs), how are they being deployed, and for what reasons? Are new ICTs a means for delivering skill-based or distance education information, and in what ways are they becoming a part of societies today? What constitute, then, ICTs for Development (ICT4D), and what role do they play in societies that are ‘industrialized’ and ‘developing’.
Spring
1 Course Unit

EDUC 6585 Career Counseling and Development
Career development is studied as an aspect of general development theories of educational and vocational choice and adjustment; psychological aspects of occupations. Prerequisite: Permission needed from instructor.
Summer Term
1 Course Unit

EDUC 6586 Counseling Interventions
This course will provide an overview of the approaches to various psychological interventions with a focus on theory, key concepts, and therapeutic processes. The purpose of this course is to develop a knowledge base of the underlying principles and approaches of psychological interventions. Students will be required to demonstrate a working knowledge of the key concepts of the psychotherapeutic approaches presented, distinguish between different approaches, and make a preliminary rationale for the use of a particular approach. Students also are expected to develop a critical perspective and demonstrate the ability to analyze theories and interventions. Prerequisite: Admission to Counseling and Mental Health Services.
Fall
1 Course Unit

EDUC 6587 Counseling Ethics & Professional Principles
This course will provide the student with an opportunity to learn and incorporate the multifaceted roles of the professional counselor and assist the student in developing a sense of their professional identity. In this process, the course will focus on the professional role of the counselor; ethics and their application across situations and professional settings; and gaining strong professional communication abilities. The primary goals of the course are to develop the student’s awareness of their roles and responsibilities as a professional, incorporating ethical standards as a counselor, increasing professional communication skills, and understanding the roles of counselor across professional settings.
Fall
1 Course Unit

EDUC 6588 Counseling Practicum
Seminar and lab to accompany supervised practicum or apprenticeship experiences in schools, colleges, or community agencies. Placement to be arranged by instructor.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

EDUC 6625 Data Processing and Analysis
Use of Statistical Software including Statistical Analysis (SAS) to effectively build a wide variety of datasets for use to address a range of empirical research questions. Evaluate conventional methods for dealing with missing data and apply contemporary methods using SAS.
Fall
Prerequisite: EDUC 6667
1 Course Unit

EDUC 6657 Introductory Statistics for Educational Research
Scales of measurement; indices of central tendency and variability; product-movement correlation; introduction to the chi-squared; Z, T, and F distributions.
Fall, Spring, and Summer Terms
1 Course Unit

EDUC 6680 Evaluation of Policies, Programs and Projects
Basic evaluation policy and methods for determining nature and severity of problems, implementation of programs relative effects and cost-effectiveness of interventions to reduce problems, design and conduct of evaluation studies in education, social services, crime and delinquency, in the U.S. and other countries.
Fall
Prerequisite: EDUC 6667
1 Course Unit

EDUC 6683 Survey Methods & Design
This course covers the methods and design of field surveys in the U.S. and other countries in education, the social sciences, criminal justice research, and other areas. It covers methods of eliciting information through household, mail, telephone surveys, methods of assuring privacy, enhancing cooperation rates and related matters. Finally, the fundamentals of statistical sampling and sample design are handled. Much of the course is based on contemporary surveys sponsored by the National Center for Education Statistics and other federal, state and local agencies.
Spring
Prerequisite: EDUC 6667
1 Course Unit
EDUC 6684 Measurement & Assessment
Analysis of primary assessment concepts including basic theoretical principles, types and purposes of assessment devices, levels of measurement, standardization and norming, and methods to support reliability and validity; special focus on appropriate test interpretation, fairness, measurement of change, and incremental validity; application of standards for test development, usage, and critique in education, health care, public policy, and scientific inquiry.
Fall
1 Course Unit

EDUC 6720 Methods of Economic Evaluation in Education
Methods of economic evaluation are a critical component of evidence for policymaking. Economic evaluations, mainly cost-effectiveness and benefit-cost analysis, contribute information about costs relative to impacts. Rigorous evidence on effects, and the resources used to produce them, aids in selecting between policy alternatives. This course is designed to provide a strong foundation to prepare researchers to apply the "ingredients method", a rigorous method of evaluating the costs of educational programs. The course is structured to build understanding of the concepts and methods of economic evaluation, the consumption and critique of economic evaluations, and the application of the ingredients method to conduct economic evaluations. More specifically, the goals of the course are: 1) development of a clear and strong understanding of economic evaluation in education; 2) ability to discuss and write about concepts of economic evaluation; 3) assess work for strengths and weaknesses of rigor; 4) design research on cost-effectiveness; 5) conduct research applying methods covered in class to contribute to the field. To achieve these goals, the course will focus on reading and discussion of the textbook and methodological papers on concepts and methods; reading, presenting, discussing, and critiquing published research articles and reports; applying methods and concepts in exercises, group projects, and independent research proposals. Prerequisites: Prior coursework in regression, causal analysis, and program evaluation are helpful but not required. Experience in economics or calculus is not required for this course.
1 Course Unit

EDUC 6734 Child Development and Social Policy
The purpose of this course is to focus on major US social policies impacting our most vulnerable subpopulations of children living in poverty. The class will explore how developmental science can provide a broad conceptual framework to inform the construction of social policies for children and evaluate their effectiveness. Since much of the social policy issues for children in the US public square are currently hotly debated, the class format will incorporate debate and require students to actively research and defend positions on existing policies. Class size will be set at a level to maximize interaction and involvement.
Spring
1 Course Unit

EDUC 6736 Education Finance Policy
This course examines the legal, political and economic issues surrounding how public schools are funded, including equity, productivity and the interaction of finance and school reform. Through readings, discussion and written assignments, students will develop and apply policy analysis skills to the area of education finance.
Fall or Spring
1 Course Unit

EDUC 6738 Education Policy Issues
This course is an introduction to the process of conducting educational research. Its purpose is to help students learn to approach problems like researchers by examining and critiquing existing research and developing coherent "researchable" questions. Students will carry out a substantial independent project where they will develop elements of a research proposal.
Fall or Spring
1 Course Unit

EDUC 6739 Applied Policy Analysis
This course emphasizes meaningful and practical learning experiences that will prepare students to be informed about and reflective of empirical policy analyses. In addition, this course provides the foundations to develop/improve the ability to interpret and objectively evaluate studies and research in the field of education; know the fundamentals of policy analysis; demonstrate an understanding of the appropriate use of which method to select; and cultivate the skills to critically assess educational research. These aims are achieved through lecture, textbook and journal readings, powerpoint presentation, and grant proposal writing.
1 Course Unit

EDUC 6784 Economic Aspects of Educational Policy
This course has two main goals. One is to teach students to apply economic principals to analyze a wide range of educational policy issues. The other is to provide students with a foundation in contemporary education policy issues. The course is designed to address analytic issues relevant to a wide range of educational professionals, including managers, policy makers, and evaluators. The course will be divided into five units: (1) principles of economic analysis in the context of education policy; (2) the economics of early care and education; (3) cost-effectiveness analysis; (4) human capital investment; and (5) education finance.
Fall or Spring
1 Course Unit

EDUC 6804 Ethics and Leadership in Higher Education
This course looks critically at the various theories of leadership with a special emphasis on the ethical dimensions of leadership. Leadership theory and practice reveal that there is no one approach that is best or that works in all situations. Aspiring leaders must have a variety of lenses through which they can analyze and understand the elements involved in ethical leadership. At the end of the course students will be able to apply essential concepts of ethical decision making and leadership - the role of trust and the ability to build trust, the uses of power, the importance of good decision-making, the conflicting priorities that arise from living out your core values in the workplace.
Fall
1 Course Unit

EDUC 6807 Faculty and Academic Governance
Introduction to selected issues pertaining to faculty and academic governance, such as: Who governs American colleges and universities? What are the respective roles of the president, the board of trustees, the faculty, and students in institutional decision making? The course will also explore key contemporary governance issues.
Fall
1 Course Unit
EDUC 6808 Organizational Change in Higher Education
Colleges and universities today face tremendous challenges—calls by external constituents for greater accountability, scarcity of resources, greater competition, and pedagogical innovations. The need for change, and for change agents, in our institutions of higher learning has never been greater. This course examines organizational change both theoretically and practically in college and university settings. Students will be introduced to many of the most current, influential, and promising theories about how change occurs at the departmental, institutional and system level. Using case studies, we will apply these frameworks in order to diagnose and develop constructive strategies for meaningful change. Not Offered Every Year
1 Course Unit

EDUC 6811 Higher Education Data Systems
Being a proficient consumer or capable producer of data-driven insights requires knowledge of higher education context and policy, a firm handle on research methods, and familiarity with the various sources of available data. In this class, we will explore postsecondary data sets at the national, state, and institutional levels, discuss the kinds of insights these data sets allow, and investigate the shortcomings inherent in these data. By reading recent examples of published work using these data sets and through hands-on activities, we will explore social, political, financial, and ethical issues related to evaluation in higher education. A central goal of this class is to give students the opportunity to work with a variety of data sets and learn to report key findings from the data.
Fall or Spring
1 Course Unit

EDUC 6819 College Student Health
College Student Health explores postsecondary student health issues from historical and research perspectives, including stress, sleep, sexual health and safety, alcohol and other drugs, and mental health and wellness, among other topics. This course surveys the roles, responsibilities, and best practices of campus health professionals. Not Offered Every Year
1 Course Unit

EDUC 6820 Enrollment Management
Enrollment management is an organizational concept of strategies for achieving institutional goals. The course provides an overview of multiple enrollment management models, the evolution and maturation of these models, the related implications of these organizational structures and strategies, and the benefits and drawbacks on institutions and their markets.
Spring
1 Course Unit

EDUC 6824 Gender in College
Examined in this course are theories and interdisciplinary perspectives pertaining to gender on college and university campuses. Emphasis is placed on the social construction of gender, gendered institutional norms and practices, gender disparities on college campuses, and the unique experiential realities of women, men, and transgender persons in a variety of roles and postsecondary educational contexts. Not Offered Every Year
1 Course Unit

EDUC 6831 Research Topics
This seminar offers students a collaborative setting in which to explore a topical area, craft a literature review and refine their research questions. The course will be of special interest to doctoral candidates who are drawn to an area of inquiry (e.g., presidential leadership, diversity, access, organizational change) but now wish to elicit from it a discrete "researchable" question. Prerequisite: Permission needed from department.
Not Offered Every Year
1 Course Unit

EDUC 6840 History of American Higher Education
This interactive course focuses on the history of American higher education from the Colonial period through the current day. An emphasis is placed on underrepresented institutions and individuals. Students will have the opportunity to make connections between historical trends and movements and current issues.
Fall
1 Course Unit

EDUC 6845 Geography of Opportunity
This course is designed to explore the subfield of urban geography and its use in education and higher education scholarship. Readings will cover theoretical and conceptual foundations such as postcolonial theory, nationalism, Black geographies, and AfroLatin American hemispheric thought. Students will engage in ethnographic research methods for their culminating paper, exploring the City of Philadelphia and its "education" landscape. We engage questions such as: What does educational opportunity consist of in Philadelphia? How do we define the construct of education? How is opportunity conceived? What are the spatial and non-spatial parameters?
Fall or Spring
1 Course Unit

EDUC 6856 College and University Teaching
In this class, students will learn how to systematically plan for a university course, develop a teaching philosophy, create a course syllabus relevant to their discipline and expertise, design and implement evaluation instruments to assess teaching and learning, experiment with a range of technologies to advance teaching, and participate in a teaching simulation. This course also incorporates issues of diversity with regard to teaching.
Not Offered Every Year
1 Course Unit

EDUC 6871 The High Impact University: the Social Purposes of Universities
This course focuses on the social and civic role universities and colleges in diverse national contexts. It explores the diverse national and social contexts in which universities both respond to and help to shape. It explores the role of university as citizen and social and economic actor. Finally, it focuses on the changing role of higher education in knowledge economies with a focus on diverse contexts.
1 Course Unit

EDUC 6872 The Evolving Global Landscape
Higher education, while a national (or local) responsibility, is shaped by global forces — economic, social, political and technological. This course focuses on the trends in globalization and the ways in which those forces impact universities positively and negatively. It addresses globalization and its discontents; the disruption and innovation that globalization creates and reinforces, and the ways in which global forces make universities more, rather than less, important in the global dialogue of human development.
1 Course Unit
EDUC 6872A The Evolving Global Landscape
Higher education, while a national (or local) responsibility, is shaped by global forces—economic, social, political and technological. This course focuses on the trends in globalization and the ways in which those forces impact universities positively and negatively. It addresses globalization and its discontents; the disruption and innovation that globalization creates and reinforces, and the ways in which global forces make universities more, rather than less, important in the global dialogue of human development.
0-1 Course Unit

EDUC 6872B The Evolving Global Landscape
Higher education, while a national (or local) responsibility, is shaped by global forces—economic, social, political and technological. This course focuses on the trends in globalization and the ways in which those forces impact universities positively and negatively. It addresses globalization and its discontents; the disruption and innovation that globalization creates and reinforces, and the ways in which global forces make universities more, rather than less, important in the global dialogue of human development.
0-1 Course Unit

EDUC 6873 Magnifying the Mission
The traditional mission of teaching, research and service continues to evolve in response to changing public expectations for higher education. This course focuses on ensuring meaningful and impactful student engagement; the foundational role of research and the ways new knowledge can be leveraged to address problems; and the ways in which the teaching and learning functions are changing in light of technology innovation and increased demands for measurable outcomes.
1 Course Unit

EDUC 6873A Magnifying the Mission
The traditional mission of teaching, research and service continues to evolve in response to changing public expectations for higher education. This course focuses on ensuring meaningful and impactful student engagement; the foundational role of research and the ways new knowledge can be leveraged to address problems; and the ways in which the teaching and learning functions are changing in light of technology innovation and increased demands for measurable outcomes.
0-1 Course Unit

EDUC 6873B Magnifying the Mission
The traditional mission of teaching, research and service continues to evolve in response to changing public expectations for higher education. This course focuses on ensuring meaningful and impactful student engagement; the foundational role of research and the ways new knowledge can be leveraged to address problems; and the ways in which the teaching and learning functions are changing in light of technology innovation and increased demands for measurable outcomes.
0-1 Course Unit

EDUC 6874 Governance, Change, & Strategy
Effective universities require effective management and governance to lead change and drive innovation. This course focuses on how leaders lead and affect intentional institutional change; the role of strategy and planning as vehicles for intentional long-term change; and the ways in which institutional level governance can positively impact the trajectories of institutions.
1 Course Unit

EDUC 6874A Governance, Change, & Strategy
Effective universities require effective management and governance to lead change and drive innovation. This course focuses on how leaders lead and affect intentional institutional change; the role of strategy and planning as vehicles for intentional long-term change; and the ways in which institutional level governance can positively impact the trajectories of institutions.
0-1 Course Unit

EDUC 6874B Governance, Change, & Strategy
Effective universities require effective management and governance to lead change and drive innovation. This course focuses on how leaders lead and affect intentional institutional change; the role of strategy and planning as vehicles for intentional long-term change; and the ways in which institutional level governance can positively impact the trajectories of institutions.
0-1 Course Unit

EDUC 6875 University in its External Context
The notion of higher education being an Ivory Tower, separate from the world, is nostalgia if not outright myth. Universities are very much shaped by the contexts in which they operate. They need to be responsive to political, economic and social trends. What happens outside universities impacts what happens inside of them. This course seeks to understand how universities must operate in and leaders must shape the political context; the role regulation and politics play; and how university leaders must ensure quality and relevance.
1 Course Unit

EDUC 6875A University in its External Context
The notion of higher education being an Ivory Tower, separate from the world, is nostalgia if not outright myth. Universities are very much shaped by the contexts in which they operate. They need to be responsive to political, economic and social trends. What happens outside universities impacts what happens inside of them. This course seeks to understand how universities must operate in and leaders must shape the political context; the role regulation and politics play; and how university leaders must ensure quality and relevance.
0-1 Course Unit

EDUC 6875B University in its External Context
The notion of higher education being an Ivory Tower, separate from the world, is nostalgia if not outright myth. Universities are very much shaped by the contexts in which they operate. They need to be responsive to political, economic and social trends. What happens outside universities impacts what happens inside of them. This course seeks to understand how universities must operate in and leaders must shape the political context; the role regulation and politics play; and how university leaders must ensure quality and relevance.
0-1 Course Unit

EDUC 6876 Designing the Future
University leaders need to think about and prepare for the future. Universities risk becoming stagnant and outdated if they do not continually innovate. This course focuses on the principles of design thinking, how leaders can engage campus communities to design and bring about a desired future. It will explore new models of universities and how universities, even long-established ones, can become the disruptors.
1 Course Unit
EDUC 6876A Designing the Future
University leaders need to think about and prepare for the future. Universities risk becoming stagnant and outdated if they do not continually innovate. This course focuses on the principles of design thinking, how leaders can engage campus communities to design and bring about a desired future. It will explore new models of universities and how universities, even long-established ones, can become the disruptors.
0-1 Course Unit

EDUC 6876B Designing the Future
University leaders need to think about and prepare for the future. Universities risk becoming stagnant and outdated if they do not continually innovate. This course focuses on the principles of design thinking, how leaders can engage campus communities to design and bring about a desired future. It will explore new models of universities and how universities, even long-established ones, can become the disruptors.
0-1 Course Unit

EDUC 6878 The Human Enterprise
At their core, universities are human endeavors. Their primary output is human, citizens active in social and economic pursuits. Their primary input is human, the faculty who deliver the core functions of the university. This module focuses on the human dimension of higher education with a particular focus on equity and inclusion in diverse contexts; how to effectively build and manage teams essential to deliver on the mission; and how individuals can manage and benefit from being intentional stewards of personal, professional and organizational transitions.
1 Course Unit

EDUC 6878A The Human Enterprise
At their core, universities are human endeavors. Their primary output is human, citizens active in social and economic pursuits. Their primary input is human, the faculty who deliver the core functions of the university. This module focuses on the human dimension of higher education with a particular focus on equity and inclusion in diverse contexts; how to effectively build and manage teams essential to deliver on the mission; and how individuals can manage and benefit from being intentional stewards of personal, professional and organizational transitions.
0-1 Course Unit

EDUC 6878B The Human Enterprise
At their core, universities are human endeavors. Their primary output is human, citizens active in social and economic pursuits. Their primary input is human, the faculty who deliver the core functions of the university. This module focuses on the human dimension of higher education with a particular focus on equity and inclusion in diverse contexts; how to effectively build and manage teams essential to deliver on the mission; and how individuals can manage and benefit from being intentional stewards of personal, professional and organizational transitions.
0-1 Course Unit

EDUC 6893 Student Development in College Environments
An overview of college student development theory is offered in this course. Specifically, three families of theory are explored: 1) Psychosocial and identity, 2) cognitive-structural, and 3) environmental. The theories are discussed in terms of their foundations, constructs, and applicability to work in various functional areas of higher education.
Fall or Spring
1 Course Unit

EDUC 6894 College Athletics and Higher Education: Money, Power, Politics
Higher Education campus leaders should understand the roles and issues facing college sports in the 21st century. This course provided a holistic view of the impact of athletics has on enrollment and retention, institutional finances, diversity and inclusion, and the legal and risk management challenges it brings to your campus organization. The course will also examine the powerful external influences on athletics, including trustees, donors and sports media.
Fall or Spring
1 Course Unit

EDUC 7102 Conceptual Models of School Leadership & Organization
We will explore conceptual models of organization and leadership in order to develop our knowledge of how classrooms, schools, and education systems function. Our approach will be to consider foundational theoretical works alongside their recent empirical applications. Throughout the semester we will use case studies to help illuminate our understanding.
Fall or Spring
1 Course Unit

EDUC 7119 Research on Teacher Education and Learning to Teach
This course focuses on issues of research, practice, and policy related to teacher education at the preservice, induction, and continuing education levels in the United States and internationally. The course is designed as a seminar to engage participants in the study of teacher education through interaction with researchers and policy-makers, through in-depth study of critical issues in the field, and through engagement with teacher education programs. It is anticipated that each course participant will develop a literature review focusing on one or more topics related to critical issues in teacher education.
Fall
1 Course Unit

EDUC 7122 Reforming Philadelphia Schools: A Research Practicum on Community Engagement
This Academically Based Community Service (ABCS) course offers a unique opportunity for students to directly contribute to school improvement efforts in Philadelphia. Teams of students will consult with a local public school with the goal of conducting actionable research with broad policy relevance to the community engagement in education sector. Teams will submit a final report and present their findings at a public venue. The course is designed as a research practicum because understanding community engagement in education as it occurs in practice will provide insights that are unlikely to surface if we merely considered it in the abstract. The experience will provide students a set of skills appropriate to the design, interpretation, and presentation of research on community engagement in education. But we are much more ambitious in our aims. Our consultancies are also meant to help a local community solve an immediate problem of educational relevance. The course is suitable for graduate and undergraduate students with an interest in education, policy, and civil society.
Fall or Spring
1 Course Unit
EDUC 7132 Doctoral Proseminar on Education Research
This seminar is designed to enable first-year doctoral students at Penn GSE to understand the broad and diverse field of educational research and the driving debates within the broader field and sub-fields. A primary goal of the course is to support students’ developing identities as educational scholars and to help them develop the intellectual skills and stances they will draw upon in doctoral work. We will pay particular attention to the multidisciplinary nature of education research, how individual disciplines and theoretical traditions approach education problems in complementary or contrasting ways, and how educational research functions at the intersection of policy and practice. The seminar seeks to encourage an intellectual community among doctoral students across Penn GSE divisions and programs and to build familiarity with professional norms and expectations. This seminar is intended to build on and complement related courses and activities that are offered by individual Penn GSE divisions.
Fall
1 Course Unit

EDUC 7140 Social Foundations of Teaching and Learning
Teaching and learning are social phenomena that reflect and inform the aims, anxieties, and conflicts of the social contexts within which they unfold. Engagements in thoughtful and effective educational research and practice demand nuanced understandings of the complicated and evolving relationships between educational enterprises and the societies that shape them. In this course, we will examine the social foundations of teaching and learning. Specifically, through a series of theoretical lenses, we will question how social formations like democracy, capitalism, race, feminism, and networked publics have attempted to define the goals and substance of educational endeavors. Additionally, we will consider the implications of the social foundations of teaching and learning for our own work as educational scholars and practitioners.
Spring
1 Course Unit

EDUC 7201 Methods of Discourse Analysis
This course introduces several methodological approaches that have been developed to do discourse analysis. The course intends primarily to provide students with various methodological tools for studying naturally-occurring speech. Assignments include both reading and weekly data analysis exercises. Prerequisite: This course is designed to follow after Qualitative Modes of Inquiry (EDUC 6460) and as such it is suggested that students have some background in qualitative methods before enrolling.
Not Offered Every Year
1 Course Unit

EDUC 7220 Seminar in Microethnography
This course provides an introduction to theory and method in the unified analysis of verbal and nonverbal behavior as it is culturally patterned, socially organized, and socially organizing in face-to-face interaction, in an approach that integrates participant observation with the detailed analysis of audiovisual records. Students read relevant literature in linguistic anthropology, interactional sociolinguistics, conversation analysis, and embodiment in social interaction. Class requirements include in-class reading presentations, a small microethnographic research project, and several short data analysis reports drawing on differing levels of analysis and differing theoretical orientations. Students review and apply methods of audiovisual data collection, transcription, processing, archiving, and presentation.
Spring
1 Course Unit

EDUC 7225 Second Language Development
This course provides an introduction to theory and research on second/multilingual language development. Linguistic, cognitive, social, political, and educational perspectives are considered through readings, lectures, activities, and assignments. Students gain an understanding of research design, methodology, and documentation through guided analysis of published studies and an opportunity to design research projects.
Spring
1 Course Unit

EDUC 7230 Experiential Learning Design for Intercultural Communication
Provides new and experienced educators the opportunity to learn and practice training design and facilitation using the principles of experiential and adult learning. Prerequisite: If course requirement not met, permission of instructor required.
Spring
Prerequisite: EDUC 6220
1 Course Unit

EDUC 7313 Responding to Literature: An Interdisciplinary Perspective
This course deals with the ways in which readers respond to and transact with literary texts, and aims at helping students understand the nature of the variety of ways in which literature interfaces with our lives. Three different types of discourse are read: literary criticism; empirical research on response to literature; and literary texts themselves. Various types of literary criticism are considered, including (but certainly not limited to) what is commonly called “reader response criticism;” text-based criticism; and criticism that contextualizes literature socially and historically. The empirical research on response deals with ways in which readers of various ages interact with literature, mostly in school settings; some attention is given to instructional design and critique of methodology. The literary texts range from picturebooks to literature for young adults.
Fall
1 Course Unit

EDUC 7323 Multicultural Issues in Education
This course examines critical issues, problems, and perspectives in multicultural education. Intended to focus on access to literacy and educational opportunity, the course will engage class members in discussions around a variety of topics in educational practice, research, and policy. Specifically, the course will (1) review theoretical frameworks in multicultural education, (2) analyze the issues of race, racism, and culture in historical and contemporary perspective, and (3) identify obstacles to participation in the educational process by diverse cultural and ethnic groups. Students will be required to complete field experiences and classroom activities that enable them to reflect on their own belief systems, practices, and educational experiences.
Fall
Also Offered As: AFRC 7230
1 Course Unit

EDUC 7324 Literacy: Social and Historical Perspectives
A review of the cross-cultural and historical literature on writing and reading with emphasis on the identification of norms and practices which affect the teaching and learning of reading and literacy today. Special attention to the social functions of literacy in work, home, and school settings and to myths regarding the consequences of literacy for cognition, socio-economic mobility, and predictability, and the predictability of citizen behaviors.
Not Offered Every Year
1 Course Unit
EDUC 7335 Tutorial Work in Reading/Writing/Literacy
Tutorial in Reading Writing and Literacy, is designed for participants to gain knowledge and insight into the major challenges facing learners in their quest for proficiency in literacy. The course participants investigate and develop instructional plans for the literacy needs of learners in pre-K to 12th grade settings. Course participants will investigate the roles and responsibilities of the literacy specialist as related to identifying the needs of learners and planning appropriate instruction to meet those needs. Prerequisite: Permission needed from instructor.

Spring
1 Course Unit

EDUC 7337 Research in Teaching Writing
This doctoral seminar explores theories and research on writing, investigating current and traditional areas of inquiry in the field of writing studies. As class participants review and analyze theoretical and empirical literature on writing and teaching writing, the seminar will offer students opportunities to compose texts and reflect on their roles as writers in the academy through collaborative inquiry. Participants will think together about the purposes, functions, and consequences of writing in diverse communities and across school and out-of-school settings. The course will pay particular attention to how writing is shifting in a mobile, networked, global age, and how multimodality, interactivity, and hybridity characterize our composing lives.

Spring, even numbered years only
1 Course Unit

EDUC 7460 Qualitative Research: Concepts, Methods and Design
This course surveys the field of qualitative research and focuses on foundational philosophies of and approaches to qualitative research. The course focuses on the stages of qualitative research including the development of researchable questions, research designs, conceptual frameworks, methodological stances, data collection and analysis and instrument design and implementation.

Fall, Spring, and Summer Terms
1 Course Unit

EDUC 7462 Advanced Topics in Monitoring & Evaluation in IED
This is a sequel to the Principles of M&E course offered in the fall. The course will review both theories as well as methods of program evaluation in a deeper way using papers and technical reports as case studies, with special emphasis on international education development.

Spring
1 Course Unit

EDUC 7464 Advanced Qualitative and Case Study Research
This course explores epistemological and methodological choices and stances in qualitative research as well as advanced research methods including qualitative research design and concept mapping, sampling/participant selection, interviewing, coding and data analysis, instrument development and triangulation techniques.

Spring
Prerequisite: EDUC 6460 OR EDUC 7460
1 Course Unit

EDUC 7468 Ethnographic Research Methods
A course in ethnographic participant observational research; its substantive orientation, literature, and methods. Emphasis is on the interpretive study of social organization and culture in educational settings, formal and informal. Methods of data collection and analysis, critical review of examples of ethnographic research reports, and research design and proposal preparation are among the topics and activities included in this course. Prerequisite: This course is designed to follow after Qualitative Modes of Inquiry (EDUC 682) and as such it is suggested that students have some background in qualitative methods before enrolling.

Not Offered Every Year
Also Offered As: SOCI 7468
1 Course Unit

EDUC 7509 Peer Relationships in Childhood and Adolescence
This course focuses on various aspects of children’s peer relationships, especially with regard to their significance for human development. The roles of family, community, and socio-cultural contexts in the development of interpersonal competence and relationships are discussed. The course explores possible intervention strategies to help children with peer relationship difficulties.

Spring
1 Course Unit

EDUC 7517 Professional Internship in Counseling I
The course will consist of experiential and small group learning, with a focus on practicing and refining skills related to advanced work in psychological services, including the application of various techniques of counseling, ethical considerations, and critiques of live and simulated counseling sessions through role-playing, audio and visual taping.

Prerequisite: Formal admission into Professional Counseling and Psychology M. Phil. Program.

Fall
1 Course Unit

EDUC 7518 Professional Internship in Counseling II
Lab seminar group with a seminar group leader is the second component of the Professional Counseling Internship course. Lab will provide students with exposure to others’ experiences in different types of internships, working with a variety of different client populations.

Prerequisite: Students must be enrolled in the M. Phil. Ed. in Professional Counseling Program. A primary goal of this course is to help each student refine his/her evolving knowledge of self as a provider of psychological services to others. Students will also evaluate contexts of practice and the professional skills, ethics and practices inherent in effective provision of counseling and psychological services. This course consists of two components: CLASS MEETINGS, during which the full group will meet to address issues related to work in various internships, as well as discuss the development of advanced counseling skills and issues; and, LAB SEMINAR GROUP which consists of 7-8 masters students with a seminar group lab leader. Prerequisite: Students must be enrolled in the M. Phil. ED. in Professional Counseling Program.

Spring
0-1 Course Unit
EDUC 7525 Advanced Professional Practice in Communities, Agencies and Organizations
The purpose of this course is to expand the student’s awareness of the multifaceted responsibilities and roles of school counselors in primary and secondary school settings. Through readings, class discussions and guest lectures, it is intended that students will acquire additional competencies and a broader appreciation for professional issues confronted by school counselors and varied responsibilities they have in helping students focus on academic, personal, social and career development in an effort to achieve success in school and lead fulfilling lives. An important emphasis of this course will be on school counseling from an ecological and multicultural perspective. Prerequisite: Students must be enrolled in the M. Phil. ED in Professional Counseling Program. Spring
1 Course Unit

EDUC 7531 Risk, Resilience, and Prevention Science
Examines the definition and measurement of risk and resilience from the perspectives of developmental psychology and ecological theories of development; introduces students to the conceptual and practical integration of intervention and prevention sciences to address social, emotional, educational, and health problems across childhood. Fall
1 Course Unit

EDUC 7539 Poverty and Child Development
The goal of this course is to help students develop a coherent understanding of the ways in which poverty affects families and children, the different needs of families and children across different developmental stages of childhood, and the intersection between poverty and education. Spring
1 Course Unit

EDUC 7548 Neuroscience, Brain Development, and Learning
Neuroscience has made tremendous progress toward understanding the neural bases of cognition. The development of the human brain in response to maturation and learning is of particular interest to educators. This course provides an overview of brain development and methods used in cognitive neuroscience and how research in the brain sciences can inform educational practices and policies. Topics include brain development, methods of cognitive neuroscience, neural development in audition, vision, and motor skills, neural processing of language, neuroscience of learning differences, and changes in the brain associated with environment, such as socioeconomic status. 1 Course Unit

EDUC 7550 Trauma & Counseling
Due to the overwhelming incidence of trauma, adversity, and toxic stress among consumers of mental health services and the potential profound and pervasive impact of trauma on development, it is essential that mental health professionals gain the necessary knowledge, competencies, and skills to foster resilience and healing. This course explores how trauma impacts not only one’s cognitive and emotional processing, but also dysregulates one’s neurophysiology, and discusses evidence-based assessments and interventions that counselors can use to help alleviate the negative impact of trauma with their clients. This course is designed to provide foundational trauma education for students who aspire to work within school and/or mental health settings and to promote their ability to recognize trauma responses, to create trauma-sensitive educational and clinical environments to foster learning, growth and health and to develop trauma responsive counseling skills. 1 Course Unit

EDUC 7564 Cognitive Processes
Basic concepts, theory, and research in cognitive science, problem-solving, psycholinguistics, memory, perception and social cognition. Special topics may include reading, bilingualism, computer modeling, and cognitive theory applied to education and non-education settings. Prerequisite: EDUC 5568 1 Course Unit

EDUC 7566 Advanced Professional Counseling Interventions
This course will focus on advanced issues in the clinical practice of professional psychology with children, adolescents and adults where students will practice clinical skills in role-played therapeutic situations. Students will be using this class as preparation for the formal clinical examination required by all Master of Philosophy in Education students prior to graduation from the Professional Psychology and Counseling program. Prerequisite: Admission into Professional Counseling M. Phil. Ed. Program Fall 1 Course Unit

EDUC 7582 Assessment for Counselors I
A critical analysis of tests and clinical methods in assessment as related to theories of intelligence, and includes: 1) factors influencing assessments; 2) assessment theory; 3) assessment practices; 4) interpretations of assessments. Prerequisite: Admission to Professional Counseling M. Phil. Ed. Program. 1 Course Unit

EDUC 7585 Selected Topics in Professional Psychology
Consideration of research and theory, on selected advanced topics. Prerequisite: Admission to Counseling & Mental health Services or Professional Counseling M. Phil. Program Not Offered Every Year 1 Course Unit

EDUC 7665 Introduction to Causal Inference for Educational Research
Offers applied introduction to methods of causal inference for evaluation research; introduces students to statistical models for causal inference based on randomized controlled trials and observational studies; includes discussion of special topics such as replication and generalizability that touch upon issues related to implementation and implications of experimental/quasi-experimental research. Spring Prerequisite: EDUC 6667 1 Course Unit

EDUC 7667 Regression and Analysis of Variance
This course covers design of controlled randomized experiments, analysis of survey data and controlled field experiments, including statistical models, regression, hypothesis testing, relevant data analysis and reporting. Fall or Spring Prerequisite: EDUC 6667 1 Course Unit
EDUC 7668 Measurement Theory and Test Construction
Design of ability, achievement, and performance measures such as those applied for high-stakes decision making in large-scale assessment and for diagnosis and classification of individuals; advanced true-score and item response theory, item formatting, analysis, selection, calibration, linking, and scaling; analysis of reliability for continuous, ordinal, nominal, and composite scales; analysis of differential item functioning; unidimensionality, and local independence; model contrasting, test equating, and scaling for longitudinal assessment; standards and cut-point setting.
Not Offered Every Year
Prerequisite: EDUC 6684
1 Course Unit

EDUC 7671 Factor Analysis and Scale Development
Advanced measurement theory; exploratory and confirmatory item factoring and clustering for self-report, observational, rating, performance, and personality instruments; factoring of dichotomous and ordered categorical data, full-information factoring; scaling procedures, hierarchical structure, full-information bifactor structure, invariance, generality, reliability, validity, interpretation, and scientific reporting.
Prerequisite: Introductory Statistics
1 Course Unit

EDUC 7677 Structural Equations Modeling
Theory and application of means modeling and longitudinal analysis through structural equations, including observed and confirmatory factor analysis measurement models using multiple observed indicators to define sets of latent variables, and regression relationships among multiple latent variables; advanced applications for repeated measures and multilevel growth modeling in educational and social science research. Prerequisite: Introductory Statistics
1 Course Unit

EDUC 7708 The Social Organization of Schooling
In this graduate-level seminar, we will explore educational and sociological concepts of organization, leadership, and the professions in order to develop our knowledge of how classrooms, schools, and school systems function. Our approach will be to consider foundational theoretical works alongside their recent empirical applications. Our goal is to understand and assess how different conceptual perspectives on the organization of schools inform educational research, policy, and practice.
1 Course Unit

EDUC 7742 Teachers and Teaching Policy
Explores research, policies, and practices that promote a high-quality teacher workforce, and effective instruction. Topics include recruitment, retention, mentoring, induction, professional development, certification, value-added, merit pay, etc. Appropriate for students from different programs, including education, social/public policy, psychology, political science, sociology, business, and current and future teachers and school leaders.
Fall or Spring
1 Course Unit

EDUC 7762 Introduction to Applied Quantitative Methods for Education Research: Pre-K to 20
An introduction to the interpretation and use of data about education policy issues through the use of computer-assisted methods of statistical analysis. Emphasis is on the implications for educational policy and research design.
Fall
1 Course Unit

EDUC 7770 Education Policy Research Practicum
This course will partner students with educational leaders to conduct client-based, applied education research projects. Students will engage in original empirical analysis, learning how to use empirical evidence to support the work of policymakers and practitioners, and will complete written policy reports and present their findings to clients.
Prerequisite: EDUC 5760 AND (EDUC 6667 OR EDUC 7762)
1 Course Unit

EDUC 7771 The Intersection of Leadership Theory and Practice
With a growing recognition of the complexities that face leaders in education and other social organizations, understanding the work of leadership is paramount. Theoretical and practical scholarship has provided insights and guidance about different lenses on leadership and how these understandings can help leaders develop more functional, resilient, and productive professional environments. This seminar will examine the major theories of leaders and bridge leadership ideas with practical application through case studies of leadership in different contexts. It will introduce students to the perspectives, typologies and conceptual frameworks that situate and guide current and future leadership in organizations.
Spring
1 Course Unit

EDUC 7772 Expanding Civic Opportunities for Youth
This Academically Based Community Service (ABCS) course is designed for Penn graduate and undergraduate students invested in youth civic empowerment. Students design multi-session, project-based lessons on collective problem solving on a contemporary issue (for example, climate justice, political redistricting, or school gentrification). Students will then facilitate their workshops in Philadelphia public school classrooms.
As part of the course, students will develop and implement an internal assessment plan that may include observation protocols, post-lesson debriefings, participant focus groups, and teacher interviews. The data from these assessment tools will contribute to a final report.
Spring
1 Course Unit

EDUC 7804 Economics of Higher Education
Covers selected topics in the economics of higher education, including investment and consumption theories, cost functions, university investment practices and principles, and academic labor markets.
Fall
1 Course Unit

EDUC 7805 Proseminar in Research & Analysis
This course is designed to provide students with the skills, information, and resources that are necessary to develop a research proposal. This course will also examine strategies for completing proposals and dissertations. A variety of research designs and approaches to educational research will be explored. Through this course, students will become both informed consumers of research and effective designers of research. Prerequisite: Permission needed from department.
Fall
1 Course Unit
EDUC 7814 Law and Higher Education
An examination of the most important state and federal laws governing U.S. colleges and universities, with an emphasis on current legal problems.
Fall
1 Course Unit

EDUC 7815 Case Studies in Higher Education Administration
This course is designed to enhance understanding of decision making in higher education administration. Based on case studies, students will analyze, propose policies, generate action plans and implementation procedures, and assess the potential consequences of their administrative decisions.
Not Offered Every Year
1 Course Unit

EDUC 7816 Public Policy Issues in Higher Education
A study of the most influential federal and state policies, legislation and practices affecting colleges and universities.
Spring
1 Course Unit

EDUC 7828 Advanced Public Policy Seminar in Higher Education
Students explore higher education in one state and collaboratively develop a case study to understand the relationship between state policies and higher education performance. Through readings, interviews and student presentations, students learn about the context, the performance, and the public policies influencing higher education performance.
Spring
1 Course Unit

EDUC 7833 Students' Transitions from High School to College and to the Job Market
Scope and Audience: This course is appropriate for both masters level and doctoral level students in fields relevant to education, policy, or social science. Special emphasis will be given to develop research proposal that address gaps detected in the literature pertaining to issues and factors affecting students’ transitions from high school to college and to the job market. The ultimate goal of the coursework is to critically analyze and have informed opinions of the state of knowledge regarding factors affecting students’ college choice, access, and success, as well as how these choices impact their job market prospects. Course Description and Objectives: This course examines existing research on the analysis of college access and success, the transition from high school to college, community colleges, labor market opportunities, and the policies, interventions, and initiatives that have been developed to address inequities and inequities in students’ college plans, academic preparation, and financial access. Particular attention will be paid to issues of poverty, race, and ethnicity. The topics studied are informed by sociological, economic, and anthropological theories. Given that community colleges enroll close to 50% of total undergraduate students, and serve as the primary provider of college education for underrepresented, first-generation, low-income, and minoritized students, their role as a potential equalizing engine in the American higher education system will be studied. Specifically, we will study the diverse set of theoretical frameworks and methods that researchers have been using to understand these institutions and will assess the extensive evidence we have to date regarding their effects on education and labor market outcomes. Expectations: Students are expected to be engaged intellectual thinkers and active participants in the pursuit of knowledge, not just passive recipients of information. This course is reading intensive and the majority of class time will be spent in a seminar format discussing the assigned readings. There will be opportunities for students to take turns leading discussion sessions using a set of guiding questions generated by the students own creative and original thinking with the help of the instructor. These student-professor led discussion sessions will occupy about half of our class time while the other half will be lecture and presentation by the instructor along with presentation of work in progress of final papers to gain collective feedback.
Fall
1 Course Unit

EDUC 7836 Quasi-Experimental Design
Quasi-experimental design is the set of statistical procedures designed to reduce bias inherent to the analysis of observational data. This course covers the most pressing quasi-experimental techniques employed in the social sciences, with an especial emphasis on education issues. The class combines lecture and lab exercises complemented with real-life examples.
Spring
1 Course Unit

EDUC 7844 Building Inclusive Communities in Higher Education
This course provides students an opportunity to apply their knowledge related to the practice of higher education administration. The goal of the course is to advance students’ understanding of climate on today’s campuses and to utilize diverse methods to create inclusive spaces on campus for all institutional stakeholders.
Spring
1 Course Unit
EDUC 7847 Social and Statistical Network Analysis
Network analysis aims to find structure among a variety of connections/settings. This course highlights the inferential/statistical aspect of network analysis which overcomes its main limitation of being depicted as a descriptive tool. Since applications of network analysis to education research are emerging, course participants will gain a competitive job-market advantage.
Fall
1 Course Unit

EDUC 7848 Spatial Socio-Econometric Modeling
Despite the vast availability of data that can be linked to earth's surface (AKA geo-referenced or geo-located), most research continue to ignore or omit the influence of location on the outcomes of interest. For example, assume one is interested in measuring the impact of an intervention taking place in some school districts across a given state. Assume further that a variety of school-level administrative indicators are readily available for model inclusion, whereas other place-based indicators require extra data gathering, management, and methods before they can be statistically accounted for. In scenarios like this, researchers typically proceed to model the intervention effects without considering other place-based variables that surely impact students' performance over and above their within school experiences. That is, given that where individuals experiences life transcends school boundaries, the omission of out-of-school localized factors such as neighborhood-level poverty, crime, or unemployment levels, equates to ignoring and/or assuming that those factors bear no effect on such individuals' prospects of success. The overarching purpose of this course is threefold. First, it discusses the most recent theories on neighborhood effects, equality of opportunity and environmental determinism as the foundations for the applications and methods covered in the course. Second, the course moves to introduce a survey of geolocated data sources that can be incorporated in traditional socio-econometric research. Third, the course provides participants with tools and methods to visualize and model datasets with spatial elements in order to reach conclusions and offer recommendations that consider the relevance of space and place. It is hoped that the incorporation of these place-based indicators may provide more robust and precise evidence, (as) compared to evidence reached with methods that ignore such a structure contained in places where units of analyses are spatially situated.
Fall
1 Course Unit

EDUC 7849 Modeling Leadership Resilience through Chaos, Crisis, Calamity, Calumny, and Catastrophe
Institutions, agencies, NGOs, industries, and educational systems are vulnerable to disruptions that can escalate rapidly to truly catastrophic conditions. Local, national, and international incidents — including those caused by natural disasters, human behavior, infrastructure failures, and acts of terror — can pose serious threats to the health and wellness of individuals and cohort groups of community members and to the normative functioning of institutional entities. These conditions, also, within the heightened immediacy of globally interconnected electronic communications modalities, must be optimally ameliorated under compressed time pressures amidst highly volatile circumstances that can be peopled with disaffected and/or seditious stakeholders. In response to these potential threats, many entities, institutions, and educational systems have pro-actively developed strategic risk-management and crisis response frameworks that they attempt to implement consistently, effectively, and efficiently to maintain mission-critical functions and to restore institutional stasis after a disruption. Leaders who most consistently foment institutional resilience are those who are: (a) strategically nimble, decisive, purposeful, and optimistic; and, therefore (b) most adept at meeting the vagaries of institutional crises using critical incident response and recovery models that are optimally crafted to use the strengths of their individual and leadership team’s styles and institutional culture. The core goal of the Modeling Resilient Leadership through Crisis, Calamity, Calumny, and Catastrophe course is to acquaint students with categories of crises endemic to institutions, agencies, and systems; to help them understand the importance of crisis mitigation advance planning including the elements of a crisis management plan and the value of “tabletop” practice; to increase their knowledge of how leadership styles and characteristics contribute to leadership resilience through institutional crises, and to survey institutional crisis response variables including: threat and vulnerability analysis, crisis communications, stakeholders, and audiences.
1 Course Unit

EDUC 7870 New Models for Postsecondary Education
Not Offered Every Year
1 Course Unit

EDUC 8215 TESOL Practice Teaching
Fieldwork course for TESOL students. This course focuses on reflective teaching practice, providing a space for students to combine theory and practice as they apply the theoretical constructs of TESOL coursework to their own language teaching. Students will become accurate and systematic observers of and thinkers about their own teaching methodology, in order to continue to develop into increasingly effective language teachers. The theme of a student-centered language classroom will be explored through scholarly literature, pedagogical techniques, and students’ own classroom teaching. To participate in this course, a student must be teaching a language class for the majority of the semester. Prerequisite: Permission needed from the department.
Fall
Prerequisite: EDUC 6215 AND EDUC 6205
1 Course Unit

2023-24 Catalog | Generated 08/02/23
EDUC 8225 TESOL Seminar
A weekly seminar that seeks to consolidate, broaden, and deepen knowledge of the main themes, trends, issues, and practices in the field of TESOL. Students will demonstrate their ability to observe, analyze, and reflect upon their teaching as they make connections between theory and practice, all critical skills for ongoing professional development which relate to the students' final project, a reflective-analytical or action research paper. The project is based on a thirty-hour teaching internship completed during the semester in which the students are enrolled in EDUC 563. The project is individually designed and subject to the instructor's approval. All students in the M.S.Ed./TESOL and Language & Literacy must submit a proposal for the internship in the semester before they take the Seminar. Prerequisite: Permission needed from the department.
Fall or Spring
Prerequisite: EDUC 8215
1 Course Unit

EDUC 8230 ICC Seminar
Prior to enrolling in this course, all students in the MS.Ed ICC program must conduct ethnographic (participant-observation) fieldwork in the context of a supervised internship of at least 160 hours, usually during the summer between the first and second year. The supervised internship, involving placement of the student in an approved field site, is individually designed and is subject to approval; students must submit a Proposal describing their ethnographic project in the semester prior to undertaking fieldwork. This course offers guidance as students complete the portfolio or reflective paper, which is based on their experience and the ethnographic data they collected during their fieldwork placement. Through this course, students in the M.S.Ed./ICC program will discuss ways to conceptualize their fieldwork experience, situate it meaningfully within the field of intercultural communication, locate and analyze relevant research literature, and prepare the portfolio or reflective paper, with an overall goal of developing the ability to communicate clearly and effectively for an academic and/or professional audience. Prerequisite: Eight or more courses toward M. S. Ed. degree in Intercultural Communication. Prerequisite: Eight or more courses toward M. S. Ed. degree in Intercultural Communication. Permission needed from department.
Spring
1 Course Unit

EDUC 8334 Theories of Reading
This course is designed as a collaborative inquiry toward constructing and elaborating theories of practice as teachers and/or researchers of reading. Using a seminar or working group format, participants explore the relationships among theory, reading, practice, pedagogy and research. The course's conceptualization is informed primarily by (1) frameworks from critical, feminist and culturally-centered literatures which foreground issues of equity, representation, and ethics; and (2) current conversations in the field of literacy where the definitions, purposes, and practices of reading have been made problematic. It also invites participants to engage the notion that knowledge for teaching and research comes from inquiry into the questions, issues, and contradictions that arise from everyday life. The course provides historical lenses for comparative analyses of theoretical frameworks and research paradigms as well as opportunities to investigate participants' individual histories as well as teaching and research interests.
Fall, even numbered years only
1 Course Unit

EDUC 8336 Issues in Instructional Leadership in Reading and Writing
Participants will consider current critical issues in Reading, Writing, and Literacy, such as: improving accountability and assessment; approaches to professional development and curriculum development; and the use of scientifically "valid" research to advance literacy learning.
Spring
1 Course Unit

EDUC 8405 Culture/Power/Subjectivities
This doctoral level course will introduce students to a conceptual language and theoretical tools for analyzing and explaining the complex intersection of racialized, ethnic, gendered, sexual, and classed differences and asymmetrical social relations. The students will examine critically the interrelationships between culture, power, and subjectivity through a close reading of classical and contemporary social theory. Emphasis will be given to assessing the power of various theories for conceptualizing and explaining mechanisms of social stratification as well as the basis of social order and processes of social change.
Not Offered Every Year
Also Offered As: ANTH 7040, URBS 7060
Prerequisite: EDUC 5495
1 Course Unit

EDUC 8436 Narrating the Self
This seminar explores, in some linguistic detail, how narrators can partly construct their selves while telling autobiographical stories. The seminar addresses three questions: What is the structure of narrative discourse? How might we construct ourselves by telling stories about ourselves? If narrative is central to self-constructions, what is "the self"?
Not Offered Every Year
1 Course Unit

EDUC 8466 Craft of Ethnography
This course is designed to follow after Ethnographic Research Methods (EDUC 7468). In the introductory course, students learned how to use qualitative methods in conducting a brief field study. This advanced level course focuses on research design and specifically the craft of ethnographic research. Students will apply what they learn in the course in writing a proposal for a dissertation research project. Prerequisite: Must have completed EDUC 7468 or equivalent introductory qualitative methods course.
Not Offered Every Year
Also Offered As: ANTH 7070
1 Course Unit

EDUC 8480 International Educational Development Doctoral Proseminar
The IEDP Doctoral Proseminar covers the broad arena of international educational development. Drawing on the research experiences of the faculty and of the enrolled doctoral students, the course allows for the analysis of intellectual and technical challenges of working in international education and development, especially around issues of social and public policy.
Fall or Spring
1 Course Unit

EDUC 8490 Education, Culture and Society
This course surveys basic issues in the philosophical and social foundations of education, addressing basic questions about the purpose of education, mostly through reading primary texts. Intended for incoming doctoral students.
Fall
1 Course Unit
EDUC 8560 ISHD Proseminar
This course gives students the opportunity to better understand their own psychological development and how this interacts with their scholarship and professional development. Required course for ISHD students.
Fall
1 Course Unit

EDUC 8629 Policy Research
Study of the roles of scientific inquiry in development and assessment of contemporary educational and social policy. Analysis and application of foundational research, statistical and psychometric methods to inform a variety of policy topics and related issues and problems encountered in policy formation and evaluation.
Spring
Prerequisite: EDUC 6667
1 Course Unit

EDUC 8671 Randomized Trials and Experiments
This course will cover three alternatives to conventional modeling in the social sciences: (1) design and execution of field trials in education and other social sectors including criminology, (2) quasi-experiments especially contemporary research comparing results of randomized and non-randomized trials, and (3) analysis for descriptive and exploratory purposes. The course themes include causal inference, vulnerability of models applied to observational data, recent developments computer-intensive inductive approaches to data, and related matters. Although some methodological background papers will be discussed, the seminar is case study oriented with readings from contemporary research on the topics from peer reviewed journals and well-vetted reports issued by governmental and nongovernment agencies. Cases will include work supported by IES on effects of Odyssey Math, for example, and work in the crime and justice arena. We will study the work of scholars affiliated with Penn who are actively involved in randomized and non-randomized trials, for instance, and the work of colleagues at other universities (Berkeley, Northwestern, Wisconsin, Princeton, others) and colleagues in non-profit and for profit research organizations such as Analytica, AIR, Mathematica and others that contribute to learning in this arena.
Fall
1 Course Unit

EDUC 8680 Complex, Multilevel, and Longitudinal Research Models
Strategy, application, interpretation, and reporting for simple and complex factorial, repeated measures, time series, higher-order growth, unbalanced, and multiple constant and inconstant covariates designs; error covariance structure modeling, hierarchical linear modeling, multilevel cross-classification modeling, multilevel individual growth-curve modeling, multiple-group multilevel modeling, multilevel generalized linear modeling for discrete outcomes (multilevel multiple logistic regression); Receiver Operating Characteristic curve analysis; latent growth mixture modeling.
Fall
Prerequisite: EDUC 7667
1 Course Unit

EDUC 8681 Classifications, Profiles, and Latent Growth Mixture Models
Multivariate strategies for prediction of binary, ordered and categorical outcomes and for classification accuracy and hypothesis testing; finite mixture modeling for discovery, validity and explanation of latent subgroups of profiles and change trajectories. Methods include multiple logistic and multinomial logistic regression, Receiver Operating Characteristic curve analysis, multiple discriminant analysis, hierarchical cluster analysis, multidimensional classification analysis, latent profile analysis, latent transition analysis, and latent growth mixture modeling.
Spring
Prerequisite: EDUC 7667
1 Course Unit

EDUC 8710 Advanced Analysis in the Economics of Education
This course will review current papers in the economics of education, with a focus on policy research related to the provision and regulation of publicly provided education. The course pays special attention to: i) the use of causal research designs in answering questions relevant for policy, and ii) the application of economic principles to issues in education. The course is designed as a seminar for Ph.D. students to build skills in critiquing studies that employ experimental and quasi-experimental methods, such as randomized control trials, regression discontinuity, instrumental variables, etc. The papers covered in the course will examine questions in education policy through the perspective of economics and issues related to trade-offs, incentives, the analytic process, and the distribution of costs and benefits. Students will also be asked to consider applications of these methods and their related assumptions, in their own work. The course is intended for students who have a solid understanding of methods typically used in econometrics or statistics to estimate causal effects. Prerequisite: This course is primarily intended for Ph.D. students who have taken or who are currently taking a course on experimental and quasi-experimental methods of causal inference and who have had an introductory course in economic perspectives in education research.
1 Course Unit

EDUC 8762 Applied Research & Reporting
Hands-on experience presenting applied research. Students will be guided through a research project of relevance to education or social policy chosen by the student, with assistance from the instructor. The course entails presenting findings from the analysis of one or more data sets of the students’ choosing. The students will present work based on journal-length paper expectations based on their research and respond to the reviews of classmates and the instructor. Prerequisite: Competence in basic statistics and computer literacy.
Fall
1 Course Unit

EDUC 9126 Doctoral Foundations of Teaching and Learning
The course explores theoretical and empirical perspectives on the questions: What is knowledge and knowing? What is learning? What is teaching? How do contexts influence teaching, knowing and learning? A central goal of the course is to encourage students to consider these questions and their interconnections for themselves, to examine ways scholars and practitioners have answered them, and to develop an analytical framework to use in examining contemporary practices in settings that include formal and informal, urban and international.
Spring
1 Course Unit
EDUC 9205 Research Seminar: Language Policy and Education
Seminar participants are introduced to concepts, theories, and methods in the field of language planning and policy, which they then apply in developing their own library-based research on specific language planning cases from around the world. Cases may include: official language decisions, instructional medium choices, literacy initiatives, gender-neutral language reforms, foreign/heritage/second language pedagogy and policy, indigenous language revitalization efforts, or other language-related decisions and policies at international, national or local levels. Prerequisite: Permission needed from instructor.
Not Offered Every Year
1 Course Unit

EDUC 9210 Issues in Second Language Acquisition
This course is designed for students to be able to analyze, synthesize and discuss second language acquisition theory and research on the basis of intensive reading of work that reflects perennial and current issues in the field. Comparisons and connections are drawn from theoretical and empirical literature on second language acquisition processes, constraints, and interventions. Relevant research methods are also addressed. Topics, issues, and readings are updated each time the course is offered. Prerequisite: Permission needed from instructor.
Not Offered Every Year
Prerequisite: EDUC 7225
1 Course Unit

EDUC 9215 Genealogies of Race and Language in Educational Research
This course explores the historical and contemporary co-construction of race and language in educational research. As opposed to treating race and language as self-evident and universal concepts, the course adopts a genealogical perspective that examines their historical development within the context of European colonialism and critically analyzes the legacy of these colonial ideologies in contemporary educational research, policy and practice. Students engage with a range of foundational theoretical and methodological texts to develop a robust understanding of the historical and contemporary relationship between race and language. Students also read, analyze and critique educational research that has sought to apply these theoretical and methodological insights. The course will culminate in students undertaking genealogical research projects on questions of race and language connected to their own educational research interests.
Fall
Also Offered As: LALS 9215
1 Course Unit

EDUC 9317 Research Seminar: Language and Power
The course examines the relationship between language, meaning and power in their social context. The course is organized around a number of core themes: Language studies rooted in Critical Discourse analysis; The application of Bourdieu's concepts to this field; multi modality; the growing concern with 'Superdiversity' that links Local/Global; academic literacies, with particular reference to the writing required in students' own contexts; and methodological issues in researching language and power; and we then bring all of this to bear on our own context under the heading 'language in education'.
Not Offered Every Year
1 Course Unit

EDUC 9320 Research Seminar in Reading and Writing
For doctoral candidates and others engaged in research and advanced professional study in the field of literacy.
Spring
1 Course Unit

EDUC 9325 Research Seminar in Literacy
This seminar is designed for students to be able to analyze, synthesize and discuss research on the field of literacy. They then apply in their own projects, which may include a range of literacy-related topics such as education, politics, culture, and the media.
Not Offered Every Year
1 Course Unit

EDUC 9360 Advanced Research in Human Learning and Development
Selected topics from human learning, human development, cognitive processes, social psychology, and personality.
1 Course Unit

EDUC 9580 Mixed Methods Research: Counseling & Development
This course is designed to position students to acquire a more sophisticated understanding of research methods in order to conduct and critically evaluate empirical research in applied and clinical settings.
Not Offered Every Year
1 Course Unit

EDUC 9764 Research Seminar in Applied Research Synthesis Methods
Issues in research design, development of a literature review, and dissertation proposal.
Fall
1 Course Unit

Education - Education Entrepreneurship (EDEN)

These courses are only for students enrolled in the Education Entrepreneurship program.

EDEN 5010 Entrepreneurship in Education
Entrepreneurship in Education provides an understanding of the nature of entrepreneurship related to public/private/for profit and non-profit educational and social organizations. The course focuses on issues of management, strategies and financing of early stage entrepreneurial ventures, and on entrepreneurship in established educational organizations. Students will learn the fundamentals of business plan design and development. This course is only available to students in the Education Entrepreneurship program. Prerequisite: Enrollment in Education Entrepreneurship program.
Summer Term
0.5-1 Course Unit

EDEN 5020 Foundations of Education
Foundations of Education surveys basic issues in the philosophical and social foundations of education. The course addresses basic questions about the purpose of education, the appropriate treatment for children from different cultural and economic groups and the relationship between rigor and relevance. Intended for advanced Masters and doctoral students. Prerequisite: Enrollment in Education Entrepreneurship program.
Summer Term
0.5-1 Course Unit

EDEN 5030 Management in Education
Management in Education introduces the critical management skills involved in planning, structuring, controlling and leading an organization. The course provides a framework for understanding issues involved in both managing and being managed. The class develops a systems view of organizations, examining organizations as part of a context, including but not limited to environment, strategy, structure, culture, tasks, people and outputs. Students consider how managerial decisions made in any one of these domains affect decisions in each of the others. Prerequisite: Enrollment in Education Entrepreneurship program.
Summer Term
0.5-1 Course Unit
EDEN 5040 Capstone (Part 1)
The Capstone Experience is the culminating project of the EdEnt Program. Students acquire and develop the foundations for the ideation, design and launch of an innovative education venture whether entrepreneurial or intrapreneurial. The process of developing the project is an integrative one that brings together the concepts, tools, approaches and frameworks learned throughout the Program. Students start with an idea, build a business case, and then validate their idea using a series of evaluative methods and tests learned through coursework, independent research, product/service design and development activities. The Capstone Experience concludes with the presentation of a new Venture Pitch and the submission of a pro forma Business Plan suitable for presenting to prospective customers, end users, investors, funders, business partners, staff and other ecosystem stakeholders. The process equips an entrepreneur or an intrapreneur to tackle the next steps of launching their venture - whether that is building a minimally viable product, testing with customers, bringing on team members or seeking funding. Prerequisite: Enrollment Education Entrepreneurship program. Fall 0.5-1 Course Unit

EDEN 5040A Capstone
The Capstone Experience is the culminating project of the EdEnt Program. Students acquire and develop the foundations for the ideation, design and launch of an innovative education venture whether entrepreneurial or intrapreneurial. The process of developing the project is an integrative one that brings together the concepts, tools, approaches and frameworks learned throughout the Program. Students start with an idea, build a business case, and then validate their idea using a series of evaluative methods and tests learned through coursework, independent research, product/service design and development activities. The Capstone Experience concludes with the presentation of a new Venture Pitch and the submission of a pro forma Business Plan suitable for presenting to prospective customers, end users, investors, funders, business partners, staff and other ecosystem stakeholders. The process equips an entrepreneur or an intrapreneur to tackle the next steps of launching their venture - whether that is building a minimally viable product, testing with customers, bringing on team members or seeking funding. Prerequisite: Enrollment Education Entrepreneurship program. Fall 0-0.5 Course Units

EDEN 5040B Capstone
The Capstone Experience is the culminating project of the EdEnt Program. Students acquire and develop the foundations for the ideation, design and launch of an innovative education venture whether entrepreneurial or intrapreneurial. The process of developing the project is an integrative one that brings together the concepts, tools, approaches and frameworks learned throughout the Program. Students start with an idea, build a business case, and then validate their idea using a series of evaluative methods and tests learned through coursework, independent research, product/service design and development activities. The Capstone Experience concludes with the presentation of a new Venture Pitch and the submission of a pro forma Business Plan suitable for presenting to prospective customers, end users, investors, funders, business partners, staff and other ecosystem stakeholders. The process equips an entrepreneur or an intrapreneur to tackle the next steps of launching their venture - whether that is building a minimally viable product, testing with customers, bringing on team members or seeking funding. Prerequisite: Enrollment Education Entrepreneurship program. Spring 0-0.5 Course Units

EDEN 5040C Capstone
The Capstone Experience is the culminating project of the EdEnt Program. Students acquire and develop the foundations for the ideation, design and launch of an innovative education venture whether entrepreneurial or intrapreneurial. The process of developing the project is an integrative one that brings together the concepts, tools, approaches and frameworks learned throughout the Program. Students start with an idea, build a business case, and then validate their idea using a series of evaluative methods and tests learned through coursework, independent research, product/service design and development activities. The Capstone Experience concludes with the presentation of a new Venture Pitch and the submission of a pro forma Business Plan suitable for presenting to prospective customers, end users, investors, funders, business partners, staff and other ecosystem stakeholders. The process equips an entrepreneur or an intrapreneur to tackle the next steps of launching their venture - whether that is building a minimally viable product, testing with customers, bringing on team members or seeking funding. Prerequisite: Enrollment Education Entrepreneurship program. Summer Term 0-0.5 Course Units

EDEN 5050 Foundations of Teaching, Learning & Curriculum
Teaching, Learning & Curriculum explores theoretical and empirical perspectives on the questions: What is knowledge and knowing? What is learning? What is teaching? How do contexts influence teaching, knowing, and learning? A central goal of the course is to encourage students to consider these questions and their interconnections, to examine ways scholars and practitioners have answered them, and to develop an analytical framework to use in examining contemporary practices in settings that include formal and informal, urban and international. Prerequisite: Enrollment in Education Entrepreneurship program. Fall 0.5-1 Course Unit

EDEN 5050 Economics of Education: Intro
This is a survey course at the introductory level designed to provide an overview of selected theoretical, conceptual and empirical perspectives on topics in the economics of education. We will apply economic principles to analyze a wide range of educational issues. This course assumes that students have no background in economics. Many of the readings will contain technical economic material, but the focus will be on the conceptual, theoretical and empirical findings of economic research within education. It is expected that you reflect on the findings we cover and how these findings may inform and relate to your educational and professional experiences, and how economic theory and empirical evidence might inform your business plan ideas. As we move through the course, you should gain a solid understanding of how economists think about and study education-related issues. Prerequisite: Enrollment Education Entrepreneurship program. Fall 0-0.5 Course Units

EDEN 5060 Design of Learning Environments
Design of Learning Environments examines different theoretical frames and strategies related to the study and design of learning environments in school, community and online contexts. Physical, social and cognitive aspects of learning situations are considered as students evaluate current research and applications in a variety of existing educational learning environments. Prerequisite: Enrollment in Education Entrepreneurship program. Spring 0.5-1 Course Unit
EDEN 5080 Technology Strategy
Technology Strategy is designed to meet the needs of future managers, entrepreneurs, consultants and investors who must analyze and develop business strategies in technology-based industries. The emphasis is on learning conceptual models and frameworks to help navigate the complexity and dynamism in such industries. This is not a course in new product development or in using technology to improve business processes and offerings. The class will take a perspective of both established and emerging firms competing through technological innovations, and study the key strategic drivers of value creation and appropriation in the context of business ecosystems. Prerequisite: Enrollment in Education Entrepreneurship program.
Spring
0.5-1 Course Unit

EDEN 5090 Marketing for Entrepreneurs
Marketing for Entrepreneurs addresses how to design and implement the best combination of marketing efforts to carry out a firm’s strategy in its target markets. Specifically, this course seeks to develop the student’s (1) understanding of how the enterprise can benefit by creating and delivering value to its customers and stakeholders, and (2) skills in applying the analytical concepts and tools of marketing to such decisions as segmentation and targeting, branding, pricing, distribution, and promotion. Prerequisite: Enrollment in Education Entrepreneurship program.
Fall
0.5-1 Course Unit

EDEN 5100 Evaluation for Education Innovation
Evaluation for Education Innovation explores the use of exploratory, dynamic and adaptive frameworks for the evaluation of social sector programs, services and products. The course draws upon core principles and methodologies from business, design, entrepreneurship, engineering and the social sciences to help build, assess and scale education innovations. Students will learn how to assess effectiveness, quality, and value through real-world education cases, and how to use evaluation tools to drive the development of their education ventures. This course is only available to students in the Education Entrepreneurship program.
Spring
0.5-1 Course Unit

EDEN 5110 Economics of Education: Entrepreneurial Finance
Entrepreneurial Finance provides a step-by-step introduction to core finance concepts in the context of new venture design and innovation implementation planning. Main areas of course focus are solution pricing, creation of a sustainable business model, and development of a robust financial model. In this course, students will learn to use financial analytical tools and frameworks to enable a venture/innovation launch. Students will build a financial model for the venture one that will assist in making critical choices and assessing the attractiveness of an enterprise to potential stakeholders. Closing the course, we will address issues of funding and fundraising strategy. The emphasis of the course is on assisting students to apply knowledge and concepts towards their personal professional and career aspirations. Prerequisite: Enrollment in Education Entrepreneurship program.
0.5-1 Course Unit

EDEN 5130 Design of Learning Environments 2- Design Thinking
This course is structured for students to learn design thinking principles experientially. Design thinking is a critical tool and problem-solving methodology that is human-centered; values qualitative research merged with quantitative metrics; and applies prototyping to services, processes and experiences. Students will apply design thinking methods to conduct basic qualitative research and work to develop a new model for transformation on a real and relevant education challenge. This course is ideal for working professionals in the education, non-profit and social entrepreneurship sectors, wanting to apply a robust methodology that yields innovative insights and actionable results. This course is only available to students in the Education Entrepreneurship program.
0.5-1 Course Unit

EDEN 5140 Foundations of Education - Ecosystem
Through this course, students will examine global trends impacting education and learning; analyze their own enterprise idea in the context of the global EdTech Market Landscape; evaluate one possible scenario for the future of education and generated critical questions about the implications of different scenarios; and assessed the role of different data for decision making at the education market level. Prerequisite: Enrollment in Education Entrepreneurship program.
0.5-1 Course Unit

EDEN 5150 Capstone (Part 2)
The Capstone Experience is the culminating project of the EdEnt Program. Students acquire and develop the foundations for the ideation, design and launch of an innovative education venture whether entrepreneurial or intrapreneurial. The process of developing the project is an integrative one that brings together the concepts, tools, approaches and frameworks learned throughout the Program. Students start with an idea, build a business case, and then validate their idea using a series of evaluative methods and tests learned through coursework, independent research, product/service design and development activities. The Capstone Experience concludes with the presentation of a new Venture Pitch and the submission of a pro forma Business Plan suitable for presenting to prospective customers, end users, investors, funders, business partners, staff and other ecosystem stakeholders. The process equips an entrepreneur or an intrapreneur to tackle the next steps of launching their venture whether that is building a minimally viable product, testing with customers, bringing on team members or seeking funding. Prerequisite: Enrollment in Education Entrepreneurship program.
0.5-1 Course Unit

EDEN 6010 Schools as Organizations
Schools as Organizations focuses on the theory and research concerned with the organizational and occupational side to schools and teaching. The course draws from multiple fields and perspectives, including: organizational theory; the sociology of organizations, occupations and work; educational administration; and school leadership. The objective is to have students understand and evaluate a series of different perspectives from theory, research and policy concerned with the character of the teaching occupation and the organization of schools. Prerequisite: Enrollment in the Education Entrepreneurship program.
Summer Term
0.5-1 Course Unit
EDEN 6020 Technology Strategy (Part 2)
Technology Strategy is designed to meet the needs of future managers, entrepreneurs, consultants and investors who must analyze and develop business strategies in technology-based industries. The emphasis is on learning conceptual models and frameworks to help navigate the complexity and dynamism in such industries. This is not a course in new product development or in using technology to improve business processes and offerings. The class will take a perspective of both established and emerging firms competing through technological innovations, and study the key strategic drivers of value creation and appropriation in the context of business ecosystems. Prerequisite: Enrollment in Education Entrepreneurship program. Summer Term 0.5-1 Course Unit

EDHE 5010 Introduction to Doctoral Studies
Introduction to Doctoral Studies provides an introduction and orientation to the Executive Doctorate in Higher Education Management. This course highlights resources, strategies, and expectations for earning the Doctor of Education degree at Penn through GSE's Executive Doctorate program. Discussions center on students' background and goals, program curriculum and milestones, library resources and academic writing. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management. Summer Term 0.5 Course Units

EDHE 5020 Contemporary Issues
By introducing the key issues confronting (primarily American) higher education, this course will encourage students to develop the capacity to identify, summarize and critique arguments and perspectives on these issues. Students will think concretely about the key research questions that need to be asked and answered to move these issues forward, and will begin to develop an appreciation for the kinds of data that are available to describe and analyze these issues. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management. Summer Term 0.5 Course Units

EDHE 5030 Why History Matters
How an institution remembers its history, what use it makes of its important historical moments, and how the interpretation of those events divide or coalesce an institutions stakeholders shape our understanding of the past and, often quite powerfully, shape the present. The task in Why History Matters is to use contemporary writing and original documents to sort through historical events as historians understand them and simultaneously to ask how those events shape our current views of higher education. The module argues that historical moments are rarely simply events that once happened. They matter because interpretations of the events - some of which occurred over long periods of time- are both controversial and become part of the institutional culture at an institution. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management. Fall 0.33 Course Units

EDHE 5040 Proseminar I
The purpose of Proseminar is to introduce students to the fundamentals of doctoral study: how to read scholarly materials critically, how to systematically review literature relevant to an area of inquiry, and how to formulate a focused research question (or set of interrelated questions). This course will help students conceptualize their research projects for their dissertations and assist them in formulating rough drafts of dissertation proposals. During monthly meetings, students spend much of their time developing literature reviews on their topics of interest and preparing for their dissertation proposal hearings. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management. Summer Term 0.5 Course Units

EDHE 5050 Proseminar II
This module builds upon Proseminar I and continues to explore the fundamentals of doctoral study: how to read scholarly materials critically, how to systematically review literature relevant to an area of inquiry, and how to formulate a focused research question (or set of interrelated questions). This course will help students conceptualize their research projects for their dissertations and assist them in formulating rough drafts of dissertation proposals. During monthly meetings, students spend much of their time developing literature reviews on their topics of interest and preparing for their dissertation proposal hearings. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management. Summer Term 0.67 Course Units

EDHE 5060 Strategic Management Research I
Through exploring key issues related to strategic management, students will come to an understanding of the types of possible research questions that might be pursued to enhance decision-making. This module will cover a set of topics at the heart of strategic management including management, governance, leadership, and strategic planning while maintaining focus on how the changing context of higher education influences these topics. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management. Fall 1 Course Unit

EDHE 5070 Quantitative Methods I
This course provides an overview of basic quantitative methods applicable to applied research in higher education. Students will develop the ability to recognize good data and good evidence, including the distinctions between data and evidence within the context of institutional decision-making. The course includes attention to basic approaches to quantitative research, methods of collecting and analyzing data, and usefulness of data and analyses for decision-making, and will draw on the real problems students in the class are facing in their current jobs. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management. Fall 0.33 Course Units
EDHE 5070A Quantitative Methods I
This course provides an overview of basic quantitative methods applicable to applied research in higher education. Students will develop the ability to recognize good data and good evidence, including the distinctions between data and evidence within the context of institutional decision-making. The course includes attention to basic approaches to quantitative research, methods of collecting and analyzing data, and usefulness of data and analyses for decision-making, and will draw on the real problems students in the class are facing in their current jobs. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
0.33 Course Units

EDHE 5070B Quantitative Methods I
This course provides an overview of basic quantitative methods applicable to applied research in higher education. Students will develop the ability to recognize good data and good evidence, including the distinctions between data and evidence within the context of institutional decision-making. The course includes attention to basic approaches to quantitative research, methods of collecting and analyzing data, and usefulness of data and analyses for decision-making, and will draw on the real problems students in the class are facing in their current jobs. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0.33 Course Units

EDHE 5080A Qualitative Methods I
Intended to provide a survey of the field of qualitative research, this course focuses on foundational philosophies of qualitative inquiry and develops tools needed to conduct qualitative research. The course is designed to support students in developing a critical understanding of the various stages of qualitative research including the development of researchable questions, theoretical and conceptual frameworks, methodological stances and approaches, data collection and analysis plans as well as instrument design and implementation. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
0.67 Course Units

EDHE 5080B Qualitative Methods I
Intended to provide a survey of the field of qualitative research, this course focuses on foundational philosophies of qualitative inquiry and develops tools needed to conduct qualitative research. The course is designed to support students in developing a critical understanding of the various stages of qualitative research including the development of researchable questions, theoretical and conceptual frameworks, methodological stances and approaches, data collection and analysis plans as well as instrument design and implementation. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0.67 Course Units

EDHE 5090 Public Policy
This module is designed to help students embrace a better understanding of the broad economic/political pressures facing colleges/universities today, the role of the state and federal governments and how these roles have changed over time, the public institutional tradeoffs related to changing policy environments at the state/federal level, and the political context of higher education and emerging issues related to public accountability. Through coursework, students examining one or more states in-depth, in terms of demographic, economic, and policy contexts as it relates to higher education. Course meets in Boulder, CO. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
1 Course Unit

EDHE 5100 Leadership and Change
The module on Leadership explores how executives and senior managers in higher education can think strategically and communicate persuasively, act decisively, and build leadership and teamwork in their organizations. Students apply theory and models to real world cases, both contemporary and historical, from multiple industries. Students focus on building leadership and teamwork to anticipate challenges ahead of serving long-term organizational interests, executing decisions and policies with integrity, and identifying an mentoring those whose leadership will be needed in the future. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall or Spring
0.33 Course Units

EDHE 5110 Leading Small Colleges
This module focuses on strategies for the sustainability and growth of small colleges, asking what is required to improve competitive standing, particularly among top colleges. Students analyze real data from an institution to develop an action plan to address this question, with the assumptions made and questions asked to arrive at this plan carefully scrutinized during class discussion. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall or Spring
0.33 Course Units
EDHE 5120 Proseminar III
This module builds upon Proseminar II and continues to explore the fundamentals of doctoral study: how to read scholarly materials critically, how to systematically review literature relevant to an area of inquiry, and how to formulate a focused research question (or set of interrelated questions). This course will help students conceptualize their research projects for their dissertations and assist them in formulating rough drafts of dissertation proposals. During monthly meetings, students spend much of their time developing literature reviews on their topics of interest and preparing for their dissertation proposal hearings. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
1 Course Unit

EDHE 5130 Strategic Management Research II
The purpose of this module is to build on and explore additional topics presented in Strategic Management Research I. Through exploring key issues related to strategic management, students will come to an understanding of the types of possible research questions that might be pursued to enhance decision-making. This module will cover a set of topics at the heart of strategic management including management, governance, leadership, and strategic planning while maintaining focus on how the changing context of higher education influences these topics. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
1 Course Unit

EDHE 5140 Quantitative Methods II
The purpose of this module is to build on and explore additional topics presented in Quantitative Methods I. This course provides an overview of basic quantitative methods applicable to applied research in higher education. Students will develop the ability to recognize good data and good evidence, including the distinctions between data and evidence within the context of institutional decision-making. The course includes attention to basic approaches to quantitative research, methods of collecting and analyzing data, and usefulness of data and analyses for decision-making, and will draw on the real problems students in the class are facing in their current jobs. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0.67 Course Units

EDHE 5150 Qualitative Methods II
The purpose of this module is to build on and explore additional topics presented in Qualitative Methods I. Intended to provide a survey of the field of qualitative research, this course focuses on foundational philosophies of qualitative inquiry and develops tools needed to conduct qualitative research. The course is designed to support students in developing a critical understanding of the various stages of qualitative research including the development of researchable questions, theoretical and conceptual frameworks, methodological stances and approaches, data collection and analysis plans as well as instrument design and implementation. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0.33 Course Units

EDHE 5160 Higher Education Finance
This module focuses on strategies for the sustainability and growth of small colleges, asking what is required to improve competitive standing, particularly among top colleges. Students analyze real data from an institution to develop an action plan to address this question, with the assumptions made and questions asked to arrive at this plan carefully scrutinized during class discussion. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0.5 Course Units

EDHE 5160A Higher Education Finance II
The purpose of this module is to build on and explore additional topics in higher education finance presented earlier. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0.5 Course Units

EDHE 5160B Higher Education Finance II
The purpose of this module is to build on and explore additional topics in higher education finance presented earlier. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Summer Term
0.5 Course Units

EDHE 5170 Equity & Diversity
The goal for this course is to provide students with a critical understanding of issues of diversity in American higher education. The module is designed around functions of higher education and its success is dependent on open and mature conversations about sometimes difficult and sensitive issues that ultimately inform students' research and practice. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
1 Course Unit

EDHE 5170A Equity And Diversity
The goal for this course is to provide students with a critical understanding of issues of diversity in American higher education. The module is designed around functions of higher education and its success is dependent on open and mature conversations about sometimes difficult and sensitive issues that ultimately inform students' research and practice. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0-1 Course Unit

EDHE 5170B Equity And Diversity
The goal for this course is to provide students with a critical understanding of issues of diversity in American higher education. The module is designed around functions of higher education and its success is dependent on open and mature conversations about sometimes difficult and sensitive issues that ultimately inform students' research and practice. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0-1 Course Unit
EDHE 5180 Managing Intercollegiate Athletics
Students will review a number of issues that resonate in higher education such as athletic department right-sizing (dropping or adding sports), leading through a PR crisis involving athletics, and strategizing whether the investment a campus is making in athletics is appropriate. Students will also clarify their understanding of the philosophical arguments surrounding an institution's organizational and Divisional classification, the roles and responsibilities of the governing bodies, the expectations and challenges that confront today's student athletes, and the market forces that drive big time college sports. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
0.33 Course Units

EDHE 5190 The University and its Community
This course will focus on the past, present, and likely future of university-community relationships. It will provide an overview of university-community conflict, cooperation and collaboration from the colonial college to the present. Particular emphasis will be placed on developments since the early 1990s and the birth of what might be termed the engaged, democratic, civic university responsibility movement. Various approaches to university-community partnerships in the US and abroad will be discussed. Through readings, discussion, and written assignments, students will develop strategies for developing effective democratic partnerships that would positively impact the community and the university and powerfully contribute to student learning and development. Prerequisite: Enrollment in Executive Doctorate in Higher Education.
Fall
0.33 Course Units

EDHE 5190A University And Community
This course will focus on the past, present, and likely future of university-community relationships. It will provide an overview of university-community conflict, cooperation and collaboration from the colonial college to the present. Particular emphasis will be placed on developments since the early 1990s and the birth of what might be termed the engaged, democratic, civic university responsibility movement. Various approaches to university-community partnerships in the US and abroad will be discussed. Through readings, discussion, and written assignments, students will develop strategies for developing effective democratic partnerships that would positively impact the community and the university and powerfully contribute to student learning and development. Prerequisite: Enrollment in Executive Doctorate in Higher Education.
Spring
0-0.33 Course Units

EDHE 5190B University And Community
This course will focus on the past, present, and likely future of university-community relationships. It will provide an overview of university-community conflict, cooperation and collaboration from the colonial college to the present. Particular emphasis will be placed on developments since the early 1990s and the birth of what might be termed the engaged, democratic, civic university responsibility movement. Various approaches to university-community partnerships in the US and abroad will be discussed. Through readings, discussion, and written assignments, students will develop strategies for developing effective democratic partnerships that would positively impact the community and the university and powerfully contribute to student learning and development. Prerequisite: Enrollment in Executive Doctorate in Higher Education.
Summer Term
0-0.33 Course Units

EDHE 5200 Managing Human Resources
This module addresses the most important tasks in managing people, from hiring to supervising to development. Our focus is first on what research tells us about the factors that drive success in these areas and second on the practice of using those principles to enhance individual and organizational performance. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall or Spring
0.33 Course Units

EDHE 5210 Leadership, Governance, and Strategy
The purpose of this module is to explore key issues related to these topics and the types of possible research questions and methods that might be pursued to understand these topics more deeply. The content is intended to link practice and theory. The course has a strong tilt toward non-profit four-year colleges and universities in the U.S. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
1 Course Unit

EDHE 5210A Leadership, Governance, and Strategy
The purpose of this module is to explore key issues related to these topics and the types of possible research questions and methods that might be pursued to understand these topics more deeply. The content is intended to link practice and theory. The course has a strong tilt toward non-profit four-year colleges and universities in the U.S. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
0-1 Course Unit

EDHE 5210B Leadership, Governance, and Strategy
The purpose of this module is to explore key issues related to these topics and the types of possible research questions and methods that might be pursued to understand these topics more deeply. The content is intended to link practice and theory. The course has a strong tilt toward non-profit four-year colleges and universities in the U.S. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0-1 Course Unit

EDHE 5220 Higher Education Finance II
The purpose of this module is to build on and explore additional topics in higher education finance presented earlier. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall or Spring
0.5 Course Units
EDHE 5230A Globalization
Following a field research project outside the United States, students reflect on the continuing globalization of higher education and institutional implications. By exploring current issues higher education faces outside the United States, students develop a more informed understanding of domestic challenges and how these challenges might be addressed. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0.33 Course Units

EDHE 5230B Globalization
Following a field research project outside the United States, students reflect on the continuing globalization of higher education and institutional implications. By exploring current issues higher education faces outside the United States, students develop a more informed understanding of domestic challenges and how these challenges might be addressed. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Summer Term
0.33 Course Units

EDHE 5240 Innovation
Globally, higher education institutions are struggling with the effects of an increasingly digital world. This course provides an overview of how digitization impacts the economics, administration, teaching and learning, and research practices of universities and colleges. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
0.33 Course Units

EDHE 5250 Geography of Opportunity
This seminar course is designed to explore geographic approaches to higher education in the urban context. Readings will introduce main issues around urban education, and the relation between of higher education institutions and their local context. At the end of this course, it is expected that students will be able to: 1) Become familiar with education literature that uses spatial theories. 2) Understand basic concepts of geographic theories. 3) Engage in intellectual inquiry surrounding social theory broadly. 4) Apply spatial analysis to a higher education institution in a geography of interest.
Spring
0.33 Course Units

EDHE 5260 Managing Change in Higher Education I
The social context, the expectations, and the consumers of post-secondary learning and credentials have evolved significantly over the history of higher education in the US. They continue to evolve in ways that must shape the operation of our colleges and universities, the student experience, and the outcomes that result. Change is essential for healthy survival, so why are institutions designed to teach evolving knowledge, nurture curiosity, and model continuous improvement so hard to change? What management and leadership skills are needed to manage the facilitation of change despite institutional inertia? How can we identify and prioritize necessary changes, especially when resources are limited? This course explores research and theory on how higher education leaders, at all levels, in all types of institutions, can manage the change process, with close attention to practical, proven strategies from within and outside of higher education.
Fall
1 Course Unit

EDHE 5260A Managing Change in Higher Education I
The social context, the expectations, and the consumers of post-secondary learning and credentials have evolved significantly over the history of higher education in the US. They continue to evolve in ways that must shape the operation of our colleges and universities, the student experience, and the outcomes that result. Change is essential for healthy survival, so why are institutions designed to teach evolving knowledge, nurture curiosity, and model continuous improvement so hard to change? What management and leadership skills are needed to manage the facilitation of change despite institutional inertia? How can we identify and prioritize necessary changes, especially when resources are limited? This course explores research and theory on how higher education leaders, at all levels, in all types of institutions, can manage the change process, with close attention to practical, proven strategies from within and outside of higher education.
Fall
0.5 Course Units

EDHE 5260B Managing Change in Higher Education I
The social context, the expectations, and the consumers of post-secondary learning and credentials have evolved significantly over the history of higher education in the US. They continue to evolve in ways that must shape the operation of our colleges and universities, the student experience, and the outcomes that result. Change is essential for healthy survival, so why are institutions designed to teach evolving knowledge, nurture curiosity, and model continuous improvement so hard to change? What management and leadership skills are needed to manage the facilitation of change despite institutional inertia? How can we identify and prioritize necessary changes, especially when resources are limited? This course explores research and theory on how higher education leaders, at all levels, in all types of institutions, can manage the change process, with close attention to practical, proven strategies from within and outside of higher education.
Spring
0.5 Course Units

EDHE 6010 International Context
The Higher Education in International Contexts course provides students with exposure to issues facing international higher education and uses this exposure to reflect on higher education in the United States. The course will be centered on an experiential field research project. Students will travel to another country to meet and collaborate with higher education leaders there to learn firsthand about the challenges and opportunities associated with developing and transforming higher education. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Summer Term
2 Course Units

EDHE 6015 Research Perspectives Focusing on Successful Research Projects
This Module comprises five conversations about research. The Module's central premise, simply stated, is that truly influential research focuses on a puzzle a researcher wants to solve as elegantly and completely as possible. The module's goals include developing a capacity to identify the specific puzzle a researcher has set out to solve, to judge whether the proposed solution is satisfactory or not, whether the puzzle can or should lead to additional research, and whether the research represents a significant methodological advancement.
Spring
0.33 Course Units
EDHE 6020 Student and Campus Services
A scan of most any American college or university will reveal a wide variety of services, functions and activities offered in support of student learning, student expectations and student life. Such functions include robust athletic and recreation programs, comprehensive health care and comprehensive arts, culture, diversity and community service programs. Many argue the essential nature of these functions; other decry the excessive hand-holding of students and the substantial expense of these services and functions. In this module, students will review the complex landscape of campus services intended predominantly for student support and engagement. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
0.33 Course Units

EDHE 6030 Technology
In this module we will discuss a range of Information Technology goals (and challenges) shared by most colleges and universities, and they may be pursued through local IT infrastructure or services contracted with external entities. We will discuss IT challenges and opportunities especially relevant to the higher education sector, making the practice of IT at a college or university different from IT in most small and large corporations. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall or Spring
0.33 Course Units

EDHE 6040 Higher Education Law
This module explores topics such as contract law, employment law, Constitutional law (freedom of speech, due process, equal protection), tort law (liability for negligence), anti-discrimination laws, and administrative law. The premise of this module is that a successful higher education executive has an understanding of the legal environment in which colleges and universities must function today. The objective of the module is to provide this understanding. From a pragmatic perspective, this knowledge enables a higher education administrator to employ preventive legal strategies in institutional decision-making. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
0.33 Course Units

EDHE 6050 Enrollment Management
Enrollment management is an organizational concept with a varying set of associated strategies for achieving institutional goals. Based on institutional type and mission, these goals can range from increasing and diversifying enrollment to optimizing tuition revenue. The impact of enrollment management over the last several decades has caused institutional leaders and the public to recast their strategic foci and reexamine their values regarding higher education. This course will provide an overview of multiple enrollment management models. Students will be asked to consider the evolution and maturation of these models, the related implications of these organizational structures and strategies, and the benefits and drawbacks of enrollment management on institutions and the marketplace. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
0.33 Course Units

EDHE 6060 Dissertation Workshop I
Designed to support students through the dissertation process, this course will cover topics such as: submitting to the IRB; selecting an analytic strategy; data collection and management; coding and data analysis; and structuring dissertation chapters. Students will us a structured timeline in order to successfully defend their dissertations in the spring of their second year of the program. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
1 Course Unit

EDHE 6070 Higher Ed Entrepreneurship
The purpose of this module is to focus on an emerging future in light of today’s demands, particularly balancing entrepreneurial demands with public purpose objectives. This module asks, 1) what is the future going to hold? and 2) how must college and university leaders respond? Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
0.33 Course Units

EDHE 6080 New Models for Post-Secondary Education
This course will create a foundation to understand the push for reform in higher education, examine in depth several new approaches to post-secondary education in the United States, and develop frameworks for assessing new models of post-secondary education. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
0.33 Course Units

EDHE 6090 Capstone Seminar
The Capstone module offers a culminating experience for students to share and discuss their intellectual and professional experiences in the program and how this has prepared them for the future. It is also an opportunity for students to provide feedback on the curriculum, pedagogy, and other program elements. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0.33 Course Units

EDHE 6100 Advancement
In this course, students will develop an in-depth understanding of institutional advancement and an ability to relate it to the broader management of colleges and universities. The course focuses primarily on how colleges and universities attract voluntary support, and will begin with an overview of advancement and external relations before moving on to fundraising specific issues. The history of fundraising, fundraising theory, fundraising ethics, fundraising tactics and other related topics will be discussed. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0.33 Course Units

EDHE 6110 Teaching and Learning
Through this course, students will be able to articulate the importance of student learning from a variety of perspectives; explain the role of organizational culture and how it interfaces with student learning; understand how issues of diversity and inclusive excellence support student learning; clarify what responsibilities administrators have as campus leaders to ensure student learning; identify existing barriers to student learning; and develop strategies to overcome those barriers. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0.33 Course Units
EDHE 6120 Negotiating & Bargaining
Through role-plays and exercises in class, the module addresses conflict management and negotiations through focusing on behavioral skills rather than substantive knowledge, putting relatively straightforward conceptual material to use in the context of real situations. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0.33 Course Units
EDHE 6130 Dissertation Workshop II
The purpose of this module is to build on and explore additional topics presented in Dissertation Workshop I. Designed to support students through the dissertation process, this course will cover topics such as: submitting to the IRB; selecting an analytic strategy; data collection and management; coding and data analysis; and structuring dissertation chapters. Students will use a structured timeline in order to successfully defend their dissertations in the spring of their second year of the program. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
1 Course Unit
EDHE 6140 Ethics and Leadership
This module introduces some models of organizational and leadership ethics and uses case discussions and personal experiences to explore and better understand the ethical dilemmas that face leaders in higher education. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Spring
0.33 Course Units
EDHE 6150 Leadership and Change for Higher Education's Future
Most discussions of higher education's future focus on key and familiar trends- demographics, technology, funding, new organizational models, etc. While each trend will affect higher education, the reality is that leaders will face a multitude of challenges simultaneously and those trends will interact with each other. How can higher education leaders explore those trends and issues sufficiently and begin to prepare for how, as a set, they may impact higher education? Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall
0.33 Course Units
EDHE 6160 Advanced Topics in Higher Education Management III
Seminar on special topics on higher education. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
0.33 Course Units
EDHE 6170 Community Colleges
This module examines the historical origins, evolving mission, programmatic similarities and differences, demographics, performance, finances, governance, and presidential leadership of U.S. community colleges. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
0.33 Course Units
EDHE 6180 Virtual Distance Learning
In this course, you will experience Virtual Distance Analytics by participating in the Virtual Distance Index Assessment, receive your own Virtual Distance Management Report, detailing where Virtual Distance is most likely impacting you and your organization as well as content to master Virtual Distance in order to reduce and manage it over time for better educational outcomes. You will learn new leadership skills and core competencies to enhance your effectiveness in the Digital Age and help your students maximize their educational potential during this process of digital transformation. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
0.33 Course Units
EDHE 6190 Quality/Risk Management
This module will focus on what leaders can do to induce a culture of quality within an academic environment. This course is only for students enrolled in the Higher Education Management executive program. Prerequisite: Enrollment in Executive Doctorate in Higher Education Management.
Fall or Spring
0.33 Course Units

Education - Independent School Teaching Residency (EDPR)
These courses are only for students enrolled in the Independent School Teaching Residency Program.

EDPR 5010 Social Foundations of Independent Schools I
This course examines the purposes of school and focuses specifically on the role of independent schools in American education. The course examines the independent school from philosophical, historical, and sociological perspectives. The course focuses on the role of school mission and examines how different stakeholders in the school experience the mission. In this course the student perspective is examined. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Summer Term
0.5 Course Units
EDPR 5010A Social Foundations of Independent Schools I
This course examines the purposes of school and focuses specifically on the role of independent schools in American education. The course examines the independent school from philosophical, historical, and sociological perspectives. The course focuses on the role of school mission and examines how different stakeholders in the school experience the mission. In this course the student perspective is examined. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Summer Term
0-0.5 Course Units
EDPR 5010B Social Foundations of Independent Schools I
This course examines the purposes of school and focuses specifically on the role of independent schools in American education. The course examines the independent school from philosophical, historical, and sociological perspectives. The course focuses on the role of school mission and examines how different stakeholders in the school experience the mission. In this course the student perspective is examined. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Summer Term
0-0.5 Course Units
EDPR 5010C Social Foundations of Independent Schools I
This course examines the purposes of school and focuses specifically on the role of independent schools in American education. The course examines the independent school from philosophical, historical, and sociological perspectives. The course focuses on the role of school mission and examines how different stakeholders in the school experience the mission. In this course the student perspective is examined. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Summer Term
0-0.5 Course Units

EDPR 5020 Introduction to Teaching as Inquiry
This course explores foundations of learning theory and pedagogy, covering classic theories of learning through the latest research in brain science. These theories are put into action around building the teachers capacity to provide effective feedback, construct effective learning environments, plan instruction, and implement instructional strategies. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Summer Term
0.5 Course Units

EDPR 5030 Learning Theory and Instructional Design I
Building off what was learned in in EDPR 502, this course continues an exploration on curricular planning and instructional practice by focusing on Understanding by Design as a planning framework and builds the teachers capacity to observe classroom activity to analyze the effectiveness of learning in that classroom. The course continues to build the teacher’s capacity to improve instructional practice with a focus on the implementation of instructional activities. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0.5 Course Units

EDPR 5030A Learning Theory and Instructional Design I
Building off what was learned in in EDPR 502, this course continues an exploration on curricular planning and instructional practice by focusing on Understanding by Design as a planning framework and builds the teachers capacity to observe classroom activity to analyze the effectiveness of learning in that classroom. The course continues to build the teacher’s capacity to improve instructional practice with a focus on the implementation of instructional activities. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0-0.5 Course Units

EDPR 5030B Learning Theory and Instructional Design I
Building off what was learned in in EDPR 5020, this course continues an exploration on curricular planning and instructional practice by focusing on Understanding by Design as a planning framework and builds the teachers capacity to observe classroom activity to analyze the effectiveness of learning in that classroom. The course continues to build the teacher’s capacity to improve instructional practice with a focus on the implementation of instructional activities. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0-0.5 Course Units

EDPR 5040 Field Seminar I
This course carries credit for the weekly school-based course for the fall of the 1st year. During this course, which functions as a field seminar, fellows receive focused support around planning, grading, assessment, and other school duties such as coaching and advising. This course also supports students to observe other members of the school community and learn from school-based experts in counseling, learning differences, and diversity. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0.5 Course Units

EDPR 5040A Field Seminar I
This course carries credit for the weekly school-based course for the fall of the 1st year. During this course, which functions as a field seminar, fellows receive focused support around planning, grading, assessment, and other school duties such as coaching and advising. This course also supports students to observe other members of the school community and learn from school-based experts in counseling, learning differences, and diversity. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0-0.5 Course Units

EDPR 5040B Field Seminar I
This course carries credit for the weekly school-based course for the fall of the 1st year. During this course, which functions as a field seminar, fellows receive focused support around planning, grading, assessment, and other school duties such as coaching and advising. This course also supports students to observe other members of the school community and learn from school-based experts in counseling, learning differences, and diversity. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0-0.5 Course Units

EDPR 5060 Reflective Practice in Schools I
This course carries the credit for online theory to practice sessions in the fall of the 1st year. During these sessions, students follow a protocol in which they engage in a process of instructional rounds that involve 1) readings about the focal topic 2) sharing video of classroom practice 3) observing video of other teachers in their cohort and 4) meeting with other fellows in the program to discuss their analysis of the videos shared with one another. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0-0.5 Course Units

EDPR 5060A Reflective Practice in Schools I
This course carries the credit for online theory to practice sessions in the fall of the 1st year. During these sessions, students follow a protocol in which they engage in a process of instructional rounds that involve 1) readings about the focal topic 2) sharing video of classroom practice 3) observing video of other teachers in their cohort and 4) meeting with other fellows in the program to discuss their analysis of the videos shared with one another. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0-0.5 Course Units
EDPR 5060B Reflective Practice in Schools I
This course carries the credit for online theory to practice sessions in the fall of the 1st year of instruction. During these sessions, students follow a protocol in which they engage in a process of instructional rounds that involve 1) readings about the focal topic 2) sharing video of classroom practice 3) observing video of other teachers in their cohort and 4) meeting with other fellows in the program to discuss their analysis of the videos shared with one another. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0-0.5 Course Units

EDPR 5070A Sci Fdnts Of Ind Sch II
This course is a continuation of EDPR 501, examining the purposes of school and focuses specifically on the role of independent schools in American education. The course examines the independent school from philosophical, historical, and sociological perspectives. The course focuses on the role of school mission and examines how different stakeholders in the school experience the mission. In this course the faculty and administrator perspectives are examined. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0.5 Course Units

EDPR 5070B Sci Fdnts Of Ind Sch II
This course is a continuation of EDPR 501, examining the purposes of school and focuses specifically on the role of independent schools in American education. The course examines the independent school from philosophical, historical, and sociological perspectives. The course focuses on the role of school mission and examines how different stakeholders in the school experience the mission. In this course the faculty and administrator perspectives are examined. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5080B Adol Dev & Clssrm App
This course builds the teacher's understanding of adolescent risk development dealing with topics such as identity development, risk taking, sexuality, relationships, and racial and ethnic identity development. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5080A Adol Dev & Clssrm App
This course builds the teacher's understanding of adolescent risk development dealing with topics such as identity development, risk taking, sexuality, relationships, and racial and ethnic identity development. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0.5 Course Units

EDPR 5080B Adol Dev & Clssrm App
This course builds the teacher's understanding of adolescent risk development dealing with topics such as identity development, risk taking, sexuality, relationships, and racial and ethnic identity development. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5090 Field Seminar II
This course carries credit for the weekly school-based course for the spring of the 1st year. During this course, which functions as a field seminar, fellows receive focused support around planning, grading, assessment, and other school duties such as coaching and advising. This course also supports students to observe other members of the school community and learn from school-based experts in counseling, learning differences, and diversity. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0.5 Course Units

EDPR 5100A Methods I- World Languages
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5100B Methods I- World Language
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5100 Methods I- World Languages
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0.5 Course Units

EDPR 5110 Methods I- Math
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0.5 Course Units
EDPR 5110A Methods I- Math
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5110B Methods I- Math
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5120 Methods I- Social Studies
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0.5 Course Units

EDPR 5120A Methods I- Social Studies
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5120B Methods I- Social Studies
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5130 Methods I- Science
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0.5 Course Units

EDPR 5130A Methods I- Science
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5130B Methods I- Science
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5140 Methods I- English
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0.5 Course Units

EDPR 5140A Methods I- English
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5140B Methods I- English
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5150 Methods I - Independent Study
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0.5 Course Units
EDPR 5150A Methods I- Independent Study
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5150B Methods I-Independent Study
In the first of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students also focus on planning and implementing small units of instruction (ranging from one to a few days). Prerequisite: Enrollment in Independent School Teaching Residency Program.
Spring
0-0.5 Course Units

EDPR 5160 Reflective Practice in Schools II
Though this course is listed in the fall, the course carries the credit for online theory to practice sessions in the spring of the 1st year of instruction. During these sessions, students follow a protocol in which they engage in a process of instructional rounds that involve 1) readings about the focal topic 2) sharing video of classroom practice 3) observing video of other teachers in their cohort and 4) meeting with other fellows in the program to discuss their analysis of the videos shared with one another. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0.5 Course Units

EDPR 5160A Reflective Practice in Schools II
Though this course is listed in the fall, the course carries the credit for online theory to practice sessions in the spring of the 1st year of instruction. During these sessions, students follow a protocol in which they engage in a process of instructional rounds that involve 1) readings about the focal topic 2) sharing video of classroom practice 3) observing video of other teachers in their cohort and 4) meeting with other fellows in the program to discuss their analysis of the videos shared with one another. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0-0.5 Course Units

EDPR 5160B Reflective Practice in Schools II
Though this course is listed in the fall, the course carries the credit for online theory to practice sessions in the spring of the 1st year of instruction. During these sessions, students follow a protocol in which they engage in a process of instructional rounds that involve 1) readings about the focal topic 2) sharing video of classroom practice 3) observing video of other teachers in their cohort and 4) meeting with other fellows in the program to discuss their analysis of the videos shared with one another. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0-0.5 Course Units

EDPR 6010 Advncd Mthds Of Inq I
This course develops students’ capacity to reflect on their practice and growth as practitioners over the course of the program, examining their own development through the use of rubrics and reflective analysis to build a portfolio that outlines this growth and identifies a plan for continued growth in the future. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Summer Term
0.5 Course Units

EDPR 6010B Advncd Mthds Of Inq I
This course develops students’ capacity to reflect on their practice and growth as practitioners over the course of the program, examining their own development through the use of rubrics and reflective analysis to build a portfolio that outlines this growth and identifies a plan for continued growth in the future. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Summer Term
0-0.5 Course Units

EDPR 6020 Advncd Mthds Of Inq II
This course develops students’ capacity to articulate and investigate an inquiry question about their own practice. The course builds the capacity of the teacher to use qualitative research strategies to systematically investigate and improve elements of their practice that are important to student learning. The course focuses on qualitative modes of inquiry, building researchable questions, and collecting data. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Summer Term
0.5 Course Units

EDPR 6020A Advncd Mthds Of Inq II
This course develops students’ capacity to articulate and investigate an inquiry question about their own practice. The course builds the capacity of the teacher to use qualitative research strategies to systematically investigate and improve elements of their practice that are important to student learning. The course focuses on qualitative modes of inquiry, building researchable questions, and collecting data. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Summer Term
0-0.5 Course Units

EDPR 6020B Advncd Mthds Of Inq II
This course develops students’ capacity to articulate and investigate an inquiry question about their own practice. The course builds the capacity of the teacher to use qualitative research strategies to systematically investigate and improve elements of their practice that are important to student learning. The course focuses on qualitative modes of inquiry, building researchable questions, and collecting data. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Summer Term
0-0.5 Course Units
EDPR 6030 Social Foundations of Independent Schools: Advanced I
This course examines the purposes of school and focuses specifically on the role of independent schools in American education. The course examines the independent school from philosophical, historical, and sociological perspectives. The course focuses on the role of school mission and examines how different stakeholders in the school experience the mission. In this course, the parent perspective is examined. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall 0.5 Course Units

EDPR 6030A Social Foundations of Independent Schools: Advanced I
This course examines the purposes of school and focuses specifically on the role of independent schools in American education. The course examines the independent school from philosophical, historical, and sociological perspectives. The course focuses on the role of school mission and examines how different stakeholders in the school experience the mission. In this course, the parent perspective is examined. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall 0-0.5 Course Units

EDPR 6030B Social Foundations of Independent Schools: Advanced I
This course examines the purposes of school and focuses specifically on the role of independent schools in American education. The course examines the independent school from philosophical, historical, and sociological perspectives. The course focuses on the role of school mission and examines how different stakeholders in the school experience the mission. In this course, the parent perspective is examined. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall 0-0.5 Course Units

EDPR 6040 Advanced Learning Theory I
This course continues a focus on applying learning theory to educational practice, building on EDPR 505. The course supports students to build capacity to: understand the latest research on teaching and learning, provide effective feedback, lead instruction that supports active learning, develop effective classroom learning environments, and plan instruction using the Understanding by Design framework. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall 0.5 Course Units

EDPR 6040B Advanced Learning Theory I
This course continues a focus on applying learning theory to educational practice, building on EDPR 505. The course supports students to build capacity to: understand the latest research on teaching and learning, provide effective feedback, lead instruction that supports active learning, develop effective classroom learning environments, and plan instruction using the Understanding by Design framework. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall 0-0.5 Course Units

EDPR 6050 Advanced Field Seminar I
This course carries credit for the weekly school-based course for the fall of the 2nd year. During this course, which functions as a field seminar, fellows receive focused support around planning, grading, assessment, and other school duties such as coaching and advising. This course also supports students to observe other members of the school community and learn from school-based experts in counseling, learning differences, and diversity. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall 0.5 Course Units

EDPR 6050A Advanced Field Seminar I
This course carries credit for the weekly school-based course for the fall of the 2nd year. During this course, which functions as a field seminar, fellows receive focused support around planning, grading, assessment, and other school duties such as coaching and advising. This course also supports students to observe other members of the school community and learn from school-based experts in counseling, learning differences, and diversity. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall 0-0.5 Course Units

EDPR 6050B Advanced Field Seminar I
This course carries credit for the weekly school-based course for the fall of the 2nd year. During this course, which functions as a field seminar, fellows receive focused support around planning, grading, assessment, and other school duties such as coaching and advising. This course also supports students to observe other members of the school community and learn from school-based experts in counseling, learning differences, and diversity. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall 0-0.5 Course Units

EDPR 6060 Capstone Preparation
At the end of the ISTR program, second-year students are expected to submit a final portfolio in website form to satisfy the requirements for their master's thesis. The goals of this course is to assist students in beginning to develop a vision for their final portfolio. Together, three portfolio check-ins, along with a full portfolio draft, are designed to scaffold this process for students. Spring of Year 2 .5 Credits 0.5 Course Units

EDPR 6070 Sharing Practitioner Research in Professional Settings
The goal of this course is to support students in developing their skills in how to be in continual conversation with other educational professionals. This capstone course requires second-year students to present their work to colleagues across the ISTR schools in order to begin conversations and generate excitement and new questions for students as they enter their post-ISTR professional life. Spring of Year 2 .5 Credits 0.5 Course Units
EDPR 6080 Advanced Field Seminar II
This course carries credit for the weekly school-based course for the spring of the 2nd year. During this course, which functions as a field seminar, fellows receive focused support around planning, grading, assessment, and other school duties such as coaching and advising. This course also supports students to observe other members of the school community and learn from school-based experts in counseling, learning differences, and diversity. Prerequisite: Enrollment in Independent School Teaching Residency Program.

EDPR 6090 Final Master’s Portfolio Seminar
This course requires students in their second year of the ISTR program to demonstrate their learning, reflecting on and discussing their own trajectory as an educator thus far by bringing together artifacts, texts, and experiences from across the three strands of the ISTR program. Broadly, their portfolio will tell the story of who they are as educators and how they have come to be the educator they are today. This course is a core graduation requirement, thus students cannot graduate without a passing grade for the final portfolio.

EDPR 6100 Methods II- World Language
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.

EDPR 6100A Methods II- World Language
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.

EDPR 6100B Methods II- World Language
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.

EDPR 6100 Methods II- Math
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.

EDPR 6100A Methods II- Math
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.

EDPR 6100B Methods II- Math
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.

EDPR 6120A Methods II- Social Studies
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.

EDPR 6120B Methods II- Social Studies
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.

EDPR 6130 Methods II- Science
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.

EDPR 6110 Methods II- Math
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.
EDPR 6130A Methods II- Science
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0.5 Course Units

EDPR 6130B Methods II- Science
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.

EDPR 6140A Methods II- English
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0.5 Course Units

EDPR 6140B Methods II- English
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0.5 Course Units

EDPR 6150A Methods II- Independent Study
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0.5 Course Units

EDPR 6150B Methods II- Independent Study
In the second of two subject methods courses, students focus on foundations of disciplinary knowledge for their subject area. Courses focusing on English, history, mathematics, science, and world languages are offered. In this course, students focus on planning larger units of instruction from one to multiple weeks. Prerequisite: Enrollment in Independent School Teaching Residency Program.
Fall
0.5 Course Units

Education - Medical Education (EDME)

These courses are only available to students in the Medical Education program.

EDME 5010 Applied Learning and Technology in Medical Education
This course is embedded in a block of three courses focusing on learning and technology in medical education. This course focuses on historical and current learning methods and practices, as well as learning technologies in medical education. Topics include the fundamentals of learning theories, effectively applying emerging technologies in medical education, adult learning and development, diversity, inclusion and medical education, and the challenges of teaching/learning in modern academic medicine and within the healthcare context. Prerequisite: Enrollment in Medical Education program.
Summer Term
1 Course Unit

EDME 5020 Learning & Instructional Design in Medical Education
This course is embedded in a block of three courses focusing on learning and technology in medical education. This course focuses on the design and delivery of medical education programs and interventions. Topics include current trends in medical education, pedagogy, curriculum and instructional design, assessment of learning and educational initiatives, and implementation of learning interventions in an uncertain environment. Prerequisite: Enrollment in Medical Education program.
Fall
1 Course Unit

EDME 5030 Managing Technology in Curriculum in Medical Education
This course is embedded in a block of three courses focusing on learning and technology in medical education. This course focuses on selecting, embedding and managing technology in the medical education curriculum. Topics include the role of experiential learning in medical education, simulation, the virtual learning environment and emerging technologies, group dynamics, and the instructor-learner relationship. Prerequisite: Enrollment in Medical Education program.
Fall
1 Course Unit
EDME 5040 Evidence Based Medical Education
This course is embedded in a block of three courses focusing on research in medical education. This course focuses on research and research methods in medical education. Topics include quantitative, qualitative, and mixed methods research design in medical education. Specifically, students will explore the philosophical foundation of research, conducting the literature review, introduction to quantitative and qualitative data collection and analysis, the role of language in research, and developing research questions. Prerequisite: Enrollment in Medical Education program.
Spring
1 Course Unit

EDME 5050 Assessing Medical Instruction
This course is embedded in a block of three courses focusing on research in medical education. This course focuses on research and research methods to measure the effectiveness of medical education practices. Topics include assessment of learning outcomes, how to critically evaluate medical education research, evaluating the impact of learning interventions, and evidence-based decision making. Prerequisite: Enrollment in Medical Education program.
Spring
1 Course Unit

EDME 5060 Evidence Based Medical Education II
This course is embedded in a block of three courses focusing on research in medical education. This course focuses on advanced topics in research and research methods in medical education, as well as the development of medical educator skills. Specific topics include advanced quantitative, qualitative, and mixed methods research skills, and medical educator skills (e.g., story development, coaching, remediation and feedback, and presentation skills). Prerequisite: Enrollment in Medical Education program.
Summer Term
1 Course Unit

EDME 6010 Leadership Skills in Education
This course is embedded in a block of three courses focusing on leadership in healthcare and medical education. This course focuses on leadership theories, models, and skills. Topics include a historical review of leadership theories and models, as well as an exploration of current research on leading education in organizations. Students will explore the competency-based approach to understanding effective leadership, emotional intelligence, employee engagement and happiness at work, and team dynamics as they relate to the medical education context. Prerequisite: Enrollment in Medical Education program.
Summer Term
1 Course Unit

EDME 6020 Leadership Effectiveness in Medical Education
This course is embedded in a block of three courses focusing on leadership in healthcare and medical education. This course focuses on individual leadership development and will provide students with experiences, perspectives, and theories that will enable them to better understand themselves in the context of a diverse, changing world and a rapidly changing industry. Topics covered include adult development, adult learning, perception, bias, diversity and inclusion, emotional and social intelligence, and the role of values and ethics in leadership. Prerequisite: Enrollment in Medical Education program.
Fall
1 Course Unit

EDME 6030 Directing Education Programs
This course is embedded in a block of three courses focusing on leadership in healthcare and medical education. This course focuses how to lead medical education in a complex organization embedded in a complex and changing industry. Students will explore a systems perspective of organizational effectiveness, focusing on current research and practices in the areas of organizational culture, organizational change, organizational effectiveness, and organizational diagnosis. Prerequisite: Enrollment in Medical Education program.
Fall
1 Course Unit

EDME 6040 Capstone: Leadership in Medical Education I
This course focuses on academic and practical skills needed to prepare students for the final Capstone assignment, inclusive of all elements of the masters thesis portfolio. Specific topics include influencing across cultural boundaries in organizations, building teams to create sustainable change, and advanced medical educator skills (e.g., story development, coaching, remediation and feedback, and presentation skills). Prerequisite: Enrollment in Medical Education program.
Spring
1 Course Unit

Education - Mid-Career Educational & Organizational Leadership (EDMC)
These courses are only for students enrolled in the Mid-Career Doctoral Program in Educational & Organizational Leadership.

EDMC 5000 Mid-Career Educational Leadership Experimental Course
This topic course explores multiple and different aspects of Mid-Career Educational Leadership. Specific course topics vary from year to year. Consult with the program for current course offerings.
0.5-1 Course Unit

EDMC 5000A Mid-Career Educational Leadership Experimental Course
This topic course explores multiple and different aspects of Mid-Career Educational Leadership. Specific course topics vary from year to year. Consult with the program for current course offerings.
Not Offered Every Year
0-1 Course Unit

EDMC 5000B Mid-Career Educational Leadership Experimental Course
This topic course explores multiple and different aspects of Mid-Career Educational Leadership. Specific course topics vary from year to year. Consult with the program for current course offerings.
Not Offered Every Year
0-1 Course Unit

EDMC 6010 Leading Teams and Fostering Learning Communities
This module is designed to help students learn what is known about teams and team leadership. It will be both research and case based. Drawing on the research literature, it will help students understand the nature of the different kinds of work teams are asked to do and how teams may be structured for effectiveness, depending on their objectives. Students will be asked to examine cases that reflect different objectives and different designs. Through a field-based assignment and other experiential learning opportunities, particular emphasis will be given to the various kinds of teams and groups principals, heads of schools, superintendents and others associated with the educational enterprise must work with and lead.
Summer Term
0.5 Course Units
EDMC 6020 Social Foundations of Education
In this module, you will have the opportunity to scrutinize the ethical, political, and philosophical principles underlying our educational practices. In the first session we will consider competing visions of the goals and aims of education. We will then explore various proposals for the scope and content of schooling in a democratic and multicultural society, and some of the challenges that arise therein. We will conclude with normative frameworks and conceptual resources that will enable you to translate abstract and philosophical thinking into effective and thoughtful action. Throughout the course you will learn how to read historical and contemporary works of scholarship with analytical precision, how to distill complex ideas for a wider and non-specialist audience, and how to reason thoughtfully with others about ethically and politically contested issues.
Summer Term
0.5 Course Units

EDMC 6040 Online Research and Writing
Independent writing and research time for students. Supported by writing coach.
Summer Term
1.5 Course Unit

EDMC 6050A Frameworks for Understanding Literacy, Teaching & Learning
Designed as a collaborative inquiry, this module will provide a range of contexts for exploring the nature and purposes of literacy education in the 21st century. Individually and collectively, we will unpack the “conceptual frameworks”—the images, practices, assumptions, and beliefs—that structure our understanding of what it means to teach and learn literacy in various settings. We will “read” critically the current literature, classroom and school practices, as well as the public/policy discourse about literacy. From our reading, writing and talking, we hope to develop richer and more compelling understandings of what counts as literacy teaching and learning in order to pursue important issues about leadership for literacy learning. Our process will entail investigation into your literacy history/herstory, various educational settings, and current policies related to literacy education - with an emphasis on considering questions that are most pertinent to your current workplace and career aspirations.
Two Term Class, Student may enter either term; credit given after both terms are complete
0.25 Course Units

EDMC 6050B Frameworks for Understanding Literacy, Teaching & Learning
Designed as a collaborative inquiry, this module will provide a range of contexts for exploring the nature and purposes of literacy education in the 21st century. Individually and collectively, we will unpack the “conceptual frameworks”—the images, practices, assumptions, and beliefs—that structure our understanding of what it means to teach and learn literacy in various settings. We will “read” critically the current literature, classroom and school practices, as well as the public/policy discourse about literacy. From our reading, writing and talking, we hope to develop richer and more compelling understandings of what counts as literacy teaching and learning in order to pursue important issues about leadership for literacy learning. Our process will entail investigation into your literacy history/herstory, various educational settings, and current policies related to literacy education - with an emphasis on considering questions that are most pertinent to your current workplace and career aspirations.
Two Term Class, Student may enter either term; credit given after both terms are complete
0.25 Course Units

EDMC 6060 Exploring Frameworks for Learners and Learning
This module will use a contextual approach to examine individual developmental issues across the life-course, specifically learner’s identities and pathways to learning. In addition to investigating how children learn at school, home, and in their communities, students in the course will become their own units of analyses. It is sometimes advantageous in fields of education and social science to regard oneself and life experiences as a point of departure in order to make sense of larger social forces. To that end, we will reflect on our own learning at different points throughout our lives and within a variety of social and educational contexts. This approach assumes that educational leaders might better understand and respond to developmental issues and identity formation of teachers and students by (re)examining our own biographies as learners and professionals and the interconnectedness of these roles and the expectations associated with them.
Fall
0.5 Course Units

EDMC 6070 Qualitative Research Methods I
This year-long course will introduce students to the foundations, theories, methods, and practices of qualitative inquiry broadly and practitioner research specifically. This course is intended to teach students, who are educational leaders, what research is, both historically and currently, and in terms of its promise for guiding informed, inquiry-based practices, including the practices of change and reform. Further, this course is designed to prepare students to conduct qualitative research in their own educational or community-based settings. Students will be guided through a systematic and self-reflective process of learning to become reflective, ethical, and critical researchers. Students will be supported as they develop a theoretically strong practice of qualitative research that is directly informed by their own professional experiences, questions, and contexts.
Fall
0.5 Course Units
EDMC 6080 Quantitative Methods I
This module focuses on the use of statistics for analyzing numerical data from educational contexts. The course materials and assignments are designed to help you gain the skills and knowledge required to plan and conduct high quality quantitative research. As such, the curriculum for this course focuses on the statistical methods most frequently used in education research and provides examples of the application of these methods using real data. This is an applied methods course, so the content will not be highly technical. While we will discuss some of the details of the mathematics behind statistics, we will place much more emphasis on understanding the concepts behind the statistics. What does each method do? How does it work? How do we interpret the results?
Fall
0.5 Course Units

EDMC 6100 Public Leadership: Philosophy
In the US and many other countries, schools are often seen as having a responsibility to prepare students for citizenship in the nation or the world. So how does and should school prepare students for citizenship? In this module we will examine citizenship as a key aim of schooling. The tensions around this and other aims of schooling, the accommodation of difference, and the role of patriotism in education will be explored in relation to the preparation of the next generation of citizens. The overarching goal of the module is to explore how philosophy and theory concerning civic education can be used as a tool to deepen and contextualize problems that educational leaders encounter. The practical skills we will seek to build involve using academic and philosophical writing to analyze (in discourse and in writing) questions at the intersection of civic education and school leadership.
Fall
0.5 Course Units

EDMC 6110 Understanding Race and Politics
Using a culturally responsive philosophical world view and a racial socialization framework, this course will cover theoretical frames for shifting educational leaders’ assessment, engagement, and processing, and problem-solving of racial tension within educational contexts. The course will follow a self-development, emotions processing and interactive role-playing format where participants will offer experience from their own schooling and employment challenges where racial politics are at play. This course fits within the Understanding Context, Self, Others, Vision & Direction theme of the Mid-Career program. The objectives of this course include helping students to develop useful knowledge on racial literacy and practice of racial negotiation skills in the following areas: theorizing about managing racial politics in urban schooling, identifying the impact of racial microaggressions on psychological adjustment, applying problem-solving strategies to address racial tensions in relationships, policies, and curricula.
Spring
0.5 Course Units

EDMC 6120 Introduction to Education Research
This course is designed as a seminar that will introduce incoming Mid-Career doctoral students to reading, critiquing, and conceptualizing rigorous research in education. Quantitative, qualitative, and mixed methods examples of thoughtful, systematic, and well-executed research will be carefully examined. These texts will be analyzed in detail as a way to prepare students to understand and synthesize such research in their professional lives, other coursework, and later, for their dissertations and in their leadership as a whole. In particular, students will learn about the construction of effective research questions, the major quantitative and qualitative approaches to educational research, and what inferences can (and cannot) be made from the most common research designs. Students will also examine assumptions that underlay research questions in terms of sets of relationships between core concepts and processes, correlation, causation, and so on.
Spring
0.5 Course Units

EDMC 6130 Quantitative Methods II
This module focuses on the use of statistics for analyzing numerical data from educational contexts. The course materials and assignments are designed to help you gain the skills and knowledge required to plan and conduct high quality quantitative research. As such, the curriculum for this course focuses on the statistical methods most frequently used in education research and provides examples of the application of these methods using real data. This is an applied methods course, so the content will not be highly technical. While we will discuss some of the details of the mathematics behind statistics, we will place much more emphasis on understanding the concepts behind the statistics. We will investigate what each method does, how it works, and how we interpret the results.
Spring
0.5 Course Units

EDMC 6130A Quantitative Methods II
This module focuses on the use of statistics for analyzing numerical data from educational contexts. The course materials and assignments are designed to help you gain the skills and knowledge required to plan and conduct high quality quantitative research. As such, the curriculum for this course focuses on the statistical methods most frequently used in education research and provides examples of the application of these methods using real data. This is an applied methods course, so the content will not be highly technical. While we will discuss some of the details of the mathematics behind statistics, we will place much more emphasis on understanding the concepts behind the statistics. We will investigate what each method does, how it works, and how we interpret the results.
Spring
0-0.5 Course Units
EDMC 6130B Quantitative Methods II
This module focuses on the use of statistics for analyzing numerical data from educational contexts. The course materials and assignments are designed to help you gain the skills and knowledge required to plan and conduct high quality quantitative research. As such, the curriculum for this course focuses on the statistical methods most frequently used in education research and provides examples of the application of these methods using real data. This is an applied methods course, so the content will not be highly technical. While we will discuss some of the details of the mathematics behind statistics, we will place much more emphasis on understanding the concepts behind the statistics. We will investigate what each method does, how it works, and how we interpret the results.
Summer Term
0-0.5 Course Units

EDMC 6140 Qualitative Research Methods II
This year-long course will introduce students to the foundations, theories, methods, and practices of qualitative inquiry broadly and practitioner research specifically. This course is intended to teach students, who are educational leaders, what research is, both historically and currently, and in terms of its promise for guiding informed, inquiry-based practices, including the practices of change and reform. Further, this course is designed to prepare students to conduct qualitative research in their own educational or community-based settings. Students will be guided through a systematic and self-reflective process of learning to become reflective, ethical, and critical researchers. Students will be supported as they develop a theoretically strong practice of qualitative research that is directly informed by their own professional experiences, questions, and contexts.
Spring
0.5 Course Units

EDMC 6140A Qualitative Research Methods II
This year-long course will introduce students to the foundations, theories, methods, and practices of qualitative inquiry broadly and practitioner research specifically. This course is intended to teach students, who are educational leaders, what research is, both historically and currently, and in terms of its promise for guiding informed, inquiry-based practices, including the practices of change and reform. Further, this course is designed to prepare students to conduct qualitative research in their own educational or community-based settings. Students will be guided through a systematic and self-reflective process of learning to become reflective, ethical, and critical researchers. Students will be supported as they develop a theoretically strong practice of qualitative research that is directly informed by their own professional experiences, questions, and contexts.
Spring
0-0.5 Course Units

EDMC 6140B Qualitative Research Methods II
This year-long course will introduce students to the foundations, theories, methods, and practices of qualitative inquiry broadly and practitioner research specifically. This course is intended to teach students, who are educational leaders, what research is, both historically and currently, and in terms of its promise for guiding informed, inquiry-based practices, including the practices of change and reform. Further, this course is designed to prepare students to conduct qualitative research in their own educational or community-based settings. Students will be guided through a systematic and self-reflective process of learning to become reflective, ethical, and critical researchers. Students will be supported as they develop a theoretically strong practice of qualitative research that is directly informed by their own professional experiences, questions, and contexts.
Summer Term
0-0.5 Course Units

EDMC 6150A Public Leadership: History
This module will examine how Americans have used their public schools to make citizens, from the birth of the republic into the present. By 1850, the United States sent a greater fraction of its children to school than any other nation on earth. Why? What did young people learn there? And, most of all, how did these institutions both reflect and shape our evolving conceptions of America itself?
Two Term Class, Student may enter either term; credit given after both terms are complete
0.25 Course Units

EDMC 6150B Public Leadership: History
This module will examine how Americans have used their public schools to make citizens, from the birth of the republic into the present. By 1850, the United States sent a greater fraction of its children to school than any other nation on earth. Why? What did young people learn there? And, most of all, how did these institutions both reflect and shape our evolving conceptions of America itself?
Two Term Class, Student may enter either term; credit given after both terms are complete
0.25 Course Units

EDMC 6160 Leadership Seminar: Theory & Cases
This seminar is an opportunity to examine the challenges of leading organizational change. Central to enhancing one's leadership practice is the deepening of one's competency to frame and reframe challenges. At heart, this module is meant to raise questions and considerations around how we formulate problems and understand challenges and their potential solutions. It also aims to expand our understanding of interdisciplinary and cross-sector considerations in how we understand leadership and leading change. The format of this module intentionally brings together varying perspectives on leadership practice through four separate sessions taught by different instructors. The goal of the seminar is to help you further develop and build increased reframing skills. Conceptual frames will include change management theories, equity/social justice, and other recent leadership theory.
Spring
0.5 Course Units
EDMC 6170 Exploring/Enacting Leadership for STEM
Broken into two parts, students will more deeply study and examine leadership in math and science, respectively. The goal of this integrated “non-module” is to provide you opportunities to explore leadership “problems of practice” related to math and science curriculum and instruction in your organization or for those you serve. Rather than participating in a traditional course, you will join a working group focused on a contemporary, practical challenge related to each subject area that education leaders must address. Your working group will develop a plan to address the challenge, implement the plan, and will then share with the rest of the cohort and community the product of your research and analysis. In the style of problem-based learning, you will be introduced to key readings and concepts in the fields of both math and science education through taking on the activities of the working group.
Spring
0.5 Course Units

EDMC 6170A Exploring/Enacting Leadership for STEM
Broken into two parts, students will more deeply study and examine leadership in math and science, respectively. The goal of this integrated “non-module” is to provide you opportunities to explore leadership “problems of practice” related to math and science curriculum and instruction in your organization or for those you serve. Rather than participating in a traditional course, you will join a working group focused on a contemporary, practical challenge related to each subject area that education leaders must address. Your working group will develop a plan to address the challenge, implement the plan, and will then share with the rest of the cohort and community the product of your research and analysis. In the style of problem-based learning, you will be introduced to key readings and concepts in the fields of both math and science education through taking on the activities of the working group.
Spring
0.5 Course Units

EDMC 6170B Exploring/Enacting Leadership for STEM
Broken into two parts, students will more deeply study and examine leadership in math and science, respectively. The goal of this integrated “non-module” is to provide you opportunities to explore leadership “problems of practice” related to math and science curriculum and instruction in your organization or for those you serve. Rather than participating in a traditional course, you will join a working group focused on a contemporary, practical challenge related to each subject area that education leaders must address. Your working group will develop a plan to address the challenge, implement the plan, and will then share with the rest of the cohort and community the product of your research and analysis. In the style of problem-based learning, you will be introduced to key readings and concepts in the fields of both math and science education through taking on the activities of the working group.
Summer Term
0-0.5 Course Units

EDMC 7010 Proseminar I (Research Methods)
The goal of this course is to support you in your first steps toward forming your dissertation proposal. Beginning this process can be daunting for many doctoral students, but the clearer you are in articulating your research questions and the more knowledgeable you are about the research literature informing your questions, the more successful you will be in efficiently completing a strong proposal. To this end, we will focus on the relationship between reviewing the research literature, developing a conceptual framework, asking researchable questions, and choosing appropriate methods for addressing such questions.
Summer Term
0.5 Course Units

EDMC 7020 Leadership and Emotional Intelligence
The Leadership and Emotional Intelligence Module will focus on concepts and practices that will enable you to become a great leader. Through the study of social and emotional intelligence, you will become familiar with competencies that actually work in the real world of organizations and institutions. You will learn how these concepts have been identified, how they can be applied, and how to develop them in yourself and others. As part of the course, you will engage in reflective exercises that enable you to focus specifically on your own leadership - your strengths, your weaknesses, your vision for yourself as a person and as a professional, and how you plan to realize this vision and your goals.
Summer Term
0.5 Course Units

EDMC 7030 Public Policy Workshop I
This course will be an in-depth, intensive examination of educational policy and politics in American schooling. We will explore major policy issues and practices that influence the experiences of teachers and children in educational institutions while locating educational politics in larger social policy contexts. Students will develop their skills for policy inquiry through analysis of the development, implementation, evaluation, and revision of policy initiatives and explore how policy issues are experienced within school sites. In addition, students will deepen their understandings of the roles of the federal, state, and local government in education, and will broaden their understanding and familiarity with major interest groups that have influence (formal and informal) over the politics of education. Finally, students will assess how competing values, preferences and purposes in education influence the ways in which we assess and evaluate educational policy. We will center issues of race, racism, and justice each day.
Summer Term
0.5 Course Units

EDMC 7040 Online Research and Writing
Independent writing and research time for students. Supported by writing coach.
Summer Term
1 Course Unit

EDMC 7050 Public Leadership: Social Contexts
This module will focus on conceptual, pedagogical, and practical issues typically studied under the headings, social context and social capital. It will examine families as a particular cultural and social context in which learning takes place and in which learners are engaged and engage others. Class meetings will be designed around essential questions that will serve as themes for our reflections and discussions over the course of the module.
Summer Term
0.5 Course Units
EDMC 7070A Educational Brand Management
This class experience is designed to provide experienced educational leaders with the requisite skills and knowledge necessary to design, implement and manage a brand identity for educational organizations, primarily schools or school districts. Successful branding is a comprehensive management issue. In schools, proactive and successful brand management builds financial and emotional value that enables success for the school or school district.
Two Term Class, Student may enter either term; credit given after both terms are complete
0.25 Course Units

EDMC 7070B Educational Brand Management
This class experience is designed to provide experienced educational leaders with the requisite skills and knowledge necessary to design, implement and manage a brand identity for educational organizations, primarily schools or school districts. Successful branding is a comprehensive management issue. In schools, proactive and successful brand management builds financial and emotional value that enables success for the school or school district.
Two Term Class, Student may enter either term; credit given after both terms are complete
0.25 Course Units

EDMC 7080 Research Proposal & Instrument Design I
In the first module, students will receive structured assistance as they develop a solid research plan that includes refining their research questions’ theoretical framework, identify and marshal literature in support of the planned study, devise a research design, identify and/or construct instruments to collect data, and produce a plan for analysis. Ideally, the first module will culminate in the completion of the dissertation proposal. The second module will focus on data collection and analysis as well as study implications. The two modules in this course are designed to provide structured support to students as they proceed with their dissertation work. While there will be didactic instruction on selected topics, significant time will be spent in small groups iteratively and collaboratively working through common challenges that students face in developing an empirical piece of research that emerges from their practice.
Fall
0.5 Course Units

EDMC 7090 Online Research and Writing
Independent writing and research time for students. Supported by writing coach. Prerequisite: Enrollment in Mid-Career Doctoral Program in Educational Leadership.
Fall
1 Course Unit

EDMC 7100 Organizational Diagnostics
We will explore sociological theories of organization in order to develop our diagnostic knowledge of how classrooms, schools, and education systems function. Our approach will be to consider foundational theoretical works alongside recent empirical applications. We will use case studies to help illuminate our understanding. In order to ground these concepts, students will diagnose cultural, political, and institutional facets of an educational organization.
Fall
0.5 Course Units

EDMC 7110 Engaging the Polis and Public of U.S. School Reform Landscape I
This module starts from the premise that schools are not only educational, but also social, political, and physical infrastructure. As such, they influence and are influenced by factors outside the traditional bounds of "education." In this course, we will use the frameworks, tools, and knowledge from planning and urban studies to turn a spatial lens on schools. We will grapple with the "place" of schooling within neighborhoods, cities, and regions. Substantively, we examine non-school arenas (i.e., housing, transportation, neighborhood development) and the ways these contextual factors set conditions for learning. We practice using specific tools and methods to make sense of schools in space and as place-based institutions. Additionally, having analysis of the what is necessary but never sufficient; we also have to think about the how.
To that end, we explore strategies for cross-sector collaboration across organizations, agencies, and with community and student stakeholders. We anchor discussions and make sense of readings and concepts in problems you identify from your practice. Through class meetings, course assignments, and multiple modes for learning, you will think about and share how concepts and tools from outside education inform and transform your own practice as an educator, administrator, and scholar.
Spring
0.5 Course Units

EDMC 7120 Data Informed Inquiries
The goal of this module is to learn to apply the concept of data informed improvement into our daily practice. The field of educational improvement shares a set of goals, frameworks, and methods with other fields like organizational learning in sociology, continuous improvement in business and evidence-informed improvements in medicine. Each of these fields has its own set of frameworks and language to describe the improvement process, but they are all based on the notion of using data to inform continuous learning and improvement.
Spring
0.5 Course Units

EDMC 7130 Research Proposal & Instrument Design II
In the first module, students will receive structured assistance as they develop a solid research plan that includes refining their research questions’ theoretical framework, identify and marshal literature in support of the planned study, devise a research design, identify and/or construct instruments to collect data, and produce a plan for analysis. Ideally, the first module will culminate in the completion of the dissertation proposal. The second module will focus on data collection and analysis as well as study implications. The two modules in this course are designed to provide structured support to students as they proceed with their dissertation work. While there will be didactic instruction on selected topics, significant time will be spent in small groups iteratively and collaboratively working through common challenges that students face in developing an empirical piece of research that emerges from their practice.
Spring
0.5 Course Units
EDMC 7140 Creating Contexts for Teacher Learning and Leadership
Learning and leadership are important to the growth of all institutions, especially schools. To meet the complexities and challenges in a profession marked by ongoing change requires that students, teachers, and all school leaders be ongoing learners. This module will be a collaborative inquiry into teacher learning and leadership and related implications for leading in a school, district, or other educational organization. It will build upon your work in other strands of the program, especially the Instructional Strand where you have been taking up current perspectives on teaching and learning in various subjects and exploring promising ways to enhance educational leadership as it relates to instruction.
Spring
0.5 Course Units

EDMC 7160 Online-Research and Writing
Independent writing and research time for students. Supported by writing coach. Prerequisite: Enrollment in Mid-Career Doctoral Program in Educational Leadership.
Spring
0.5 Course Units

EDMC 7170 Organizational Theory
This module examines schools as organizations and leadership within these organizations to address fundamental questions regarding how organizations come to be, persist, and/or change. Over the semester, we will grapple with questions regarding when and under what conditions do leaders effect meaningful organizational change. Students will be asked to reflect on their own leadership experiences inside organizations as well as potential changes to their approaches. In this way, students will gain knowledge and skills regarding the structures of educational organizations and the enabling and constraining conditions for leadership.
Fall
0.5 Course Units

EDMC 7180 Instructional Technology
What does it mean to integrate technology into instruction? What is “technology”? Is it limited to the latest digital devices – computers, tablets, smartphones, and 3D printers? Or is it something more broad – the tools we use to augment spaces and practices for teaching and learning? We may agree that a laptop is a technology, but what about the technical innovations that enchanted policymakers, school leaders, and teachers of the past: moveable desks, overhead projectors, personal chalkboards, bell-schedules, or pencils? Even if we were to resolve these tensions, we are still left with the question of “integration.” What is it we integrate when we bring technologies into schools and classrooms? Are we integrating tools to be pedagogical resources – that is, as instruments to aid in making instruction more efficient or effective? Or are we integrating them to keep up with the demands of a changing world – one where students are expected to be prepared for “jobs that don’t yet exist” or to adapt to shifting standards for college- and career-readiness? How we answer such questions will undoubtedly shape our approach to technological integration. This module is designed as a shared inquiry into such questions and the beliefs and assumptions that condition our own (and others’) ways of addressing them. It involves exploration and analysis of historical and contemporary ideas about instructional technology, as well as the development of practical applications for such theories. Our focus will be on K–12 contexts; however, we will also consider how relevant experiences and practices with technologies outside of schools are related to what happens within.
Fall
0.5 Course Units

EDMC 7190A Leadership for Humanities
This course builds on previous learning in the “Frameworks for Understanding Literacy Teaching and Learning” module. After having encountered a range of perspectives about the nature of literacy (with an emphasis on literacy as critical social practice), we will examine the links between educational leadership and literacy teaching and learning, extending considerations to further explore connections between leadership and social studies teaching and learning in the latter portion of the course. Seeing leadership as a shared enterprise, we will explore the core elements of a distributed perspective on leadership for humanities at every level with a district/school community.
Two Term Class, Student may enter either term; credit given after both terms are complete
0.25 Course Units

EDMC 7190B Leadership for Humanities
This course builds on previous learning in the “Frameworks for Understanding Literacy Teaching and Learning” module. After having encountered a range of perspectives about the nature of literacy (with an emphasis on literacy as critical social practice), we will examine the links between educational leadership and literacy teaching and learning, extending considerations to further explore connections between leadership and social studies teaching and learning in the latter portion of the course. Seeing leadership as a shared enterprise, we will explore the core elements of a distributed perspective on leadership for humanities at every level with a district/school community.
Two Term Class, Student may enter either term; credit given after both terms are complete
0.25 Course Units

EDMC 8010 Proseminar II: Data Analysis and Reporting
The goals of this module are twofold. First, it aims to provide students with a set of practical skills for making sense of qualitative and mixed data. Students will practice organizing and coding qualitative data, use various techniques to develop hypotheses and draw conclusions based on data, and apply these skills to their own dissertation research. Second, this module seeks to enable each student to make significant progress on his/her research over the course of the week.
Summer Term
0.5 Course Units

EDMC 8030 Dissertation/Research
Dedicated dissertation research hours in year three of the program. Prerequisite: Enrollment in Mid-Career Doctoral Program in Educational Leadership.
Summer Term
2 Course Units

EDMC 8050A Inquiry Seminar
The purpose of the Inquiry Community session is two-fold: to provide students with assistance with problems that occur in the process of doing qualitative or quantitative data analysis and to develop reflective processes for examining data that students can use in their settings of practice. The sessions should serve the practical purpose of providing students with support as they solve problems associated with issues of interpretation, and work toward the completion of their dissertations. Prerequisite: Enrollment in Mid-Career Doctoral Program in Educational Leadership.
Two Term Class, Student may enter either term; credit given after both terms are complete
0.25 Course Units
EDMC 8050B Inquiry Seminar
The purpose of the Inquiry Community session is two-fold: to provide students with assistance with problems that occur in the process of doing qualitative or quantitative data analysis and to develop reflective processes for examining data that students can use in their settings of practice. The sessions should serve the practical purpose of providing students with support as they solve problems associated with issues of interpretation, and work toward the completion of their dissertations.
Two Term Class, Student may enter either term; credit given after both terms are complete
0.5 Course Units

EDMC 8060 Advanced Issues in Educational Leadership I
As a capstone integrative experience, this module allows students to revisit core themes raised in various modules during the program and provides an opportunity to extend prior module work in new synthetic ways. Sessions will revisit each student's leadership philosophy; engage constructs of decision-making and judgment; continue discussions around diversity and privilege; explore issues related to specialized topics such as school finance, entrepreneurship in education, and system-level leadership; engage alumni leadership challenges; re-engage data analysis; take a further view into the global field of educational leadership; and reprise the three-year program experience.
Fall
0.5 Course Units

EDMC 8070 Dissertation/Research
Dedicated dissertation research hours in year three of the program.
Prerequisite: Enrollment in Mid-Career Doctoral Program in Educational Leadership.
Fall
1.5 Course Unit

EDMC 8080 Leading Instructional and Curricular Change
This course is the Capstone Module for the Instructional Leadership strand of the Mid-Career Doctorate Program. A first emphasis of the module will be on several topics that have not yet been directly addressed during the program. The module is designed to provide opportunity to deal more intensively with topics and others that are identified through our initial discussions. A second focus of this course is on the process of collaborative problem-posing and problem-solving around issues in instructional leadership you are currently facing. To engage these topics and issues, we will draw on your experience as well as what has been addressed so far in the Instructional Leadership modules.
Spring
0.5 Course Units

EDMC 8090 Advanced Issues in Educational Leadership II
As a capstone integrative experience, this module allows students to revisit core themes raised in various modules during the program and provides an opportunity to extend prior module work in new synthetic ways. Sessions will revisit each student's leadership philosophy; engage constructs of decision-making and judgment; continue discussions around diversity and privilege; explore issues related to specialized topics such as school finance, entrepreneurship in education, and system-level leadership; engage alumni leadership challenges; re-engage data analysis; take a further view into the global field of educational leadership; and reprise the three-year program experience.
Spring
0.5 Course Units

EDMC 8100 Dissertation/Research
Dedicated dissertation research hours in year three of the program.
Prerequisite: Enrollment in Mid-Career Doctoral Program in Educational Leadership.
Spring
2.5 Course Units

EDMC 8120A Engaging the Polis and Public Of U.S. School Reform II
What is the purpose of schooling? Why does education seem to be in a constant state of reform? How best to close opportunity gaps that characterize school systems in the United States? In this doctoral seminar, we will consider and debate these questions as we explore recent scholarship illuminating the politics of school reform. We will cover four topics: (a) desegregation, resegregation, and gentrification, (b) political movements for racial justice in schools, (c) teacher, teaching, and teacher education reform, and (d) equity and choice tradeoffs. Our goal is to develop a deeper understanding of the processes by which U.S. society constructs, prioritizes, and addresses education.
Two Term Class, Student may enter either term; credit given after both terms are complete
0.25 Course Units

EDMC 8120B Engaging the Polis and Public Of U.S. School Reform II
What is the purpose of schooling? Why does education seem to be in a constant state of reform? How best to close opportunity gaps that characterize school systems in the United States? In this doctoral seminar, we will consider and debate these questions as we explore recent scholarship illuminating the politics of school reform. We will cover four topics: (a) desegregation, resegregation, and gentrification, (b) political movements for racial justice in schools, (c) teacher, teaching, and teacher education reform, and (d) equity and choice tradeoffs. Our goal is to develop a deeper understanding of the processes by which U.S. society constructs, prioritizes, and addresses education.
Two Term Class, Student may enter either term; credit given after both terms are complete
0.25 Course Units

Education - Penn Chief Learning Officer (EDCL)

These courses are only available to students in the Penn Chief Learning Officer program.

EDCL 7010 Learning Technology in the Workplace
This course is embedded in a block of three courses focusing on the role of technology in learning at work. This course focuses on the evolution of technology in organizations and a review of the most current technologies in use in organizational learning today. Topics include the history of and new directions in learning technologies, emerging learning technologies, security and privacy in a high-tech world, evaluating technological solutions for organizational learning needs, and evaluating learning technologies in light of organizational goals. This course is only available to students in the Penn Chief Learning Officer program.
1-1.5 Course Unit
EDCL 7020 Technology Strategies for Corporate Learners
This course is embedded in a block of three courses focusing on the role of technology in learning at work. This course focuses on the role of technology in advancing learning in organizations. Topics include designing technology-enabled learning environments, using simulations, games, and apps, choosing and evaluating e-tools, educational entrepreneurship, evaluating technology-enabled learning interventions. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 7030 Managing Technology in the Workplace
This course is embedded in a block of three courses focusing on the role of technology in learning at work. This course focuses on managing learning technologies in the modern organization. Topics include identification and selection of learning technologies, managing change, communication skills to influence decisions about technology change/adoption/implementation, and implementation of learning technologies. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 7040 Individual Effectiveness
This course is embedded in a block of four courses focusing on leadership in organization. This course focuses on individual leadership development and will provide students with experiences, perspectives, and theories that will enable them to better understand themselves in the context of a diverse and changing world. Topics covered include adult development, adult learning, perception, bias, diversity and inclusion, emotional and social intelligence, and the role of values and ethics in leadership. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 7050 Organizational Leadership
This course is embedded in a block of four courses focusing on leadership in organization. This course focuses on leadership in the context of the modern organization. Students will review the history of management science as well as current research and practices in the areas of organizational culture, organizational change, organizational effectiveness, organizational diagnosis, engagement and happiness at work, and coping with stress in leadership roles. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 7060 Functional Leadership
This course is embedded in a block of four courses focusing on leadership in organization. This course focuses on managing teams within and across all functions of the organization, as well as functions in the organization that are responsible for talent management, leadership development, and human resources. Topics covered include team dynamics, organizational structure, talent management, and the impact of historical models and theories as well as globalization and demographic shifts that impact organizations. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 7070 Learning Leader as Performance Consultant
This course is embedded in a block of three courses focusing on organizational learning. This course focuses on research and current practices in leadership development and organizational effectiveness. Topics covered include the models of individual change and development, the relationships among and between individual, team and organizational effectiveness, individual and large-scale leadership development, executive coaching, aligning and integrating learning and performance with organizational goals, and evaluation of learning interventions. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 7080 Organizational Effectiveness
This course is embedded in a block of three courses focusing on organizational learning. This course focuses on the role of learning and development in organizational effectiveness. Topics covered include current learning practices in organizations, historical and current research on the efficacy of learning interventions in organizations, and designing learning interventions for individuals and groups in organizations. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 7090 Organizational Learning
This course is embedded in a block of three courses focusing on organizational learning. This course focuses on theories and models of learning in organizations. Topics include learning theories, pedagogy and curriculum in adult learning, implications of the diverse global workforce for learning and development in organizations, organizational success and learning in an uncertain environment, and assessment of learning in organizations. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 7100 Individual and Social Learning
This course is embedded in a block of three courses focusing on organizational learning. This course focuses on the role of cognition in learning as well as the impact of the social context on individual learning and change. Topics covered include the cultural foundations of learning, action learning, informal learning, and the impact of organizational culture on individual learning and organizational change. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 7110 Marketing for Executives
This course is embedded in block of three courses focusing on business acumen. This course focuses on strategic marketing. Topics covered include research and practices related to branding, managing innovation, customer contact and customer service, communication in business, crisis communication, the interaction of marketing and strategy, and the impact of marketing on organizational effectiveness. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 7120 Finance for Executives
This course is embedded in a block of three courses focusing on business acumen. This course focuses on business and corporate finance. Topics include basic financial tools, and practices, global finance, micro- and macroeconomics in the context of business finance, strategy and decision making, the relationship between strategy and finance, strategy execution, mergers and acquisition, and governance. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit
EDCL 7130 Management for Executives
This course is embedded block of three courses focusing on business acumen. This course focuses on topics impacting the modern business world, as well as topics impacting not-for-profit, government and non-governmental organizations. Specific topics include global trends and strategy, people analytics, talent management, employee engagement, entrepreneurship, and social entrepreneurship. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 7140 Masters Thesis (CLO)
This course guides students through a process of identifying a topic, reviewing historical and current literature, forming an argument for a research study, and writing the masters thesis. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1 Course Unit

EDCL 7140A Masters Thesis (CLO)
This course guides students through a process of identifying a topic, reviewing historical and current literature, forming an argument for a research study, and writing the masters thesis. Prerequisite: Enrollment in Penn Chief Learning Officer program.
0-1 Course Unit

EDCL 7140B Masters Thesis (CLO)
This course guides students through a process of identifying a topic, reviewing historical and current literature, forming an argument for a research study, and writing the masters thesis. Prerequisite: Enrollment in Penn Chief Learning Officer program.
Fall
0-1 Course Unit

EDCL 7150 Qualitative Data Analysis
The course is embedded in a block of three courses focusing on evidence-based research. This course focuses on qualitative research in organizations. Topics include researcher positionality, theoretical and conceptual frameworks, the role of research questions in instrument development, common qualitative research data collection methods (e.g. interviews and focus groups), qualitative data analysis methods (e.g. coding, thematic analysis), and research ethics. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1 Course Unit

EDCL 7160 Quantitative Data Analysis
The course is embedded in a block of three courses focusing on evidence-based research. This course focuses on qualitative research in organizations. Topics include hypothesis design and testing, variables, descriptive and analytic statistics, and critically evaluating quantitative and mixed methods research. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 7170 Research Design & Delivery
The course is embedded in a block of three courses focusing on evidence-based research. This course focuses on qualitative, quantitative, and mixed methods research design. Topics include designing conceptual frameworks, designing research questions, conducting a literature review, designing qualitative and quantitative data collection and analysis methods (e.g. designing interview protocols and surveys), and research ethics. Prerequisite: Enrollment in Penn Chief Learning Officer program.
1-1.5 Course Unit

EDCL 8020 Practicum (CLO)
Practical application of academic program content. Prerequisite: Enrollment in Penn Chief Learning Officer program.
0 Course Units

EDCL 9950 Advanced Dissertation Research Methods
This course provides students with further development of research and writing skills, guidance on the formation of a research question, literature review, and research design for the doctoral dissertation. The course also provides guidance on conducting doctoral research and writing the dissertation. Under guidance of the chair of the dissertation committee, students will write a dissertation to be evaluated by the committee chair and committee members. Prerequisite: Enrollment in Penn Chief Learning Officer program.
0 Course Units

Education - School & Mental Health Counseling (EDSC)

These courses are only available to students in the Executive Program in School and Mental Health Counseling.

EDSC 5010 Ethics & Professional Principles in School & Mental Health Counseling
This course is designed to fulfill the Professional Orientation requirement of state licensure, as well as the Ethics and Professional Orientation requirement of the Planned Program of Study. It provides an opportunity for students to learn clinical skills and to refine skill application with clients. Students are also able to integrate theory and the other components of the program (Human Growth & Development, Social & Cultural Foundations, Helping Relationships) into practical application in this course. This course will assist students in the development of their knowledge and skills in ethical decision-making, ethical standards related to the field of school and mental counseling. In addition, a primary goal of this course is to help each student increase his/her knowledge of self as a provider of counseling services to others. Prerequisite: Enrollment in Executive Program in School and Mental Health Counseling.
Summer Term
1 Course Unit

EDSC 5020 Counseling Interventions: Theory & Practice
This course will provide an overview of several of the primary theories of counseling, along with the key concepts and therapeutic processes related to those theories. Students will be guided to demonstrate a working knowledge of the theories presented, to be able to distinguish between different approaches, and develop a preliminary rationale for the use of a particular approach. The main objectives of the course are for the student to develop a working knowledge of the theories of counseling and the practical counseling interventions derived from those theoretical perspectives, and to begin practicing the applications of this knowledge. Prerequisite: Enrollment in Executive Program in School and Mental Health Counseling.
Summer Term
1 Course Unit
EDSC 5030 School & Mental Health Counseling: Practicum I
This course emphasizes practical counseling experience utilizing rudimentary counseling skills when working with approved supervisors in school counseling programs, mental health agencies, and recording volunteer practice clients. All practicum sites have been pre-approved to meet certification standards. A primary purpose of this course is to provide beginning counseling students with a supportive learning environment and ground them in practical skills and application to the counseling profession. Students will have opportunities to practice, enhance, and refine their emerging counseling skills acquired in class, as well as through structured supervised learning opportunities in schools and clinical settings. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.

Summer Term
1 Course Unit

EDSC 5040 Assessment for Counselors in School & Mental Health Counseling
This course seeks to help students understand the assessment process including the theoretical and historical basis as well as legal and ethical concerns. Students will develop knowledge of concepts of measurement including descriptive statistics, central tendency, norms, reliability, validity, etc. This course will also review assessment as it relates to educational law, entitlement decisions, and high stakes accountability, in addition to teaching students how to implement assessment techniques through observation, interview and ecological and environmental methods. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.

Fall
1 Course Unit

EDSC 5050 Sociocultural Foundations in Counseling
Understanding sociocultural and individual differences is essential to the work of counselors. This course provides a contextual and applied understanding of working with clients who are culturally diverse. The purpose of this course is to expand one’s understanding of the impact of sociocultural and contextual factors, the interaction of identities, and the application of this knowledge to working with underserved and under-addressed individuals in counseling. Both intervention and prevention strategies will be addressed. The student will be required to demonstrate a working knowledge of key concepts in sociocultural counseling and the topical areas addressed in the course. Prerequisite: Enrollment in Executive Program in School and Mental Health Counseling.

1 Course Unit

EDSC 5060 School & Mental Health Counseling: Practicum I (Continued)
This course emphasizes practical counseling experience utilizing rudimentary counseling skills when working with approved supervisors in school counseling programs, mental health agencies, and recording volunteer practice clients. All practicum sites have been pre-approved to meet certification standards. A primary purpose of this course is to provide beginning counseling students with a supportive learning environment and ground them in practical skills and application to the counseling profession. Students will have opportunities to practice, enhance, and refine their emerging counseling skills acquired in class, as well as through structured supervised learning opportunities in schools and clinical settings. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.

0 Course Units

EDSC 5070 Human Development
This course explores the characteristics of developmental change over time - from infancy through late adulthood - and the processes or mechanisms underlying these changes. Students will gain an understanding of the fundamental theories and research traditions of the field, how variations in context influence development, and how theory and research can be applied to real world issues. Using a cultural ecological framework, we will examine theoretical approaches to the study of human development emphasizing the importance of contextual factors (e.g., race, ethnicity, culture, gender, socioeconomic status, historical moment, etc.) and individual perceptions in understanding growth and change. Students will be encouraged to explore developmental change and growth as they occur across different developmental periods of life and within a wide variety of settings and cultural contexts in order to help them begin to crystallize their own world-views and conceptual frameworks of human development. Throughout the semester we will search for new ideas, challenge old ones, and wrestle with paradoxical issues. Prerequisite: Enrollment in Executive Program in School and Mental Health Counseling.

Fall
1 Course Unit

EDSC 5070A Human Development
This course explores the characteristics of developmental change over time - from infancy through late adulthood - and the processes or mechanisms underlying these changes. Students will gain an understanding of the fundamental theories and research traditions of the field, how variations in context influence development, and how theory and research can be applied to real world issues. Using a cultural ecological framework, we will examine theoretical approaches to the study of human development emphasizing the importance of contextual factors (e.g., race, ethnicity, culture, gender, socioeconomic status, historical moment, etc.) and individual perceptions in understanding growth and change. Students will be encouraged to explore developmental change and growth as they occur across different developmental periods of life and within a wide variety of settings and cultural contexts in order to help them begin to crystallize their own world-views and conceptual frameworks of human development. Throughout the semester we will search for new ideas, challenge old ones, and wrestle with paradoxical issues. Prerequisite: Enrollment in Executive Program in School and Mental Health Counseling.

Fall
0:1 Course Unit
EDSC 5070B Human Development
This course explores the characteristics of developmental change over time - from infancy through late adulthood - and the processes or mechanisms underlying these changes. Students will gain an understanding of the fundamental theories and research traditions of the field, how variations in context influence development, and how theory and research can be applied to real world issues. Using a cultural ecological framework, we will examine theoretical approaches to the study of human development emphasizing the importance of contextual factors (e.g., race, ethnicity, culture, gender, socioeconomic status, historical moment, etc.) and individual perceptions in understanding growth and change. Students will be encouraged to explore developmental change and growth as they occur across different developmental periods of life and within a wide variety of settings and cultural contexts in order to help them begin to crystallize their own world-views and conceptual frameworks of human development. Throughout the semester we will search for new ideas, challenge old ones, and wrestle with paradoxical issues. Prerequisite: Enrollment in Executive Program in School and Mental Health Counseling.
Spring
0-1 Course Unit

EDSC 5080 Applied Quantitative Methods
This course is designed for counselors in training. To that end, this course will cover topics related to statistics and research methodology using instructional strategies intended to build the capacity of counselors-in-training to understand, interpret and use statistics and research methods to support their work with students, school staff, and school administrators. The majority of the course will involve a balance of lecture, discussion, and interactive practice activities, linking statistics and research methods to counseling and the real-world responsibilities of counselors-in-training. Prerequisite: Enrollment in Executive Program in School and Mental Health Counseling.
Spring
1 Course Unit

EDSC 5090 Career Counseling & Development
This course addresses career development throughout the life span. It includes the nature of work, career assessment measures, classification systems, and theory related to vocational planning. Student self-assessment, career guidance programs, and unique needs of special populations are covered. Prerequisite: Enrollment in Executive Program in School and Mental Health Counseling.
Spring
1 Course Unit

EDSC 5100 Group Counseling
This course is designed as an introduction to the use of groups in counseling practice. Its chief purpose is to provide students with an overview of basic elements of group process, with a focus on stages of group development; guidelines for multicultural practice; ethical and professional issues in group practice; and group leadership. The course is a combination of didactic and experiential elements, including demonstrations, short lectures, discussions of group process concerns, and questions and answers. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
Spring
1 Course Unit

EDSC 5110 School & Mental Health Counseling: Practicum II
This course emphasizes practical counseling experience utilizing rudimentary counseling skills when working with approved supervisors in school counseling programs, mental health agencies, and recording volunteer practice clients. All practicum sites have been pre-approved to meet certification standards. A primary purpose of this course is to provide beginning counseling students with a supportive learning environment and ground them in practical skills and application to the counseling profession. Students will have opportunities to practice, enhance, and refine their emerging counseling skills acquired in class, as well as, through structured supervised learning opportunities in schools and clinical settings. The Practicum is the initial opportunity for students to synthesize and integrate theoretical information from course work into their individual counseling and small group work. These objectives are met at the clinical site, through individual recorded client sessions, and in class. An additional aim of this course is to help students increase and explore their own self-knowledge as providers of counseling services to others. The course promotes an awareness and better understanding of oneself, how individual understanding may impact professional practice; appreciation of others, reinforcing the importance of empathic attention to the needs of others differing from ones own (cultural, educational, and socioeconomic background); and professional development, emphasizing skill building, ethics, and providing counseling services. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
Spring
1 Course Unit

EDSC 5120 School & Mental Health Counseling: Practicum III
This course is a continuation of Practicum II for students who need to complete their field placements. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
Summer Term
0 Course Units

EDSC 6010 School and Mental Health Counseling: Internship I
This course provides the experience necessary to develop the skills to implement a comprehensive, developmental, and collaborative school counseling or mental health program. The course also translates knowledge, skills, attitudes to practice, and competencies that foster professionalism in school and community settings. Students will also complete supervised field experiences that provide actual on-the-job experience for a minimum of 420 clock hours of instructional experience for school counselor certification and/or 600 clock hours of supervised internship and a minimum of 240 hours of direct service to individuals and groups for Licensed Professional Counselor (LPC) eligibility. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
Summer Term
1 Course Unit
EDSC 6020 Advanced Group & Family Systems Counseling
This course will focus on the basics of systems intervention with a specific focus on families and groups, and a second focus on diversity and racial stress and literacy in systems. The purpose is to develop more advanced knowledge of practical therapeutic problem-solving skills at the graduate student level using ecological, systemic, and cultural perspectives. Students will be exposed to basic group therapy strategies with children and youth, with family interventions across various school-based emotional health diagnostic populations, and how to intervene within groups and families in which cultural differences and styles are key themes. The student will be required to demonstrate a working knowledge of the key concepts in systems intervention, to make preliminary judgments about how to apply various strategies to specific problems in a variety of naturalized and formal therapeutic contexts including schools, homes, and community centers, and evaluated on the ability to react spontaneously to moment-by-moment shifts in group and family therapy processes. Students will also be challenged to develop a preliminary rationale for a systemic theory of behavior change. Given the diversity of clients that counselors see professionally, some demonstrated knowledge of how cultural differences will be addressed in the counseling session and in the relationships of larger societal institutions will be expected. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
Summer Term
1 Course Unit

EDSC 6030 Advanced Professional Development: Utilizing & Building Resources within Community Agencies & Orgs
This course is structured to create an intellectual and practice-driven inquiry community in which you as students have the opportunity to deepen and expand your understanding of the multifaceted professional roles and responsibilities of school and mental health counselors, as well as the complex systems in which these roles are formed and enacted. The primary goal of the course is to support you in developing an inquiry stance on your practice (Cochran-Smith & Lytle, 2009) as a means of enhancing the quality and meaning of your work and professional identity. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

EDSC 6030A Advanced Professional Development: Utilizing & Building Resources within Community Agencies & Orgs
This course is structured to create an intellectual and practice-driven inquiry community in which you as students have the opportunity to deepen and expand your understanding of the multifaceted professional roles and responsibilities of school and mental health counselors, as well as the complex systems in which these roles are formed and enacted. The primary goal of the course is to support you in developing an inquiry stance on your practice (Cochran-Smith & Lytle, 2009) as a means of enhancing the quality and meaning of your work and professional identity. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
Fall
0-0.5 Course Units

EDSC 6030B Advanced Professional Development: Utilizing & Building Resources within Community Agencies & Orgs
This course is structured to create an intellectual and practice-driven inquiry community in which you as students have the opportunity to deepen and expand your understanding of the multifaceted professional roles and responsibilities of school and mental health counselors, as well as the complex systems in which these roles are formed and enacted. The primary goal of the course is to support you in developing an inquiry stance on your practice (Cochran-Smith & Lytle, 2009) as a means of enhancing the quality and meaning of your work and professional identity. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
Spring
0-0.5 Course Units

EDSC 6040 Foundations in Education for Diverse Learners
This course is intended to engage you in thoughtful discussion about working with diverse learners while presenting factual information about specific areas of need. Our work will be situated within a socio-cultural framework that sees our students as resources that enrich our counseling work and their communities. In this class, we will address content related to both Special Education/Students with Disabilities and English Language Learners. As such, we use three major themes as central to school counseling work and professionalism: Supporting students with disabilities and English language learners; development of inclusive and empowering student practices and environments; and supporting positive school, community and life goals which affirm diversity and ensure equitable outcomes for all students. Over the course of the semester, you will have an opportunity to clarify and challenge your beliefs about working with students with diverse learning needs in your role as a school counselor, in urban and diverse environments. In particular, through course readings, discussion, and projects students will be challenged to think deeply and thoroughly about educating diverse students in schools, through the following core elements: a) taking an inquiry stance; b) urban contexts of schools, c) supporting social justice & equity, d) integrating theory with practice. In doing so, students will critically examine their own role in providing services to students which will support equitable, positive, student- and family-centered school and life outcomes. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
Fall
1 Course Unit

EDSC 6050 School & Mental Health Counseling: Internship I (Continued)
This course provides the experience needed to develop the skills to implement a comprehensive, developmental and collaborative school counseling or mental health program. The course also translates knowledge, skills, attitudes to practice and competencies that foster professionalism in school and community settings. Students will also complete supervised field experiences that provide actual on-the-job experiences for a minimum of 420 clock hours of instructional experience for school counselor certification and/or 600 clock hours of supervised internship and a minimum of 240 hours of direct service to individuals and groups for Licensed Professional Counselor (LPC) eligibility. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
Fall
0 Course Units
EDSC 6060 Advanced Counseling Skills & Human Sexuality
This course will be a hybrid course combining advanced counseling skills and counseling related to human sexuality issues. The advanced counseling skills portion of the class will be understood as an elaboration of the basic understanding of theoretical interventions learned in the first year of the program by presenting students with information about case conceptualization and more advanced intervention from three major theoretical orientations (cognitive behavioral, psychoanalytic, and emotion-focused therapy). There will also be a brief consideration of what it means to integrate and combine different theoretical approaches, if they really are as different as we think. Topics in human sexuality that commonly present in school and mental health settings will be used as the context for applying advanced skills. This course aims to present students with factual information about advanced skills and human sexuality while also providing an atmosphere in which self-reflection and affective learning can facilitate counselor development in the areas of advanced skills and human sexuality. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.

EDSC 6070 Healthy Development & Psychopathology
This course will familiarize counseling students with the major mental disorders, as well as with conceptions of mental health, mental health promotion, resilience and recovery. It is important that counselors, regardless of concentration or specialization, be acquainted with the language, taxonomy, conceptualizations, and developments in the study of psychopathology, as well as a sense of the lived experience of people with mental disorders. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.

EDSC 6080 Research and Evaluation Seminar in Counseling and Education
This course focuses on the application of research concepts and use of data in comprehensive school counseling programs. The course materials, exercises and assignments are designed to help students gain and use practical skills required to make data-based decisions. Specifically, students will learn to use data to: identify needs within the school; identify possible interventions and programs to address the needs; implement interventions and programs; monitor and evaluate the interventions to demonstrate the results of the interventions; and use data to advocate for the profession, the work, and for students. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.

EDSC 6080A Research and Evaluation Seminar in Counseling and Education
This course focuses on the application of research concepts and use of data in comprehensive school counseling programs. The course materials, exercises and assignments are designed to help students gain and use practical skills required to make data-based decisions. Specifically, students will learn to use data to: identify needs within the school; identify possible interventions and programs to address the needs; implement interventions and programs; monitor and evaluate the interventions to demonstrate the results of the interventions; and use data to advocate for the profession, the work, and for students. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.

EDSC 6080B Research and Evaluation Seminar in Counseling and Education
This course focuses on the application of research concepts and use of data in comprehensive school counseling programs. The course materials, exercises and assignments are designed to help students gain and use practical skills required to make data-based decisions. Specifically, students will learn to use data to: identify needs within the school; identify possible interventions and programs to address the needs; implement interventions and programs; monitor and evaluate the interventions to demonstrate the results of the interventions; and use data to advocate for the profession, the work, and for students. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.

EDSC 6060 Advanced Counseling Skills & Human Sexuality
This course will be a hybrid course combining advanced counseling skills and counseling related to human sexuality issues. The advanced counseling skills portion of the class will be understood as an elaboration of the basic understanding of theoretical interventions learned in the first year of the program by presenting students with information about case conceptualization and more advanced intervention from three major theoretical orientations (cognitive behavioral, psychoanalytic, and emotion-focused therapy). There will also be a brief consideration of what it means to integrate and combine different theoretical approaches, if they really are as different as we think. Topics in human sexuality that commonly present in school and mental health settings will be used as the context for applying advanced skills. This course aims to present students with factual information about advanced skills and human sexuality while also providing an atmosphere in which self-reflection and affective learning can facilitate counselor development in the areas of advanced skills and human sexuality. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.

EDSC 6070 Healthy Development & Psychopathology
This course will familiarize counseling students with the major mental disorders, as well as with conceptions of mental health, mental health promotion, resilience and recovery. It is important that counselors, regardless of concentration or specialization, be acquainted with the language, taxonomy, conceptualizations, and developments in the study of psychopathology, as well as a sense of the lived experience of people with mental disorders. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.

EDSC 6080 Research and Evaluation Seminar in Counseling and Education
This course focuses on the application of research concepts and use of data in comprehensive school counseling programs. The course materials, exercises and assignments are designed to help students gain and use practical skills required to make data-based decisions. Specifically, students will learn to use data to: identify needs within the school; identify possible interventions and programs to address the needs; implement interventions and programs; monitor and evaluate the interventions to demonstrate the results of the interventions; and use data to advocate for the profession, the work, and for students. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.

EDSC 6080A Research and Evaluation Seminar in Counseling and Education
This course focuses on the application of research concepts and use of data in comprehensive school counseling programs. The course materials, exercises and assignments are designed to help students gain and use practical skills required to make data-based decisions. Specifically, students will learn to use data to: identify needs within the school; identify possible interventions and programs to address the needs; implement interventions and programs; monitor and evaluate the interventions to demonstrate the results of the interventions; and use data to advocate for the profession, the work, and for students. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.

EDSC 6080B Research and Evaluation Seminar in Counseling and Education
This course focuses on the application of research concepts and use of data in comprehensive school counseling programs. The course materials, exercises and assignments are designed to help students gain and use practical skills required to make data-based decisions. Specifically, students will learn to use data to: identify needs within the school; identify possible interventions and programs to address the needs; implement interventions and programs; monitor and evaluate the interventions to demonstrate the results of the interventions; and use data to advocate for the profession, the work, and for students. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
EDSC 6110 Wellness & Addiction Counseling
This course will provide an overview of the foundations of addictions from a theoretical, practical, and applicable standpoint. The basics of understanding the process of screening, assessing and treating addictions will be discussed as well as a focus on the strengths and wellness perspective of persons with addictions. In addition, students will gain an understanding of the effects and treatment of co-occurring disorders (e.g., addiction and depression). Addiction lingo, positive psychology, and the various types of addictions will be addressed along with etiological models and current approaches for treatment. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
Spring
1 Course Unit

EDSC 6120 Trauma in School & Mental Health Counseling
Due to the overwhelming incidence of trauma, adversity, and toxic stress among consumers of mental health services and the potential profound and pervasive impact of trauma on development, it is essential that mental health professionals gain the necessary knowledge, competencies, and skills to foster resilience and healing. This course explores how trauma impacts not only cognitive and emotional processing, but also dysregulates neurophysiology, and discusses evidence based assessments and interventions that counselors can use to help alleviate the negative impact of trauma with their clients. This course is designed to provide foundational trauma education for mental health professionals working within schools and community settings to promote their ability to recognize trauma responses, to create trauma-sensitive educational and clinical environments to foster learning, growth and health and to develop trauma responsive counseling skills. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
Spring
1 Course Unit

EDSC 7010 School and Mental Health Counseling: Advanced Internship in Professional Counseling
This course is a continuation of Internship II for students who need to complete their field placements. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
0.5 Course Units

EDSC 7020 School and Mental Health Counseling: Advanced Internship in Professional Counseling
This course is a continuation of Internship II for students who need to complete their field placements. Prerequisite: Enrollment in the Executive Program in School and Mental Health Counseling.
0 Course Units

Education - School Leadership (EDSL)

These courses are only available to students in the School Leadership Program.

EDSL 5010A Sustainability In Schools
Addresses an issue of great relevance to schools in the 21st century. As the leadership program comes to a close, students in this course will look at the issue of sustainability across the financial, environmental, and programmatic dimensions of school life. Prerequisite: Enrollment in School Leadership Program.
Spring
0-1 Course Unit

EDSL 5010B Sustainability In Schools
Addresses an issue of great relevance to schools in the 21st century. As the leadership program comes to a close, students in this course will look at the issue of sustainability across the financial, environmental, and programmatic dimensions of school life. Prerequisite: Enrollment in School Leadership Program.
Spring
0-1 Course Unit

EDSL 5020 Leadership in Public, Independent & Parochial Schools
Encourage students to consider the challenges of leadership in public, independent, and parochial schools as part of the broader discussion of educational leadership in elementary and secondary education. The course will seek to identify themes that have implications for independent, parochial, and public schools and will seek to establish interconnections. Prerequisite: Enrollment in School Leadership Program.
Spring
1 Course Unit

EDSL 5020A Leadership in Public, Independent & Parochial Schools
Encourage students to consider the challenges of leadership in public, independent, and parochial schools as part of the broader discussion of educational leadership in elementary and secondary education. The course will seek to identify themes that have implications for independent, parochial, and public schools and will seek to establish interconnections. Prerequisite: Enrollment in School Leadership Program.
Spring
0-1 Course Unit

EDSL 5020B Leadership in Public, Independent & Parochial Schools
Encourage students to consider the challenges of leadership in public, independent, and parochial schools as part of the broader discussion of educational leadership in elementary and secondary education. The course will seek to identify themes that have implications for independent, parochial, and public schools and will seek to establish interconnections. Prerequisite: Enrollment in School Leadership Program.
Spring
0-1 Course Unit

EDSL 5030 Developing Instructional Leadership in Practice
Emphasizes how to connect organizational systems with schools' instructional missions. Prerequisite: Enrollment in School Leadership Program.
Spring
1 Course Unit

EDSL 5040 Field Internship Seminar: Inquiring Into Organizational and Legal Dimensions of Principal Leadership
Provides the systems-thinking lens through which students inquire into how an individual's organizational leadership can support continuous school improvement through attention to school climate, program coherence, and effectiveness of instruction. Prerequisite: Enrollment in School Leadership Program.
Spring
1 Course Unit
EDSL 5050 Aligning Fiscal, Human, and Community Resources in Support of the School's Instructional Mission
Emphasizes the connections between the school's mission and daily decision-making (including managing budgets and funding streams, use of space, use of time, and scheduling and assignments of staff and students). Prerequisite: Enrollment in School Leadership Program. 
Fall, Spring, and Summer Terms
1 Course Unit
EDSL 5050A Aligning Fiscal, Human, and Community Resources in Support of the School's Instructional Mission
Emphasizes the connections between the school's mission and daily decision-making (including managing budgets and funding streams, use of space, use of time, and scheduling and assignments of staff and students). Prerequisite: Enrollment in School Leadership Program.
Spring
0-1 Course Unit
EDSL 5050B Aligning Fiscal, Human, and Community Resources in Support of the School's Instructional Mission
Emphasizes the connections between the school's mission and daily decision-making (including managing budgets and funding streams, use of space, use of time, and scheduling and assignments of staff and students). Prerequisite: Enrollment in School Leadership Program.
Spring
0-1 Course Unit
EDSL 5060 Instructional Leadership to Promote Learning
The first course of the program, Instructional Leadership to Promote Learning begins with an exploration of values and beliefs underlying leadership in schools. Prerequisite: Enrollment in School Leadership Program.
Fall
1 Course Unit
EDSL 5070 Practitioner Research
Addresses an important goal of the program: developing school leaders who are skilled practitioner researchers. As an outgrowth of this course, students will engage in a practitioner research project that is the culminating experience of the program. Prerequisite: Enrollment in School Leadership Program.
Fall
1 Course Unit
EDSL 5070A Practitioner Research
Addresses an important goal of the program: developing school leaders who are skilled practitioner researchers. As an outgrowth of this course, students will engage in a practitioner research project that is the culminating experience of the program. Prerequisite: Enrollment in School Leadership Program.
0-1 Course Unit
EDSL 5070B Practitioner Research
Addresses an important goal of the program: developing school leaders who are skilled practitioner researchers. As an outgrowth of this course, students will engage in a practitioner research project that is the culminating experience of the program. Prerequisite: Enrollment in School Leadership Program.
0-1 Course Unit
EDSL 5070C Practitioner Research
Addresses an important goal of the program: developing school leaders who are skilled practitioner researchers. As an outgrowth of this course, students will engage in a practitioner research project that is the culminating experience of the program. Prerequisite: Enrollment in School Leadership Program.
0-1 Course Unit
EDSL 5080 Teaming and Collaborative Leadership in Schools
Presents two conceptual models for examining organizational practice in schools: working in groups and applying moral/ethical decision-making in schools. Prerequisite: Enrollment in School Leadership Program.
Fall
1 Course Unit
EDSL 5080A Teaming and Collaborative Leadership in Schools
Presents two conceptual models for examining organizational practice in schools: working in groups and applying moral/ethical decision-making in schools. Prerequisite: Enrollment in School Leadership Program.
0-1 Course Unit
EDSL 5080B Teaming and Collaborative Leadership in Schools
Presents two conceptual models for examining organizational practice in schools: working in groups and applying moral/ethical decision-making in schools. Prerequisite: Enrollment in School Leadership Program.
0-1 Course Unit
EDSL 5080C Teaming and Collaborative Leadership in Schools
Presents two conceptual models for examining organizational practice in schools: working in groups and applying moral/ethical decision-making in schools. Prerequisite: Enrollment in School Leadership Program.
0-1 Course Unit
EDSL 5090 Field Internship Seminar: Leadership for School Improvement
Supports each student in becoming a reflective practitioner. Students develop the inquiry, communication, and interpersonal skills needed to build purposeful learning communities for adults and students. Prerequisite: Enrollment in School Leadership Program.
Fall
1 Course Unit
EDSL 5100 Critical Issues in Education
Engages the leadership cohort in analysis of three important issues of relevance to contemporary school leadership: technology, globalization, and equity and access. Prerequisite: Enrollment in School Leadership Program.
Fall
1 Course Unit
EDSL 5100A Critical Issues in Education
Engages the leadership cohort in analysis of three important issues of relevance to contemporary school leadership: technology, globalization, and equity and access. Prerequisite: Enrollment in School Leadership Program.
0-1 Course Unit
EDSL 5100B Critical Issues in Education
Engages the leadership cohort in analysis of three important issues of relevance to contemporary school leadership: technology, globalization, and equity and access. Prerequisite: Enrollment in School Leadership Program.
0-1 Course Unit
EDSL 5100C Critical Issues in Education
Engages the leadership cohort in analysis of three important issues of relevance to contemporary school leadership: technology, globalization, and equity and access. Prerequisite: Enrollment in School Leadership Program.
0-1 Course Unit

Education - Urban Teaching Residency Certificate (EDTC)
These courses are only available to students in the Urban Teaching Residency program.

EDTC 5030 Methods: Elementary A
This course is designed to enhance literacy and mathematics instruction that engages all students as readers, thinkers and sense makers. In this course, we will explore the interrelationship of language, literacy, numeracy, and culture, and will co-construct a knowledge base for understanding how children learn. We will also develop and practice new routines for teaching literacy and mathematics that build on students interests, curiosities, and informal knowledge. Throughout the course, you will be encouraged to critically reflect on continually develop your teaching practice. Course readings, discussions, and assignments will offer opportunities to think in both theoretical terms and practical terms about your teaching. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTF 5030
1 Course Unit

EDTC 5040 Methods: Middle Years A
This course focuses on you as both a learner and a teacher of mathematics and science. Its development is premised on the notion that in order for you to foster understanding and engagement for all your students, you have to develop and draw on different kinds of knowledge, skills, and dispositions. As a result, the course is designed to help you hone your practice as a teacher of mathematics and science, and involves you learning about learners (yourself included), the understandings and conceptions they hold, and the developmental processes through which they learn. It also involves developing skills in teaching practices that engage students in mathematical and scientific exploration, creating an environment that facilitates reasoning and promotes inquiry, and finding ways to analyze and learn from your own teaching. Good teaching is essentially a decision laden process, and the decisions you make are contextually based. Consequently, the aim of the course is to provide you with a bag of tricks that are applicable or generalizable to all situations, but rather to help you develop necessary tools for thinking and working as a teacher. These tools include ways to explore scientific and mathematical content, assess your students understanding on an ongoing basis, and help all your students develop as learners of mathematics and science. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTF 5040
1 Course Unit

EDTC 5050 Methods: English A (Middle Level and Secondary)
This course is designed for preservice and working educators and is intended to weave theory into practice. In this data and standards driven climate, educators are often hit with buzzwords instead of solid theory and solid pedagogy. The framework for the course is to provide a foundation in theory and then explores how that theory works within and against existing practices in schools. We will be reflecting on practice and designing and redesigning lessons and units based on theory and best practices for adolescent literacy. This course is an overview of the theory and pedagogy needed for effective English language arts instruction. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTF 5050
1 Course Unit

EDTC 5060 Methods: Science A
The purpose of this class is to introduce middle level and secondary science teachers to pedagogy, content and methodologies supported by a three-pillar foundation: teaching diverse learners (cultural responsiveness), curriculum development (Understanding by Design) and demonstration of knowledge and skill acquisition (high leverage practices and competencies). Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTF 5060
1 Course Unit

EDTC 5070 Methods: Social Studies A
This is an introductory course for students earning middle levels or secondary social studies certification in Pennsylvania.
Fall
Also Offered As: EDTF 5070
1 Course Unit

EDTC 5080 Methods: World Languages A
The objectives of this course are for teachers to be able to: Align the four domains of professional practice with world languages pedagogy, recognize and demonstrate how pedagogical theories inform effective methodologies, incorporate a variety of standards-driven instructional practices using communicative techniques that engage students, research, identify and use resources that encourage student-centered learning practices, investigate and utilize a variety of assessments that effectively measure student performance and enhance proficiency, participate in local, state and national professional World Languages organizational activities including workshops and/or conferences. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTF 5080
1 Course Unit

EDTC 5120 Methods: 7-12 Science (Chemistry)
The purpose of this class is to introduce secondary science teachers to pedagogy, content and methodologies supported by a three-pillar foundation: teaching diverse learners (cultural responsiveness), curriculum development (Understanding by Design) and demonstration of knowledge and skill acquisition (high leverage practices and competencies). Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall or Spring
Also Offered As: EDTF 5120
1 Course Unit
EDTC 5130 Methods: 7-12 Science (Physics)
The purpose of this class is to introduce secondary science teachers to pedagogy, content and methodologies supported by a three-pillar foundation: teaching diverse learners (cultural responsiveness), curriculum development (Understanding by Design) and demonstration of knowledge and skill acquisition (high leverage practices and competencies). Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall or Spring
Also Offered As: EDTF 5130
1 Course Unit

EDTC 5150 Child Development
This course explores the origins and context of urban education in the United States by critically examining how schools reproduce and sustain systemic inequality. We will examine historical, political, economic, and socio-cultural frameworks for understanding urban schools, students and teachers. Through course readings, field visits and class discussions, we explore the following: (1) student, teacher and researcher perspectives on urban education, (2) the broader sociopolitical urban context of K-12 schooling in cities, (3) teaching and learning in urban settings and (4) ideas about re-imagining urban education. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTF 5150
1 Course Unit

EDTC 5200 Methods: Mathematics A
The goal of this course is to enhance the teaching and learning of mathematics through a focus on the practical application of pedagogical theory. Each week we will engage in discussions and activities centered on different pedagogical approaches, using lessons covering specific mathematical concepts as demonstration tools. We will also use class time to reflect on experiences from our current teaching positions, and we will work together to develop solutions to problems that arise within our daily classroom experience. I aim to provide you with lesson and curricular development experience, multiple teaching techniques, and an engaging and supportive classroom environment to help us all develop as teachers and learners. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTF 5200
1 Course Unit

EDTC 5210 Foundations Special Educ
This course strives to teach students who are working towards certification in general education problem solving strategies, teaching techniques, itinerant services, team and community building, and types of disabilities found in students who are eligible for Individualized Education Programming (IEPs) under the Individuals with Disabilities Act (IDEA). We will learn what constitutes disabilities in this population and issues surrounding providing this populations with an effective education. Students will explore the ramifications, jargon, specific goals and objectives included with implementing and IEP in the general education, or inclusive, environment. Students will discuss the appropriateness of various academic environments as children with disabilities progress from elementary to secondary education, and transition into adulthood. General issues surrounding the topic of inclusion and the least restrictive environment will be addressed. In addition, time will be spent in this course discussing the education of students who are English Language Learners from the standpoint of sheltered instruction and the use of WIDA lesson planning. A holistic approach to educating all students, with an emphasis on academic, social, emotional, behavioral, and transition skills area focus. Content will be presented through online lecture, hands on projects, and reading. It is expected that students will work within their current teaching placement and with actual students to complete some, if not all, of the 7 projects. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall or Spring
Also Offered As: EDTF 5210
0-1 Course Unit

EDTC 5240 School & Society Seminar
This course is designed to provide students with an opportunity to investigate the philosophical underpinnings, social context, and current discourse of education and schooling in the United States. By historically linking the development of educational initiatives to notions of power, nation building, and citizenship, this class furthers an understanding of the assumptions about the purpose of education within this democratic nation, and its role(s) within our current social and political climate. Discussions of differential access to power and resources will be central to this class, thereby providing a forum for critically exploring educational policy, teaching practices, and the aims and purposes of education that are intimately connected to the social stratification and reproduction. We will draw on students experiential knowledge of schools and teaching to imagine how urban educators can transform the socially reproductive practices of schools. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall or Spring
Also Offered As: EDTF 5240
1 Course Unit
EDTC 5270 Social, Emotional, and Behavioral Interventions
This course is designed to provide students with a comprehensive understanding of students who present with social, emotional, and behavioral difficulties. The course will focus on the definitions, characteristics, prevalence, causes, and assessment of emotional and behavioral disorders. Effective teaching practices will be integrated in the course, including education service placements, functional behavior assessment, ABA, positive behavior supports and social skills instruction. Current issues in the field will also be explored. There will be a focus on the direct application of knowledge and skills to the classroom, as well as the expectation that students' teaching experiences will inform discussion and learning. Prerequisite: Enrollment in Urban Teaching Residency Program.

Spring
Also Offered As: EDTF 5270
1 Course Unit

EDTC 5290 Language and Literacy Acquisition
This course addresses research-based instructional strategies for teaching literacy (including language development, reading, writing, and speaking) to learners in grade levels PreK-12 as well as practical and effective modifications for diverse learners (including struggling readers, English language learners, and students with learning disabilities in reading, as well as students with a wide range of disabilities requiring accommodations (cognitive, linguistic, physical, and social)). Formative and summative assessments of emergent and content literacy, including components of literacy (phonological awareness, word analysis, comprehension, vocabulary, fluency) will also be addressed. Also included are factors which influence literacy acquisition (including, but not limited to: English Language Learners), social and cultural implications for language and literacy development, as well as lifelong literacy for children and adolescents who struggle in literacy. Prerequisite: Enrollment in Urban Teaching Residency Program.

Also Offered As: EDTF 5290
1 Course Unit

EDTC 5300 Contempary Issues in Urban Education
This course explores the origins and context of urban education in the United States by critically examining how schools reproduce and sustain systemic inequality. We will examine historical, political, economic, and socio-cultural frameworks for understanding urban schools, students and teachers. Through course readings, field visits and class discussions, we explore the following: (1) student, teacher and researcher perspectives on urban education, (2) the broader sociopolitical urban context of K-12 schooling in cities, (3) teaching and learning in urban settings and (4) ideas about re-imagining urban education. Prerequisite: Enrollment in Urban Teaching Residency Program.

Fall
0.5-1 Course Unit

EDTC 5300B Contemp Issues Urban Ed
This course explores the origins and context of urban education in the United States by critically examining how schools reproduce and sustain systemic inequality. We will examine historical, political, economic, and socio-cultural frameworks for understanding urban schools, students and teachers. Through course readings, field visits and class discussions, we explore the following: (1) student, teacher and researcher perspectives on urban education, (2) the broader sociopolitical urban context of K-12 schooling in cities, (3) teaching and learning in urban settings and (4) ideas about re-imagining urban education. Prerequisite: Enrollment in Urban Teaching Residency Program.

Fall
0.5-1 Course Unit

EDTC 5310 Methods: Elementary B
In this course we will be examining many aspects of the teaching of science and social studies in elementary schools today. The importance of the National Science and Social Studies Education Standards, the Next Generation of Science Standards, and the Pennsylvania State Standards in curriculum development and reform will be explored in depth. Among the topics covered will be planning science and social studies instruction to include inquiry and integrated concepts, developing authentic assessments involving a variety of tools, creating and maintaining a safe laboratory and learning environment that meets the needs of diverse learners, and the integration of technology into science and social studies education. Prerequisite: Enrollment in Urban Teaching Residency Program.

Spring
Also Offered As: EDTF 5310
1 Course Unit

EDTC 5320 Methods: Middle Years B
Middle school teachers are involved in the constant process of increasing students’ active reading and writing about content area texts within the high-pressure environment of state accountability. Middle Years Methods offers practical strategies and applications that help establish a literate classroom environment in support of learning across all subject areas. Teachers learn approaches to help them establish literate classroom environments that are rich in problem-solving, critical thinking, logical reasoning concepts focused on state and national standards, and practical techniques that investigate and connect content in all subject areas to the real world. Middle Years Methods is structured to allow participants the opportunity to explore strategies and concepts for increasing student reading and writing proficiency. Prerequisite: Enrollment in Urban Teaching Residency Program.

Spring
Also Offered As: EDTF 5320
1 Course Unit

EDTC 5330 Methods: English B
This course is designed for preservice and working educators and is intended to weave theory into practice. In this data and standards driven climate, educators are often hit with buzzwords instead of solid theory and solid pedagogy. The framework for the course builds from ELA Methods A. We will begin the semester by exploring the self, culturally relevant pedagogy, and how these things impact our practice. Then we will explore a variety of practices for teaching reading, writing, listening, and speaking. The practices for teaching reading, writing, listening, and speaking align to Special Education Competencies IV. Pedagogy. Prerequisite: Enrollment in Urban Teaching Residency Program.

Spring
Also Offered As: EDTF 5330
1 Course Unit
EDTC 5340 Methods: Science B
This course is the second course in the three-course series that addresses teaching and learning in middle and secondary science classrooms. The methods topics have been carefully selected to represent current and relevant areas in science education research and are geared toward understanding issues impacting students, teachers and schools in the modern urban society. The course is premised on several organizing themes in education: Assessing misconceptions, teaching through multiple intelligences, expanding instructional practices, teaching science in urban schools, culturally relevant pedagogies, gender, professional learning communities and workforce development, problem-based learning, current STEM fields of research, citizenship science, and ethical decision making. Prerequisite: Enrollment in Urban Teaching Residency Program.
Spring
Also Offered As: EDTF 5340
1 Course Unit

EDTC 5350 Methods: World Languages B
This course includes theoretical and practical applications for the teaching of world languages based on the five "C" goal areas: Communication, Cultures, Comparisons, Connections, and Communities of the World-Readiness Standards for Learning Languages. Approaches and techniques will be explored to equip world language teachers with the knowledge and tools necessary to create a student-centered, standards-driven classroom. Prerequisite: Enrollment in Urban Teaching Residency Program.
Spring
Also Offered As: EDTF 5350
1 Course Unit

EDTC 5360 Methods: Mathematics B
Mathematics Methods B is enhancing student learning through knowing the content, planning around our knowledge and reflecting on our practice and our practice and our students thinking. Each week we will think about mathematics through talking about mathematics, doing mathematics, and presenting mathematics, as we will learn to expect our students to do. Each week we will spend time both learning concepts behind the mathematics taught and learned in middle and high school, with a couple of topics from elementary school that have bearing on middle and high school mathematics. We will learn about these concepts in ways that you will be able to use in the classroom, giving you experiences with different methods. Prerequisite: Enrollment in Urban Teaching Residency Program.
Spring
Also Offered As: EDTF 5360
1 Course Unit

EDTC 5370 Methods: Social Studies B
This course is designed to enable middle years and secondary social studies teachers to expand their pedagogical practice. We will examine curriculum theory and instructional practices as they relate to the middle years and secondary social studies classroom. The course seeks to weave theory into practice by increasing students' pedagogical content knowledge with the ultimate goal of improving instruction in practitioners' classrooms. Essential Questions: · What does effective teaching look like in the SS classroom? · How can I strategically design and implement instruction to best meet the needs of my students? · How can I promote authentic engagement for culturally diverse students? · What does it take to guide students from dependent to independent learners?
Spring
Also Offered As: EDTF 5370
1 Course Unit

EDTC 6010 Methods: Advanced Elementary
This course has been designed for first and second year teachers who are currently teaching in elementary classrooms. Our work together will build upon the course work you completed this year, your past experiences as a student and a teacher, and your current classroom practices. In this course, we explore the interrelationship of language, literacy, numeracy and culture in order to co-construct a knowledge base for understanding how children learn. We will interrogate our own teaching practices in an effort to make our classrooms more content-rich and child-centered. Our work will span content areas - math, literacy, social studies, and science - emphasizing both their interconnectedness and their particularity. The course will offer opportunity to think in both theoretical terms and practical terms about implications of our teaching. Prerequisite: Enrollment in Urban Teaching Residency Program.
Also Offered As: EDTF 6010
1 Course Unit

EDTC 6040 Methods: Advanced English
This course is designed to give working teachers intensive, hands-on practice with research-based pedagogy that they need to address the immediate challenges of teaching English in urban public schools. Students will develop plans for a full course, several conceptual units, and eight weeks of daily lesson plans. In addition, students will develop and present various instructional routines, which the class will critique. Finally, students will share resources with each other and engage in problem-solving of their real-world classroom issues. Prerequisite: Enrollment in Urban Teaching Residency Program.
Also Offered As: EDTF 6040
1 Course Unit

EDTC 6050 Methods: Advanced Science
This course addresses teaching and learning in middle and secondary science classrooms. The advanced methods topics have been carefully selected to represent current and relevant areas in science education research and are geared toward understanding issues impacting students, teachers and schools in the modern urban society. The course is premised on several organizing themes in education. Skills: topics investigated under this theme include: assessing misconceptions, teaching through multiple intelligences, expanding instructional practices. Teaching Science in Urban Schools: topics investigated under this theme include: culturally relevant pedagogies, gender, professional learning communities and workforce development. 21st Century Learning: topics investigated under this theme include: problem-based learning, information technologies, educational technologies, current STEM fields of research, citizenship science, and ethical decision making. Prerequisite: Enrollment in Urban Teaching Residency Program.
Also Offered As: EDTF 6050
1 Course Unit

EDTC 6010 Methods: Advanced Elementary
This course has been designed for first and second year teachers who are currently teaching in elementary classrooms. Our work together will build upon the course work you completed this year, your past experiences as a student and a teacher, and your current classroom practices. In this course, we explore the interrelationship of language, literacy, numeracy and culture in order to co-construct a knowledge base for understanding how children learn. We will interrogate our own teaching practices in an effort to make our classrooms more content-rich and child-centered. Our work will span content areas - math, literacy, social studies, and science - emphasizing both their interconnectedness and their particularity. The course will offer opportunity to think in both theoretical terms and practical terms about implications of our teaching. Prerequisite: Enrollment in Urban Teaching Residency Program.
Also Offered As: EDTF 6010
1 Course Unit

EDTC 6040 Methods: Advanced English
This course is designed to give working teachers intensive, hands-on practice with research-based pedagogy that they need to address the immediate challenges of teaching English in urban public schools. Students will develop plans for a full course, several conceptual units, and eight weeks of daily lesson plans. In addition, students will develop and present various instructional routines, which the class will critique. Finally, students will share resources with each other and engage in problem-solving of their real-world classroom issues. Prerequisite: Enrollment in Urban Teaching Residency Program.
Also Offered As: EDTF 6040
1 Course Unit

EDTC 6050 Methods: Advanced Science
This course addresses teaching and learning in middle and secondary science classrooms. The advanced methods topics have been carefully selected to represent current and relevant areas in science education research and are geared toward understanding issues impacting students, teachers and schools in the modern urban society. The course is premised on several organizing themes in education. Skills: topics investigated under this theme include: assessing misconceptions, teaching through multiple intelligences, expanding instructional practices. Teaching Science in Urban Schools: topics investigated under this theme include: culturally relevant pedagogies, gender, professional learning communities and workforce development. 21st Century Learning: topics investigated under this theme include: problem-based learning, information technologies, educational technologies, current STEM fields of research, citizenship science, and ethical decision making. Prerequisite: Enrollment in Urban Teaching Residency Program.
Also Offered As: EDTF 6050
1 Course Unit
EDTC 6060 Methods: Advanced World Languages
As a sequel to your introductory world language teaching and learning courses, this course assumes a level of familiarity with theoretical and practical approaches to world language teaching and learning such as: communicative language teaching, task-based instruction, student centered instruction, and national and state standards. Building on this background, we will examine and analyze the use of emerging key concepts in world language education as well as consider critical perspectives to more traditional pedagogical approaches. Our exploration of world language learning and teaching methods will be grounded in praxis; that is, we will consider how theoretical and research-based approaches inform classroom practices, experiences, and beliefs, and vice versa. Accordingly, the course will provide opportunities for you to bridge theory and practice through an ongoing cycle of discussion, in-class application, and learning experiences such as collaborative activities, peer feedback, self-reflection, brief presentations, and the design of instruction materials. Prerequisite: Enrollment in Urban Teaching Residency Program.
Also Offered As: EDTF 6060
1 Course Unit

EDTC 6070 Advanced Social Studies Methods
This course is designed to give working teachers intensive, hands-on practice with research-based pedagogy that they need to address the immediate challenges of teaching Social Studies in urban public schools. Students will develop plans for a full course, several conceptual units, and eight weeks of daily lesson plans. In addition, students will develop and present various instructional routines, which the class will critique. Finally, students will share resources with each other and engage in problem-solving of their real-world classroom issues.
Spring
Also Offered As: EDTF 6070
1 Course Unit

EDTC 6180 Methods: Advanced Mathematics
This course will focus on gaining a deeper understanding of the methods of mathematics teaching practice. This course will provide students the opportunity to put theory into practice through in class demonstrations of mathematical pedagogical practices. Through in class and online discussions, students will reflect on current teaching practices and the impact that these practices have on learning. It is my goal to support each student in further creating effective student-centered rational behind all teaching decisions. Prerequisite: Enrollment in Urban Teaching Residency Program.
Also Offered As: EDTF 6180
1 Course Unit

EDTC 6250 Culturally Responsive Pedagogy
What is culturally responsive (or relevant) pedagogy? What does it look like, what does it consist of, how is it done, who can do it, when and where can it enter? Is it effective, and for whom? What are the impediments and limitations? What are its roots? What can its future look like, and what can it mean for urban education, student success, and community empowerment? This course will explore these questions and more, providing a theoretical grounding to push this field further, and practical tools to incorporate into current and future teaching and learning activities. The course will also look closely at various intersections (critical race theory, critical pedagogy, gender studies, social justice, multiculturalism, diversity/equity), sociopolitical landscapes, and educational reform efforts, to understand how culturally responsive pedagogy fits within the broader narratives. The class is intentionally designed as a seminar/workshop. Class activities will include full group discussions, small group breakout sessions, video clips, informal presentations, and possible guest speakers. Students are expected to actively engage with both the readings and in class activities. Prerequisite: Enrollment in Urban Teaching Residency Program.
Spring
Also Offered As: EDTF 6250
1 Course Unit

EDTC 7010 Educating Students with Disabilities - Part II
The purpose of this course is to teach students problem solving strategies, teaching techniques, itinerant services, team and community building, and types of disabilities found in students who have disabilities related to specific learning disabilities. We will learn what constitutes disabilities in this population and issues surrounding providing this population with an effective education. Students will explore the ramifications, jargon, specific goals and objectives included with creating and implementing an IEP for students in the population. General issues surrounding the topic of inclusion and the least restrictive environment will be addressed. Instructional techniques and assessments strategies will be a focus. Prerequisite: Enrollment in Urban Teaching Residency Program.
Spring
Also Offered As: EDTF 7010
1 Course Unit

EDTC 7020 Special Education Law & Processes
This course is designed to provide students with an understanding of special education processes, including the evaluation processes, exceptionalties and eligibility, the development and delivery of Individual Education Plans, as well as theories and best educational practices in the field and profession of special education. Students will become familiar with the Individuals with Disabilities in Education Act (IDEA), the cornerstone of special education law, Section 504 of the Americans with Disabilities Act, and Pennsylvania statutes and regulations governing special education law. Issues related to an understanding of the evaluation and determination of exceptionalities in a cultural context will be explored. There will be a focus on the direct application of knowledge and skills to the classroom, as well as the expectation that students teaching experiences will inform discussion and learning. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTF 7020
1 Course Unit
EDTC 7030 Educating Students with Disabilities - Part I
The purpose of this course is to teach students problem solving strategies, teaching techniques, itinerant services, team and community building, and types of disabilities found in students who are eligible to take alternative state testing. We will learn what constitutes disabilities in this population with an effective education. Students will explore the ramifications, jargon, specific goals and objectives included with creating and implementing an IEP for students in the population. Students will discuss the appropriateness of various academic environments as children with more encompassing disabilities progress from elementary to secondary education, and transition into adulthood. General issues surrounding the topic of inclusion and the least restrictive environment will be addressed. A holistic approach to educating this population, with an emphasis on social, emotional, behavioral, transition and life skills are a focus. Students will receive a grade of a pass or fail at the conclusion of the fall term. 40 mandatory hours of fieldwork will take place in the spring semester. This will allow students to demonstrate learning acquired in the course work in a realistic setting. At the conclusion of the spring semester, a grade will be issued. Content will be presented through on line lecture, hands on projects, reading and fieldwork experience. Prerequisite: Enrollment in Urban Teaching Residency Program. Fall
Also Offered As: EDTF 7030
1 Course Unit

EDTF 5030 Methods: Elementary A
This course is designed to enhance literacy and mathematics instruction that engages all students as readers, thinkers and sense makers. In this course, we will explore the interrelationship of language, literacy, numeracy, and culture, and will co-construct a knowledge base for understanding how children learn. We will also develop and practice new routines for teaching literacy and mathematics that build on students interests, curiosities, and informal knowledge. Throughout the course, you will be encouraged to critically reflect on continually develop your teaching practice. Course readings, discussions, and assignments will offer opportunities to think in both theoretical terms and practical terms about your teaching. Prerequisite: Enrollment in Urban Teaching Residency Program. Fall
Also Offered As: EDTC 5030
1 Course Unit

Education - Urban Teaching Residency Master’s (EDTF)
These courses are only available to students in the Urban Teaching Residency program.

EDTF 5030 Methods: Social Studies A
This is an introductory course for students earning middle levels or secondary social studies certification in Pennsylvania. This course is designed to introduce middle level and secondary social studies teachers to pedagogy, content and methodologies supported by a three-pillar foundation: teaching diverse learners (cultural responsiveness), curriculum development (Understanding by Design) and demonstration of knowledge and skill acquisition (high leverage practices and competencies). Prerequisite: Enrollment in Urban Teaching Residency Program. Fall
Also Offered As: EDTF 5030
1 Course Unit

EDTF 5040 Methods: Middle Years A
This course focuses on you as both a learner and a teacher of mathematics and science. Its development is premised on the notion that in order for you to foster understanding and engagement for all your students, you have to develop and draw on different kinds of knowledge, skills, and dispositions. As a result, the course is designed to help you hone your practice as a teacher of mathematics and science and involves you learning about learners (yourself included), the understandings and conceptions they hold, and the developmental processes through which they learn. It also involves developing skills in teaching practices that engage students in mathematical and scientific exploration, creating an environment that facilitates reasoning and promotes inquiry, and finding ways to analyze and learn from your own teaching. Good teaching is essentially a decision laden process, and the decisions you make are contextually based. Consequently, the aim of the course is not to provide you with a bag of tricks that are applicable or generalizable to all situations, but rather to help you develop necessary tools for thinking and working as a teacher. These tools include ways to explore scientific and mathematical content, assess your students understanding on an ongoing basis, and help all your students develop as learners of mathematics and science. Prerequisite: Enrollment in Urban Teaching Residency Program. Fall
Also Offered As: EDTF 5040
1 Course Unit

EDTF 5050 Methods: English A (Middle Level and Secondary)
This course is designed for preservice and working educators and is intended to weave theory into practice. In this data and standards driven climate, educators are often hit with buzzwords instead of solid theory and solid pedagogy. The framework for the course is to provide a foundation in theory and then explores how that theory works within and against existing practices in schools. We will be reflecting on practice and designing and redesigning lessons and units based on theory and best practices for adolescent literacy. This course is an overview of the theory and pedagogy needed for effective English language arts instruction. Prerequisite: Enrollment in Urban Teaching Residency Program. Fall
Also Offered As: EDTF 5050
1 Course Unit

EDTF 5060 Methods: Science A
The purpose of this class is to introduce middle level and secondary science teachers to pedagogy, content and methodologies supported by a three-pillar foundation: teaching diverse learners (cultural responsiveness), curriculum development (Understanding by Design) and demonstration of knowledge and skill acquisition (high leverage practices and competencies). Prerequisite: Enrollment in Urban Teaching Residency Program. Fall
Also Offered As: EDTF 5060
1 Course Unit

EDTF 5070 Methods: Social Studies A
This is an introductory course for students earning middle levels or secondary social studies certification in Pennsylvania. Fall
Also Offered As: EDTF 5070
1 Course Unit
EDTF 5080 Methods: World Languages A
The objectives of this course are for teachers to be able to: Align the four domains of professional practice with world languages pedagogy, recognize and demonstrate how pedagogical theories inform effective methodologies, incorporate a variety of standards-driven instructional practices using communicative techniques that engage students, research, identify and use resources that encourage student-centered learning practices, investigate and utilize a variety of assessments that effectively measure student performance and enhance proficiency, participate in local, state and national professional World Languages organizational activities including workshops and/or conferences. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTC 5080
1 Course Unit

EDTF 5120 Methods: 7-12 Science (Chemistry)
The purpose of this class is to introduce secondary science teachers to pedagogy, content and methodologies supported by a three-pillar foundation: teaching diverse learners (cultural responsiveness), curriculum development (Understanding by Design) and demonstration of knowledge and skill acquisition (high leverage practices and competencies). Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall or Spring
Also Offered As: EDTC 5120
1 Course Unit

EDTF 5130 Methods: 7-12 Science (Physics)
The purpose of this class is to introduce secondary science teachers to pedagogy, content and methodologies supported by a three-pillar foundation: teaching diverse learners (cultural responsiveness), curriculum development (Understanding by Design) and demonstration of knowledge and skill acquisition (high leverage practices and competencies). Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall or Spring
Also Offered As: EDTC 5130
1 Course Unit

EDTF 5150 Child Development
This course explores the origins and context of urban education in the United States by critically examining how schools reproduce and sustain systemic inequality. We will examine historical, political, economic, and socio-cultural frameworks for understanding urban schools, students and teachers. Through course readings, field visits and class discussions, we explore the following: (1) student, teacher and researcher perspectives on urban education, (2) the broader sociopolitical urban context of K-12 schooling in cities, (3) teaching and learning in urban settings and (4) ideas about re-imagining urban education. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTC 5150
1 Course Unit

EDTF 5200 Methods: Mathematics A
The goal of this course is to enhance the teaching and learning of mathematics through a focus on the practical application of pedagogical theory. Each week we will engage in discussions and activities centered on different pedagogical approaches, using lessons covering specific mathematical concepts as demonstration tools. We will also use class time to reflect on experiences from our current teaching positions, and we will work together to develop solutions to problems that arise within our daily classroom experience. I aim to provide you with lesson and curricular development experience, multiple teaching techniques, and an engaging and supportive classroom environment to help us all develop as teachers and learners. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTC 5200
1 Course Unit

EDTF 5210 Foundations Special Educ
This course strives to teach students who are working towards certification in general education problem solving strategies, teaching techniques, itinerant services, team and community building, and types of disabilities found in students who are eligible for Individualized Education Programming (IEPs) under the Individuals with Disabilities Act (IDEA). We will learn what constitutes disabilities in this population and issues surrounding providing this populations with an effective education. Students will explore the ramifications, jargon, specific goals and objectives included with implementing and IEP in the general education, or inclusive, environment. Students will discuss the appropriateness of various academic environments as children with disabilities progress from elementary to secondary education, and transition into adulthood. General issues surrounding the topic of inclusion and the least restrictive environment will be addressed. In addition, time will be spent in this course discussing the education of students who are English Language Learners from the standpoint of sheltered instruction and the use of WIDA lesson planning. A holistic approach to educating all students, with an emphasis on academic, social, emotional, behavioral, and transition skills area focus. Content will be presented through online lecture, hands on projects, and reading. It is expected that students will work within their current teaching placement and with actual students to complete some, if not all, of the 7 projects. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall or Spring
Also Offered As: EDTC 5210
0-1 Course Unit
EDTF 5240 School & Society Seminar
This course is designed to provide students with an opportunity to investigate the philosophical underpinnings, social context, and current discourse of education and schooling in the United States. By historically linking the development of educational initiatives to notions of power, nation building, and citizenship, this class furthers an understanding of the assumptions about the purpose of education within this democratic nation, and its role(s) within our current social and political climate. Discussions of differential access to power and resources will be central to this class, thereby providing a forum for critically exploring educational policy, teaching practices, and the aims and purposes of education that are intimately connected to the social stratification and reproduction. We will draw on students experiential knowledge of schools and teaching to imagine how urban educators can transform the socially reproductive practices of schools. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall or Spring
Also Offered As: EDTC 5240
1 Course Unit

EDTF 5270 Social, Emotional, and Behavioral Interventions
This course is designed to provide students with a comprehensive understanding of students who present with social, emotional, and behavioral difficulties. The course will focus on the definitions, characteristics, prevalence, causes, and assessment of emotional and behavioral disorders. Effective teaching practices will be integrated in the course, including education service placements, functional behavior assessment, ABA, positive behavior supports and social skills instruction. Current issues in the field will also be explored. There will be a focus on the direct application of knowledge and skills to the classroom, as well as the expectation that students’ teaching experiences will inform discussion and learning. Prerequisite: Enrollment in Urban Teaching Residency Program.
Spring
Also Offered As: EDTC 5270
1 Course Unit

EDTF 5290 Language and Literacy Acquisition
This course addresses research-based instructional strategies for teaching literacy (including language development, reading, writing, and speaking) to learners in grades PreK-12 as well as practical and effective modifications for diverse learners (including struggling readers, English language learners, and students with learning disabilities in reading, as well as students with a wide range of disabilities requiring accommodations (cognitive, linguistic, physical, and social)). Formative and summative assessments of emergent and content literacy, including components of literacy (phonological awareness, word analysis, comprehension, vocabulary, fluency) will also be addressed. Also included are factors which influence literacy acquisition (including, but not limited to: English Language Learners), social and cultural implications for language and literacy development, as well as life-long literacy for children and adolescents who struggle in literacy. Prerequisite: Enrollment in Urban Teaching Residency Program.
Also Offered As: EDTC 5290
1 Course Unit

EDTF 5300 Contemp Issues in Urban Education
This course explores the origins and context of urban education in the United States by critically examining how schools reproduce and sustain systemic inequality. We will examine historical, political, economic, and socio-cultural frameworks for understanding urban schools, students and teachers. Through course readings, field visits and class discussions, we explore the following: (1) student, teacher and researcher perspectives on urban education, (2) the broader sociopolitical urban context of K-12 schooling in cities, (3) teaching and learning in urban settings and (4) ideas about re-imagining urban education. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
1 Course Unit

EDTF 5300A Contemp Issues Urban Ed
This course explores the origins and context of urban education in the United States by critically examining how schools reproduce and sustain systemic inequality. We will examine historical, political, economic, and socio-cultural frameworks for understanding urban schools, students and teachers. Through course readings, field visits and class discussions, we explore the following: (1) student, teacher and researcher perspectives on urban education, (2) the broader sociopolitical urban context of K-12 schooling in cities, (3) teaching and learning in urban settings and (4) ideas about re-imagining urban education. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
0.5-1 Course Unit

EDTF 5300B Contemp Issues Urban Ed
This course explores the origins and context of urban education in the United States by critically examining how schools reproduce and sustain systemic inequality. We will examine historical, political, economic, and socio-cultural frameworks for understanding urban schools, students and teachers. Through course readings, field visits and class discussions, we explore the following: (1) student, teacher and researcher perspectives on urban education, (2) the broader sociopolitical urban context of K-12 schooling in cities, (3) teaching and learning in urban settings and (4) ideas about re-imagining urban education. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
0.5-1 Course Unit

EDTF 5310 Methods: Elementary B
In this course we will be examining many aspects of the teaching of science and social studies in elementary schools today. The importance of the National Science and Social Studies Education Standards, the Next Generation of Science Standards, and the Pennsylvania State Standards in curriculum development and reform will be explored in depth. Among the topics covered will be planning science and social studies instruction to include inquiry and integrated concepts, developing authentic assessments involving a variety of tools, creating and maintaining a safe laboratory and learning environment that meets the needs of diverse learners, and the integration of technology into science and social studies education. Prerequisite: Enrollment in Urban Teaching Residency Program.
Spring
Also Offered As: EDTC 5310
1 Course Unit
EDTF 5320 Methods: Middle Years B  
Middle school teachers are involved in the constant process of increasing students’ active reading and writing about content area texts within the high-pressure environment of state accountability. Middle Years Methods offers practical strategies and applications that help establish a literate classroom environment in support of learning across all subject areas. Teachers learn approaches to help them establish literate classroom environments that are rich in problem-solving, critical thinking, logical reasoning concepts focused on state and national standards, and practical techniques that investigate and connect content in all subject areas to the real world. Middle Years Methods is structured to allow participants the opportunity to explore strategies and concepts for increasing student reading and writing proficiency. Prerequisite: Enrollment in Urban Teaching Residency Program.  
Spring  
Also Offered As: EDTC 5320  
1 Course Unit

EDTF 5330 Methods: English B  
This course is designed for preservice and working educators and is intended to weave theory into practice. In this data and standards driven climate, educators are often hit with buzzwords instead of solid theory and solid pedagogy. The framework for the course builds from ELA Methods A. We will begin the semester by exploring the self, culturally relevant pedagogy, and how these things impact our practice. Then we will explore a variety of practices for teaching reading, writing, listening, and speaking. The practices for teaching reading, writing, listening, and speaking align to Special Education Competencies IV. Pedagogy. Prerequisite: Enrollment in Urban Teaching Residency Program.  
Spring  
Also Offered As: EDTF 5330  
1 Course Unit

EDTF 5340 Methods: Science B  
This course is the second course in the three-course series that addresses teaching and learning in middle and secondary science classrooms. The methods topics have been carefully selected to represent current and relevant areas in science education research and are geared toward understanding issues impacting students, teachers and schools in the modern urban society. The course is premised on several organizing themes in education: Assessing misconceptions, teaching through multiple intelligences, expanding instructional practices, teaching science in urban schools, culturally relevant pedagogies, gender, professional learning communities and workforce development, problem-based learning, current STEM fields of research, citizenship science, and ethical decision making. Prerequisite: Enrollment in Urban Teaching Residency Program.  
Spring  
Also Offered As: EDTF 5340  
1 Course Unit

EDTF 5350 Methods: World Languages B  
This course includes theoretical and practical applications for the teaching of world languages based on the five "C" goal areas: Communication, Cultures, Comparisons, Connections, and Communities of the World-Readiness Standards for Learning Languages. Approaches and techniques will be explored to equip world language teachers with the knowledge and tools necessary to create a student-centered, standards-driven classroom. Prerequisite: Enrollment in Urban Teaching Residency Program.  
Spring  
Also Offered As: EDTF 5350  
1 Course Unit

EDTF 5360 Methods: Mathematics B  
Mathematics Methods B is enhancing student learning through knowing the content, planning around our knowledge and reflecting on our practice and our practice and our students thinking. Each week we will think about mathematics through talking about mathematics, doing mathematics, and presenting mathematics, as we will learn to expect our students to do. Each week we will spend time both learning concepts behind the mathematics taught and learned in middle and high school, with a couple of topics from elementary school that have bearing on middle and high school mathematics. We will learn about these concepts in ways that you will be able to use in the classroom, giving you experiences with different methods. Prerequisite: Enrollment in Urban Teaching Residency Program.  
Spring  
Also Offered As: EDTF 5360  
1 Course Unit

EDTF 5370 Methods: Social Studies B  
This course is designed to enable middle years and secondary social studies teachers to expand their pedagogical practice. We will examine curriculum theory and instructional practices as they relate to the middle years and secondary social studies classroom. The course seeks to weave theory into practice by increasing students’ pedagogical content knowledge with the ultimate goal of improving instruction in practitioners’ classrooms. Essential Questions · What does effective teaching look like in the SS classroom? · How can I strategically design and implement instruction to best meet the needs of my students? · How can I promote authentic engagement for culturally diverse students? · What does it take to guide students from dependent to independent learners?  
Spring  
Also Offered As: EDTF 5370  
1 Course Unit

EDTF 6010 Methods: Advanced Elementary  
This course has been designed for first and second year teachers who are currently teaching in elementary classrooms. Our work together will build upon the course work you completed this year, your past experiences as a student and a teacher, and your current classroom practices. In this course, we explore the interrelationship of language, literacy, numeracy and culture in order to co-construct a knowledge base for understanding how children learn. We will interrogate our own teaching practices in an effort to make our classrooms more content-rich and child-centered. Our work will span content areas - math, literacy, social studies, and science - emphasizing both their interconnectedness and their particularity. The course will offer opportunity to think in both theoretical terms and practical terms about implications of our teaching. Prerequisite: Enrollment in Urban Teaching Residency Program.  
Also Offered As: EDTF 6010  
1 Course Unit

EDTF 6040 Methods: Advanced English  
This course is designed to give working teachers intensive, hands-on practice with research-based pedagogy that they need to address the immediate challenges of teaching English in urban public schools. Students will develop plans for a full course, several conceptual units, and eight weeks of daily lesson plans. In addition, students will develop and present various instructional routines, which the class will critique. Finally, students will share resources with each other and engage in problem-solving of their real-world classroom issues. Prerequisite: Enrollment in Urban Teaching Residency Program.  
Also Offered As: EDTF 6040  
1 Course Unit
**EDTF 6050 Methods: Advanced Science**
This course addresses teaching and learning in middle and secondary science classrooms. The advanced methods topics have been carefully selected to represent current and relevant areas in science education research and are geared toward understanding issues impacting students, teachers and schools in the modern urban society. The course is premised on several organizing themes in education. Skills: topics investigated under this theme include: assessing misconceptions, teaching through multiple intelligences, expanding instructional practices. Teaching Science in Urban Schools: topics investigated under this theme include: culturally relevant pedagogies, gender, professional learning communities and workforce development. 21st Century Learning: topics investigated under this theme include: problem-based learning, information technologies, educational technologies, current STEM fields of research, citizenship science, and ethical decision making. Prerequisite: Enrollment in Urban Teaching Residency Program.
Also Offered As: EDTC 6050
1 Course Unit

**EDTF 6060 Methods: Advanced World Languages**
As a sequel to your introductory world language teaching and learning courses, this course assumes a level of familiarity with theoretical and practical approaches to world language teaching and learning such as: communicative language teaching, task-based instruction, student centered instruction, and national and state standards. Building on this background, we will examine and analyze the use of emerging key concepts in world language education as well as consider critical perspectives to more traditional pedagogical approaches. Our exploration of world language learning and teaching methods will be grounded in praxis; that is, we will consider how theoretical and research-based approaches inform classroom practices, experiences, and beliefs, and vice versa. Accordingly, the course will provide opportunities for you to bridge theory and practice through an ongoing cycle of discussion, in-class application, and learning experiences such as collaborative activities, peer feedback, self-reflection, brief presentations, and the design of instruction materials. Prerequisite: Enrollment in Urban Teaching Residency Program.
Also Offered As: EDTC 6060
1 Course Unit

**EDTF 6070 Advanced Social Studies Methods**
This course is designed to give working teachers intensive, hands-on practice with research-based pedagogy that they need to address the immediate challenges of teaching Social Studies in urban public schools. Students will develop plans for a full course, several conceptual units, and eight weeks of daily lesson plans. In addition, students will develop and present various instructional routines, which the class will critique. Finally, students will share resources with each other and engage in problem-solving of their real-world classroom issues. Spring
Also Offered As: EDTC 6070
1 Course Unit

**EDTF 6130 Education Law**
The practice of pushing students out of the education system and into the legal system has become known more concisely as the "school-to-prison pipeline." This course will examine the policies and procedures of school discipline grounded in the rhetoric of law and order and the criminalization of young people. We will address the historical, social, political, economic, and ethical dimensions of the relationship between education and the carceral state, with justice as our primary focus. We will engage with philosophical, theoretical, and empirical readings from a wide variety of disciplines toward the development of meaningful research questions and a proposal for the capstone. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
1 Course Unit

**EDTF 6160 Politics of School Reform**
In this course we will explore the implications of US school reform in the post-Brown era. Interdisciplinary in nature, Politics of School Reform takes on the causes and consequences of reform by considering historical, sociological, and legal concepts related to major reform issues and initiatives. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall or Spring
1 Course Unit

**EDTF 6180 Methods: Advanced Mathematics**
This course will focus on gaining a deeper understanding of the methods of mathematics teaching practice. This course will provide students the opportunity to put theory into practice through in class demonstrations of mathematical pedagogical practices. Through in class and online discussions, students will reflect on current teaching practices and the impact that these practices have on learning. It is my goal to support each student in further creating effective student-centered rational behind all teaching decisions. Prerequisite: Enrollment in Urban Teaching Residency Program.
Also Offered As: EDTC 6180
1 Course Unit

**EDTF 6190 Research Seminar**
Research plays a critical role in education. Discipline-specific studies are used to evaluate new curricula and educational programming, and to better understand classroom and school environments. The ability to both use and to be a critical consumer of this literature is essential for educators. In this course, we examine multiple research and evaluation methodologies, their applicability to issues in education, and the use of research findings to develop educational policy. The course provides an overview of research design and qualitative and quantitative data collection and analysis. A key goal is to equip students with the knowledge they need to become critical consumers and strategic users of educational research. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
1 Course Unit
EDTF 6250 Culturally Responsive Pedagogy
What is culturally responsive (or relevant) pedagogy? What does it look like, what does it consist of, how is it done, who can do it, when and where can it enter? Is it effective, and for whom? What are the impediments and limitations? What are its roots? What can its future look like, and what can it mean for urban education, student success, and community empowerment? This course will explore these questions and more, providing a theoretical grounding to push this field further, and practical tools to incorporate into current and future teaching and learning activities. The course will also look closely at various intersections (critical race theory, critical pedagogy, gender studies, social justice, multiculturalism, diversity/equity), sociopolitical landscapes, and educational reform efforts, to understand how culturally responsive pedagogy fits within the broader narratives. The class is intentionally designed as a seminar/workshop. Class activities will include full group discussions, small group breakouts, video clips, informal presentations, and possible guest speakers. Students are expected to actively engage both with the readings and in class activities. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
1 Course Unit

EDTF 6270 Outside of the School Box
This course explores education broadly, focusing on the interconnections between individuals, families, and policy as each relates to urban public schools. Drawing from a critical sociocultural lens, Outside the School Box also engages with ongoing discussions of school quality and public policy. Major topics include the impact of housing selection on the makeup of urban public schools; teacher training, recruitment and retention; and causes and effects of market-driven educational systems. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
1 Course Unit

EDTF 6280 Racial Literacy
This course will provide you with opportunities to explore the experiences, perspectives, and contributions of various cultures, groups, and individuals while exposing you to the knowledge, skills, and tools that are necessary to become a racially competent and highly effective educator. We will learn how racial literacy is defined, practiced, acquired, and used ensure that culturally responsive practices are a substantial piece of your pedagogical framework. This course will introduce a number of different racial perspectives about the same subject matter in an effort to demonstrate that understanding different viewpoints can improve ones ability to respond accordingly. Through storytelling, journaling, stress management practice, role-playing, and open exchange and dialogue you will see how racial literacy is established by reflecting on in-the-moment stress reactions. We will support you as you learn how to address diversity related topics in ways that create teaching and learning environments where mutual respect and trust form the basis of the relationships between you and the communities you serve. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall or Spring
1 Course Unit

EDTF 7010 Educating Students with Disabilities - Part II
The purpose of this course is to teach students problem solving strategies, teaching techniques, itinerant services, team and community building, and types of disabilities found in students who have disabilities related to specific learning disabilities. We will learn what constitutes disabilities in this population and issues surrounding providing this population with an effective education. Students will explore the ramifications, jargon, specific goals and objectives included with creating and implementing an IEP for students in the population. General issues surrounding the topic of inclusion and the least restrictive environment will be addressed. Instructional techniques and assessments strategies will be a focus. Prerequisite: Enrollment in Urban Teaching Residency Program.
Spring
Also Offered As: EDTC 7010
1 Course Unit

EDTF 7020 Special Education Law & Processes
This course is designed to provide students with an understanding of special education processes, including the evaluation processes, exceptionailities and eligibility, the development and delivery of Individual Education Plans, as well as theories and best educational practices in the field and profession of special education. Students will become familiar with the Individuals with Disabilities in Education Act (IDEA), the cornerstone of special education law, Section 504 of the Americans with Disabilities Act, and Pennsylvania statutes and regulations governing special education law. Issues related to an understanding of the evaluation and determination of exceptionalities in a cultural context will be explored. There will be a focus on the direct application of knowledge and skills to the classroom, as well as the expectation that students teaching experiences will inform discussion and learning. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTC 7020
1 Course Unit

EDTF 7030 Educating Students with Disabilities - Part I
The purpose of this course is to teach students problem solving strategies, teaching techniques, itinerant services, team and community building, and types of disabilities found in students who are eligible to take alternative state testing. We will learn what constitutes disabilities in this population with an effective education. Students will explore the ramifications, jargon, specific goals and objectives included with creating and implementing an IEP for students in the population. Students will discuss the appropriateness of various academic environments as children with more encompassing disabilities progress from elementary to secondary education, and transition into adulthood. General issues surrounding the topic of inclusion and the least restrictive environment will be addressed. A holistic approach to educating this population, with an emphasis on social, emotional, behavioral, transition and life skills are a focus. Students will receive a grade of a pass or fail at the conclusion of the fall term. 40 mandatory hours of fieldwork will take place in the spring semester. This will allow students to demonstrate learning acquired in the course work in a realistic setting. At the conclusion of the spring semester, a grade will be issued. Content will be presented through on line lecture, hands on projects, reading and fieldwork experience. Prerequisite: Enrollment in Urban Teaching Residency Program.
Fall
Also Offered As: EDTC 7030
1 Course Unit
EDTF 7040 Special Education Capstone - Part I
In this course, students who are working towards their Masters of Education in the Urban Teaching Residency Program will be involved in the process of designing and utilizing research in education. Students will learn the components of an educational research project including hypothesis development, literature review techniques, and various research methodologies including action research, data collection and analysis. Significant topics in education will be discussed. Students will be required to complete a preliminary literature review, Capstone Project Proposal and completed literature review in the fall term, followed by methodology, data analysis and discussion in the spring term. Both semesters will include whole group and individual instruction that will support the completion of a comprehensive Capstone Project that addresses a notable issue in education. Prerequisite: Enrollment in Urban Teaching Residency Program.

Spring
0-1 Course Unit

EDTF 7050 Urban Education Capstone Writing Seminar
This course is designed as a writing seminar in order to complete a thesis for a master's degree. Students are required to develop a research question and methods for data collection, analyze existing literature related to the research question, collect data, analyze the data, and draw conclusions from the data. There will be four whole class sessions and at least three individual writing conferences. During the whole class sessions, students will learn how to plan, execute, and analyze research. Since this class is a writing seminar, be prepared to spend time in class drafting, conferencing, and/or researching. Prerequisite: Enrollment in Urban Teaching Residency Program.

Spring
1 Course Unit

EDTF 7060 Special Education Capstone - Part II
In the second session of the Special Education Capstone students will continue the writing process with finalizing edited Literature Review sections from session I, and learning how to write and develop research based methodology appropriate for each student’s project. The course will then break apart the components of data analysis and discussion with students moving through the research process to compose each. The semester is comprised of face to face sessions in whole group and individual conferences. Prerequisite: Enrollment in Urban Teaching Residency Program.

Spring
0-1 Course Unit

**Electrical & Systems Engineering (ESE)**

ESE 0099 Undergraduate Research and/or Independent Study
An opportunity for the student to become closely associated with a professor in (1) a research effort to develop research skills and technique and/or (2) to develop a program of independent in-depth study in a subject area in which the professor and student have a common interest. The challenge of the task undertaken must be consistent with the student's academic level. To register for this course, the student and professor jointly submit a detailed proposal to the undergraduate curriculum chairman no later than the end of the first week of the term. Fall or Spring
0.5-2 Course Units

ESE 1110 Atoms, Bits, Circuits and Systems
Introduction to the principles underlying electrical and systems engineering. Concepts used in designing circuits, processing signals on analog and digital devices, implementing computation on embedded systems, analyzing communication networks, and understanding complex systems will be discussed in lectures and illustrated in the laboratory. This course provides an overview of the challenges and tools that Electrical Engineers and Systems Engineers address and some of the necessary foundations for students interested in more advanced courses in ESE.

Fall
1 Course Unit

ESE 1120 Engineering Electromagnetics
This course covers basic topics in electromagnetics, namely, electric charge, electric field, electric energy, conductors, insulators, dielectric materials, capacitors, electric current, magnetic field, inductors, Faraday's law of induction, alternating current (AC), impedance, Maxwell's equations, electromagnetic and optical wave propagation, with emphasis on engineering issues. Relevant topics are emphasized in our lectures in order to prepare students for other courses in ESE that rely on the contents on this course. Several laboratory experiments accompany the course to provide hands-on experience on some of the topics in the lecture and prepare students for the capstone project. Pre-requisites MATH 1400 and PHYS 0150/ PHYS 0170/ MEAM 1100 or with permission of the instructor. It is recommended but not required that MATH 1410 be taken concurrently.

Spring
Prerequisites: MATH 1400 AND (PHYS 0150 OR PHYS 0140 PHYS 0170/ MEAM 1100) OR with permission of instructor. It is recommended but not required that MATH 1410 be taken concurrently.
1.5 Course Unit

ESE 1500 Digital Audio Basics
Primer on digital audio. Overview of signal processing, sampling, compression, human psychoacoustics, MP3, intellectual property, hardware and software platform components, and networking (i.e., the basic technical underpinnings of modern MP3 players and cell phones).

Spring
Prerequisite: CIS 1100 OR ENGR 1050
1 Course Unit

ESE 1900 Silicon Garage: Introduction to Open Source Hardware and Software Platforms
Project-centric learning course for non-ESE majors on microprocessor control of physical systems using open-source hardware and software platforms. Students will work in teams to develop software controlled systems based on the Arduino and Raspberry-Pi that interface with the real world (sensors, actuators, motors) and each other (networking).

Prerequisite: High School Physics and Math

Spring
0.5 Course Units
ESE 2000 Artificial Intelligence Lab: Data, Systems, and Decisions
The purpose of this course is to introduce students to the basic concepts of systems engineering, data sciences, and machine learning. The course will cover the engineering cycle and expose students to the notions of data, systems, models, decisions, and requirements. The course empowers students to use statistical analysis, signal processing, and optimization techniques to process data in decision making systems. It also empowers students to use machine learning techniques for the same purpose. The relative strengths of each approach are discussed. Students are exposed to techniques to process data with temporal, spatial, and network structure as well as to deterministic and Markov dynamical system models.
Spring
1 Course Unit

ESE 2040 Decision Models
This first course in decision making will introduce you to quantitative models for decision and design in the sciences, engineering, machine learning, data science, logistics, and economics. Through application-based case studies, you will be shown how to (i) formalize a decision problem as a mathematical optimization problem, and (ii) solve the resulting optimization problem using Python scientific computing modules. You will also be given a brief introduction to the optimization algorithms and programming tools underpinning contemporary deep learning and shown how to apply them to decision and design problems.
Fall
Prerequisite: MATH 1400
1 Course Unit

ESE 2100 Introduction to Dynamic Systems
This first course in systems modeling covers linear and nonlinear systems in both continuous and discrete time. Topics covered include linearization and stability analysis, elementary bifurcations, and an introduction to chaotic dynamics. Extensive applications to mechanical, electrical, biological, social, and economic/financial systems are included. The course will use both analytical and numerical/symbolic tools.
Fall
1 Course Unit

ESE 2150 Electrical Circuits and Systems
This course gives an introduction of modern electric and electronic circuits and systems. Designing, building and experimenting with electrical and electronic circuits are challenging and fun. It starts with basic electric circuit analysis techniques of linear circuits. Today mathematical analysis is used to gain insight that supports design; and more detailed and accurate representations of circuit performance are obtained using computer simulation. It continues with 1st order and 2nd order circuits in both the time and frequency domains. It discusses the frequency behavior of circuits and the use of transfer functions. It continues with introduction of non-linear elements such as diodes and MOSFET (MOS) transistors. Applications include analog and digital circuits, such as single stage amplifiers and simple logic gates. A weekly lab accompanies the course where concepts discussed in class will be illustrated by hands-on projects; students will be exposed to state-of-the-art test equipment and software tools (LabView, Spice).
Fall
Prerequisite: ESE 1120
1.5 Course Unit

ESE 2180 Electronic, Photonic, and Electromechanical Devices
This first course in electronic, photonic and electromechanical devices introduces students to the design, physics and operation of physical devices found in today's applications. The course describes semiconductor electronic and optoelectronic devices, including light-emitting diodes, photodetectors, photovoltaics, transistors and memory; optical and electromagnetic devices, such as waveguides, fibers, transmission lines, antennas, gratings, and imaging devices; and electromechanical actuators, sensors, transducers, machines and systems.
Fall
Prerequisite: ESE 1120
1.5 Course Unit

ESE 2240 Signal and Information Processing
Introduction to signal and information processing (SIP). In SIP we discern patterns in data and extract the patterns from noise. Foundations of deterministic SIP in the form of frequency domain analysis, sampling, and linear filtering. Random signals and the modifications of deterministic tools that are necessary to deal with them. Multidimensional SIP where the goal is to analyze signals that are indexed by more than one parameter. Includes a hands-on lab component that implements SIP as standalone applications on modern mobile platforms.
Spring
Prerequisite: MATH 1400
1.5 Course Unit

ESE 2900 Introduction to Electrical and Systems Engineering Research Methodology
Introduction to the nature and process of engineering research as represented by ongoing ESE faculty (and collaborating colleagues' and industrial partners') research projects. Joint class exercises in how to pursue effective background technical reading, pitch a proposal, and aim for the discovery of new human knowledge to complement the individually mentored topic specific project work.
Spring
0.5 Course Units

ESE 2910 Introduction to Electrical and Systems Engineering Research and Design
Students contract with a faculty mentor to conduct scaffolded original research in a topic of mutual interest. Prepare project report on research findings.
Spring
Prerequisite: ESE 2900 OR Permission of Instructor
1 Course Unit

ESE 2920 Invention Studio
This is a project-centric course for ESE majors to engage in circuit layout and prototype design skills. Students will work in teams to develop printed circuit boards using industry standard tools like Altium and learn mechanical prototyping skills using Solidworks. Emphasis will be on developing sound printed circuit board layout practices using circuitry knowledge that they acquire in ESE 2150 and ESE 3700. A module on using Cypress PSoC will introduce students to recent developments in analog/digital co-design.
Fall
Prerequisite: ESE 2150
.5 Course Units

ESE 2960 Study Abroad
1 Course Unit
ESE 3010 Engineering Probability
This course introduces students to the mathematical foundations of the theory of probability and its rich applications. The course begins with an exploration of combinatorial probabilities in the classical setting of games of chance, proceeds to the development of an axiomatic, fully mathematical theory of probability, and concludes with the discovery of the remarkable limit laws and the eminence grise of the classical theory, the central limit theorem. The topics covered include: discrete and continuous probability spaces, distributions, mass functions, densities; conditional probability; independence; the Bernoulli schema; the binomial, Poisson, and waiting time distributions; uniform, exponential, normal, and related densities; expectation, variance, moments; conditional expectation; generating functions, characteristic functions; inequalities, tail bounds, and limit laws. But a bald listing of topics does not do justice to the subject: the material is presented in its lush and glorious historical context, the mathematical theory buttressed and made vivid by rich and beautiful applications drawn from the world around us. The student will see surprises in election-day counting of ballots, a historical wager the sun will rise tomorrow, the folly of gambling, the sad news about lethal genes, the curiously persistent illusion of the hot hand in sports, the unreasonable efficacy of polls and its implications to medical testing, and a host of other beguiling settings.
Spring
Prerequisite: MATH 1410 or permission of instructor
1 Course Unit

ESE 3030 Stochastic Systems Analysis and Simulation
This analysis is usually complemented with numerical analysis of experimental outcomes. This class covers topics in probability and random processes, Markov chains, Poisson processes, stationary and Gaussian processes. Besides the theoretical toolbox that we build, we explore applications in communication networks, search engines, deciphering algorithms, molecular biology and more.
Fall
Prerequisite: ESE 3010 or permission of instructor
1 Course Unit

ESE 3050 Foundations of Data Science
Introduction to a broad range of tools to analyze large volumes of data in order to transform them into actionable decisions. Using case studies and hands-on exercises, the student will have the opportunity to practice and increase their data analysis skills.
Fall
Prerequisite: ESE 3010 or permission of instructor
1 Course Unit

ESE 3060 Deep Learning: A Hands-on Introduction
This course will serve as an introductory and hands-on dive into the area of deep learning. The main goal is to educate the students on (i) the commonly-used neural network architectures and proficiency in training them, (ii) Some of the main problems that deep learning systems have successfully addressed (formulation, architecture, data sets, etc). There will be no theory in this course. After finishing this course, the students should be very comfortable with pytorch programming as well as training deep learning models.
Fall
Prerequisite: ESE 2240
1 Course Unit

ESE 3190 Fundamentals of Solid-State Circuits
Analysis and design of basic active circuits involving semiconductor devices including diodes and bipolar transistors. Single stage, differential, multi-stage, and operational amplifiers will be discussed including their high frequency response. Wave shaping circuits, filters, feedback, stability, and power amplifiers will also be covered. A weekly three-hour laboratory will illustrate concepts and circuits discussed in the class.
Spring
Prerequisite: ESE 2150 or permission of instructor
1.5 Course Unit

ESE 3250 Fourier Analysis and Applications in Engineering, Mathematics, and the Sciences
This course focuses on the mathematics behind Fourier theory and a wide variety of its applications in diverse problems in mathematics, engineering, and the sciences. The course is very mathematical in content and students signing up for it should have junior or senior standing. The topics covered are chosen from: functions and signals; systems of differential equations; superposition, memory, and non-linearity; resonance, eigenfunctions; the Fourier series and transforms, spectra; convergence theorems; inner product spaces; mean-square approximation; interpolation and prediction, sampling; random processes, stationarity; wavelets, Brownian motion; stability and control, Laplace transforms. Prerequisite: Junior or Senior standing
The applications of the mathematical theory that will be presented vary from year to year but a representative sample include: polynomial approximation, Weierstrass's theorem; efficient computation via Monte Carlo; linear and non-linear oscillators; the isoperimetric problem; the heat equation, underwater communication; the wave equation, tides; testing for randomness, fraud; nowhere differentiable continuous functions; does Brownian motion exist?; error-correction; phase conjugate optics and four-wave mixing; cryptography and secure communications; how fast can we compute?; X-ray crystallography; cosmology; and what the diffusion equation has to say about mathematical finance and arbitrage opportunities.
Fall
Prerequisite: ESE 2240 or permission of instructor
1 Course Unit

ESE 3300 Principles of Optics and Photonics
This course introduces the fundamental principles of optics, photonics, and antennas alongside a range of applications. Specific topics include: Maxwell's equations and the wave equation; light propagation and interaction with materials; geometric/ray optics and polarization; wave optics; diffraction and gratings; waveguides and fiber optics; optical cavities; lasers and light sources; antennas and applications to wireless communication. Prerequisite: Permission of instructor
Prerequisite: ESE 2150 or permission of instructor
1 Course Unit
ESE 3360 Nanofabrication of Electrical Devices
This course is an intermediate undergraduate course in the understanding, fabrication, and characterization of electrical, optical, electromagnetic, and/or electromechanical nanodevices; i.e., micro- and nanoscale devices which have significant relevance to electrical engineering. Example devices of interest include transistors, microelectromechanical systems (MEMS), and optical and optoelectronic devices (including photovoltaic devices). Weekly laboratory sessions will enable the fabrication and characterization of a subset of electrical nanodevices. Students will learn basic physics and modeling of electrical nanodevices as well as acquire hands-on skill in their fabrication and characterization. Prerequisite: If course requirements not met, permission of instructor required.

Spring
Prerequisite: ESE 2180 or permission of instructor
1.5 Course Unit

ESE 3400 Medical Devices Laboratory
With the demand for personalized medicine and health care, the need for consumer medical devices has risen. Traditionally devices have been designed from the ground up, but with more standardized components and software tools devices can be built to fulfill this need. This course will introduce design of medical devices. Students will learn the basics of sensors, signal conditioning, data acquisition and analysis, biopotential, biopotential electrodes, biomedical instrumentation, examples of biological signal measurement and electronics safety. This will be a lab based inquiry into medical device design. Prerequisites: Some exposure to circuit/electronics; Calculus and familiarity with signals
1 Course Unit

ESE 3500 Embedded Systems/Microcontroller Laboratory
An introduction to interfacing real-world sensors and actuators to embedded microprocessor systems. Concepts needed for building electronic systems for real-time operation and user interaction, such as digital input/outputs, interrupt service routines, serial communications, and analog-to-digital conversion will be covered. The course will conclude with a final project where student-designed projects are featured in presentations and demonstrations. Prerequisite: Prior programming experience in any language

Spring
Prerequisite: ESE 2150 AND CIS 1200 (or permission of instructor)
1.5 Course Unit

ESE 3600 TinyML: Tiny Machine Learning for Embedded Systems
Tiny Machine Learning for Embedded Systems is a cutting-edge field that brings the transformative power of machine learning (ML) to the performance-constrained and power-constrained domain of embedded systems to develop useful and exciting Internet of Things solutions. This is an introductory course at the intersection of Machine Learning (ML) and Embedded Internet of Things (IoT) Devices which covers machine learning applications and algorithms using embedded hardware, sensors, actuators and software. Embedding machine learning in a device at the extreme end point - right at the data source - is fundamentally different from general data-center style machine learning. Embedded ML is all about real-time processing of time-series data that comes directly from sensors. By the end of this course, students will collect and preprocess data to build a dataset, design a model, train a model, evaluate and optimize the pipeline, convert the model to run on hardware, deploy the model on a microcontroller, make inference and roll out applications. This will enable future applications development across medical devices, home appliances, industrial automation, wild-life conservation, smart agriculture and many more. Prerequisites: Basic knowledge of programming (CIS1100 or equivalent) and basic knowledge of Python and basic knowledge of electronics and circuits. We provide the background, tools and assignments for machine learning and embedded systems using TensorFlow, Google Colab, and ARM Cortex32 hardware platforms.
Prerequisite: CIS 1200 or permission of instructor
1 Course Unit

ESE 3700 Circuit-Level Modeling, Design, and Optimization for Digital Systems
Circuit-level design and modeling of gates, storage, and interconnect. Emphasis on understanding physical aspects which drive energy, delay, area, and noise in digital circuits. Impact of physical effects on design and achievable performance.

Fall
Prerequisite: ESE 2150 or permission of instructor
1 Course Unit

ESE 4000 Engineering Economics
This course investigates methods of economic analysis for decision making among alternative courses of action in engineering applications. Topics include: cost-driven design economics, break-even analysis, money-time relationships, rates of return, cost estimation, depreciation and taxes, foreign exchange rates, life cycle analysis, benefit-cost ratios, risk analysis, capital financing and allocation, and financial statement analysis. Case studies apply these topics to actual engineering problems.
Prerequisite: Knowledge of Differential Calculus
Fall
Mutually Exclusive: ESE 5400
1 Course Unit
ESE 4010 Complex Networks
The course covers the methodological foundations of network formation and utilization. It introduces various mathematical models for random and strategic, static and dynamic formation of networks. The models for random static formation span, Erdos Renyi Graphs and Power law topologies. Threshold properties underlying these formations will be rigorously proved. The dynamic formations will introduce mean field based deterministic models for network evolution. Techniques for approximately analyzing various key network features such as component sizes will be introduced. These analyses will culminate in tools for approximate analysis of efficacy of various immunization strategies considering epidemic disease spread over networks. A solid background in undergraduate probability is required (e.g. ESE 3010, STAT 4300, ENM 3210, CIS 2610 or equivalent).

Spring
Mutually Exclusive: ESE 5010
Prerequisite: ESE 3010 or permission of instructor
1 Course Unit

ESE 4020 Statistics for Data Science
The course covers the methodological foundations of data science, emphasizing basic concepts in statistics and learning theory, but also modern methodologies. Learning of distributions and their parameters. Testing of multiple hypotheses. Linear and nonlinear regression and prediction. Classification. Uncertainty quantification. Model validation. Clustering. Dimensionality reduction. Probably approximately correct (PAC) learning. Such theoretical concepts are further complemented by example applications, case studies (datasets), and programming exercises (in Python) drawn from electrical engineering, computer science, the life sciences, finance, and social networks.

Fall
Mutually Exclusive: ESE 5420
Prerequisite: ESE 3010 or permission of instructor
1 Course Unit

ESE 4070 Introduction to Networks and Protocols
This is an introductory course on packet networks and associated protocols, with a particular emphasis on IP-based networks such as the Internet. The course introduces design and implementation choices that underlie the development of modern networks, and emphasizes basic analytical understanding of the concepts. Topics are covered in a mostly "top down" approach starting with web HTTP protocol followed by transport layer protocols such as TCP and UDP. Congestion control of TCP is extensively covered. Network layer solutions, including IP addressing and routing are covered next, before exploring link layer solutions including multiple access strategies, local area networks (Ethernet and 802.11). The objectives of the course include basic understanding of the network protocol stack and hands-on experience analyzing protocol behavior using wireshark.

Fall
Mutually Exclusive: ESE 5070
Prerequisite: ESE 3010 or permission of instructor
1 Course Unit

ESE 4190 Analog Integrated Circuits
Design of analog circuits and subsystems using primarily MOS technologies at the transistor and higher levels. Transistor level design of building block circuits such as op amps, comparators, sample and hold circuits, voltage and current references, capacitors and resistor and class AB output stages. The Cadence Design System will be used to capture schematics and run simulations using Spectre for some homework problems and for the course project. Topics of stability, noise, device matching through good layout practice will also be covered. Students who take ESE 4190 will not be able to take ESE 5720 later. More will be expected of ESE 5720 students in the design project. Prerequisite: If course requirement not met, permission of instructor required.

Fall
Mutually Exclusive: ESE 5720
Prerequisite: ESE 3190 or permission of instructor
1 Course Unit

ESE 4210 Control For Autonomous Robots
This course introduces the hardware, software and control technology used in autonomous ground vehicles, commonly called "self-driving cars." The weekly laboratory sessions focus on development of a small-scale autonomous car, incrementally enhancing the sensors, software, and control algorithms to culminate in a demonstration in a realistic outdoor operating environment. Students will learn basic physics and modeling; controls design and analysis in Matlab and Simulink; software implementation in C and Python; sensor systems and filtering methods for IMUs, GPS, and computer vision systems; and path planning from fixed map data. Prerequisite: If course requirement not met, permission of instructor required.

Fall
Also Offered As: MEAM 4210
Prerequisite: ESE 2240 OR MEAM 2110 or permission of instructor
1.5 Course Unit

ESE 4230 Quantum Engineering
Quantum engineering - the design, fabrication, and control of quantum coherent devices - has emerged as a multidisciplinary field spanning physics, electrical engineering, materials science, chemistry, and biology, with the potential for transformational advances in computation, secure communication, and nanoscale sensing. This course surveys the state of the art in quantum hardware, beginning with an overview of the physical implementation requirements for a quantum computer and proceeding to a synopsis of the leading contenders for quantum building blocks, including spins in semiconductors, superconducting circuits, photons, and atoms. The course combines background material on the fundamental physics and engineering principles required to build and control these devices with readings drawn from the current literature, including promising architectures for scaling physical qubits into larger devices and secure communication networks, and for nanoscale sensing applications impacting biology, chemistry, and materials. Prerequisite: If course requirement not met, permission of instructor required.

Spring
Mutually Exclusive: ESE 5230
Prerequisite: ESE 5130 or permission of instructor
1 Course Unit
ESE 4440 Project Management
Most work that engineers do is project work and most project work is teamwork. Even when working individually, engineering tasks are usually part of a larger project. This course focuses on developing the sociotechnical knowledge and skills critical to success throughout one's career whether as a project team member, a project team manager/leader, or a project sponsor. Sociotechnical theory will show us that it doesn't work to focus on the social system or the technical system independent of or in isolation of each other. It is the interplay, the interaction between the behavioral (e.g., communication, conflict management, decision making) and the technical (e.g., SMART goals, scheduling, budgeting, tracking) aspects of project work that most influences project success. Open systems theory will allow us to examine projects at various system levels: the individual, the team, the organization, and people or groups in the organization's environment such as suppliers, regulators, competitors, customers and clients.
Two Term Class, Student may enter either term; credit given for either
Mutually Exclusive: ESE 5440
Prerequisite: ESE 3040
1 Course Unit

ESE 4500 Senior Design Project I - EE and SSE
This is the first of a two-semester sequence in electrical and systems engineering senior design. Student work will focus on project/team definition, systems analysis, identification alternative design strategies and determination (experimental or by simulation) or specifications necessary for a detailed design. Project definition is focused on defining a product prototype that provides specific value to a least one identified user group. Students will receive guidance on preparing professional written and oral presentations. Each project team will submit a project proposal and two written project reports that include coherent technical presentations, block diagrams and other illustrations appropriate to the project. Each student will deliver two formal Powerpoint presentations to an audience comprised of peers, instructors and project advisors. During the semester there will be periodic individual-team project reviews.
Prerequisite: Senior Standing or permission of the instructor
Fall
Prerequisite: Senior Standing
1 Course Unit

ESE 4510 Senior Design Project II - EE and SSE
This is the second of a two-term sequence in electrical and systems engineering senior design. Student work will focus on completing the product prototype design undertaken in ESE 450 and successfully implementing the said product prototype. Success will be verified using experimental and/or simulation methods appropriate to the project that test the degree to which the project objectives are achieved. Each project team will prepare a poster to support a final project presentation and demonstration to peers, faculty and external judges. The course will conclude with the submission of a final project written team report. During the semester there will be periodic project reviews with individual teams.
Spring
Prerequisite: ESE 4500 or permission of instructor
1 Course Unit

ESE 5000 Linear Systems Theory
This graduate-level course focuses on continuous and discrete n-dimensional linear systems with m inputs and p outputs in a time domain based on linear operators. The course covers general discussions of linear systems such as, linearization of non-linear systems, existence and uniqueness of state-equation solutions, transition matrices and their properties, methods for computing functions of matrices and transition matrices and state-variable changes. It also includes z-transform and Laplace transform methods for time-invariant systems and Floquet decomposition methods for periodic systems. The course then moves to stability analysis, including: uniform stability, uniform exponential stability, asymptotic stability, uniform asymptotic stability, Lyapunov transformations, Lyapunov stability criteria, eigenvalues conditions and input-output stability analysis. Applications involving the topics of controllability, observability, realizability, minimal realization, controller and observer forms, linear feedback, and state feedback stabilization are included, as time permits. Open to graduates and undergraduates who have taken undergraduate courses in linear algebra and differential equations.
Fall
1 Course Unit

ESE 5010 Networking - Theory and Fundamentals
Networks constitute an important component of modern technology and society. Networks have traditionally dominated communication technology in form of communication networks, distribution of energy in form of power grid networks, and have more recently emerged as a tool for social connectivity in form of social networks. In this course, we will study mathematical techniques that are key to the design and analysis of different kinds of networks. First, we will investigate techniques for modeling evolution of networks. Specifically, we will consider random graphs (all or none connectivity, size of components, diameters under random connectivity), small world problem, network formation and the role of topology in the evolution of networks. Next, we will investigate different kinds of stochastic processes that model the flow of information in networks. Specifically, we will develop the theory of markov processes, renewal processes, and basic queueing, diffusion models, epidemics and rumor spreading in networks.
Spring
Mutually Exclusive: ESE 4010
Prerequisite: ESE 5300
1 Course Unit

ESE 5030 Simulation Modeling and Analysis
This course provides a study of discrete-event systems simulation in the areas of queuing, inventory and reliability systems as well as Markov Chains, Random-Walks and Monte-Carlo systems. The course examines many probability distributions used in simulation studies as well as the Poisson process. Fundamental to most simulation studies is the ability to generate reliable random numbers and so the course investigates the basic properties of random numbers and techniques used for the generation and testing of pseudo-random numbers. Random numbers are then used to generate other random variable using the methods of inverse-transform, convolution, composition and acceptance/rejection. Finally, since most inputs to simulation are probabilistic instead of deterministic in nature, the course examines some techniques used for identifying the probabilistic nature of input data. These include identifying distributional families with sample data, using maximum-likelihood methods for parameter estimating within a given family and testing the final choice of distribution using chi-squared goodness-of-fit.
Spring
1 Course Unit
ESE 5050 Feedback Control Design and Analysis
Basic methods for analysis and design of feedback control in systems. Applications to practical systems. Methods presented include time response analysis, frequency response analysis, root locus, Nyquist and Bode plots, and the state-space approach.
Spring
Also Offered As: MEAM 5130
Prerequisite: MEAM 3210 OR ESE 2100
1 Course Unit

ESE 5060 Introduction to Optimization Theory
Introduction to mathematical optimization for graduate students who would like to be intelligent and sophisticated users of mathematical programming but do not necessarily plan to specialize in this area. Linear, integer and nonlinear programming are covered, including the fundamentals of each topic together with a sense of the state-of-the-art and expected directions of future progress. Homework and projects emphasize modeling and solution analysis, and introduce the students to a large variety of application areas.
Fall
1 Course Unit

ESE 5070 Introduction to Networks and Protocols
This is an introductory course on packet networks and associated protocols, with a particular emphasis on IP-based networks such as the Internet. The course introduces design and implementation choices that underlie the development of modern networks, and emphasizes basic analytical understanding of the concepts. Topics are covered in a mostly "bottom-up" approach starting with a brief review of physical layer issues such as digital transmission, error correction and error recovery strategies. This is followed by a discussion of link layer aspects, including multiple access strategies, local area networks (Ethernet and 802.11 wireless LANs), and general store-and-forward packet switching. Network layer solutions, including IP addressing, naming, and routing are covered next, before exploring transport layer and congestion control protocols (UDP and TCP). Finally, basic approaches for quality-of-service and network security are examined. Specific applications and aspects of data compression and streaming may also be covered.
Fall
Mutually Exclusive: ESE 4070
1 Course Unit

ESE 5090 Quantum Circuits and Systems
Quantum information processing promises new paradigms in secure communication, powerful new simulation techniques, and exponential speedups over classical techniques for a select range of problems. This course will cover the basics of quantum mechanics and introduce students to a circuit-based model for quantum computing. In the course, several of the key algorithms that have motivated the pursuit of large-scale universal quantum computers will be explored. The scalability of quantum computers from a circuits perspective will be covered including error correction techniques. Students will also gain hands-on experience in programming cloud-based quantum computers. Students should have previously taken an undergraduate course in linear algebra such as MATH 2400 or ESE 2240.
Spring
1 Course Unit

ESE 5100 Electromagnetic and Optics
This course reviews electrostatics, magnetostatics, electric and magnetic materials, induction, Maxwell's equations, potentials and boundary-value problems. Topics selected from the areas of wave propagation, wave guidance, antennas, and diffraction will be explored with the goal of equipping students to read current research literature in electromagnetics, microwaves, and optics.
Fall
1 Course Unit

ESE 5120 Dynamical Systems for Engineering and Biological Applications
This midlevel course in nonlinear dynamics focuses on the analysis of low dimensional, continuous time models for describing and understanding complex behavior in physical, biological and engineered systems. We assume some background knowledge of ordinary differential equations, and develop at an engineering applications level the concepts and tools of qualitative dynamical systems theory with major focus on analysis and some on synthesis.
Fall
1 Course Unit

ESE 5130 Prin of Quantum Tech
Fall
1 Course Unit

ESE 5140 Graph Neural Networks
Graph Neural Networks (GNNs) are information processing architectures for signals supported on graphs. They have been developed and are presented in this course as generalizations of the convolutional neural networks (CNNs) that are used to process signals in time and space. The focus of this course is in large scale problems involving high dimensional signals. In these settings fully connected neural networks fail to scale. CNNs are the tool for enabling scalable learning for signals in time and space. GNNs are the tool for enabling scalable learning for signals supported on graphs.
Fall
1 Course Unit

ESE 5150 Internet of Things Sensors and Systems
The course is designed to introduce sensors and their networks and systems that are increasingly pervasive and form the physical device layer of the Internet of Things. Sensors transduce input signals into measured outputs within and between chemical, thermal, mechanical, optical, electrical, and magnetic domains. The course will describe the physical principles of operation, the characteristics, and the figures of merit of different sensors and their integration in networks and systems, highlighting common electronic interfaces that are used. The sensors and systems will be described as case studies to show how these devices are used to monitor and regulate processes in applications in agriculture, the environment, the home, manufacturing, health, transportation, and human activity. The course is structured with a combination of lectures, in-class and at-home labs, and research paper reading/in-class discussion.
Spring
1 Course Unit
ESE 5160 IoT Edge Computing
This course was developed to bring lessons learned from the product design industry into the classroom - specifically focusing on Internet of Things (IoT) device development and deployment. To achieve the highest level of knowledge transfer, the course will incorporate device design theory with discussions of real-world product failures and successes - as well as a heavy hands-on component to build a device from end to end. Students will learn to use industry standard tools, such as Altium, Atmel Studio, and IBM Watson - allowing them the same level of power and customization at the disposable of startups and Fortune 500 companies alike. Prerequisite: If course requirement not met, permission of instructor required.
Spring
Prerequisite: ESE 5190
1 Course Unit

ESE 5190 Smart Devices
An embedded system is the product of a marriage between hardware and software. Embedded systems have grown to be ubiquitous in the modern world - from simple temperature controlled kettles to intricate smart watches with a plethora of functions squeezed into one small package to complex rovers for space exploration. This course introduces the theory and practice of developing embedded systems through exploration of modern microcontroller architectures and culminates in a final project where students have the opportunity to synthesize and apply their knowledge in a project of their own design. Previous programming experience (Preferably C); Some exposure to circuit/electronics; Undergraduates who have taken ESE 3500 are not permitted to take this course.
Fall
Also Offered As: IPD 5190
Prerequisite: CIS 1200 AND ESE 3500
1 Course Unit

ESE 5210 The Physics of Solid State Energy Devices
An advanced undergraduate course or graduate level course on the fundamental physical principles underlying the operation of traditional semiconducting electronic and optoelectronic devices and extends these concepts to novel nanoscale electronic and optoelectronic devices. The course assumes an undergraduate level understanding of semiconductors physics, as found in ESE 2180 or PHYS 1240. The course builds on the physics of solid state semiconductor devices to develop the operation and application of semiconductors and their devices in energy conversion devices such as solar photovoltaics, thermophotovoltaics, and thermoelectrics, to supply energy. The course also considers the importance of the design of modern semiconductor transistor technology to operate at low-power in CMOS. Prerequisite: If course requirement not met, permission of instructor required.
Spring
Prerequisite: ESE 2180 OR PHYS 1240
1 Course Unit

ESE 5230 Quantum Engineering
Quantum engineering - the design, fabrication, and control of quantum coherent devices - has emerged as a multidisciplinary field spanning physics, electrical engineering, materials science, chemistry, and biology, with the potential for transformational advances in computation, secure communication, and nanoscale sensing. This course surveys the state of the art in quantum hardware, beginning with an overview of the physical implementation requirements for a quantum computer and proceeding to a synopsis of the leading contenders for quantum building blocks, including spins in semiconductors, superconducting circuits, photons, and atoms. The course combines background material on the fundamental physics and engineering principles required to build and control these devices with readings drawn from the current literature, including promising architectures for scaling physical qubits into larger devices and secure communication networks, and for nanoscale sensing applications impacting biology, chemistry, and materials science.
Spring
Mutually Exclusive: ESE 4230
Prerequisite: PHYS 4411
1 Course Unit

ESE 5250 Nanoscale Science and Engineering
Overview of existing device and manufacturing technologies in microelectronics, optoelectronics, magnetic storage, Microsystems, and biotechnology. Overview of near- and long-term challenges facing those fields. Near- and long-term prospects of nanoscience and related technologies for the evolutionary sustainment of current approaches, and for the development of revolutionary designs and applications. Prerequisite: If course requirement not met, permission of instructor required.
Fall
Also Offered As: MSE 5250
Prerequisite: ESE 2180 OR PHYS 1240
1 Course Unit

ESE 5280 Estimation and Detection Theory
Statistical decision making constitutes the core of multiple engineering systems like communication, networking, signal processing, control, market dynamics, biological systems, data processing, etc. We strive to introduce mathematical theories that formulate statistical decision and obtain decision making algorithms with application to one or more of the above domains. This course will be offered every other year.
Fall or Spring
Prerequisite: ESE 5300
1 Course Unit

ESE 5290 Introduction to Micro- and Nano-electromechanical Technologies
Spring
Also Offered As: MEAM 5290
1 Course Unit
**ESE 5300 Elements of Probability Theory**
This rapidly moving course provides a rigorous development of fundamental ideas in probability theory and random processes. The course is suitable for students seeking a rigorous graduate level exposure to probabilistic ideas and principles with applications in diverse settings. The topics covered are drawn from: abstract probability spaces; combinatorial probabilities; conditional probability; Bayes’s rule and the theorem of total probability; independence; connections with the theory of numbers, Borel’s normal law; rare events, Poisson laws, and the Lovasz local lemma; arithmetic and lattice distributions arising from the Bernoulli scheme; limit laws and characterizations of the binomial and Poisson distributions; continuous distributions in one and more dimensions; the uniform, exponential, normal, and related distributions; random variables, distribution functions; orthogonal and stationary random processes; the Gaussian process, Brownian motion; random number generation and statistical tests of randomness; mathematical expectation and the Lebesgue theory; expectations of functions, moments, convolutions; operator methods and distributional convergence, the central limit theorem, selection principles; conditional expectation; tail inequalities, concentration convergence in probability and almost surely, the law of large numbers, the law of the iterated logarithm; Poisson approximation, Janson’s inequality, the Stein-Chen method; moment generating functions, renewal theory; characteristic functions.

Fall  
1 Course Unit

**ESE 5310 Digital Signal Processing**
This course covers the fundamentals of discrete-time signals and systems and digital filters. Specific topics covered include: review of discrete-time signal and linear system representations in the time and frequency domain, and convolution; discrete-time Fourier transform (DTFT); Z-transforms; frequency response of linear discrete-time systems; sampling of continuous-time signals, analog to digital conversion, sampling-rate conversion; basic discrete-time filter structures and types; finite impulse response (FIR) and infinite impulse response (IIR) filters; design of FIR and IIR filters; discrete Fourier transform (DFT), the fast Fourier transform (FFT) algorithm and its applications in filtering and spectrum estimation.

Fall  
1 Course Unit

**ESE 5320 System-on-a-Chip Architecture**
Motivation, design, programming, optimization, and use of modern System-on-a-Chip (SoC) architectures. Hands-on coverage of the breadth of computer engineering within the context of SoC platforms from gates to application software, including on-chip memories and communication networks, I/O interfacing, RTL design of accelerators, processors, concurrency, firmware and OS/infrastructure software. Formulating parallel decompositions, hardware and software solutions, hardware/software tradeoffs, and hardware/software codesign. Attention to real-time requirements. Undergraduates: CIS 240, ESE 350; Graduate: Working knowledge of C.

Fall  
1 Course Unit

**ESE 5330 Stochastic Processes**
Stochastic modeling and analysis is key in understanding physical phenomena as well as designing new systems and quantifying various trade-offs and aspects of those designs. The course develops the foundations of stochastic processes and aims to provide engineering students with a mathematical, yet intuitive, toolbox to work with random processes. Topics covered include random walks, counting processes, renewal processes, Markov models and Markov decision processes, and martingales. Tools and techniques studied in this class are at the core of various fields ranging from engineering to social sciences and biology. Solid background in probability, preferably advanced probability, is required (e.g. ESE 3010 or equivalent). Some calculus and linear algebra will be needed (e.g. MATH 1040 and MATH 2400)

Fall  
1 Course Unit

**ESE 5350 Electronic Design Automation**
Formulation, automation, and analysis of design mapping problems with emphasis on VLSI and computational realizations. Major themes include: formulating and abstracting problems, figures of merit (e.g. Energy, Delay, Throughput, Area, Mapping Time), representation, traditional decomposition of flow (logic optimization, covering, scheduling, retiming, assignment, partitioning, placement, routing), and techniques for solving problems (e.g., greedy, dynamic programming, search, (integer) linear programming, graph algorithms, randomization, satisfiability). Digital logic, Programming (need to be Not Offered Every Year)

1 Course Unit

**ESE 5360 Nanofabrication and Nanocharacterization**
This course is intended for first year graduate students interested in the experimental practice of nanotechnology. In the context of a hands-on laboratory experience, students will gain familiarity with both top-down and bottom-up fabrication and characterization technologies. This will be achieved through the realization of a variety of micro- and nanoscale structures and devices that can exhibit either classical or quantum effects at the small scale. Although concepts relevant to the laboratories will be emphasized in lecture, it is expected that students will already have been exposed to many of the underlying theoretical concepts of nanotechnology in previous courses. Prerequisite: If course requirement not met, permission instructor required.

Spring  
Prerequisite: ESE 5250 OR MSE 5250

1 Course Unit

**ESE 5390 Hardware/Software Co-Design for Machine Learning**
The course is designed to introduce an engineering discipline at the intersection of machine learning and hardware systems to fill the gap. The covered topics include basics of deep learning, deep learning frameworks, deep learning on contemporary computing platforms (CPU, GPU, FPGA) and programmable accelerators (TPU), performance measures, numerical representation and customized data types for deep learning, co-optimization of deep learning algorithms, software and hardware, training for deep learning and complex deep learning models. The course is structured with a combination of lectures, labs, research paper reading/in-class discussion, a final project and guest lectures with state-of-the-art industry practices.

Fall  
1 Course Unit
ESE 5400 Engineering Economics
This course is cross-listed with an advanced-level undergraduate course (ESE 4000). Topics include: money-time relationships, discrete and continuous compounding, equivalence of cash flows, internal and external rate of return, design and production economics, life cycle cost analysis, depreciation, after-tax cash flow analysis, cost of capital, capital financing and allocation, parametric cost estimating models, pricing, foreign exchange rates, stochastic risk analysis, replacement analysis, benefit-cost analysis, and analysis of financial statements. Case studies apply these topics to engineering systems. Students are not required to do additional work compared to ESE 4000 students. The work-load is identical.
Fall
Mutually Exclusive: ESE 4000
1 Course Unit

ESE 5410 Machine Learning for Data Science
The course covers the methodological foundations of data science, emphasizing basic concepts in statistics and learning theory, but also modern methodologies. Learning of distributions and their parameters. Testing of multiple hypotheses. Linear and nonlinear regression and prediction. Classification. Dimensionality reduction. Probably approximately correct (PAC) learning. Such theoretical concepts are further complemented by example applications, case studies (datasets), and programming exercises (in Python) drawn from electrical engineering, computer science, the life sciences, finance, and social networks.
Fall or Spring
Prerequisite: CIT 5920
1 Course Unit

ESE 5420 Statistics for Data Science
The course covers the methodological foundations of data science, emphasizing basic concepts in statistics and learning theory, but also modern methodologies. Learning of distributions and their parameters. Testing of multiple hypotheses. Linear and nonlinear regression and prediction. Classification. Uncertainty quantification. Model validation. Clustering. Dimensionality reduction. Probably approximately correct (PAC) learning. Such theoretical concepts are further complemented by example applications, case studies (datasets), and programming exercises (in Python) drawn from electrical engineering, computer science, the life sciences, finance, and social networks.
Fall
Mutually Exclusive: ESE 4020
1 Course Unit

ESE 5430 Human Systems Engineering
This course is an introduction to human systems engineering, examining the various human factors that influence the spectrum of human performance and human systems integration. We will examine both theoretical and practical applications, emphasizing fundamental human cognitive and performance issues. Specific topics include: human performance characteristics related to perception, attention, comprehension, memory, decision making, and the role of automation in human systems integration.
Fall or Spring
1 Course Unit

ESE 5440 Project Management
Most work that engineers do is project work and most project work is teamwork. Even when working individually, engineering tasks are usually part of a larger project. This course focuses on developing the sociotechnical knowledge and skills critical to success throughout one's career whether as a project team member, a project team manager/leader, or a project sponsor. Sociotechnical theory will show us that it doesn't work to focus on the social system or the technical system independent of or in isolation of each other. It is the interplay, the interaction between the behavioral (e.g., communication, conflict management, decision making) and the technical (e.g., SMART goals, scheduling, budgeting, tracking) aspects of project work that most influences project success.
Open systems theory will allow us to examine projects at various system levels: the individual, the team, the organization, and people or groups in the organization's environment such as suppliers, regulators, competitors, customers and clients.
Two Term Class, Student may enter either term; credit given for either
Mutually Exclusive: ESE 4440
Prerequisite: ESE 3040
1 Course Unit

ESE 5450 Data Mining: Learning from Massive Datasets
Many scientific and commercial applications require us to obtain insights from massive, high-dimensional data sets. In this graduate-level course, students will learn to apply, analyze and evaluate principled, state-of-the-art techniques from statistics, algorithms and discrete and convex optimization for learning from such large data sets. The course both covers theoretical foundations and practical applications.
Spring
1 Course Unit

ESE 5460 Principles of Deep Learning
Introductory class in machine learning and optimization. CIS 5190, CIS 5200, ESE 5450, ESE 3040, ESE 5040, ESE 6050 recommended or permission of the instructor.
Fall
1 Course Unit

ESE 5470 Introduction to Legged Locomotion
This course reviews three decades' development of agile legged machines, treating past and recent advances as well as remaining formidable challenges in the materials selection, design, and programming of robots that can run, leap and climb through complicated, unstructured terrain. Emphasis is on developing understanding of and facility using key dynamical primitives whose composition allows more complicated behaviors to emerge from simpler constituents.
Several historical case studies will be used to illustrate how advances have rewarded interdisciplinary thinking about animals, materials, mathematics and mechatronics. Course credit will be based on problem sets and coding exercises.
1 Course Unit

ESE 5480 Transportation Planning Methods
This course introduces students to the development and use of the 4-step urban transportation model (trip generation-trip distribution-mode choice-traffic assignment) for community and metropolitan mobility planning. Using the VISUM transportation desktop planning package, students will learn how to build and test their own models, apply them to real projects, and critique the results. Prerequisite: CPLN 5050 or other planning statistics course.
Spring
Also Offered As: CPLN 6500
Prerequisite: CPLN 5050
1 Course Unit
ESE 5500 Advance Transportation Seminar
Air transportation is a fascinating multi-disciplinary area of transportation bringing together business, planning, engineering, and policy. In this course, we explore the air transportation system from multiple perspectives through a series of lessons and case studies. Topics will include airport and intercity multimodal environmental planning, network design and reliability, air traffic management and recovery from irregular operations, airline operations, economics, and fuel, air transportation sustainability, and land use issues related to air transportation systems. This course will introduce concepts in economics and behavioral modeling, operations research, statistics, environmental planning, and human factors that are used in aviation and are applicable to other transportation systems. The course will emphasize learning through lessons, guest lectures, case studies of airport development and an individual group and research project.
Spring
Also Offered As: BEPP 7610
Prerequisite: ESE 5500
1 Course Unit

ESE 5660 Networked Neuroscience
The human brain produces complex functions using a range of system components over varying temporal and spatial scales. These components are couples together by heterogeneous interactions, forming an intricate information-processing network. In this course, we will cover the use of network science in understanding such large-scale and neuronal-level brain circuitry. Prerequisite: Graduate standing or permission of the instructor. Experience with Linear Algebra and MATLAB.
Spring
Also Offered As: BE 5660
1 Course Unit

ESE 5670 Risk Analysis and Environmental Management
This course will introduce students to concepts in risk governance. We will delve into the three pillars of risk analysis: risk assessment, risk management, and risk communication. The course will spend time on risk financing, including insurance markets. There will be particular emphasis on climate risk management, including both physical impact risk and transition risk, although the course will also discuss several other examples, including management of environmental risks, terrorism, and cyber-security, among other examples. The course will cover how people perceive risks and the impact this has on risk management. We will explore public policy surrounding risk management and how the public and private sector can successfully work together to build resilience, particularly to changing risks.
Fall or Spring
Also Offered As: BEPP 7610, OIDD 7610
1 Course Unit

ESE 5700 Digital Integrated Circuits and VLSI-Fundamentals
Explores the design aspects involved in the realization of an integrated circuit from device up to the register/subsystem level. It addresses major design methodologies with emphasis placed on the structured design. The course includes the study of MOS device characteristics, the critical interconnect and gate characteristics which determine the performance of VLSI circuits, and NMOS and CMOS logic design. Students will use state-of-the-art CAD tools to verify designs and develop efficient circuit layouts.
Spring
Prerequisite: ESE 3190
1 Course Unit

ESE 5720 Analog Integrated Circuits
Design of analog circuits and subsystems using bipolar and MOS technologies at the transistor and higher levels. Transistor level design of building block circuits such as op amps, comparators, sample and hold circuits, voltage and current references, capacitors and resistor arrays, and class AB output stages. The course will include a design project of an analog circuit. The course will use the Cadence Design System for schematic capture and simulation with Spectre circuit simulator. This course is similar to ESE 5700, except that it will not require the use of the physical layout tools associated with VLSI design and implementation.
Fall
Mutually Exclusive: ESE 4190
Prerequisite: ESE 3190
1 Course Unit

ESE 5780 RFIC (Radio Frequency Integrated Circuit) Design
Introduction to RF (Radio Frequency) and Microwave Theory, Components, and Systems. The course aims at providing knowledge in RF transceiver design at both microwave and millimeter-wave frequencies. Both system and circuit level perspective will be addressed, supported by modeling and simulation using professional tools (including Agilent ADS, Sonnet, and Cadence Design Systems). Topics include: Transmission Line Theory, S-parameters, Smith Chart for matching network design, stability, noise, and mixed signal design. RF devices covered will include: hybrid/Wilkinson/Lange 3dB couplers, Small Signal Amplifiers (SSA), Low Noise Amps (LNA), and Power Amps (PA). CMOS technology will be largely used to design the devices mentioned.
Spring
Prerequisite: ESE 5720
1 Course Unit

ESE 5800 Power Electronics
Addressing today's energy and environmental challenges requires efficient energy conversion techniques. This course will discuss the circuits that efficiently convert ac power to dc power, dc power from one voltage level to another, and dc power to ac power. The lecture will discuss the components used in these circuits (e.g., transistors, diodes, capacitors, inductors) in detail to highlight their behavior in a practical implementation. In addition, the class will have lab sessions where students will obtain hands-on experience with power electronic circuits. Students should have taken an introductory circuits course like ESE 2150 or equivalent.
Fall
1 Course Unit

ESE 5970 Master's Thesis
For students working on an advanced research leading to the completion of a Master's thesis.
Fall or Spring
1-2 Course Units

ESE 5990 Independent Study for Master's credit
Fall or Spring
1-4 Course Units
ESE 6050 Modern Convex Optimization
This course concentrates on recognizing and solving convex optimization problems that arise in engineering. Topics include: convex sets, functions, and optimization problems. Basis of convex analysis. Linear, quadratic, geometric, and semidefinite programming. Optimality conditions, duality theory, theorems of alternative, and applications. Interior-point methods, ellipsoid algorithm and barrier methods, self-concordance. Applications to signal processing, control, digital and analog circuit design, computation geometry, statistics, and mechanical engineering. Knowledge of linear algebra and willingness to do programming. Exposure to numerical computing, optimization, and application fields is helpful but not required.
Spring
1 Course Unit

ESE 6060 Combinatorial Optimization
The course will cover polyhedral theory, structural results and their applications to designing algorithms. Specific topics to be covered include: matchings and their applications, connectivity properties of graphs, matroids and optimization including matroid intersection and union, submodular set functions and applications, arborescences and branchings.
Prerequisite: ESE 5040
1 Course Unit

ESE 6110 Nanophotonics: Light at the Nanoscale
This course is intended for first and second year graduate students interested in nanoscale optics and photonics. Building on prior coursework in electromagnetism, this course provides a theoretical foundation and up-to-date survey of the key principles and phenomena relevant to the field of nanophotonics. Topics discussed include light-matter interaction through Maxwell’s equations, photonic band theory and photonic crystals, plasmonic structures and devices, metamaterials and metasurfaces, PT-symmetric & topological photonic systems. Applications of nanophotonic devices and principles to a wide range of scenarios will also be explored in depth, including for renewable energy, information processing, imaging and sensing. Experimental techniques used in nanophotonics will be concurrently introduced and discussed.
Prerequisite: Permission of instructor
Fall or Spring
1 Course Unit

ESE 6150 F1/10 Autonomous Racing Cars
This hands-on, lab-centered course is for senior undergraduates and graduate students interested in the fields of artificial perception, motion planning, control theory, and applied machine learning. It is also for students interested in the burgeoning field of autonomous driving. This course introduces the students to the hardware, software and algorithms involved in building and racing an autonomous race car. Every week, students take two lectures and complete an extensive hands-on lab. By Week 6, the students will have built, programmed and driven a 1/10th scale autonomous race car. By Week 10, the students will have learned fundamental principles in perception, planning and control and will race using map-based approaches. In the last 6 weeks, they develop and implement advanced racing strategies, computer vision and machine learning algorithms that will give their team the edge in the race that concludes the course. Prerequisites: C++ and Python programming, Matrix algebra, Differential equations, Signals and Systems
1 Course Unit

ESE 6170 Non-Linear Control Theory
The course provides a basic understanding of nonlinear systems phenomena and studies analysis and control design problems of nonlinear systems. The main analysis tools that will be presented are Lyapunov theory for stability, including the well known LaSalle’s invariance principle, and barrier function theory for safety of both autonomous and non-autonomous systems. Further topics include input-output stability, passivity, and the center manifold theorem. The main control tools that will be presented are feedback linearization, backstepping, as well as recent results on learning control Lyapunov and control barrier functions from data. Examples will be taken from mechanical and robotic systems.
Not Offered Every Year
Also Offered As: MEAM 6130
Prerequisite: ESE 5000
1 Course Unit

ESE 6180 Learning for Dynamics and Control
This course will provide students an introduction to the emerging area at the intersection of machine learning, dynamics, and control. We will investigate machine learning and data-driven algorithms that interact with the physical world, with an emphasis on a holistic understanding of the interplay between concepts from control theory (e.g., feedback, stability, robustness) and machine learning (e.g., generalization, sample-complexity). Topics of study will include learning models of dynamical systems, using these models to robustly meet performance objectives, optimally refining models to improve performance, and verifying the safety of machine learning enabled control systems. The course will also expose students to the ethical considerations that need to be considered when designing learning algorithms that interact with and are placed in feedback with the world. The course will consist of lectures, and students will be evaluated based on traditional and programming assignments, as well as a final project.
Fall
1 Course Unit

ESE 6190 Model Predictive Control
Increased system complexity and more demanding performance requirements have rendered traditional control laws inadequate regardless if simple PID loops are considered or robust feedback controllers designed according to some H2/infinity criterion. Applications ranging from the process industries to the automotive and the communications sector are making increased use of Model Predictive Control (MPC) where a fixed control law is replaced by on-line optimization performed over a receding horizon. The advantage is that MPC can deal with almost any time-varying process and specifications, limited only by the availability of real-time computer power. In the last few years we have seen tremendous progress in this interdisciplinary area where fundamentals of systems theory, computation and optimization interact. For example, methods have emerged to handle hybrid systems, i.e. systems comprising both continuous and discrete components. Also, it is now possible to perform most of the computations off-line thus reducing the control law to a simple look-up table.
Spring
1 Course Unit
ESE 6210 Nanoelectronics
This is a graduate level course on fundamental operating principles and physics of semiconductor devices in reduced or highly scaled dimensions. The course will include topics and concepts covering basic quantum mechanics and solid state physics of nanostructures as well as device transport and characterization, materials and fabrication. A basic knowledge of semiconductor physics and devices is assumed. The course will build upon basic quantum mechanics and solid state physics concepts to understand the operation of nanoscale semiconductor devices and physics of electrons in confined dimensions. The course will also provide a historical perspective on micro and nanoelectronics, discuss the future of semiconductor computing technologies, cutting edge research in nanomaterials, device fabrication as well as provide a perspective on materials and technology challenges. Prerequisite: If course requirement not met, permission of instructor required.
Spring
1 Course Unit
ESE 6250 Nanorobotics
Nanorobotics is a field at the forefront of nano-science and engineering that seeks to create synthetic systems that sense and respond to their environment at dimensions comparable to biological microorganisms. This course explores the topic of small machines: What materials should we use to make these devices? How should they be powered or locomote? What capacities can they have for memory or information processing? How can they be made to interface safely with biological systems? This course covers the major frameworks for building small machines, including self-assembled systems (DNA nanotechnology, biohacking) and those fabricated by top-down lithography (self-folding systems, synthetic micro-swimmers, smart-dust). Particular emphasis is given to exploring physical principles that can be used to analyze the strengths and limitations of current robot designs at the micro and nanoscale.
1 Course Unit
ESE 6350 Distributed Systems
This research seminar deals with tools, methods, and algorithms for analysis and design of distributed dynamical systems. These are large collections of dynamical systems that are spatially interconnected to form a collective task or achieve a global behavior using local interactions. Over the past decade such systems have been studied in disciplines as diverse as statistical physics, computer graphics, robotics, and control theory. The purpose of this course is to build a mathematical foundation for study of such systems by exploring the interplay of control theory, distributed optimization, dynamical systems, graph theory, and algebraic topology. Assignments will consist of reading and researching the recent literature in this area. Topics covered in distributed coordination and consensus algorithms over networks, coverage problems, effects of delay in large scale networks. Power law graphs, gossip and consensus algorithms, synchronization phenomena in natural and engineered systems, etc.
Not Offered Every Year
1 Course Unit
ESE 6500 Learning in Robotics
This course will cover the mathematical fundamentals and applications of machine learning algorithms to mobile robotics. Possible topics that will be discussed include probabilistic generative models for sensory feature learning. Bayesian filtering for localization and mapping, dimensionality reduction techniques for motor control, and reinforcement learning of behaviors. Students are expected to have a solid mathematical background in machine learning and signal processing, and will be expected to implement algorithms on a mobile robot platform for their course projects. Grading will be based upon course project assignments as well as class participation. Students will need permission from the instructor. They will be expected to have a good mathematical background with knowledge of machine learning techniques at the level of ESE 5310, as well as have some robotics experience.
Spring
1 Course Unit
ESE 6650 Datacenter Architecture
This course covers advanced topics in data centers with an emphasis on computer architecture and systems. This course surveys recent advances in processor, memory, network, and storage. And it surveys modern software systems in computing clouds. Discussion-oriented classes focus on in-depth analysis of readings. Students will learn to reason about datacenter performance and energy efficiency. Students will complete a collaborative research project. Final project and paper required. Appropriate for graduate and advanced undergraduate students. After completing this course, students should be able to • Understand design, management of datacenter architectures and system software. • Read architecture and systems papers critically. • Write constructive paper reviews • Identify open research problems in datacenter architecture • Design and execute a research project to address an open research problem There are no required prerequisites, but coursework that includes one or more of the following courses is strongly recommended: ESE 4070/ESE 5070, ESE 5190, ESE 5320, ESE 5390, CIS 3800, CIS 4550/CIS 5550, or CIS 4710/CIS 5710.
Fall or Spring
1 Course Unit
ESE 6680 Mixed Signal Circuit Design and Modeling
This course will introduce design and analysis of mixed-signal integrated circuits. Topics include: Sampling and quantization, Sampling circuits, Switched capacitor circuits and filters, Comparators, Offset compensation, DACs/ADCs (flash, delta-sigma, pipeline, SAR), Oversampling, INL/DNL, FOM. The course will end with a final design project using analysis and design techniques learned in the course. Students must provide a written report with explanations to their design choices either with equations or simulation analysis/insight along with performance results.
Spring
1 Course Unit
ESE 6710 High Frequency Power Electronics
Miniaturization remains a challenge in power electronic systems for energy applications, whose overall goal is to increase energy efficiency and reduce waste. In this course, we will study the design of resonant converters that can operate at higher frequencies than their hard-switched counterparts and achieve higher control bandwidth and power density. We will explore practical design issues and trade-offs in selecting converter topologies in high-performance applications. We will also discuss the design and modeling of high-frequency magnetic elements, gate drives, and resonant snubbers. Students should have taken a power electronics class like ESE 5800 or equivalent.
Fall
1 Course Unit

ESE 6720 Integrated Communication Systems
This is an advanced radio frequency (RF) circuit design course that includes analysis and design of high-frequency and high-speed integrated communication circuits at both transistor and system levels. Students gradually design and simulate different blocks of an RF receiver and combine these blocks to form the receiver as their final project. We assume some background knowledge of device physics, electromagnetics, circuit theory, control theory, and stochastic processes.
Fall or Spring
Prerequisite: ESE 4190 OR ESE 5720
1 Course Unit

ESE 6730 Integrated Photonic Systems
Analysis and design of photonic integrated systems at both device and system levels including architectures, photonic integrated circuit technologies, passive components (nano-waveguides, resonators, couplers, and Y-junctions) and active components (lasers, modulators, and photodiodes) are studied. The emphasis is on silicon photonics.
Prerequisite: If course requirement not met, permission of instructor required.
Spring
Prerequisite: ESE 5100
1 Course Unit

ESE 6740 Information Theory
Deterministic and probabilistic information. The pigeon-hole principle. Entropy, relative entropy, and mutual information. Random processes and entropy rate. The asymptotic equipartition property. Optimal codes and data compression. Channel capacity. Source channel coding. The ubiquitous nature of the theory will be illustrated with a selection of applications drawn from among: universal source coding, vector quantization, network communication, the stock market, hypothesis testing, algorithmic computation and kolmogorov complexity, and thermodynamics.
Not Offered Every Year
Prerequisite: ESE 5300
1 Course Unit

ESE 6760 Coding Theory
Coding theory for telecommunications with emphasis on the algebraic theory of cyclic codes using finite field arithmetic, decoding of BCH and Reed-Solomon codes, finite field Fourier transform and algebraic geometry codes, convolutional codes and trellis decoding algorithms, graph based codes, Berrou codes and Gallager codes, turbo decoding, iterative decoding. And belief propagation.
Not Offered Every Year
1 Course Unit

ESE 6800 Special Topics in Electrical and Systems Engineering
Advanced and specialized topics in both theory and application areas. Students should check Graduate Group office for offerings during each registration period.
Not Offered Every Year
1 Course Unit

ESE 8950 Teaching Practicum
Participation of graduate students in the teaching mission of the department will help to develop teaching, presentation, leadership, and interpersonal skills while assisting the department in discharging its teaching responsibilities. All doctoral students are required to participate under faculty guidance in the teaching mission of the department. This requirement will be satisfied by completing two 0.5 course units of teaching practicum (ESE 895). Each 0.5 course unit of teaching practicum will consist of the equivalent of 10 hours of effort per week for one semester. As a part of the preparation for and fulfillment of the teaching practicum requirement, the student will attend seminars emphasizing teaching and communication skills, lead recitations, lead tutorials, supervise laborato experiments, develop instructional laboratories, develop instructional materiaand grade homeworks, laboratory reports, and exams. A teacher training seminar will be conducted the day before the first day of classes of the Fall semester. Attendance is mandatory for all second-year students. As much as possible, the grading aspect of the teaching practicum course will be such as not to exceed 50% of the usual teaching assistant commitment time. Some of the recitations will be supervised and feedback and comments will be provided to the student by the faculty member responsible for the course. At the completion of every 0.5 course unit of teach, the student will receive a Satisfactory/Unsatisfactory grade and a written evaluation by the faculty member responsible for the course. The evaluation will beon comments of the students taking the course and the impressions of the facult
Fall or Spring
0.5-1 Course Unit

ESE 8990 Independent Study for PhD credit
For students who are studying a specific advanced subject area in electrical engineering. Students must submit a proposal outlining and detailing the study area, along with the faculty supervisor's consent, to the graduate group chair for approval. A maximum of 1 c.u. of ESE 8990 may be applied toward the MSE degree requirements. A maximum of 2 c.u.'s of ESE 8990 may be applied toward the Ph.D. degree requirements.
Fall or Spring
1-4 Course Units

ESE 9990 Dissertation
Register for this after completing four years of full-time study including two course units each Summer Session (and usually equal to 40 course units).
Fall or Spring
0 Course Units

ESE 9990 Thesis/Dissertation Research
For students working on an advanced research program leading to the completion of master's thesis or Ph.D. dissertation requirements.
Fall or Spring
1-4 Course Units
Energy Management and Policy (ENMG)

ENMG 5020 Introduction to Energy Policy
This course provides an advanced introduction to the design and delivery of energy policy at various levels of government in the U.S. and beyond. Energy presents theoretical and practical challenges across many disciplines and professions, especially in the context of economic development and environmental sustainability at scales ranging from local to global. This course is intended to provide a broad overview of the institutions, legal frameworks, technologies, and markets involved in energy policy by exploring theories and case studies across these topics, with an emphasis on the energy transition necessitated by climate change. That said, a full introduction to energy policy requires multiple courses and Penn offers many salient ones across several schools including Law, Wharton, Weitzman, SAS, and SEAS. The primary goal of this course is to teach students how to think—rather than what to know—about energy policy. As such, this course provides both (a) a foundation for students who want to take additional courses on energy law, markets, technology, or policy and (b) a synthesis for students who have taken such courses and want to connect ideas and issues across disciplines and professions. Our seminar sessions will be largely discussion and exercise based to allow students to develop skills as energy policy analysts and to collectively theorize connections between laws, institutions, policy design, and outcomes.
Fall
1 Course Unit

ENMG 5030 Topics in Energy Policy
This seminar will explore a collection of ideas influencing energy policy development in the U.S. and around the world. Our platform for this exploration will be seven recent books to be discussed during the semester. These books each contribute important insights to seven ideas that influence energy policy: Narrative, Transition, Measurement, Systems, Subsidiarity, Disruption, Attachment. Books for 2018 will be chosen over the summer; the 2017 books are listed here as examples: Policy Paradox (2011) by Stone, Climate Shock (2015) by Wagner and Weitzman, Power Density (2015) by Smil, Connectography (2016) by Khanna, Climate of Hope (2017) by Bloomberg and Pope, Utility of the Future (2016) by MIT Energy Initiative, Retreat from a Rising Sea (2016) by Pilkey, Pilkey-Jarvis, Pilkey.
Spring
Also Offered As: CPLN 5350
1 Course Unit

ENMG 5070 Ideas in Energy Policy
This seminar will explore a collection of ideas influencing energy policy development in the U.S. and around the world. Our platform for this exploration will be seven recent books to be discussed during the semester. These books each contribute important insights to seven ideas that influence energy policy: Narrative, Transition, Measurement, Systems, Subsidiarity, Disruption, Attachment.
1 Course Unit

ENMG 5080 Geopolitics of Energy in Russia and Eurasia
Russia is one of the major players in the international energy market: third largest oil producer after the U.S. and Saudi Arabia and second-largest (after the U.S.) natural gas producers (2019). It is also a top coal and nuclear power producer. But the geopolitical might that the country holds with respect to energy markets stems not as much from how much energy it produces as from how much energy it exports. Today Russia leads global natural gas exports and trails only the Kingdom of Saudi Arabia in oil exports. Russia is also reliably one of the top coal-exporting countries. This class will explore the geopolitics of energy focusing on the role of Russia as a leading global energy supplier. In doing so, it hopes to provide a slightly different understanding of global energy that is usually taught from either the U.S. or OPEC angle.
Fall
Also Offered As: REES 5640
1 Course Unit
ENMG 5100 Societal Grand Challenges at the Interface of Technology and Policy
This new collaborative course – co-taught by faculty from the Kleinman Center for Energy Policy, Weitzman School of Design and School of Engineering and Applied Science – uses societal grand challenges as scenarios for identifying repeatable, process-oriented best practices for solving complex, systemic problems in the energy transition. This course is intended for graduate students with a background in either the social sciences (economics, political science, law, or policy) or who are in STEM programs (science and engineering). This course will complement the material covered in the Kleinman Center Introduction to Energy Policy course (ENMG 5020) taught in the fall. It will be an opportunity to learn from one another and build a holistic understanding of the technical and policy dimensions of the energy transition and the global response to climate change and environmental degradation. The course will be broken into three chapters. For the first third of the semester, we will focus on basics of policy and engineering literacy, with each student bringing their own expertise to the table. The best way to truly understand a topic is to teach it, and this chapter of the course will focus on learning how to talk across disciplines and approach challenges in new and unfamiliar ways. The middle third of this course will be built around case studies of grand societal challenges; some of which have seen considerable progress towards being solved, others which are still the subject of great uncertainty and disagreement. Among other topics, this course will explore: The impact of sweeping standards on building and appliance efficiency; the rapid development and mutual reinforcement of renewable energy technologies and policy; the ability of policy to facilitate healthy competition between technologies (hydrogen vs batteries, for example); The allocation of scarce CCUS resources to abate difficult to decarbonize products like cement, steel, and plastics; the importance of grid regulation and market design in ensuring future energy reliability and affordability; and the need for transition-ready environmental policies that protect ecosystems and communities without hindering access to critical resources (metals, minerals, land, etc.). The final third of the semester will be structured largely around group projects for which students with diverse expertise will work together to identify a grand societal challenge and isolate the technical and policy barriers to solving this challenge. These groups will give regular updates to the rest of the class and will work towards making a meaningful contribution to solving their challenge through collaborative problem solving, design, and research. This course will deliver content learning outcomes about technical, societal, and policy aspects of focal grand challenges, while providing all participants (including instructors) experience and skills to address community-derived problems in teams composed of members from disciplines that rarely collaborate. Over time, this course will serve as a working, iterative “laboratory” on parameters that affect the success of convergence style research and problem solving.
Spring
Also Offered As: EAS 5110
1 Course Unit

ENMG 5120 “Not Just a Commercial Deal”: Contemporary Trends in European Energy Security and Sanctions Policy
The Russian Federation’s full-scale invasion of Ukraine in February 2022 has fundamentally altered post-Cold War security norms across the European continent. This includes a reinvigorated Transatlantic approach to supporting European energy security. For example, Western Europe had for years built up a strategic security vulnerability through an over-reliance on Russian hydrocarbon resources, in particular natural gas, as well as critical infrastructure owned by Kremlin-controlled enterprises. Europe is now embarking on a transformational shift to end its longstanding dependence on Russian hydrocarbons that provides an opportunity to both decouple from an authoritarian neighbor and decarbonize its energy supply to address the climate crisis. Meanwhile, policymakers on both sides of the Atlantic have aimed to deprive the Russian government of the financial and technical means of prosecuting its military aggression in Ukraine through comprehensive sanctions and technology export control regimes. This course will explore the history of European dependence on Russian energy resources and critical infrastructure projects and will analyze how the Russian Federation has ‘weaponized energy’ against European democracies before and after it’s invasion of Ukraine, including through trends of strategic corruption and elite capture. The course will assess as a case study the current European energy infrastructure landscape and ask students to propose infrastructure, regulatory, and physical/cyber security strategies from the perspective of a practitioner of transatlantic energy diplomacy. This course will also explore contemporary trends in energy sanctions and technology export controls policies crafted by democratic states worldwide. We will review recent U.S. and European sanctions policies through the framework of existing and proposed Russia sanctions, including analysis of sanctions implemented through Executive Order and Congressional legislation, and similar legislation enacted by the European Union. The course will take a multidisciplinary approach, combining primary source readings with classroom simulations drawing on the historical, policy, science, and technology drivers of effective European energy security strategies.
Fall
1 Course Unit

Engineering & Applied Science (EAS)

EAS 0010 Pre-First Year Program in WRIT/MATH/BIOL
This course will provide a preview of Engineering Mathematics at Penn, cover classical physics as applied to the kinematics and dynamics of static and moving bodies, provide a four week orientation to the School of Engineering and Applied Science, and give student experience in designing, writing, and debugging basic programs in Java.
0-1 Course Unit

EAS 0091 Chemistry Advanced Placement/International Baccalaureate Credit (Engineering Students Only)
Fall or Spring
1 Course Unit
EAS 0097 Embed Controlled Gardening
A service course intended to integrate concepts of basic physics, biology and electronics and systems engineering for the benefit of Penn engineering students, teachers and students from two minority centered community public schools. The course will engage the participants in the design and implementation of indoors cultivating systems using photo-voltaic (PV) technology to energize LED emulating the needed solar radiation for plant growth, a liquid nutrient distribution system, sensors / actuators capable of selecting the harvestable plants and keeping track of overall system parameters.
Fall or Spring
1 Course Unit

EAS 2030 Engineering Ethics
In this course, students will study the social, political, environmental and economic context of engineering practice. Students will develop an analytical toolkit to identify and address ethical challenges and opportunities in the engineering profession, including studies of risk and safety, professional responsibility, and global perspectives. The course will begin with a foundation in the history of engineering practice and major Western ethical and philosophical theories. Students will then apply this material to both historical case studies, such as Bhopal, the NASA Shuttle Program, and Three Mile Island, as well as contemporary issues in big data, artificial intelligence, and diversity within the profession. Students will consider how engineers, as well as governments, the media, and other stakeholders, address such issues.
Fall or Spring
1 Course Unit

EAS 2040 Technical Innovation & Civil Discourse in a Dynamic World
The promises of today’s emerging technologies include longer, healthier lives; safer, faster, and more efficient transportation; and immediate, far-reaching communication mechanisms. Recent advances in machine learning, autonomous systems, nanomaterials, and neurotechnologies offer the potential to dramatically change the way our global society lives, works and shares information. With such prolific power, these technologies also pose new challenges and risks such as reduced individual privacy, political repercussions, and inequitable access to the benefits of technology. Rapid technological innovation often outpaces and challenges established legal regulations, cultural norms, and societal frameworks of communications. A robust civil discourse anchored in technical expertise, cultural context, and inclusivity can foster the optimization of the benefits of emerging technologies. This course is aimed in preparing undergraduate students to engage in and lead such discourses. The students will consider a series of engineering innovations from technical, legal and social perspectives and will hone the analytical and communication skills necessary to identify and address opportunities for civil discourse. Undergraduates must have passed the WRIT requirement.
Fall or Spring
1 Course Unit

EAS 2200 SEAS Global Program - Argentina I
Penn Engineering’s global and local service learning courses aim to improve human lives through sustainable engineering in all corners of the world. These courses offer students the opportunity to use their engineering skills to build solar powered heaters for renewable energy, water and sanitation infrastructure, orthotic devices for children, information technology support and meet other critical needs in areas around the world. Students must apply in early Fall semester to take these courses in the following Spring and Fall terms. There is a program fee associated with each course, but financial aid is available to qualified students. Each program is awards 2 CU of credit. For more information please visit: https://servelearn.seas.upenn.edu/about/
Fall
1 Course Unit

EAS 2210 SEAS Global Program - Argentina II
Penn Engineering’s global and local service learning courses aim to improve human lives through sustainable engineering in all corners of the world. These courses offer students the opportunity to use their engineering skills to build solar powered heaters for renewable energy, water and sanitation infrastructure, orthotic devices for children, information technology support and meet other critical needs in areas around the world. Students must apply in early Fall semester to take these courses in the following Spring and Fall terms. There is a program fee associated with each course, but financial aid is available to qualified students. Each program is awards 2 CU of credit. For more information please visit: https://servelearn.seas.upenn.edu/about/
Spring
1 Course Unit

EAS 2220 SEAS Global Program - China I
Penn Engineering’s global and local service learning courses aim to improve human lives through sustainable engineering in all corners of the world. These courses offer students the opportunity to use their engineering skills to build solar powered heaters for renewable energy, water and sanitation infrastructure, orthotic devices for children, information technology support and meet other critical needs in areas around the world. Students must apply in early Fall semester to take these courses in the following Spring and Fall terms. There is a program fee associated with each course, but financial aid is available to qualified students. Each program is awards 2 CU of credit. For more information please visit: https://servelearn.seas.upenn.edu/about/
Spring
1 Course Unit

EAS 2230 SEAS Global Program - China II
Penn Engineering’s global and local service learning courses aim to improve human lives through sustainable engineering in all corners of the world. These courses offer students the opportunity to use their engineering skills to build solar powered heaters for renewable energy, water and sanitation infrastructure, orthotic devices for children, information technology support and meet other critical needs in areas around the world. Students must apply in early Fall semester to take these courses in the following Spring and Fall terms. There is a program fee associated with each course, but financial aid is available to qualified students. Each program is awards 2 CU of credit. For more information please visit: https://servelearn.seas.upenn.edu/about/
Fall
1 Course Unit
EAS 2240 SEAS Global Program - Guatemala I
Penn Engineering's global and local service learning courses aim to improve human lives through sustainable engineering in all corners of the world. These courses offer students the opportunity to use their engineering skills to build solar powered heaters for renewable energy, water and sanitation infrastructure, orthotic devices for children, information technology support and meet other critical needs in areas around the world. Students must apply in early Fall semester to take these courses in the following Spring and Fall terms. There is a program fee associated with each course, but financial aid is available to qualified students. Each program is awards 2 CU of credit. For more information please visit: https://servelearn.seas.upenn.edu/about/
Spring
1 Course Unit

EAS 2250 SEAS Global Program - Guatemala II
Penn Engineering's global and local service learning courses aim to improve human lives through sustainable engineering in all corners of the world. These courses offer students the opportunity to use their engineering skills to build solar powered heaters for renewable energy, water and sanitation infrastructure, orthotic devices for children, information technology support and meet other critical needs in areas around the world. Students must apply in early Fall semester to take these courses in the following Spring and Fall terms. There is a program fee associated with each course, but financial aid is available to qualified students. Each program is awards 2 CU of credit. For more information please visit: https://servelearn.seas.upenn.edu/about/
Fall
1 Course Unit

EAS 2260 SEAS Global Program - Rwanda I
Penn Engineering's global and local service learning courses aim to improve human lives through sustainable engineering in all corners of the world. These courses offer students the opportunity to use their engineering skills to build solar powered heaters for renewable energy, water and sanitation infrastructure, orthotic devices for children, information technology support and meet other critical needs in areas around the world. Students must apply in early Fall semester to take these courses in the following Spring and Fall terms. There is a program fee associated with each course, but financial aid is available to qualified students. Each program is awards 2 CU of credit. For more information please visit: https://servelearn.seas.upenn.edu/about/
Spring
1 Course Unit

EAS 2270 SEAS Global Program - Rwanda II
Penn Engineering's global and local service learning courses aim to improve human lives through sustainable engineering in all corners of the world. These courses offer students the opportunity to use their engineering skills to build solar powered heaters for renewable energy, water and sanitation infrastructure, orthotic devices for children, information technology support and meet other critical needs in areas around the world. Students must apply in early Fall semester to take these courses in the following Spring and Fall terms. There is a program fee associated with each course, but financial aid is available to qualified students. Each program is awards 2 CU of credit. For more information please visit: https://servelearn.seas.upenn.edu/about/
Fall
1 Course Unit

EAS 2280 SEAS Global Program - Ghana I
Penn Engineering's global and local service learning courses aim to improve human lives through sustainable engineering in all corners of the world. These courses offer students the opportunity to use their engineering skills to build solar powered heaters for renewable energy, water and sanitation infrastructure, orthotic devices for children, information technology support and meet other critical needs in areas around the world. Students must apply in early Fall semester to take these courses in the following Spring and Fall terms. There is a program fee associated with each course, but financial aid is available to qualified students. Each program is awards 2 CU of credit. For more information please visit: https://servelearn.seas.upenn.edu/about/
Spring
1 Course Unit

EAS 2290 SEAS Global Program - Ghana II
Penn Engineering's global and local service learning courses aim to improve human lives through sustainable engineering in all corners of the world. These courses offer students the opportunity to use their engineering skills to build solar powered heaters for renewable energy, water and sanitation infrastructure, orthotic devices for children, information technology support and meet other critical needs in areas around the world. Students must apply in early Fall semester to take these courses in the following Spring and Fall terms. There is a program fee associated with each course, but financial aid is available to qualified students. Each program is awards 2 CU of credit. For more information please visit: https://servelearn.seas.upenn.edu/about/
Fall
1 Course Unit

EAS 2420 Energy Education in Philadelphia Schools
Students will learn about basic residential energy efficiency measures and practices from an established community based energy organization, the Energy Coordinating Agency of Philadelphia. Identify and understand fundamental core STEM energy concepts. Develop a short "energy efficiency" curriculum appropriate for middle or high school students. Teach three (3) sessions in a science class in the School District of Philadelphia.
Fall or Spring
1 Course Unit

EAS 2440 Curiosity: Ancient and Modern Thinking about Thinking
This course will examine two approaches to the still unanswered question of what happens when we humans come up with new knowledge. How should we describe the impulse, or set of impulses, that leads us to seek it? What is happening when we achieve it? And how do we describe the new state in which we find ourselves after we have it? We will study the work of contemporary physicists and cognitive scientists on these questions along side the approaches developed by the two most powerful thinkers from antiquity on the topic, Plato and Aristotle.
Not Offered Every Year
Also Offered As: CLST 3803, INTG 3440
1 Course Unit
EAS 2610 Emerging Technologies and the Future of the World
Technological change is always occurring, but the rate of change seems to be accelerating. Advances in robotics, artificial intelligence, cyber, biotechnology, and other arenas generate promise as well as peril for humanity. Will these emerging technologies unleash the innovative capacity of the world, generating new opportunities that help people live meaningful lives? Alternatively, are automation and other technologies chipping away at the labor market in a way that could create severe generational dislocation at best, and national and international turmoil at worst? These questions are important, and have consequences for how we live our lives, how nations interact, and the future of the world writ large. Emerging technologies could shape public policy at the local, national, and international level, and raise questions of fairness, ethics, and transparency. This course takes a unique approach, combining insights from engineering, political science, and law in an interdisciplinary way that will expose students both to the key technologies that could shape the future and ways to think about their potential politics, and society.
Fall or Spring
Also Offered As: INTG 2610, PSCI 2401
1 Course Unit

EAS 3010 Climate Policy and Technology
The course will exam Pacala and Socolow’s hypothesis that “Humanity already possesses the fundamental scientific, technical and industrial know-how to solve the carbon and climate problem for the next half-century.” Fifteen “climate stabilization wedges” i.e., strategies that each have the potential to reduce carbon emissions by 1 billion tons per year by 2054, will be examined in detail. Technology and economics will be reviewed. Socio-political barriers to mass-scale implementation will be discussed. Pacala and Socolow note "Every element in this portfolio has passed beyond the laboratory bench and demonstration project; many are already implemented somewhere at full industrial scale".
Fall or Spring
Mutually Exclusive: EAS 5050
1 Course Unit

EAS 3060 Electricity and Systems Markets
The course discusses the existing electricity system from technical, economic, and policy perspectives. Basic power system engineering will be reviewed early in the course. Generation, transmission, distribution, and end-use technologies and economics will be discussed. Additional topics will include system operation, industry organization, government regulation, the evolution of power markets, environmental policy, and emerging technologies.
Fall or Spring
Mutually Exclusive: EAS 5060
1 Course Unit

EAS 3200 Basic Chemical Process Safety
Process safety is an important but often overlooked aspect of a chemical engineer’s education. When working in chemical engineering, it’s simply not possible to learn by trial and error when the error can have catastrophic or dangerous implications. Students will learn the important technical fundamentals to allow them to contribute to a safer future. Chemical process safety is a scientific discipline as important as chemical production. What the students learn here could literally save their life. At the conclusion of the course, the expectation is that students should be able to identify hazards, safety risks and perform inherently safer design for chemical processes. By the end of the course, students will achieve Level I certification from SACHE (Safety and Chemical Engineering Education), a division of AIChE.
Not Offered Every Year
Prerequisite: CBE 1600
1 Course Unit

EAS 3220 Immunology for Bioengineers
Immunology is fast growing field that is critical to human health and therapeutic development and engineering. To better prepare bioengineers for a career in immunotherapy and biotech areas, it is essential for them to learn the fundamental knowledge of the immune system and the diseases associated as well as common and emerging technologies used in immunological research. This will not only enable the students to communicate more effectively in a multidisciplinary team, it will also empower them to take advantage of their training in engineering and mathematics to develop tools to analyze the immune system with great depth, solve important questions in immunology, and engineering new therapeutics. Therefore, the goal of this course is to provide the immunology foundation for engineering students and technical background of commonly used tools and emerging technologies in immunological research. The course is open to upper level undergraduate students who have taken courses in biochemistry and/or cell biology.
1 Course Unit
EAS 4010 Energy and Its Impacts: Technology, Environment, Economics, Sustainability
The objective is to introduce students to one of the most dominating and compelling areas of human existence and endeavor: energy, with its foundations in technology, from a quantitative sustainability viewpoint with its association to economics and impacts on environment and society. This introduction is intended both for general education and awareness and for preparation for careers related to this field, with emphasis on explaining the technological foundation. The course spans from basic principles to applications. A review of energy consumption, use, and resources; environmental impacts, sustainability and design of sustainable energy systems; introductory aspects of energy economics and carbon trading; methods of energy analysis; forecasting; energy storage; electricity generation and distribution systems (steam and gas turbine based power plans, fuel cells), fossil fuel energy (gas, oil, coal) including nonconventional types (shale gas and oil, oil sands, coalbed and tight-sand gas), nuclear energy wastes: brief introduction to renewable energy use: brief introduction to solar, wind, hydroelectric, geothermal, biomass; energy for buildings, energy for transportation (cars, aircraft, and ships); prospects for future energy systems: fusion, power, power generation in space. Students interested in specializing in one or two energy topics can do so by choosing them as their course project assignments. Prerequisite: Any University student interested in energy and its impacts, who is a Junior or Senior. Students taking the course EAS 5010 will be given assignments commensurate with graduate standing.

Fall
Mutually Exclusive: EAS 5010
1 Course Unit

The objective is to introduce students to the major aspects of renewable energy, with its foundations in technology, association to economics, and impacts on ecology and society. This introduction is intended both for general education and awareness and for preparation for careers related to this field. The course spans from basic principles to applications. A review of solar, wind, biomass, hydroelectric, geothermal energy, and prospects for future energy systems such as renewable power generation in space. Prerequisite: Junior standing
Not Offered Every Year
Mutually Exclusive: EAS 5020
1 Course Unit

EAS 4030 Energy Systems and Policy
This is a survey course that will examine the current U.S. energy industry, from production to consumption, and its impacts on local, regional, and the global environment. The course will seek to provide a fuller understanding of existing energy systems, ranging from technical overviews of each, a review of industry organization, and an exploration of the well-established policy framework each operates within. Near-term demands upon each energy supply system will be discussed, with particular focus on environmental constraints. Policy options facing each energy industry will be reviewed.
Fall or Spring
Mutually Exclusive: EAS 5030
1 Course Unit

EAS 4080 Building Leadership
This course will build students' personal leadership skills by helping them to kick-start a venture that they are passionate about. Ideas could range from a non-profit to help provide tutoring skills to local under-represented youth, to designing a product that could be launched on a crowdsourcing platform to creating a movement to drive more minority representation in books/media. Students must bring their own idea for their project and as we work to build it out, they will develop the leadership skills needed to bring it to life (e.g., networking, harnessing an ecosystem, building out a project plan). Lectures will be a mix lessons on real-world skill building (e.g., for networking - where to start, who to contact) with activities that will be specifically applied to the student's venture. In addition, guest lecturers will be brought in so that students can learn from their leadership journeys. Students will also be paired with mentors to act as a sounding board and there will be weekly in-class discussions on their projects so that students can push each other as well - similar to how CEO roundtables work. At the end of this course, the goal will be to build enough momentum that students can take their project and continue to build it outside of class. Students will also be pushed to “think big” so that their ideas from just a passion project to something that will have an impact. Prerequisite: Idea for the Passion Project that you want to build and Permission of the instructor.
Summer Term
1 Course Unit

EAS 4990 Senior Capstone Project
The Senior Capstone Project is required for all BAS degree students, in lieu of the senior design course. The Capstone Project provides an opportunity for the student to apply the theoretical ideas and tools learned from other courses. The project is usually applied, rather than theoretical, exercise, and should focus on a real world problem related to the career goals of the student. The one-semester project may be completed in either the fall or spring term of the senior year, and must be done under the supervision of a sponsoring faculty member. To register for this course, the student must submit a detailed proposal, signed by the supervising professor, and the student’s faculty advisor, to the Office of Academic Programs two weeks prior to the start of the term.
Fall or Spring
1 Course Unit
The objective is to introduce students to one of the most dominating and compelling areas of human existence and endeavor: energy, with its foundations in technology, from a quantitative sustainability viewpoint with its association to economics and impacts on environment and society. This introduction is intended both for general education and awareness and for preparation for careers related to this field, with emphasis on explaining the technological foundation. The course spans from basic principles to applications. A review of energy consumption, use, and resources; environmental impacts, sustainability and design of sustainable energy systems; introductory aspects of energy economics and carbon trading; methods of energy analysis; forecasting; energy storage; electricity generation and distribution systems (steam and gas turbine based power plans, fuel cells), fossil fuel energy (gas, oil, coal) including nonconventional types (shale gas and oil, oil sands, coalbed and tight-sand gas), nuclear energy wastes: brief introduction to renewable energy use: brief introduction to solar, wind, hydroelectric, geothermal, biomass; energy for buildings, energy for transportation (cars, aircraft, and ships); prospects for future energy systems: fusion power, power generation in space. Students interested in specializing in one or two energy topics can do so by choosing them as their course project assignments.
Fall
Mutually Exclusive: EAS 4010
1 Course Unit

The objective is to introduce students to the major aspects of renewable energy, with its foundations in technology, association to economics, and impacts on ecology and society. This introduction is intended both for general education and awareness and for preparation for careers related to this field. The course spans from basic principles to applications. A review of solar, wind, biomass, hydroelectric, geothermal energy, and prospects for future energy systems such as renewable power generation in space.
Spring
Mutually Exclusive: EAS 4020
1 Course Unit

EAS 5030 Energy Systems and Policy
This is a survey course that will examine the current U.S. energy industry, from production to consumption, and its impacts on local, regional, and the global environment. The course will seek to provide a fuller understanding of existing energy systems, ranging from technical overviews of each, a review of industry organization, and an exploration of the well-established policy framework each operates within. Near-term demands upon each energy supply system will be discussed, with particular focus on environmental constraints.
Fall or Spring
Mutually Exclusive: EAS 4030
1 Course Unit

EAS 5040 Solar, Wind, and Hydroelectric Energy
This is a survey course that will examine the current U.S. energy industry, from production to consumption, and its impacts on local, regional, and the global environment. The course will seek to provide a fuller understanding of existing energy systems, ranging from technical overviews of each, a review of industry organization, and an exploration of the well-established policy framework each operates within. Near-term demands upon each energy supply system will be discussed, with particular focus on environmental constraints.
Fall or Spring
Mutually Exclusive: EAS 4040
1 Course Unit

EAS 5050 Climate Policy and Technology
The course will exam Pacala and Socolow’s hypothesis that "Humanity already possesses the fundamental scientific, technical and industrial know-how to solve the carbon and climate problem for the next half-century" Fifteen "climate stabilization wedges" i.e., strategies that each have the potential to reduce carbon emissions by 1 billion tons per year by 2054, will be examined in detail. Technology and economics will be reviewed. Socio-political barriers to mass-scale implementation will be discussed. Pacala and Socolow note "Every element in this portfolio has passed beyond the laboratory bench and demonstration project; many are already implemented somewhere at full industrial scale".
Fall or Spring
Mutually Exclusive: EAS 3010
1 Course Unit

EAS 5060 Electricity and Systems Markets
The course discusses the existing electricity system from technical, economic, and policy perspectives. Basic power system engineering will be reviewed early in the course. Generation, transmission, distribution, and end-use technologies and economics will be discussed. Additional topics will include system operation, industry organization, government regulation, the evolution of power markets, environmental policy, and emerging technologies.
Spring
Mutually Exclusive: EAS 3060
1 Course Unit

EAS 5070 Intellectual Property and Business Law for Engineers
Engineers are often on the front line of innovation. The goal of this course is to introduce engineering students to the basics of Intellectual property (IP) and business laws that they will encounter throughout their careers. Understanding these laws is critical for the protection of IP and for the creation and success of high-tech start-up ventures. Market advantage in large part springs from a company’s IP. Without legal protection and correct business formation, proprietary designs, processes, and inventions could be freely used by competitors, ruining market advantage. A basic understanding of IP laws, contractual transactions, employment agreements, business structures, and debt-equity financing will help engineering students to become effective employees or entrepreneurs, to acquire investors, and to achieve success. Though open to students of all disciplines, the course will use case studies particular relevance to students of engineering and applied science.
Fall or Spring
1 Course Unit

EAS 5100 Technical Communication and Academic Writing for Non-native Speakers of English
EAS 510 is a writing course designed for graduate students at both the master’s and Ph.D. levels. The features of academic writing used in American universities will be explored by analyzing sample texts, papers in various academic disciplines, and the students’ own writing. A variety of rhetorical patterns will be practiced. Attention will be paid to organization, development of ideas, clarity, coherence, style, grammar, mechanics. Instructor permission required for undergraduates.
Fall or Spring
1 Course Unit
EAS 5110 Societal Grand Challenges at the Interface of Technology and Policy

This new collaborative course – co-taught by faculty from the Kleinman Center for Energy Policy, Weitzman School of Design and School of Engineering and Applied Science – uses societal grand challenges as scenarios for identifying repeatable, process-oriented best practices for solving complex, systemic problems in the energy transition. This course is intended for graduate students with a background in either the social sciences (economics, political science, law, or policy) or who are in STEM programs (science and engineering). This course will complement the material covered in the Kleinman Center Introduction to Energy Policy course (ENMG 5020) taught in the fall. It will be an opportunity to learn from one another and build a holistic understanding of the technical and policy dimensions of the energy transition and the global response to climate change and environmental degradation. The course will be broken into three chapters. For the first third of the semester, we will focus on basics of policy and engineering literacy, with each student bringing their own expertise to the table. The best way to truly understand a topic is to teach it, and this chapter of the course will focus on learning how to talk across disciplines and approach challenges in new and unfamiliar ways. The middle third of this course will be built around case studies of grand societal challenges; some of which have seen considerable progress towards being solved, others which are still the subject of great uncertainty and disagreement. Among other topics, this course will explore: The impact of sweeping standards on building and appliance efficiency; the rapid development and mutual reinforcement of renewable energy technologies and policy; the ability of policy to facilitate healthy competition between technologies (hydrogen vs batteries, for example); The allocation of scarce CCUS resources to abate difficult to decarbonize products like cement, steel, and plastics; the importance of grid regulation and market design in ensuring future energy reliability and affordability; and the need for transition-ready environmental policies that protect ecosystems and communities without hindering access to critical resources (metals, minerals, land, etc.). The final third of the semester will be structured largely around group projects for which students with diverse expertise will work together to identify a grand societal challenge and isolate the technical and policy barriers to solving this challenge. These groups will give regular updates to the rest of the class and will work towards making a meaningful contribution to solving their challenge through collaborative problem solving, design, and research. This course will deliver content learning outcomes about technical, societal, and policy aspects of focal grand challenges, while providing all participants (including instructors) experience and skills to address community-derived problems in teams composed of members from disciplines that rarely collaborate. Over time, this course will serve as a working, iterative “laboratory” on parameters that affect the success of convergence style research and problem solving.

Spring
Also Offered As: ENMG 5100
1 Course Unit

EAS 5120 Engineering Negotiation

The goal of this course is to teach students of engineering and applied science to be effective negotiators. It aims to improve the way these students communicate virtually any human interaction. The course intends to improve the ability of engineers and other technology disciplines to gain more support more quickly for projects, research product and services development, and marketing. For those wanting to be entrepreneurs or intrapreneurs, the course is designed essentially to find the most value possible in starting up and running companies. Based on Professor Diamond’s innovative and renowned model of negotiation, it is intended to assist those for whom technical expertise is not enough to persuade others, internally and externally, to provide resources, promotions and project approvals; or to resolve disputes, solve problems and gain more opportunities. Rejecting the 40-year-old notions of power, leverage and logic, the course focuses on persuasion by making better human connections, uncovering perceptions and emotions, and structuring agreements to be both collaborative and fair. This course is entrepreneurial in nature and can provide many times more value than traditional persuasion. The Getting More book has sold more than 1 million copies around the world and is also used by universities, corporations (Google), and U.S. Special Operations (SEALs, Green Berets, Special Forces, Marines) to save lives and reduce conflict. From the first day, students will do interactive cases based their own engineering-related problems and based on current problems in the news. There will be diagnostics enabling every student to assess his/her skill and improvements.

Fall or Spring
1 Course Unit

EAS 5450 Engineering Entrepreneurship I

Engineers and scientists create and lead great companies, hiring managers when and where needed to help execute their vision. Designed expressly for students having a keen interest in technological innovation, this course investigates the roles of inventors and founders in successful technology ventures. Through case studies and guest speakers, we introduce the knowledge and skills needed to recognize and seize a high-tech entrepreneurial opportunity - be it a product or service - and then successfully launch a startup or spin-off company. The course studies key areas of intellectual property, its protection and strategic value; opportunity analysis and concept testing; shaping technology driven inventions into customer-driven products; constructing defensible competitive strategies; acquiring resources in the form of capital, people and strategic partners; and the founder’s leadership role in an emerging high-tech company. Throughout the course emphasis is placed on decisions faced by founders, and on the sequential risks and determinants of success in the early growth phase of a technology venture. The course is designed for, but not restricted to, students of engineering and applied science and assumes no prior business education. Prerequisite: Third or Fourth year or Graduate standing

Fall or Spring
Also Offered As: IPD 5450
1 Course Unit
EAS 5460 Engineering Entrepreneurship II
This course is the sequel to EAS 545 and focuses on the planning process for a new technology venture. Like its prerequisite, the course is designed expressly for students of engineering and applied science having a keen interest in technological innovation. Whereas EAS 545 investigates the sequential stages of engineering entrepreneurship from the initial idea through the early growth phase of a startup company, EAS 546 provides hands-on experience in developing a business plan for such a venture. Working in teams, students prepare and present a comprehensive business plan for a high-tech opportunity. The course expands on topics from EAS 545 with more in-depth attention to: industry and marketplace analysis; competitive strategies related to high-tech product/service positioning, marketing, development and operations; and preparation of sound financial plans. Effective written and verbal presentation skills are emphasized throughout the course. Ultimately, each team presents its plan to a distinguished panel of recognized entrepreneurs, investors and advisors from the high-tech industry.
Fall or Spring
Prerequisite: EAS 5450
1 Course Unit

EAS 5490 Engineering Entrepreneurship Lab
Engineering Entrepreneurship Lab applies the principles of engineering and engineering entrepreneurship to a real-world problem of your specific field of study or professional interest. You will develop a venture based on a high-tech concept of your choosing (the one that you submitted as part of your application to the course). Like its prerequisite, EAS545 Engineering Entrepreneurship I, the course is designed expressly for students of engineering and applied science having a keen interest in technological innovation. Throughout the course you will formulate and test hypotheses using Lean Startup methodologies to develop key aspects of the venture including product development, customer and market development, team building and operations, and financial modeling and planning. The primary objective of the course is to develop a venture characterized by market-driven, high-tech product-service offering with a clear and validated product-market fit, an operational plan to bring your offering to market, and a plan to secure the resources required for execution of your plan. As discussed in EAS545, primary market research is essential to achieving product-market fit and validating all aspects of your business model. The success of your venture and your grade in the course will depend on the results of this research and testing process. Ideally, your work in this course results in pursuit of your high-tech venture outside of class and beyond the hallowed halls of Penn!
Spring
Prerequisite: EAS 5450
1 Course Unit

EAS 5740 How to Use Data
This course is an introduction for those who want to learn about the mechanics of data, performing data analysis to gain insights, applying data science techniques to make predictions, and applying data analytics to answer questions and to address interesting business problems. Students will learn how to interpret and frame business problems to be addressed by analytics. The course will also cover different elements of the data analytics process, including data wrangling and cleaning, data exploration and descriptive analytics, data modeling, machine learning, predictive analytics, data visualization and the presentation of analysis and insights using data storytelling.
Prerequisite: CIT 5910
.5 Course Units

EAS 5830 Blockchains
This course is an introduction to the technology that powers blockchains like Bitcoin and Ethereum. We will cover the key cryptographic tools that enable blockchains—collision-resistant hash functions and digital signature schemes. We’ll learn about the architecture of different blockchains, their consensus mechanisms, economics and how to interact with them. The assignments in this course are primarily coding-based. We will learn to read and write from the blockchain using Python libraries, and write our own smart contracts in Solidity. At the end of this course, students should understand the power and limitations of blockchain technology and be able to develop software that interacts with current blockchain platforms.
Prerequisite: CIT 5910 AND CIT 5920
0.5 Course Units

EAS 5900 Commercializing Information Technology
EAS 590 provides real world, hands-on learning on what it’s like to actually start a high-tech company. We do that by using the Lean LaunchPad framework for Web start-ups. This class is not about how to write a business plan. Instead you will be getting your hands dirty talking to customers, partners, competitors, as you encounter the chaos and uncertainty of how a start-up actually works. EAS 590 provides real world, hands-on learning on what it’s like to actually start a high-tech company. We do that by using the Lean LaunchPad framework for Web start-ups. This class is not about how to write a business plan. Instead you will be getting your hands dirty talking to customers, partners, competitors, as you encounter the chaos and uncertainty of how a start-up actually works.
Fall or Spring
Prerequisite: EAS 5450
1 Course Unit

EAS 5910 Leading Technology Teams
Engineers routinely work in teams collaborating with experts from multiple fields to address increasingly large complex problems/opportunities. EAS 591, Leading Technology Teams, focuses on the dynamics of innovative, interdisciplinary, cross-functional teams. We examine ways to improve team performance by exploring technology leadership issues from multiple perspectives (i.e., the individual, the team, and the organization). Developing skills to be an effective technology team member, leader, and/or sponsor will provide you with a competitive advantage, and will also provide leads for your future job. EAS 591 is required as part of your application to the course. Like its prerequisite, the course is designed expressly for students of engineering and applied science having a keen interest in technological innovation. Whereas EAS 545 is designed expressly for students of engineering and applied science having a keen interest in technological innovation, EAS 591 provides hands-on experience in developing a comprehensive business plan for a high-tech opportunity. Working in teams, students prepare and present a comprehensive business plan for a high-tech opportunity. The course expands on topics from EAS 545 with more in-depth attention to: industry and marketplace analysis; competitive strategies related to high-tech product/service positioning, marketing, development and operations; and preparation of sound financial plans. Effective written and verbal presentation skills are emphasized throughout the course. Ultimately, each team presents its plan to a distinguished panel of recognized entrepreneurs, investors and advisors from the high-tech industry.
Fall or Spring
Prerequisite: EAS 5450
1 Course Unit

EAS 5920 Service Learning and Leadership
This course is designed to train the student leaders for service learning programs and exposes students to relevant skills, including leadership, risk management, cultural competency, and organizational dynamics.
1 Course Unit
EAS 5950 Foundations of Leadership
The goal of EAS 595 is to increase your capacity to effectively lead throughout your career and wherever you find yourself in an organization. This involves understanding and learning about yourself and about working effectively with others. The course starts with an identification of values, strengths, preferences and passions. It then proceeds with the personal and interpersonal and moves through the strategic aspects of leadership by bringing together aspects of management science, social psychology, psychology of personality and behavioral economics. Topics include teamwork and team dynamics, identifying life's goals and dreams, decision making, valuing differences, understanding the dynamics of influence, using power with integrity, giving and receiving feedback, leading change, and discovering where we can make our contribution.
Fall or Spring
1 Course Unit

EAS 8950 Professional Master’s Academic Field Studies
This class allow master’s students to pursue full-time internship opportunities in the Fall semester to apply what they have learned in practice. The student is required to work 20-40 hours a week, 12-15 week long full-time internships. International students under this academic field study track will be eligible for full-time CPT. As part of the application for field studies, students have to attach their coursework plan and receive approval from their program director to make sure they can meet all program requirements in 10 CU’s (11 CU’s for BIOT). Prerequisites: This class is restricted to SEAS Master’s students only. Students can apply after their first two semesters of academic work at Penn. Students must complete at least 6 CU’s (course units) between their first two semesters during their first year. Academic field studies can only be done once for the duration of a master’s student studies at Penn. For students pursuing a single Master’s degree, the field study period is usually the summer and continuing into the Fall semester of the second year. This option is not permitted in the final semester in which the student is graduating. As part of the application for field studies, students have to attach their coursework plan and receive approval from their program director to make sure they can meet all program requirements in 10 CU’s (11 CU’s for BIOT). Students on a single master’s degree have to graduate within 2 years. Dual degree masters students have to graduate within 3 years. Student must be in good academic standing (minimum GPA 3.0) with their program and the University. Those that are not, are unable to apply for the track. It is the student’s responsibility to apply for CPT through ISSS. Students have to submit an academic field study proposal at least one month before the Spring term ends. Students that receive an offer to extend their Summer internship, must turn in their proposal no later than August 1st. Proposal requires details on internship work, explain relevance to student’s field of study, and requires a supervising faculty member. Students apply for field study has to have an internship offer from company. It is not the responsibility of Penn to help students find an internship.
Fall or Spring
1 Course Unit

EAS 8960 Professional Master’s Career Development
This class on professional career development broadly exposes students to organized workshops and seminar talks related to career development and research development. In career development, workshops will be held by career services staff related to identifying career interests, interview strategies, and career fair preparation. The research seminar talks are geared toward giving students exposure to research activities at Penn. The research seminar talks will be offered by individual departments and research programs, and include invited talks by external or internal faculty members. Students will receive a S/U grade and submit a final report at the end of the semester. Prerequisite: This class is restricted o SEAS Master’s student only. Master’s students can take the class at any time. However, the recommendation time to take this course is Fall semester of the second year.
Fall or Spring
1 Course Unit

ENGR 1010 Introduction to Engineering: Energy, Environment and Sustainability
This course is intended to introduce students to the field of engineering. It will expose students to the engineering disciplines through hands-on laboratory experiences. In addition, the course will provide tutorials on how to use important software packages as well as a "Professional Preparation" module through studies of communication (writing and speaking skills), ethics, leadership and teamwork. This course is ideal for any freshman interested in exploring the possibility of studying engineering at Penn. The course counts as an engineering requirement in SEAS.
Fall
1 Course Unit

ENGR 1050 Introduction to Scientific Computing
This course will provide an introduction to computation and data analysis using MATLAB - an industry standard programming and visualization environment. The course will cover the fundamentals of computing including: variables, functions, decisions, iteration, and recursion. These concepts will be illustrated through examples and assignments which show how computing is applied to various scientific and engineering problems. Examples will be drawn from the simulation of physical and chemical systems, the analysis of experimental data, Monte Carlo numerical experiments, image processing, and the creation of graphical user interfaces. This course does not assume any prior programming experience but will make use of basic concepts from calculus and Newtonian physics.
Fall
1 Course Unit
ENGR 1400 Penn Global Seminar: Robotics and Rehabilitation
This course focuses on understanding the design of intelligent technologies for rehabilitation diagnostics and intervention, which include using biomechanics, computer science, robotics and mechatronics design principles. Beyond technology, this course explores the design process in which medical technology is developed for foreign economies, cultures, and healthcare systems. Student projects focus on understanding stake-holders needs and developing technology able to address a Jamaican client rehabilitation needs.
Spring
1 Course Unit

ENGR 2120 Concepts in Micro- and Nanotechnology
Seminar/Lecture course on micro- and nanotechnology intended for nonspecialists. This course will discuss how very small structures and devices, as well as systems comprising these devices, are fabricated and characterized, with application examples from microelectronics, microelectromechanical systems, and quantum devices and systems. Current societal and ethical implications of micro- and nanotechnology, as well as creation and exploitation of commercial opportunities, will be discussed. Prerequisite: If course requirement not met, permission of instructor.
Fall or Spring
1 Course Unit

ENGR 2500 Energy Systems, Resources and Technology
The course will present a comprehensive overview of the global demand for energy, and the resource availability and technology used in its current and future supply. Through a personal energy audit, students will be made aware of the extensive role that energy plays in modern life, both directly, through electricity and transportation fuel, and indirectly in the manufacturing of goods they use. The course will cover how that energy is supplied, the anticipated global growth in energy demand, the resource availability and the role of science and technology in meeting that demand in a world concerned about climate change. The roles of conservation, improved efficiency and renewable energy in meeting future demand in a sustainable, environmentally benign way will be covered. Prerequisite: Basic understanding of chemistry and physics.
Fall
1 Course Unit

ENGR 3440 Answering Questions with Data, for Everyone
This course targets undergraduate students, such as Juniors and Seniors. Just about every student at UPenn and in particular in engineering is using progressively larger datasets to ask scientific questions. This course will break down how we use data and modeling to ask scientific questions and teach the basic tools to do so. The goal of this course is to allow any student who needs to use data to ask questions to see which computational tools they need to use and to use existing tools to ask those questions. All teaching will be small group and team based. The course will use a broad set of data representative of the school. The course is open to upper level undergraduate students who have some knowledge of Python.
1 Course Unit

ENGR 4500 Biotechnology, Immunology, Vaccines and COVID-19
This course will start with the fundamentals of biotechnology, and no prior knowledge of biotechnology is necessary. Some chemistry is needed to understand how biological systems work. We will cover basic concepts in biotechnology, including DNA, RNA, the Central Dogma, proteins, recombinant DNA technology, polymerase chain reaction, DNA sequencing, the functioning of the immune system, acquired vs. innate immunity, viruses (including HIV, influenza, adenovirus, and coronavirus), gene therapy, CRISPR-Cas9 editing, drug discovery, types of pharmaceuticals (including small molecule inhibitors and monoclonal antibodies), vaccines, clinical trials. Some quantitative principles will be used to quantifying the strength of binding, calculate the dynamics of enzymes, writing and solving simple epidemiological models, methods for making and purifying drugs and vaccines. The course will end with specific case study of coronavirus pandemic, types of drugs proposed and their mechanism of action, and vaccine development.
Fall
Mutually Exclusive: ENGR 5500
1 Course Unit

ENGR 5030 Engineering in Oil, Gas and Coal, from Production to End Use
While conventional wisdom is that the world is running out of fossil fuels, technical advances such as deep water production, directional drilling, hydrofracturing, and the refining of non-conventional crude oil sources has increased the resource base significantly and there are well over 100 years of reserves of oil, natural gas and coal. The effect of technology advances has been most profound in the United States, where net energy imports are projected to fall to 12% of consumption by 2020. Excellent, highly technical careers are available in these industries, with opportunities to reduce their impact on the environment and in particular on climate change. The course will cover engineering technology in oil, natural gas and coal from production through end use. It will equip graduating students with the knowledge to contribute in these industries and to participate in informed debate about them.
Spring
1 Course Unit

ENGR 5040 Fundamental Concepts in Nanotechnology
This is a Master's level course that seeks to teach the physics needed to begin a study of engineering and science at the nanometer scale. Since the nanometer scale is so close to the quantum scale, much of the course deals with an introduction to quantum mechanics but the course also includes discussions in solid-state physics, electricity and magnetism and mechanics. The objective of the course is to teach the physics that an engineering student would need to have in order to do experimental work at the nanometer scale. In addition, this course will prepare the student to take more advanced courses in the Nanotechnology Program. Prerequisite: Senior or Master's standing in Engineering or permission of the instructor. Classical Physics (PHYS 0150, PHYS 0151) or equivalent and some of MATH 2400 (ODEs) would be desirable but not necessary.
Fall or Spring
1 Course Unit
ENGR 5500 Biotechnology, Immunology, Vaccines and COVID-19
This course will start with the fundamentals of biotechnology, and no prior knowledge of biotechnology is necessary. Some chemistry is needed to understand how biological systems work. We will cover basic concepts in biotechnology, including DNA, RNA, the Central Dogma, proteins, recombinant DNA technology, polymerase chain reaction, DNA sequencing, the functioning of the immune system, acquired vs. innate immunity, viruses (including HIV, influenza, adenovirus, and coronavirus), gene therapy, CRISPR-Cas9 editing, drug discovery, types of pharmaceuticals (including small molecule inhibitors and monoclonal antibodies), vaccines, clinical trials. Some quantitative principles will be used to quantify the strength of binding, calculate the dynamics of enzymes, writing and solving simple epidemiological models, methods for making and purifying drugs and vaccines. The course will end with specific case study of coronavirus pandemic, types of drugs proposed and their mechanism of action, and vaccine development.
Fall
Mutually Exclusive: ENGR 4500
1 Course Unit

Engineering Mathematics (ENM)

ENM 2400 Differential Equations and Linear Algebra
This course discusses the theory and application of linear algebra and differential equations. Emphasis is placed on building intuition for the underlying concepts and their applications in engineering practice along with tools for solving problems. We will also use computer simulations in MATLAB to augment this intuition.
Fall or Spring
Prerequisite: MATH 1410
1 Course Unit

ENM 2510 Analytical Methods for Engineering
This course introduces students to physical models and mathematical methods that are widely encountered in various branches of engineering. Illustrative examples are used to motivate mathematical topics including ordinary and partial differential equations, Fourier analysis, eigenvalue problems, and stability analysis. Analytical techniques that yield exact solutions to problems are developed when possible, but in many cases, numerical calculations are employed using programs such as MATLAB and Maple. Students will learn the importance of mathematics in engineering. Prerequisite: Sophomore standing in SEAS or permission of instructor(s)
Spring
Prerequisite: MATH 2400
1 Course Unit

ENM 3440 Answering Questions with Data, for Everyone
This course targets undergraduate students, such as Juniors and Seniors. Just about every student at UPenn and in particular in engineering is using progressively larger datasets to ask scientific questions. This course will break down how we use data and modeling to ask scientific questions and teach the basic toolkits to do so. The goal of this course is to allow any student who needs to use data to ask questions to see which computational tools they need to use and to use existing tools to ask those questions. All teaching will be small group and team based. The course will use a broad set of data representative of the school. The course is open to upper level undergraduate students who have some knowledge of Python.
Fall
1 Course Unit

ENM 3600 Introduction to Data-driven Modeling
From recognizing voice, text or images to designing more efficient airplane wings and discovering new drugs, machine learning is introducing a transformative set of tools in data analysis with increasing impact across engineering, sciences, and commercial applications. In this course, you will learn about principles and algorithms for extracting patterns from data and and making effective automated predictions. We will cover concepts such as regression, classification, density estimation, feature extraction, sampling and probabilistic modeling, and provide a formal understanding of how, why, and when these methods work in the context of analyzing physical, biological, and engineering systems.
Fall
Prerequisite: ENGR 1050 AND MATH 2400
1 Course Unit

ENM 3750 Biological Data Science I - Fundamentals of Biostatistics
The goal of this course is to equip bioengineering undergraduates with fundamental concepts in applied probability, exploratory data analysis and statistical inference. Students will learn statistical principles in the context of solving biomedical research problems.
Spring
1 Course Unit

ENM 5020 Numerical Methods and Modeling
This course provides an advanced introduction to various numerical methods for solving systems of algebraic equations (linear and nonlinear) and differential equations (ordinary and partial). Techniques covered include Newton’s method, implicit and explicit time stepping, and the finite difference and finite element methods. The MATLAB software package will be used to implement the various methods and execute representative calculations.
Spring
1 Course Unit

ENM 5030 Introduction to Probability and Statistics
Fall
Prerequisite: MATH 2400
1 Course Unit
ENM 5100 Foundations of Engineering Mathematics - I
This is the first course of a two semester sequence, but each course is self contained. Over the two semesters topics are drawn from various branches of applied mathematics that are relevant to engineering and applied science. These include: Linear Algebra and Vector Spaces, Hilbert spaces, Higher-Dimensional Calculus, Vector Analysis, Differential Geometry, Tensor Analysis, Optimization and Variational Calculus, Ordinary and Partial Differential Equations, Initial-Value and Boundary-Value Problems, Green's Functions, Special Functions, Fourier Analysis, Integral Transforms and Numerical Analysis. The fall course emphasizes the study of Hilbert spaces, ordinary and partial differential equations, the initial-value, boundary-value problem, and related topics. Prerequisites: Some of MATH 2400 (ODEs) or equivalent and some of MATH 3120 (Linear Algebra) would be desirable but not necessary.

Fall
1 Course Unit

ENM 5110 Foundations of Engineering Mathematics - II
This is the second course of a two semester sequence, but each course is self contained. Over the two semesters topics are drawn from various branches of applied mathematics that are relevant to engineering and applied science. These include: Linear Algebra and Vector Spaces, Hilbert spaces, Higher-Dimensional Calculus, Vector Analysis, Differential Geometry, Tensor Analysis, Optimization and Variational Calculus, Ordinary and Partial Differential Equations, Initial-Value and Boundary-Value Problems, Green's Functions, Special Functions, Fourier Analysis, Integral Transforms and Numerical Analysis. The spring course emphasizes the study of Vector Analysis: space curves, Frenet-Serret formulae, vector theorems, reciprocal systems, co- and contra-variant components, orthogonal curvilinear systems. Matrix theory: Gauss-Jordan elimination, eigenvalues and eigenvectors, quadratic and canonical forms. Variational calculus: Euler-Lagrange equation. Tensor Analysis: Einstein summation, tensors of arbitrary order, dyads and polyads, outer and inner products, quotient law, metric tensor, Euclidean and Riemannian spaces, physical components, covariant differentiation, detailed evaluation of Christoffel symbols, Ricci's theorem, intrinsic differentiation, generalized acceleration, Geodesics. The spring course emphasizes the study of Vector Analysis: space curves, Frenet-Serret formulae, vector theorems, reciprocal systems, co- and contra-variant components, orthogonal curvilinear systems. Matrix theory: Gauss-Jordan elimination, eigenvalues and eigenvectors, quadratic and canonical forms. Variational calculus: Euler-Lagrange equation. Tensor Analysis: Einstein summation, tensors of arbitrary order, dyads and polyads, outer and inner products, quotient law, metric tensor, Euclidean and Riemannian spaces, physical components, covariant differentiation, detailed evaluation of Christoffel symbols, Ricci's theorem, intrinsic differentiation, generalized acceleration, Geodesics.

Fall or Spring
1 Course Unit

ENM 5120 Nonlinear Dynamics and Chaos


Fall or Spring
1 Course Unit

ENM 5200 Principles and Techniques of Applied Math I
This course is targeted to engineering PhD students in all areas. It will focus on the study of linear spaces (both finite and infinite dimensional) and of operators defined on such spaces. This course will also show students how powerful methods developed by the study of linear spaces can be used to systematically solve problems in engineering. The emphasis in this course will not be on abstract theory and proofs but on techniques that can be used to solve problems. Some examples of techniques that will be studied include Fourier series, Green's functions for ordinary and partial differential operators, eigenvalue problems for ordinary differential equations, singular value decomposition of matrices, etc. Prerequisite: Basic theory of ordinary and partial differential equations.

Fall
1 Course Unit

ENM 5210 Principles and Techniques of Applied Math II
This course is a continuation of ENM 5200 (or equivalent) and deals with classical methods in applied mathematics. The topics to be covered include: Functions of a Complex Variable, Partial Differential Equations, Asymptotic and Perturbation Methods, and Convex Analysis and Variational Methods.

Spring
1 Course Unit
ENM 5220 Numerical Methods for PDEs
The objective of the course is to provide training in fundamentals of numerical analysis at the PhD level. This course does not explore methods tailored to specific physics subdomain. Instead, general ideas and systematic procedures for construction and analysis of numerical methods are introduced, which can be applied to diverse disciplines of computational science seeking numerical solution of complex differential equations. The course begins with the techniques for numerical differentiation/integration and solution of system of ODEs, which later is integrated into techniques for solution of PDEs of various types (hyperbolic, parabolic, and elliptic ones). Measures of stability and accuracy are presented, with emphasis on preserving symmetries of differential operators to preclude unphysical solution growth or decay. Spectral methods based on Sturm-Liouville eigenfunctions are covered. Utility and limitation of the widely used methods for computation of broadband phenomena are illustrated. Students will have first-hand experience writing their own computer programs, and also come to view critically the numerical output generated by a computer. Background on linear algebra and ordinary/partial differential equations at the level of ENM 5100 and basic MATLAB experience. Undergraduates require instructor permission to enroll.
Spring, odd numbered years only
1 Course Unit

ENM 5310 Data-driven Modeling and Probabilistic Scientific Computing
We will revisit classical scientific computing from a statistical learning viewpoint. In this new computing paradigm, differential equations, conservation laws, and data act as complementary agents in a predictive modeling pipeline. This course aims to explore the potential of modern machine learning as a unifying computational tool that enables learning models from experimental data, inferring solutions to differential equations, blending information from a hierarchy of models, quantifying uncertainty in computations, and efficiently optimizing complex engineering systems. Prerequisite: Programming in Python and MATLAB
Not Offered Every Year
1 Course Unit

ENM 5400 Topics In Computational Science and Engineering
This course is focused on techniques for numerical solutions of ordinary and partial differential equations. The course will introduce algorithms and their analysis for ODEs; finite element analysis for elliptic, parabolic and hyperbolic PDEs; approximation theory and error estimates for FEM. Prerequisite: Background in ordinary and partial differential equations, proficiency in a programming language such as MATLAB, C, Fortran
Not Offered Every Year
1 Course Unit

English (ENGL)

ENGL 0010 Study of a Medieval or Renaissance Author
This course introduces students to literary study through the works of a single, major author from the Medieval or Renaissance period. Reading an individual author across an entire career offers students the rare opportunity to examine works from several critical perspectives in a single course. What is the author’s relation to his or her time? How do our author’s works help us to understand literary history? And how might we understand our author’s legacy through performance, tributes, adaptations, or sequels? Exposing students to a range of approaches and assignments, this course is an ideal introduction to literary study. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Fall or Spring
1 Course Unit

ENGL 0011 Study of a Woman Writer
This course introduces students to literary study through the works of a major woman writer. Reading an individual author across an entire career offers students the rare opportunity to examine works from several critical perspectives in a single course. How do our author’s works help us to understand literary and cultural history? And how might we understand our author’s legacy through performance, tributes, adaptations, or sequels? Exposing students to a range of approaches and assignments, this course is an ideal introduction to literary study. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: GSWS 0011
1 Course Unit

ENGL 0012 Study of an African American Author
This course introduces students to literary study through the works of a major African American author. Reading an individual author across an entire career offers students the rare opportunity to examine works from several critical perspectives in a single course. How do our author’s works help us to understand literary and cultural history? And how might we understand our author’s legacy through performance, tributes, adaptations, or sequels? Exposing students to a range of approaches and assignments, this course is an ideal introduction to literary study. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: AFRC 0012
1 Course Unit

ENGL 0020 Study of a Literary Theme
This introduction to literary study examines a compelling literary theme. The theme’s function within specific historical contexts, within literary history generally, and within contemporary culture, will all be emphasized. In presenting a range of materials and perspectives, this course is an ideal introduction to literary study. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Fall or Spring
1 Course Unit

ENGL 0021 Study of a Theme in Cinema
This introduction to literary study examines a compelling theme central to a set of cinematic texts. The theme’s function within specific historical contexts, within literature history generally, and within contemporary culture, will all be emphasized. In presenting a range of materials and perspectives, this course is an ideal introduction to literary study. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Fall or Spring
1 Course Unit

ENGL 0022 Study of a Theme in Global Literature
This introduction to literary study examines a compelling literary theme by attending to texts from around the globe. The theme’s function within multiple historical and regional contexts, within literary history generally, and within contemporary culture, will all be emphasized. In presenting a range of materials and perspectives, this course is an ideal introduction to literary study. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: COML 0022
1 Course Unit
ENGL 0023 Study of a Theme Related to Gender & Sexuality
This introduction to literary study examines a compelling literary theme related to questions of gender and sexuality. The theme’s function within specific historical contexts, within literary history generally, and within contemporary culture, will all be emphasized. In presenting a range of materials and perspectives, this course is an ideal introduction to literary study. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: GSWS 0023
1 Course Unit

ENGL 0024 Study of a Theme: Monsters in Film and Literature
This course studies literature and film featuring a wide assortment of monsters across a range of genres, cultures, and time periods. It also serves as an introduction to film analysis and readings in cultural studies and literary theory. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Also Offered As: CIMS 0024
1 Course Unit

ENGL 0030 Study of a Literary Genre
An introduction to literary study through a genre; whether it be the novel, drama, the short story, the graphic novel, or poetry. Versions of this course will vary widely in the selection of texts assigned. Some versions will begin with traditional texts, including a sampling of works in translation. Others will focus exclusively on modern and contemporary examples. This course is designed for the General Requirement, and is ideal for the students wishing to take an English course but not necessarily intending to major. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Fall or Spring
1 Course Unit

ENGL 0038 Study of a Genre: World Autobiography
An introduction to literary study through world literature. The course will introduce you to the manifold connections between theories of world literature and fields such as globalization studies, translation studies, comparative literature, and postcolonial studies. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Also Offered As: COML 0038
1 Course Unit

ENGL 0039 Narrative Across Cultures
The purpose of this course is to present a variety of narrative genres and to discuss and illustrate the modes whereby they can be analyzed. We will be looking at shorter types of narrative: short stories, novellas, and fables, and also some extracts from longer works such as autobiographies. While some works will come from the Anglo-American tradition, a larger number will be selected from European and non-Western cultural traditions and from earlier time-periods. The course will thus offer ample opportunity for the exploration of the translation of cultural values in a comparative perspective.
Fall or Spring
Also Offered As: COML 1025, NELC 1960, SAST 1124, THAR 1025
1 Course Unit

ENGL 0040 Study of a Literary Period
This is an introduction to literary study through a survey of works from a specific historical period. This course is ideal for students wishing to explore a significant era, and it presents a range of texts and contexts for understanding the cultural products of a period. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Fall or Spring
1 Course Unit

ENGL 0041 Study of a Period in Cinematic History
This is an introduction to the study of cinema and culture through a survey of works from a specific historical period. This course is ideal for students wishing to explore a significant era, and it presents a range of films and contexts for understanding the cultural products of a period. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: CIMS 0041, COML 0041
1 Course Unit

ENGL 0042 Study of a Period: Medieval/Renaissance
This is an introduction to literary study through a survey of works from a specific historical period—in this case, Medieval and/or Renaissance. This course is ideal for students wishing to explore a significant era, and it presents a range of texts and contexts for understanding the cultural products of a period. This course is designed for the General Requirement, and is ideal for the students wishing to take an English course but not necessarily intending to major. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 0043 Study of a Period: Literature of the Long 18th Century
This is an introduction to literary study through a survey of works from a specific historical period—in this case, the Long 18th Century. This course is ideal for students wishing to explore a significant era, and it presents a range of texts and contexts for understanding the cultural products of a period. This course is designed for the General Requirement, and is ideal for the students wishing to take an English course but not necessarily intending to major. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 0044 Study of a Period: The 19th Century
This is an introduction to literary study through a survey of works from a specific historical period—in this case, the 19th Century. This course is ideal for students wishing to explore a significant era, and it presents a range of texts and contexts for understanding the cultural products of a period. This course is designed for the General Requirement, and is ideal for the students wishing to take an English course but not necessarily intending to major. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
1 Course Unit
ENGL 0045 Study of a Period: The Twenty-First Century
This is an introduction to literary study through a survey of works from a specific historical period—in this case, Twenty-First Century literature. This course is ideal for students wishing to explore a significant era, and it presents a range of texts and contexts for understanding the cultural products of a period. This course is designed for the General Requirement, and is ideal for the students wishing to take an English course but not necessarily intending to major. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 0050 History and Theory of Sexuality
What is sexuality? Does it exist in the body or in the mind? Is it a collection of actions, desires, and fantasies, or is it rather a disposition, a way of seeing oneself, an identity? Does what we want depend on who we are? Does what we define as to who we are? This course will address such questions by introducing students to several classic texts in the history and theory of sexuality and by looking at key moments in the struggle for sexual and gender freedom. The history we trace will focus on the effects of the "invention of homosexuality" in the late-nineteenth century; the history of butch/femme community; the cultural moment of Stonewall and gay liberation; the "Sex Wars" of the 1980s; women of color and queer of color critiques; responses to HIV/AIDS; and the emergence of the transgender rights movement. We will also consider the meaning of "queer," global sexualities, same-sex marriage, the politics of emotion, and gay normalization.
Fall or Spring
1 Course Unit

ENGL 0052 Literature and Society: Introduction to Psychoanalysis
The course will introduce students to the broad and ever-expanding spectrum of psychoanalytic ideas and techniques, through reading and discussion of major works by some of its most influential figures. We will also read some literary, historical, philosophical, and anthropological works that have special relevance to the psychoanalytic exploration of the human condition. In addition to the other requirements it satisfies, this course may also be counted toward completion of the Psychoanalytic Studies minor (http://web.sas.upenn.edu/psys/). See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 0052
1 Course Unit

ENGL 0060 Introduction to Literature and Law
An introduction not only to representations of the law and legal processes in literary texts, but also to the theories of reading, representation, and interpretation that form the foundation of both legal and literary analysis. See the English Department’s website at www.english.upenn.edu for a description of our current offerings.
Fall or Spring
1 Course Unit

ENGL 0070 Literature and Medicine: 1650 to the Present
This course offers a comprehensive study of significant changes and continuities in the history of medicine from 1650 to the present day, alongside works of literature that exemplify the shifting notions of the doctor and sickness in the Western medical tradition. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
1 Course Unit

ENGL 0137 Penn Theatre in London--Penn English London Program
This course is the centerpiece of the Penn English London Program. As part of this course, you will study with a renowned theatre critic and make frequent theatre visits. London is one of the most exciting theatre centers in the world, and this course has a focus on live performance, providing an incomparable opportunity to learn about a wide range of dramatic forms, acting styles, theatrical conventions, and playing spaces. Students attend three performances each week, produced by companies such as the National Theatre, the Royal Court, and Shakespeare’s Globe. We will also see a diverse selection of pieces staged not only in the historic theatres of the West End, but also in smaller fringe theatres. Class meetings will include presentations on the theatres we visit, analysis of plays, and discussions about the productions we have seen. Readings for the class will include selected plays and contextual material to prepare us for theatre viewing; written work will consist of responses to performances. Field trips are likely to include a backstage visit of the National Theatre, and possibly a visit to the theatre collection at the Victoria and Albert Museum.
1 Course Unit

ENGL 0159 Gender and Society
This course will introduce students to the ways in which sex, gender, and sexuality mark our bodies, influence our perceptions of self and others, organize families and work like, delimit opportunities for individuals and groups of people, as well as impact the terms of local and transnational economic exchange. We will explore the ways in which sex, gender, and sexuality work with other markers of difference and social status such as race, age, nationality, and ability to further demarcate possibilities, freedoms, choices, and opportunities available to people.
Fall or Spring
Also Offered As: GSWS 0002
1 Course Unit

ENGL 0160 Introduction to Sexuality Studies and Queer Theory
This course will introduce student to the historical and intellectual forces that led to the emergence of queer theory as a distinct field, as well as to recent and ongoing debates about gender, sexuality, embodiment, race, privacy, global power, and social norms. We will begin by tracing queer theory’s conceptual heritage and prehistory in psychoanalysis, deconstruction and poststructuralism, the history of sexuality, gay and lesbian studies, woman-of-color feminism, the feminist sex wars, and the AIDS crisis. We will then study the key terms and concepts of the foundational queer work of the 1990s and early 2000s. Finally, we will turn to the new questions and issues that queer theory has addressed in roughly the past decade. Students will write several short papers.
Fall
Also Offered As: COML 0030, ENGL 2303, GSWS 0003
1 Course Unit

ENGL 0300 Medieval Worlds
In this freshman seminar, we will read a variety of premodern texts that try to take the whole world into account. We will trace the geographical imaginations and cultural encounters of early writers across different genres, from maps, to Islamic, Jewish, and Christian travel narratives, such as the account of John de Mandeville (one of Christopher Columbus’s favorite writers); to monstrous encyclopedias and books of beasts, such as the "Wonders of the East"; to universal chronicles and Alexander the Great romances. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
Fall or Spring
1 Course Unit
ENGL 0301 First Year Seminar--Emotions
The field known as "History of the Emotions" has gained tremendous prominence in literary and cultural studies. But do emotions have a history? If so, what methods do we use for discovering and recounting that history? To what extent does history of the emotions borrow from other fields? These include all the fields that relate to what we call "emotions studies": psychology, sociological, political theory, philosophy, and neuroscience. In this seminar we will explore some key methodologies and subject matters for history of the emotions. We'll look at some philosophical reflections on emotion (including Plato, Aristotle, and the Stoics, as well as more recent moral philosophers); we'll also look at political theorists, including Thomas Hobbes; we'll explore psychoanalytic perspectives, historical research, and some of the work of neuroscientists; and we will take these ideas into explorations of art, literature, and music. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CLST 0015
1 Course Unit

ENGL 0302 First Year Seminar: Asian American Lit
Also Offered As: ASAM 0010
American literature and culture. An introduction to writing about Literature, with emphasis on Asian
1 Course Unit

ENGL 0320 First Year Seminar: Black Queer Traditions
This first-year seminar provides a critical introduction to Black Queer literature, art, and politics. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: AFRC 0320, GSWS 0320
1 Course Unit

ENGL 0322 Freshman Seminar on Asian American Lit
An introduction to writing about Literature, with emphasis on Asian American literature and culture.
Also Offered As: ASAM 0010
1 Course Unit

ENGL 0303 First Year Seminar: National Epics
In this course we will consider texts that become "national epics," texts that in some sense come to "represent" a nation. How and when might such imaginative texts emerge? Nations change, and old poems may no longer serve. Can the Song of Roland, once compulsory study for all schoolchildren in France, still be required reading today-- especially if I am French Muslim? What about El Cid in Spain? How do some texts-- such as the Mahabharata in India, or Journey to the West in China-- seem more adaptable than others? The course begins in western Europe, but then pivots across Eurasian space to become gradually more global. Most all of us have complex family histories: Chinese-American, French Canadian, Latino/a/x, Jewish American, Pennsylvania Dutch, Lenni Lenape. Some students may choose to investigate, for their final project, family histories (and hence their own, personal connection to "national epics").
Also Offered As: COML 0303
1 Course Unit

ENGL 0304 First Year Seminar: Dangerous Literature
This first-year seminar explores literary works that were called or perceived dangerous, revealing a literary history of censorship, prohibition, and book burning--be it for moral, political, or religious reasons. By studying dangerous literature closely and transhistorically, students will acquire knowledge about the texts as well as historical, aesthetic, and philosophical contexts from which they emerged. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 0305 First Year Seminar: Fiction and Connectivity
This First Year Seminar explores the ways in which long narratives, from ancient epic to 21st-century TV serials, have always engaged their audiences by providing a sense of connection among individuals, and by modeling the relationship between individuals and society. This seminar will zero-in on this aspect of storytelling's cultural function. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 0306 Spiegel-Wilks First-Year Seminar
The primary goal of the first-year seminar program is to provide every first-year student the opportunity for a direct personal encounter with a faculty member in a small setting devoted to a significant intellectual endeavor. Specific topics are posted at the beginning of each academic year. This Spiegel-Wilks seminar focuses exclusively on contemporary art.
Fall or Spring
Also Offered As: ARTH 0501
1 Course Unit

ENGL 0307 First Year Seminar: Lyric Poetry and Life Writing
What kind of life writing is poetry? When we say that the raw expression of thought and feeling is not art, but a poem is, what do we mean? What is gained (and what lost) when writers give poetic form to experiences and emotions? In this seminar, we'll investigate that question by reading a series of modern poets alongside other forms of life writing that they produced, including, for example, letters and diaries, autobiographies and memoirs, essays and fiction. We'll start with some quick case studies on Wordsworth, Whitman, and Dickinson. For the remainder of the semester, we'll work intensively on Elizabeth Bishop, Robert Lowell, Ted Hughes, Sylvia Plath, Philip Larkin, Robert Frost, Langston Hughes, Audre Lorde, Bob Dylan, and Claudia Rankine.
1 Course Unit

ENGL 0308 Lyric Poetry and Life Writing
Also Offered As: COML 0308
1 Course Unit

ENGL 0309 Lyric Poetry and Life Writing
Also Offered As: COML 0309
1 Course Unit

ENGL 0310 Lyric Poetry and Life Writing
Also Offered As: COML 0310
1 Course Unit

ENGL 0311 Lyric Poetry and Life Writing
Also Offered As: COML 0311
1 Course Unit

ENGL 0312 Lyric Poetry and Life Writing
Also Offered As: COML 0312
1 Course Unit

ENGL 0313 Lyric Poetry and Life Writing
Also Offered As: COML 0313
1 Course Unit

ENGL 0314 Lyric Poetry and Life Writing
Also Offered As: COML 0314
1 Course Unit

ENGL 0315 Lyric Poetry and Life Writing
Also Offered As: COML 0315
1 Course Unit

ENGL 0316 Lyric Poetry and Life Writing
Also Offered As: COML 0316
1 Course Unit

ENGL 0317 Lyric Poetry and Life Writing
Also Offered As: COML 0317
1 Course Unit

ENGL 0318 Lyric Poetry and Life Writing
Also Offered As: COML 0318
1 Course Unit

ENGL 0319 Lyric Poetry and Life Writing
Also Offered As: COML 0319
1 Course Unit

ENGL 0320 Lyric Poetry and Life Writing
Also Offered As: COML 0320
1 Course Unit

ENGL 0321 Lyric Poetry and Life Writing
Also Offered As: COML 0321
1 Course Unit

ENGL 0322 Lyric Poetry and Life Writing
Also Offered As: COML 0322
1 Course Unit

ENGL 0323 Lyric Poetry and Life Writing
Also Offered As: COML 0323
1 Course Unit

ENGL 0324 Lyric Poetry and Life Writing
Also Offered As: COML 0324
1 Course Unit

ENGL 0325 Lyric Poetry and Life Writing
Also Offered As: COML 0325
1 Course Unit

ENGL 0326 Lyric Poetry and Life Writing
Also Offered As: COML 0326
1 Course Unit

ENGL 0327 Lyric Poetry and Life Writing
Also Offered As: COML 0327
1 Course Unit

ENGL 0328 Lyric Poetry and Life Writing
Also Offered As: COML 0328
1 Course Unit

ENGL 0329 Lyric Poetry and Life Writing
Also Offered As: COML 0329
1 Course Unit

ENGL 0330 Lyric Poetry and Life Writing
Also Offered As: COML 0330
1 Course Unit

ENGL 0331 Lyric Poetry and Life Writing
Also Offered As: COML 0331
1 Course Unit

ENGL 0332 Lyric Poetry and Life Writing
Also Offered As: COML 0332
1 Course Unit

ENGL 0333 First Year Seminar: Queer History and Theory
This course takes a historical approach to the study of queer theory. It considers how shifting definitions of queerness, under different guises and different terms, have shaped our understanding of sexual and gender identity today. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: GSWS 0333
1 Course Unit

ENGL 0350 First Year Seminar: Climate Fiction
This course introduces students to recent works of climatological science-fiction (cli-fi). See the English Department's website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 0365 Spiegel-Wilks First-Year Seminar
The primary goal of the first-year seminar program is to provide every first-year student the opportunity for a direct personal encounter with a faculty member in a small setting devoted to a significant intellectual endeavor. Specific topics are posted at the beginning of each academic year. This Spiegel-Wilks seminar focuses exclusively on contemporary art.
Fall or Spring
Also Offered As: ARTH 0501
1 Course Unit

ENGL 0370 First Year Seminar: Fiction and Connectivity
This First Year Seminar explores the ways in which long narratives, from ancient epic to 21st-century TV serials, have always engaged their audiences by providing a sense of connection among individuals, and by modeling the relationship between individuals and society. This seminar will zero-in on this aspect of storytelling's cultural function. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 0372 First Year Seminar: Juvenilia
This course explores the childhood and adolescent writings of some of English literature's most notable figures. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 0375 Lyric Poetry and Life Writing
Also Offered As: CLST 0015
1 Course Unit
ENGL 0490 Latin American and Latinx Theatre and Performance
This course will examine contemporary Latin American and Latinx theatre and performance from a hemispheric perspective. In particular, we will study how Latin American and Latinx artists engage with notions of identity, nation, and geo-political and geo-cultural borders, asking how we might study "national" theatres in an age of transnational globalization. Our consideration of plays, performances, and theoretical texts will situate Latin American and Latinx theatre and performance within the context of its politics, culture, and history.
Also Offered As: COML 2086, LALS 2860, THAR 2860
1 Course Unit

ENGL 0500 Benjamin Franklin Seminar: Classicism and Literature
This advanced seminar will examine the classical backgrounds to English poetry, in particular the Biblical and Greco-Roman antecedents to Renaissance lyric verse and verse drama (such as, preeminently, Shakespeare). See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CLST 3703
1 Course Unit

ENGL 0504 Benjamin Franklin Seminar: 18th-Century Literature
This course explores an aspect of 18th-Century literature intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 0505 Benjamin Franklin Seminar: 19th-Century American Literature
This course explores an aspect of 19th-Century American literature intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 0505
1 Course Unit

ENGL 0506 Benjamin Franklin Seminar: Modernism
This course explores an aspect of literary modernism intensively, featuring the avant-garde, the politics of modernism, and its role in shaping poetry, music, and the visual arts. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 0507 Benjamin Franklin Seminar: 20th-Century Literature
The course explores an aspect of 20th-Century literature intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 0507
1 Course Unit

ENGL 0509 Dante's Divine Comedy
In this course we will read the Inferno, the Purgatorio and the Paradiso, focusing on a series of interrelated problems raised by the poem: authority, fiction, history, politics and language. Particular attention will be given to how the Commedia presents itself as Dante's autobiography, and to how the autobiographical narrative serves as a unifying thread for this supremely rich literary text. Supplementary readings will include Virgil's Aeneid and selections from Ovid's Metamorphoses. All readings and written work will be in English. Italian or Italian Studies credit will require reading Italian texts in their original language and writing about their themes in Italian. This course may be taken for graduate credit, but additional work and meetings with the instructor will be required.
Not Offered Every Year
Also Offered As: COML 3330, ITAL 3330
1 Course Unit

ENGL 0510 Benjamin Franklin Seminar: National Epics (Med/Ren)
A course that traces how particular literary texts, very often medieval, are adopted to become foundational for national literatures. Key moments of emphasis will be the early nineteenth century, the 1930s, and (to some extent) the unfolding present. Some texts immediately suggest themselves for analysis. The Song of Roland, for example, has long been fought over between France and Germany; each new war inspires new editions on both sides. The French colonial education system, highly centralized, long made the Chanson de Roland a key text, with the theme of Islamic attack on the European mainland especially timely, it was thought, during the Algerian war of independence. Germany also sees the Niebelungenlied as a key text, aligning it with the Rhine as an impeccably Germanic: but the Danube, especially as envisioned by Stefan Zweig, offers an alternative, hybridized, highly hyphenated cultural vision in running its Germanic-Judaic-Slavic-Roman course to the Black Sea. The course will not be devoted exclusively to western Europe. Delicate issues arise as nations determine what their national epic needs to be. Russia, for example, needs the text known as The Song of Igor to be genuine, since it is the only Russian epic to predate the Mongol invasion. The text was discovered in 1797 and then promptly lost in Moscow's great fire of 1812; suggestions that it might have been a fake have to be handled with care in Putin's Russia. Similarly, discussing putative Mughal (Islamic) elements in so-called "Hindu epics" can also be a delicate matter. Some "uses of the medieval" have been exercised for reactionary and revisionist causes in the USA, but such use is much more extravagant east of Prague. And what, exactly, is the national epic of the USA?
Fall or Spring
Also Offered As: COML 0510
1 Course Unit

ENGL 0513 Benjamin Franklin Seminar: 19th-Century American Literature
This course explores an aspect of 19th-Century American literature intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: GSWS 0513
1 Course Unit
ENGL 0514 Benjamin Franklin Seminar: 20th-Century American Literature
The course explores an aspect of 20th-Century American literature intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 0515 Benjamin Franklin Seminar: Modern American Literature
This course explores an aspect of Modern American literature intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 0518 Benjamin Franklin Seminar: Cinema and Globalization
In this seminar, we will study a number of films (mainly feature films, but also a few documentaries) that deal with the complicated nexus of issues that have come to be discussed under the rubric of "globalization." See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: CIMS 0518, COML 0518
1 Course Unit

ENGL 0519 Benjamin Franklin Seminar: Postcolonial Literature
This course explores an aspect of Postcolonial literature intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: SAST 0519
1 Course Unit

ENGL 0520 Capitalism, (Neo)Colonialism, Racism, and Resistance
This interdisciplinary seminar examines, from an international perspective, theory and artistic productions, including literature, films, and performance art, that analyze and critique capitalism, imperialism and (neo)colonialism, racism, and patriarchy. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 0520, LALS 0520
1 Course Unit

ENGL 0521 Benjamin Franklin Seminar: 18th-Century Slavery and Abolition
This course examines how the slave trade was understood, justified, contested, and represented in British literature. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: AFRC 0521
1 Course Unit

ENGL 0531 Benjamin Franklin Seminar: Gender, Sexuality, and Literature
This seminar focuses on literary, cultural, and political expressions of gender and sexuality. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: GSWS 0531
1 Course Unit

ENGL 0540 Benjamin Franklin Seminar: History of Literary Criticism
This is a course on the history of literary theory, a survey of major debates about literature, poetics, and ideas about what literary texts should do, from ancient Greece to examples of modern European thought. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CLST 3508, COML 0540
1 Course Unit

ENGL 0541 Psychoanalysis and Autobiography
Both psychoanalysis and autobiography are ways of re-telling a life. Psychoanalysis is often called "the talking cure" because, as patients tell the analyst more and more about their lives (their thoughts, dreams, memories, hopes, fears, relationships, jobs, and fantasies), they start to recognize themselves in new ways, and this can help them overcome conflicts, impasses, bad feelings, and even psychiatric illnesses that have kept them from flourishing. Autobiographers do something similar as they remember, re-examine, and re-tell their lives - though one very important difference is that they do so, not privately in a psychoanalyst's office, but publicly in books that anyone may read. This seminar is a comparative exploration of these different ways of a re-telling a life. This seminar is usually team-taught by a humanities scholar and a practicing psychoanalyst.
Fall
Also Offered As: COML 3097, GSWS 3890
1 Course Unit

ENGL 0549 Writing About Art Seminar
What does it mean to write about art? What are the historical origins of this undertaking? How does language mediate the intellectual, somatic, and cultural rapport between the viewing self and the physical object? As an initial response to these questions we will examine the writings of the Tuscan artist and critic Giorgio Vasari (1511-1574), the biographer of such renowned artists as Leonardo, Raphael, Donatello, and Michelangelo. We will also read the letters of famous artists from the early modern period, and examine the theoretical forays of artists such as Albrecht DÄ"rer, who attempted to sketch the relationship between the memory and the imagination. Finally, we will look to examples of works of art for how we might read visual images as expressive of theories about what are and what it can do.
Not Offered Every Year
Also Offered As: ARTH 3510, GRMN 1302, ITAL 3610
1 Course Unit

ENGL 0572 Benjamin Franklin Seminar: 18th-Century Novel
This course explores an aspect of 18th-Century novel intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: GSWS 0572
1 Course Unit

ENGL 0573 Benjamin Franklin Seminar: 19th-Century Novel
This course explores an aspect of the 19th-Century novel intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit
ENGL 0575 The Novel and Marriage
The content of the course will vary from semester to semester. All works read in English. Please check the department’s website for a description. https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: COML 2500, ENGL 2799, FREN 2500, HIST 0722
1 Course Unit

ENGL 0578 Benjamin Franklin Seminar: The Contemporary Graphic Novel
This seminar explores the rise of Comics Studies through a focus on the contemporary graphic novel. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: CIMS 0578
1 Course Unit

ENGL 0580 Benjamin Franklin Seminar: Poetry and Poetics
This course explores an aspect of poetry and poetics intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 0582 Benjamin Franklin Seminar: American Poetry
This course devotes itself to the in-depth study of twentieth-century American poetry. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 0585 Benjamin Franklin Seminar: Drama to 1660
This course explores an aspect of drama before 1660 intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 0587 Benjamin Franklin Seminar: Modern Drama
This course explores an aspect of Modern drama intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 0590 Benjamin Franklin Seminar: Film Studies
This course explores an aspect of film studies intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3890, CIMS 0590, COML 0590
1 Course Unit

ENGL 0591 The History Computer Animation
This course will look at computer animation as an art form, a series of technological innovations and an industry. We will explore the way in which artistic, technical, historical, and cultural conditions have shaped the development of computer animation. Topics will include the impact of early motion graphics experiments in the sixties, the contributions of university- and corporation-funded research, commercial production, and the rise of Pixar. We will consider the companies and personalities in computer animation who have shaped the art form and continue to influence it, the contributions to computer animation from visionaries around the world, and current day applications of animated imagery. Throughout the course, we will screen important works from the canon of computer animation, including the earliest computer-animated shorts, scenes from Beauty and the Beast, the first Pixar shorts, Toy Story, Final Fantasy and works done internationally to forward the art and the industry.
Not Offered Every Year
Also Offered As: ARTH 3871, CIMS 3201, FNAR 3182
1 Course Unit

ENGL 0593 The Animation Of Disney
No organization has exerted as much influence on popular culture and the art form of animation as The Walt Disney Company. For decades, Disney films were the standard by which all other animated films were measured. This course will examine the biography and philosophy of founder Walt Disney, as well as The Walt Disney Company’s impact on animation art, storytelling and technology, the entertainment industry, and American popular culture. We will consider Disney’s most influential early films, look at the 1960s when Disney’s importance in popular culture began to erode, and analyze the films that led to the Disney renaissance of the late 1980s/early 1990s. We will also assess the subsequent purchase of Pixar Animation Studios and the overall impact Pixar has had on Disney. The class will also look at recent trends and innovations, including live-action remakes and Disney+.
Not Offered Every Year
Also Offered As: ARTH 3873, CIMS 3203, FNAR 3184
1 Course Unit

ENGL 0594 History Children's TV
This course will survey the history of children’s television from the invention of television through the present, with an emphasis on series development and production, artistry, and the colorful personalities who built this industry. We’ll consider important figures including Fred Rogers, Bill Hanna and Joe Barbera, Joan Ganz Cooney, Jim Henson and Walt Disney. We will discuss the history of animated cartoons that were made specifically for television, Saturday morning production, the rise of Japanese cartoons from the 1960s through Pokemon, and the growth of children’s cable channels in the 90s, as well as other landmark moments. We’ll also assess the impact of streaming platforms on television and the future of children’s media.
Not Offered Every Year
Also Offered As: ARTH 3874, CIMS 3204, FNAR 3185
1 Course Unit
ENGL 0595 Global TV
This course explores a broad media landscape through new critical and conceptual approaches. It is designated as a Benjamin Franklin Seminar. This course maps the footprints of television at a global scale. Adopting comparative approaches, we will be studying TV’s formation of national and global discourses, and thereby recognizing not only television’s impact on processes of globalization, but also the ability of television to matter globally. Working through concepts of “broadcasting,” “flow,” “circulation,” and “circumvention,” the course examines the movement of (and blocks encountered by) television programs and signals across national borders and cultures. The course particularly focuses on how global television cultures have been transformed due to shifts from broadcasting technologies to (Internet) streaming services? Navigating from United States and Cuba to India and Egypt, the readings in the course illuminate how particular televisual genres, institutions, and reception practices emerged in various countries during specific historical periods. We shall be addressing a range of questions: what kind of global phenomenon is television? Can we study television in countries where we do not know the existing local languages? In what different ways (through what platforms, interfaces, and screens) do people in different continents access televsional content? What explains the growing transnational exports of Turkish and Korean TV dramas? What is the need to historically trace the infrastructural systems like satellites (and optical fiber cables) that made (and continue to make) transmission of television programming possible across the world? How do fans circumvent geo-blocking to watch live sporting events? Assignments include submitting weekly discussion questions and a final paper. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.

Fall or Spring
Also Offered As: CIMS 3781
1 Course Unit

ENGL 0596 Benjamin Franklin Seminar: Charles Chaplin’s Films and the Politics of Silence
This BFS seminar focuses on the variety pantomime inherited by twentieth-century film from the Commedia dell’Arte and European Music Hall stages. Emphasis will be placed on how pantomime was used by filmmaker Charles Chaplin between the years 1914–1940. We shall consider important moments in the history of European pantomime that coalesced in his silent films. Also Offered As: CIMS 0596
1 Course Unit

ENGL 0599 Cinema and Civil Rights
This undergraduate seminar will examine key moments in the history of civil rights through a cinematic lens. Over the course of the semester, we will explore how filmmakers have depicted the lives, aspirations, and strategies of those who have struggled for equal rights; how different struggles have intersected with each other; what aesthetic strategies have been adopted to represent freedom and the denial of it; and how effective cinematic efforts to contribute to increased freedom have been as well as what criteria we use to evaluate success or failure in the first place. Each week, we will watch a film and read a series of texts that will be drawn from a variety of arenas, including histories of civil rights; civil rights pamphlets and speeches; filmmaker interviews; film and media theory; memoirs; and theories of race, gender and sexuality. Course requirements: mutual respect; completion of all readings and screenings; participation in class discussion; weekly online responses; a final project that can be a research paper, film, art project, or community-based initiative.
Not Offered Every Year
Also Offered As: AFRC 3930, ARTH 3930, CIMS 3930, GSWS 3930
1 Course Unit

ENGL 0700 Critical-Creative Approaches to Literature
This course enables students to think and write creatively as a means to the critical understanding of literary texts. It seeks to advance students understanding of literature, its formal elements, and its relationship to culture and history through the use of creative projects instead of or alongside more traditional critical writing. See the English Department’s website at www.english.upenn.edu for a description of current offerings. Not Offered Every Year
1 Course Unit

ENGL 0720 Critical-Creative: Contemporary Black Feminism: Saidiya Hartman and Gayl Jones
This critical-creative seminar on contemporary black feminism considers collaborative writing as an element of black feminist practice and offers students the chance to immerse themselves in the works of philosopher Saidiya Hartman and novelist Gayl Jones, as well as weave an essay together throughout the semester. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 0755 Listening in Troubled Times (SNF Paideia Program Course)
In this course, we will explore histories and theories of listening and the power of listening as a means to connect with other times and spaces. This course is part of the Stavros Niarchos Foundation (SNF) Paideia Program. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Also Offered As: ANTH 1755
1 Course Unit

ENGL 0759 Critical Creative Seminar: Ecology in New Wave Science Fiction
This critical-creative seminar explores the rise of New Wave science fiction to explore the interrelations between gender, colonialism, language and ecology. Students will also have an opportunity to write their own ecological speculative fiction. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 0765 Podcasting
This creative-critical seminar situates the podcast historically, analyzes current instantiations of the genre, and teaches hands-on skills to create your own podcasts. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 0766</td>
<td>Virtual Bodies, Virtual Worlds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This is a critical and creative seminar in which we will read major literary works about virtual worlds while creatively interpreting those works using Extended Reality (XR) tools and methods. No previous knowledge of AR/VR or experience is necessary. See the English Department’s website at <a href="http://www.english.upenn.edu">www.english.upenn.edu</a> for a description of the current offerings.</td>
<td>Fall 1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0767</td>
<td>Poetry, Music, and the Sounds of the Twentieth Century</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The twentieth century saw the rise and refinement of commercial sound recording, which gave rise to a proliferation of sound-based artistry. This course will examine the how music, sound recording, and poetry influenced each other throughout the century. In addition, you will learn some audio editing skills and will have the opportunity to make your own poetry-music remix. No experience with poetry or sound editing is required, only an interest in experimenting with sound. See the English Department’s website at <a href="http://www.english.upenn.edu">www.english.upenn.edu</a> for a description of the current offerings.</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0775</td>
<td>Modern Children’s Literature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course studies the evolution and convolution of Children’s Literature from the 19th to 21st centuries in order to best understand why these books are not just fabric of our youth, but of critical cultural, literary, and scholarly importance. As a Critical-Creative seminar, final assignments can be either critical analysis or a creative project. See the English Department’s website at <a href="http://www.english.upenn.edu">www.english.upenn.edu</a> for a description of the current offerings.</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0776</td>
<td>Young Adult Literature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In this course, we will explore Young Adult Literature in depth to trace where adolescence and society cross, clash, mesh. We will read (and watch) across era and genre, exploring literature of the long adolescence through two-and-a-half centuries, prose narrative to graphic novel to forays into Instagram and TikTok. See the English Department’s website at <a href="http://www.english.upenn.edu">www.english.upenn.edu</a> for a description of the current offerings. Also Offered As: GSWS 0776</td>
<td>Fall 1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0785</td>
<td>Queer Archives, Aesthetics, and Performance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course focuses on questions of how to represent the queer past, which it approaches from several angles: through training in archival methods and in scholarly debates about historiographical ethics (or, in the words of David Halperin, &quot;how to do the history of homosexuality&quot;); through engagement with the work of artists who make archives central to their practice; and through lab-based training that aims to represent encounters with queer history through embodied performance. See the English Department’s website at <a href="http://www.english.upenn.edu">www.english.upenn.edu</a> for a description of the current offerings.</td>
<td>Fall, odd numbered years only Also Offered As: THAR 0785 1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0792</td>
<td>Graphic Nonfiction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This critical-creative seminar traces the rise of graphic nonfiction in a variety of genres: graphic memoir, graphic journalism, graphic essay, graphic self-help, and so on. Through a combination of critical and creative tasks, the course asks: how do we think and write not just with images but through images? No prior experience with comics or drawing is necessary. See the English Department’s website at <a href="http://www.english.upenn.edu">www.english.upenn.edu</a> for a description of the current offerings.</td>
<td>Fall 1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0900</td>
<td>Artist in Residence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This course offers students the opportunity to study with a major figure in contemporary literature, culture, and the arts. See the English Department’s website at <a href="http://www.english.upenn.edu">www.english.upenn.edu</a> for a description of the current offerings. Not Offered Every Year</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0984</td>
<td>Transfer Credit &amp; Credit Away</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reserved for Transfer Credit and Credit Away electives (to be used in XCAT).</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0985</td>
<td>Study Abroad with Theory and Poetics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Study Abroad number reserved for XCAT requests that fulfill Sector 1 Theory and Poetics of the English major</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0986</td>
<td>Study Abroad with Difference and Diaspora</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Study Abroad number reserved for XCAT requests that fulfill Sector 2 Difference and Diaspora of the English major</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0987</td>
<td>Study Abroad with Medieval/Renaissance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Study Abroad number reserved for XCAT requests that fulfill Sector 3 Medieval/Renaissance of the English major</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0988</td>
<td>Study Abroad with Literature of the Long 18th Century</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Study Abroad number reserved for XCAT requests that fulfill Sector 4 Literature of the Long 18th Century of the English major</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0989</td>
<td>Study Abroad with 19th Century Literature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Study Abroad number reserved for XCAT requests that fulfill Sector 5 19th Century Literature of the English major</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0990</td>
<td>Study Abroad with 20th-21st Century Literature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Study Abroad number reserved for XCAT requests that fulfill Sector 6 20th &amp; 21st Century Literature of the English major</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0991</td>
<td>Transfer Credit &amp; Credit Away with Theory and Poetics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transfer Credit &amp; Credit Away number reserved for XCAT requests that fulfill Sector 1 Theory and Poetics of the English major</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0992</td>
<td>Transfer Credit &amp; Credit Away with Difference and Diaspora</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transfer Credit &amp; Credit Away number reserved for XCAT requests that fulfill Sector 2 Difference and Diaspora of the English major</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0993</td>
<td>Transfer Credit &amp; Credit Away with Medieval/Renaissance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transfer Credit &amp; Credit Away number reserved for XCAT requests that fulfill Sector 3 Medieval/Renaissance of the English major</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0994</td>
<td>Transfer Credit &amp; Credit Away with Literature of the Long 18C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transfer Credit &amp; Credit Away number reserved for XCAT requests that fulfill Sector 4 Literature of the Long 18th Century of the English major</td>
<td>1 Course Unit</td>
</tr>
<tr>
<td>ENGL 0995</td>
<td>Transfer Credit &amp; Credit Away with 19th Century Literature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transfer Credit &amp; Credit Away number reserved for XCAT requests that fulfill Sector 5 19th Century Literature of the English major</td>
<td>1 Course Unit</td>
</tr>
</tbody>
</table>
ENGL 0996 Transfer Credit & Credit Away with 20th/21st Century Literature
Transfer Credit & Credit Away number reserved for XCAT requests that fulfill Sector 6 20th/21st Century Literature of the English major
1 Course Unit

ENGL 0999 Independent Study in Language and Literature
Supervised reading and research.
Fall or Spring
1 Course Unit

ENGL 1002 The Bible As Literature
Successive generations have found the Bible to be a text which requires - even demands - extensive interpretation. This course explores the Bible as literature, considering such matters as the artistic arrangement and stylistic qualities of individual episodes as well as the larger thematic patterns of both the Old and New Testaments and the Apocrypha. A good part of the course is spent looking at the place of the Bible in cultural and literary history and the influence of such biblical figures as Adam and Eve, David, and Susanna on writers of poetry, drama, and fiction in the English and American literary traditions. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 1009 Classical Traditions
A broad consideration of the ways in which writers and artists from the early modern era to the present day have responded to the classical tradition, borrowing from, imitating, questioning, and challenging their classical predecessors. Through modern reworkings of ancient epic, tragedy, biography, and lyric by authors ranging from Shakespeare and Racine to contemporary poets, painters, and filmmakers, we will ask what the terms "classical" and "tradition" might mean and will track the continuities and differences between antiquity and the modern world. Should we see ancient Greek and Roman culture as an inheritance, a valuable source of wealth bequeathed to the modern age? Or is there something wrong with that picture? How do ancient texts have to be adapted and transformed if they are to speak to modern conditions and concerns? This is an introductory-level course open to anyone who cares about the relationship between the present and the past.
Not Offered Every Year
Also Offered As: CLST 1700
1 Course Unit

ENGL 1010 Old English
This course introduces students to the powerful and influential corpus of Old English literature. We will read a wide variety of texts: short poems such as The Wonderer, The Seafarer, The Wife's Lament and the passionate religious poem The Dream of The Rood; chronicles such as The Battle Of Maldon Against The Vikings, The Old Testament, Exodus and Bede's Conversion Of The English; and selections from the greatest of all English epics, Beowulf. Readings will be in Old English, and the first few weeks of the course will be devoted to mastering Old English prosody, vocabulary, and grammar (as well as a crash course on the early history of the English language). During the last few weeks we may read modern criticism of Old English poetry, or we will consider the modern poetic reception of Old English literature and explore theories and problems of translation, reading translations of Old English poems by Yeats, Auden, Tolkien, and Heaney. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 1011 Medieval Literature and Culture
This course introduces students to four hundred years of English literary culture, from approximately 1100 to 1500. This period was marked by major transformations, not only with respect to government, law, religious practice, intellectual life, England's relation to the Continent (during the 100 Years War), the organization of society (especially after the Black Death), the circulation of literary texts, and the status of authors. Topics may include medieval women writers, manuscript production, literatures of revolt, courtly culture, Crusades, cross-Channel influences, and religious controversy. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 1012 Romance
This course will focus on what is arguably the most extravagant, adventurous, and fantastical of the literary genres: the Romance. We will read a number of medieval and renaissance romance narratives, in verse and prose, beginning with the Arthurian romances (Malory's Morte D'Arthur, Sir Gawain And The Green Knight) and continuing with as many (and as much) of the great renaissance romances as time will allow: Sir Philip Sidney's Arcadia, Edmund Spenser's The Faerie Queen, and Lady Mary Wroth's Urania. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 1013 Chaucer: Poetry, Voice, and Interpretation
Watching Chaucer at work, modern poet Lavinia Greenlaw says, is like meeting English "before the paint has dried." Before rules (even of spelling) have hardened. Before live oral performance is subordinated to written record. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 1013
1 Course Unit

ENGL 1014 King Arthur: Medieval to Modern
In this course, we will study nearly 1000 years of literature about King Arthur from around the world. We will think about what Arthurian legends mean to the way we write history and the ways in which we view our collective pasts (and futures). See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 1014
1 Course Unit

ENGL 1015 Sagas and Skalds: Old Norse Literature in Translation
This course introduces students to the powerful and influential corpus of Old Norse literature and to the cultural and historical landscape of Viking and medieval Scandinavia. Students will explore mythological and heroic verse, court poetry, law codes, runic inscriptions, and the famed Icelandic sagas to develop a deeper understanding of one of the most significant literary traditions in high medieval Europe, and to myth-bust popular misconceptions about who 'the Vikings' were and how they lived. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: COML 1015
1 Course Unit
ENGL 1020 Literature Before 1660
This course will introduce students to key works of English literature written before 1660. It will explore the major literary genres of this period, as well as the social and cultural contexts in which they were produced. The course will examine how literature texts articulate changes in language and form, as well as in concepts of family, nation, and community during the medieval and early modern periods. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: GSWS 1043
1 Course Unit

ENGL 1021 Introduction to Renaissance Literature and Culture
This course will survey the cultural history of sixteenth- and seventeenth-century England. Interdisciplinary in nature and drawing on the latest methodologies and insights of English studies, we will explore how aesthetics, politics, and social traditions shaped literature at this vital and turbulent time of English history. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 1021
1 Course Unit

ENGL 1022 The Age of Milton
This course explores the literature of the 17th Century through the works of John Milton’s major works (selected sonnets, Comus, Areopagitica, Paradise Lost, Paradise Regained, and Samson Agonistes), and his contemporaries. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 1030 18th-Century British Literature
An introduction to British literary and cultural history in the eighteenth century. Typically, this course will contain materials from the later seventeenth to the early nineteenth centuries—from the Restoration and Glorious Revolution through the Enlightenmenet, the American and French Revolutions, and the Napoleonic Wars—though it need not cover the entire period. We will read plays, poetry and prose in order to understand the aesthetic, intellectual, social and political issues of literary production and achievement in this period. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 1040 The Romantic Period
This course offers an introduction to the literature of the Romantic period (ca. 1770-1830). Some versions of this course will incorporate European romantic writers, while others will focus exclusively on Anglo-American romanticism, and survey authors such as Austen, Blake, Brodken Brown, Byron, Coleridge, Emerson, Irving, Keats, Radcliffe, Scott, Shelley, and Wordsworth. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: GSWS 1041
1 Course Unit

ENGL 1045 Romantic and Victorian Poetry
This course will focus on (mostly) British poetry from the early Romantic period through the late Victorian era on the edge of modernism. We will practice different ways of reading as we discuss major and minor works in various forms, meters, and genres, along with significant movements in poetics and the social worlds that made them. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 1051 19th-Century British Literature
In 1815 in the wake of the battle of Waterloo, Great Britain controlled a staggering quarter of the world’s landmass and half of its gross national product. This course will begin with the Napoleonic Wars and this Regency aftermath to survey a century of British literature – from Romanticism through the revolutions of 1848 and the Victorian and Edwardian periods to the beginning of the first World War. Most versions of this course will read both novels and poetry, often focusing on the relation between the two and their function within nineteenth century culture. Others may incorporate drama and non-fiction prose. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 1052 19th-Century American Literature
A consideration of outstanding literary treatments of American culture from the early Federalist period to the beginnings of the First World War. We will traverse literary genres, reading autobiographies and travel accounts as well as fiction and poetry. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 1055 Books on Film: Adapting the Victorians
This course considers how stories are told differently through different media and to different audiences, and how such differences inform the many decisions involved in the translation of works across media and across time. To do so, we will consider key literary works (novels, stories, plays) from Victorian literature as well as their adaptations for film and television. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COMS 1055
1 Course Unit

ENGL 1056 Sherlock in the Multiverse
This course will consider the transmedia phenomenon of Sherlock Holmes. We will begin with his detective antecedents, we’ll then dive into Conan Doyle’s Victorian-era Sherlock, and finally explore Sherlock’s contemporary life in new novels, short stories, screenplays, tv series and computer games. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COMS 1056
1 Course Unit
ENGL 1070 Modernisms and Modernities
This class explores the international emergence of modernism, typically from the middle of the 19th century to the middle of the 20th century. We will examine the links between modernity, the avant-garde, and various national modernisms that emerged alongside them. Resolutely transatlantic and open to French, Spanish, Italian, German, or Russian influences, this course assumes the very concept of Modernism to necessitate an international perspective focusing on the new in literature and the arts -- including film, the theatre, music, and the visual arts. The philosophies of modernism will also be surveyed and concise introductions provided to important thinkers like Marx, Nietzsche, Sorel, Bergson, Freud, and Benjamin. See the English Department's website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year
Also Offered As: COML 1070
1 Course Unit

ENGL 1011 Irish Literature
This course will provide an introduction to modern Irish literature, focusing on the tension between Ireland's violent history and its heroic mythology. This tension leaves its mark not only on the ravaged landscape, but also on the English language, which displays its "foreignness" most strongly in the hands of Irish writers. Readings will span the genres of poetry, drama, fiction, and history, and will include works by Sommerville and Ross, Yeats, George Moore, Joyce, Synge, O'Casey, Beckett, Edna O'Brien, and Brian Friel. See the English Department's website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year
Also Offered As: LALS 1202
1 Course Unit

ENGL 1095 Novel to Film Adaptation
This is an intermediate-level course centered on the study of novels and their film adaptations. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 1091 Modern America
This course is concerned with American literature and cultural life from the turn of the century until about 1950. The course emphasizes the period between the two World Wars and emphasizes as well the intellectual and cultural milieu in which the writers found themselves. Works by the following writers are usually included: James, Eliot, Frost, Fitzgerald, Faulkner, West, Stevens, DuBois, Williams, Wharton, Stein, West, Moore, and Hemingway. See the English Department's website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year
1 Course Unit
ENGL 1145 Rewriting American Classics
This course will examine the way of number of classic American literary works, by authors ranging from Melville and Dickinson to Faulkner, have been vividly rewritten by contemporary writers and filmmakers. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 1179 World Literature
How do we think ‘the world’ as such? Globalizing economic paradigms encourage one model that, while it connects distant regions with the ease of a finger-tap, also homogenizes the world, manufacturing patterns of sameness behind simulations of diversity. Our current world-political situation encourages another model, in which fundamental differences are held to warrant the consolidation of borders between Us and Them, "our world" and "theirs." This course begins with the proposal that there are other ways to encounter the world, that are politically compelling, ethically important, and personally enriching–and that the study of literature can help tease out these new paths. Through the idea of World Literature, this course introduces students to the appreciation and critical analysis of literary texts, with the aim of navigating calls for universality or particularity (and perhaps both) in fiction and film. "World literature" here refers not merely to the usual definition of "books written in places other than the US and Europe," but any form of cultural production that explores and pushes at the limits of a particular world, that steps between and beyond worlds, or that heralds the coming of new worlds still within us, waiting to be born. And though, as we read and discuss our texts, we will glide about in space and time from the inner landscape of a private mind to the reaches of the farthest galaxies, knowledge of languages other than English will not be required, and neither will any prior familiarity with the literary humanities. In the company of drunken kings, botanical witches, ambisexual alien lifeforms, and storytellers who’ve lost their voice, we will reflect on, and collectively navigate, our encounters with the faraway and the familiar–and thus train to think through the challenges of concepts such as translation, narrative, and ideology. Texts include Kazuo Ishiguro, Ursula K. LeGuin, Salman Rushdie, Werner Herzog, Jamaica Kincaid, Russell Hoban, Hiroshi Teshigahara, Arundhati Roy, and Abbas Kiarostami.
Fall or Spring
Also Offered As: CLST 1602, COML 1191
1 Course Unit

ENGL 1190 Introduction to Postcolonial Literature
English is a global language with a distinctly imperial history, and this course serves as an essential introduction to literary works produced in or about the former European colonies. The focus will be poetry, film, fiction and non fiction and at least two geographic areas spanning the Americas, South Asia, the Caribbean and Africa as they reflect the impact of colonial rule on the cultural representations of identity, nationalism, race, class and gender. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 1190, COML 1190
1 Course Unit

ENGL 1191 Community, Freedom, Violence: Writing the South Asian City
The South Asian city—as space, symbol, and memory—is the subject of this course. Through a range of readings in English and in translation, we will gain a sense for the history of the city and the ways in which it is a setting for protest and nostalgia, social transformation and solitary wandering. We will see reflections of the city in the detective novels sold in its train stations, the stories scribbled in its cafes, and films produced in its backlots. Readings will attempt to address urban spaces across South Asia through a range of works, which we will examine in the context of secondary readings, including histories and ethnological works that take up life in the modern city. Students will finish this course prepared to pursue projects dealing with the urban from multiple disciplinary perspectives. This course is suitable for anyone interested in the culture, society, or literature of South Asia, and assumes no background in South Asian languages.
Fall or Spring
Also Offered As: COML 1121, SAST 1120, URBS 1120
1 Course Unit

ENGL 1200 African-American Literature
An introduction to African-American literature, ranging across a wide spectrum of moments, methodologies, and ideological postures, from Reconstruction and the Harlem Renaissance to the Civil Rights Movement. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: AFRC 1200, GSWS 1201
1 Course Unit

ENGL 1210 Literatures of Jazz
That modernism is steeped as much in the rituals of race as of innovation is most evident in the emergence of the music we have come to know as jazz, which results from collaborations and confrontations taking place both across and within the color line. In this course we will look at jazz and the literary representations it engendered in order to understand modern American culture. We will explore a dizzying variety of forms, including autobiography and album liner notes, biography, poetry, fiction, and cinema. We'll examine how race, gender, and class influenced the development of jazz music, and then will use jazz music to develop critical approaches to literary form. Students are not required to have a critical understanding of music. Class will involve visits from musicians and critics, as well as field trips to some of Philadelphia’s most vibrant jazz venues. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: AFRC 1210
1 Course Unit

ENGL 1220 Caribbean Literature
This course will introduce students to Caribbean literature. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: AFRC 0082, COML 0082
1 Course Unit
ENGL 1260 Latinx Literature and Culture
This course offers a broad introduction to the study of Latinx culture. We will examine literature, theater, visual art, and popular cultural forms, including murals, poster art, graffiti, guerilla urban interventions, novels, poetry, short stories, and film. In each instance, we will study this work within its historical context and with close attention to the ways it illuminates class formation, racialization, and ideologies of gender and sexuality as they shape Latinx experience in the U.S. Topics addressed in the course will include immigration and border policy, revolutionary nationalism and its critique, anti-imperialist thought, Latinx feminisms, queer latinidades, ideology, identity formation, and social movements. While we will address key texts, historical events, and intellectual currents from the late 19th century and early 20th century, the course will focus primarily on literature and art from the 1960s to the present. All texts will be in English.
Not Offered Every Year
Also Offered As: ARTH 2679, COML 1260, GSWS 1260, LALS 1260
1 Course Unit

ENGL 1270 Asian American Literature
An overview of Asian American literature from its beginnings at the turn of the twentieth century to the present. This course covers a wide range of Asian American novels, plays, and poems, situating them in the contexts of American history and minority communities and considering the variety of formal strategies these different texts take. See the English Department's website at www/english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ASAM 0103
1 Course Unit

ENGL 1271 American Musical Theatre
The American musical is an unapologetically popular art form, but many of the works that come from this tradition have advanced and contributed to the canon of theatre as a whole. In this course we will focus on both music and texts to explore ways in which the musical builds on existing theatrical traditions, as well as alters and reshapes them. Finally, it is precisely because the musical is a popular theatrical form that we can discuss changing public tastes, and the financial pressures inherent in mounting a production. Beginning with early roots in operetta, we will survey the works of prominent writers in the American musical theatre, including Kern, Berlin, Gershwins, Porter, Rodgers, Hart, Hammerstein, Bernstein, Sondheim and others. Class lecture/discussions will be illustrated with recorded examples.
Not Offered Every Year
Also Offered As: CIMS 1271, THAR 1271
Mutually Exclusive: THAR 0271
1 Course Unit

ENGL 1272 Topics in Asian American Literature and Culture
This seminar explores Asian American literature and culture intensively; specific course topics will vary from year to year. See the English Department's website at www/english.upenn.edu for a description of the current offerings.
Also Offered As: ASAM 1210
1 Course Unit

ENGL 1273 Dark Comedy in Theatre and Film
This course will examine the "troublesome genre" of dark comedy by looking at the ways in which theatre and film use comic and tragic structures and traditions to explore concepts and stories seemingly at odds with those traditions. Although not always organized chronologically in time, we will examine the formal and structural characteristics of tragicomedy by tracing its development, from some of its earliest roots in Roman comedy, to its manifestation in contemporary films and plays. Aside from close readings of plays and analysis of films, we will read selected critical essays and theory to enhance our understanding of how dark comedies subvert categories and expectations. We will look at how dark comedies affect audiences and read sections of plays aloud in class. Issues to be considered include comparing the way the genre translates across theatre and film (adaptation) and examining the unique placement of the genre at the heart of contemporary American culture. Students will have the opportunity to experiment with creating tragicomic effect through performance in their presentations. The class is a seminar, with required participation in discussions. Other assignments include an 8-10 page paper and a presentation. We will read plays by authors as diverse as Plautus, Anton Chekhov, and Lynn Nottage, and filmmakers including Charlie Chaplin, Sofia Coppola, and Bong Joon-ho.
Also Offered As: CIMS 1273, THAR 1273
1 Course Unit

ENGL 1279 Women in Theatre and Performance
What is feminist theatre? How do artists use live performance to provoke not only thought and feeling, but also social, personal, and political change? This course will examine a wide array of plays and performances by and about women; these pieces are, in turn, serious, hilarious, outrageous, poignant--and always provocative. Our focus will be on English-language works from the late 20th century to the present (#metoo) moment. We will read these performance texts and/or view them on stage/screen; we will also read essays that provide contextual background on feminist theatre theory and history. Throughout the semester, we will engage diverse perspectives on women and race, ethnicity, class, sexuality, and gender identity; the issues we encounter will also include marriage and motherhood, career and community, feminism and friendship, and patriarchy and power. The class will take full advantage of any related events occurring on campus or in the city, and will feature visits with guest speakers. Students will have the opportunity to pursue research on their own areas of interest (some recent examples are "women in comedy," trans performance, drag kings, feminist directing, etc.).
Not Offered Every Year
Also Offered As: GSWS 1279, THAR 1279
1 Course Unit
ENGL 1289 Jewish Films and Literature
From the 1922 silent film "Hungry Hearts" through the first "talkie," "The Jazz Singer," produced in 1927, and beyond "Schindler's List," Jewish characters have confronted the problems of their Jewishness on the silver screen for a general American audience. Alongside this Hollywood tradition of Jewish film, Yiddish film blossomed from independent producers between 1911 and 1939, and interpreted literary masterpieces, from Shakespeare's "King Lear" to Sholom Aleichem's "Teyve the Dairyman," primarily for an immigrant, urban Jewish audience. In this course, we will study a number of films and their literary sources (in fiction and drama), focusing on English language and Yiddish films within the framework of three dilemmas of interpretation: a) the different ways we "read" literature and film, b) the various ways that the media of fiction, drama, and film "translate" Jewish culture, and c) how these translations of Jewish culture affect and are affected by their implied audience.
Not Offered Every Year
Also Offered As: COML 1090, GRMN 1090, JWST 1090
1 Course Unit

ENGL 1295 Italian History on the Table
"Mangia, mangia!" is an expression commonly associated with the American stereotype of Italians, whose cuisine is popular throughout the world. But is the perceived Italian love of food the same in the United States and in Italy? Is it an issue of quantity or quality? Of socioeconomics, politics, education, health ...? Global, local or maybe, glocal? In this course, we will explore the role of food in Italian culture and in the shaping of the Italic identity, in Italy and abroad since antiquity. We will trace its evolution through literary documents, works of art, music and film, as well as family recipes and cooking tools; from ancient Rome to Dante and Boccaccio, to Stanley Tucci's Big Night; from court banquets to food trucks that, while always a feature at Italian fairs and banquets to food trucks that, while always a feature at Italian fairs and open air markets, are now being "Americanized" under the influence of American cooking shows on Italian television. This course will be taught in English. It is an OBL (Object Based Learning) Course and will include class visits, in person and/or virtual, to the Penn Museum and to the Rare Book and Manuscript Library. It counts also as a credit for the minor in Global Medieval Studies.
Not Offered Every Year
Also Offered As: ITAL 1920
1 Course Unit

ENGL 1296 Black Italy: Transnational Identities and Narratives in Afro-Italian Literature
This course focuses on how the migration movements to Italy, mainly from the Maghreb and the Horn of Africa in the '80s and '90s contributed to change Italy's status and image. From a country of emigration to other parts of the world, Italy became - as many historians, geographers, and scholars have observed - an immigration site, playing a pivotal role in the African diaspora. In the shadow of Italy's colonialist heritage (a past that Italy still has not fully confronted), these phenomena of mass migration challenge, complicate, and develop the notion of Italian-ness and undermine the fixity of an Italian identity in favor of multicultural and transnational identities. This course focuses on several Black Italian artists, writers, filmmakers, and activists of Somali, Eritrean, Ethiopian, and Egyptian origins (e.g. migrants or children of immigrants who were born or raised in Italy and children of mixed-race unions) who contribute to broaden the definition of Italian-ness and to challenge its racial, social, and cultural boundaries. Students will analyze short stories, novels, documentaries, songs, blogs, journal articles by Igiaba Scego, Cristina Ali Farah, Gabriella Ghermandi, Medhin Paolos, Fred Kudjo Kuwornu, Amir Issaa, Amara Lakhouz, Pap Khouma, and Kaha Mohamed Aden, among others. They describe their multicultural identities, their senses of belonging, their feelings for the place that is depriving them of foundational rights (such as citizenship or a legal status), their nostalgia for their homeland or the countries where their parents were born, their fights to find or create a social and literal space where being recognized not as foreigners or worse as "clandestini." Their works offer an original, complex, and multilayered depiction of contemporary Italy and its social and cultural changes, where the African community is becoming larger and better represented. Some questions this course will ask include: what are the historical and geographical components of blackness in Italy? How, if at all, have these phenomena of migration changed Italian identity? How do black Italians live within the context of anti-blackness? How do these Italian writers and artists relate to African American histories and experiences of diaspora? How can African Italian literature contribute to a deeper understanding of the Black diaspora in Europe and elsewhere? The course will pursue answers to these questions by exploring issues of race, color, gender, class, nationality, identity, citizenship, social justice in post-colonial Italy while drawing on related disciplines such as Geography, Mediterranean Studies, Diaspora Studies, Post-Colonialism, and Media and Cultural Studies. Course taught in English. Course Material in English.
Not Offered Every Year
Also Offered As: COML 2084, ITAL 2510
1 Course Unit

ENGL 1299 First-Year Seminar: Italian American Studies
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0090, GSWS 0090, ITAL 0090
1 Course Unit
ENGL 1300 Theories of Gender and Sexuality
What makes men and women different? What is the nature of desire? This course introduces students to a long history of speculation about the meaning and nature of gender and sexuality – a history fundamental to literary representation and the business of making meaning. We will consider theories from Aristophanes’s speech in Plato’s Symposium to recent feminist and queer theory. Authors treated might include: Plato, Shakespeare, J. S. Mill, Mary Wollstonecraft, Sigmund Freud, Virginia Woolf, Simone de Beauvoir, Adrienne Rich, Audre Lorde, Michel Foucault, Gayle Rubin, Catherine MacKinnon, Eve Kosofsky Sedgwick, Judith Butler, bell hooks, Leo Bersani, Gloria Anzaldúa, David Halperin, Cherrie Moraga, Donna Haraway, Gayatri Spivak, Diana Fuss, Rosemary Hennesey, Chandra Tadpole Mohanty, and Susan Stryker. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: GSWS 1300
1 Course Unit

ENGL 1310 Gender, Sexuality, and Literature
This course will focus on questions of gender difference and of sexual desire in a range of literary works, paying special attention to works by women and treatments of same-sex desire. More fundamentally, the course will introduce students to questions about the relation between identity and representation. We will attend in particular to intersections between gender, sexuality, race, class, and nation, and will choose from a rich vein of authors. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 1310, GSWS 1310
1 Course Unit

ENGL 1330 Writing Women, Part 1
This is a sophomore-level course designed for students who are curious about the literary and social history of women’s writing between 1660 and 1700. We’ll survey the work of influential writers of the time period who identified as female, and add a few texts by men writing about women. We’ll consider how women’s writing participated in the many worlds from which women were excluded — the worlds of inherited literary tradition, formal education, commerce, religious debate, and contemporary politics, to name a few. The course focuses on authors resident in “Great Britain” (a national entity still under development during this time, as we shall see) between the Restoration of Charles II in 1660 and the turn of the eighteenth century. Another course, ENGL 1331, focuses on 1700-1790. Students may take one or both of these stand-alone courses. No prerequisites required. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: GSWS 1330
1 Course Unit

ENGL 1331 Writing Women, Part 2: Sexuality and Power, 1700-1799
"Sexuality and Power" is an intermediate-level course organized as a collaborative seminar. The eighteenth century (1700-1799) in Britain was an exciting time. Literacy’s long-policed borders were being relaxed, and publication was allowed to flourish largely free of censorship. As the set of those allowed to participate in public discourse slowly expanded, new opportunities arose for literate women. We will focus on the work of important female-identified writers from the period. Students from all disciplines are welcome. There are no prerequisites. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: GSWS 1331
1 Course Unit

ENGL 1395 Gender and Popular Culture
This course examines the representation of gender in American popular culture from the twentieth and twenty-first centuries. We will examine texts across television and film, pop music, popular print media, social media, advertising, and fashion, and we will engage the historic relationship between these pop texts and sociopolitical movements. We will also read critical texts from the feminist and queer tradition on desire and sexuality, race, religion, and political power. And we will consider how the methods and modalities of gender studies can inform our understanding of pop culture. Students are responsible for three short papers of 3-5 pages and a final paper of 10-15 pages that showcase their original research around the themes of the class.
Also Offered As: GSWS 2400
1 Course Unit

ENGL 1400 Introduction to Literary Theory
This course introduces students to major issues in the history of literary theory, and provides an excellent foundation for the English major or minor. Treating the work of Plato and Aristotle as well as contemporary criticism, we will consider the fundamental issues that arise from representation, making meaning, appropriation and adaptation, categorization and genre, historicity and genealogy, and historicity and temporality. We will consider major movements in the history of theory including the "New" Criticism of the 1920s and 30s, structuralism and post-structuralism, Marxism and psychoanalysis, feminism, cultural studies, critical race theory, and queer theory. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 1400, GRMN 1303
1 Course Unit

ENGL 1409 Introduction to Literary Study
This course has three broad aims: first, it will introduce students to a selection of compelling contemporary narratives; second, it will provide prospective students of literature and film, as well as interested students headed for other majors, with fundamental skills in literary, visual, and cultural analysis; and, third, it will encourage a meditation on the function of literature and culture in our world, where commodities, people, and ideas have been constantly in motion. Questions for discussion will therefore include: the meaning of terms like “globalization,” “translation,” and “world literature”; the transnational reach and circulation of texts; migration and engagement with “others”; violence, trauma, and memory; terrorism and the state; and the ethic of cosmopolitanism. Our collective endeavor will be to think about narrative forms as modes of mediating and engaging with the vast and complex world we inhabit today. See COML website for current semester’s description at https://complit.sas.upenn.edu/course-list/2019A
Fall or Spring
Also Offered As: COML 1000
1 Course Unit
ENGL 1425 Freud's Objects
How do we look at objects? And which stories can objects tell? These are questions that have been asked quite regularly by Art Historians or Museum Curators, but they take a central place within the context of psychoanalytic studies as well. The seminar "Freud's Objects" will offer an introduction to Sigmund Freud's life and times, as well as to psychoanalytic studies. We will focus on objects owned by Freud that he imbued with special significance, and on Freud's writings that focus on specific objects. Finally, we will deal with a re-interpretation of the "object" in psychoanalytic theory, via a discussion of texts by British psychoanalysts such as Melanie Klein and Donald Winnicott.
Not Offered Every Year
Also Offered As: ARTH 3560, CLST 3509, COML 2052, GRMN 1015
1 Course Unit

ENGL 1427 Wild Things: Children's Literature and the Psychoanalytic Study of the Child
This course, framed as a psychoanalytic study of the child, focuses on English-language children's literature from the 19th Century to the present. See the English Department's website at www/english.upenn.edu for a description of the current offerings.
Also Offered As: COML 1427, GSWS 1427
1 Course Unit

ENGL 1445 Universal Language: From the Tower of Babel to Artificial Intelligence
This is a course in European intellectual history. It explores the historical trajectory, from antiquity to the present day, of the idea that there once was, and again could be, a universal and perfect language among the human race. If recovered, it can explain the origins and meaning of human experience, and can enable universal understanding and world peace. The tantalizing question of the possibility of a universal language have been vital and thought-provoking throughout the history of humanity. The idea that the language spoken by Adam and Eve was a language which perfectly expressed the nature of all earthly objects and concepts has occupied the minds of intellectuals for almost two millennia. In defiance of the Christian biblical myth of the confusion of languages and nations at the Tower of Babel, they have over and over tried to overcome divine punishment and discover the path back to harmonious existence. By recovering or recreating a universal language, theologians hoped to be able to experience the divine; philosophers believed that it would enable apprehension of the laws of nature, while mystic cabbalists saw in it direct access to hidden knowledge. In reconstructing a proto-language, 19th-century Indo-Europeanist philologists saw the means to study the early stages of human development. Even in the 20th century, romantic idealists, such as the inventor of Esperanto Ludwik Zamenhof, strived to construct languages to enable understanding among estranged nations. For writers and poets of all times, from Cyrano de Bergerac to Velimir Khlebnikov, the idea of a universal and perfect language has been an inexhaustible source of inspiration. Today, this idea echoes in theories of universal and generative grammars, in approaching English as a global tongue, and in various attempts to create artificial languages, even a language for cosmic communication. Each week we address a particular period and set of theories to learn about universal language projects, but above all, the course examines fundamental questions of what language is and how it functions in human society.
Fall or Spring
Also Offered As: COML 0095, HIST 0822, REES 1177
1 Course Unit

ENGL 1449 War and Representation
This class will explore complications of representing war in the 20th and 21st centuries. War poses problems of perception, knowledge, and language. The notional "fog of war" describes a disturbing discrepancy between agents and actions of war; the extreme nature of the violence of warfare tests the limits of cognition, emotion, and memory; war's traditional dependence on declaration is often warped by language games—"police action," "military intervention," "nation-building," or palpably unnamed and unacknowledged state violence. Faced with the radical uncertainty that forms of war bring, modern and contemporary authors have experimented in historically, geographically, experientially and artistically particular ways, forcing us to reconsider even seemingly basic definitions of what a war story can be. Where does a war narrative happen? On the battlefield, in the internment camp, in the suburbs, in the ocean, in the ruins of cities, in the bloodstream? Who narrates war? Soldiers, refugees, gossips, economists, witnesses, bureaucrats, survivors, children, journalists, descendants and inheritors of trauma, historians, those who were never there? How does literature respond to the rise of terrorist or ideology war, the philosophical and material consequences of biological and cyber wars, the role of the nuclear state? How does the problem of war and representation disturb the difference between fiction and non-fiction? How do utilitarian practices of representation—propaganda, nationalist messaging, memorialization, xenophobic depiction—affect the approaches we use to study art? Finally, is it possible to read a narrative barely touched or merely contextualized by war and attend to the question of war's shaping influence? The class will concentrate on literary objects—short stories, and graphic novels—as well as film and television. Students of every level and major are welcome in and encouraged to join this class, regardless of literary experience.
Fall or Spring
Also Offered As: COML 1050, REES 1179
1 Course Unit

ENGL 1509 Science and Literature
Science fiction has become the mythology of modern technological civilization, providing vivid means for imagining (and proclaiming) the shape of things to come. This interdisciplinary seminar will consider SF in multiple manifestations -- literature, film and TV shows, visual art and architecture. We will debate how the genre has shaped ideas about scientific knowledge, the position of humans in the universe, and our possible futures by examining themes including time travel, robots and androids, alien encounters, extraterrestrial journeys, and the nature of intelligent life. This seminar will consider SF from the perspective of the history of science and technology critically and comparatively, with a primary focus on social and cultural contexts in addition to literary aspects.
Spring
Also Offered As: STSC 1101
1 Course Unit
ENGL 1521 In Dark Times: The Dystopian Imagination in Literature and Film
This CWiC course will offer a guided introduction to the one of the most resilient genres of the human imagination: dystopian and apocalyptic fiction. Like a group of survivors huddled around a campfire, we will turn to literature and cinema to debate some of the big questions about the future of science, technology, religion, and capitalism. This course is designed as a Critical Speaking Seminar, and the majority of class assignments will be devoted to oral presentations: including a Parliamentary-style debate and a video essay. We will begin by reading some of the early, influential works in the dystopian genre by authors like Mary Shelley, H.G. Wells, and Aldous Huxley. Next, we will explore the paranoid, schizophrenic world of Cold-War-era dystopias by J.G Ballard, Philip K. Dick and Octavia Butler. We will conclude by reading contemporary climate fiction by the likes of Margaret Atwood and Kim Stanley Robinson. Alongside the literary material, we will also track the changing nature of dystopian cinema—from classics like Metropolis (1927) and La Jetee (1962) to the latest Zombie film. By the end of course, students will have a firm grasp of the history of the genre and will be able to draw on this knowledge to effectively debate issues related to privacy, big business, animal rights, climate change, migration etc.
Also Offered As: CIMS 0050
1 Course Unit

ENGL 1579 Sustainability & Utopianism
This seminar explores how the humanities can contribute to discussions of sustainability. We begin by investigating the contested term itself, paying close attention to critics and activists who deplore the very idea that we should try to sustain our, in their eyes, dystopian present, one marked by environmental catastrophe as well as by an assault on the educational ideals long embodied in the humanities. We then turn to classic humanist texts on utopia, beginning with More’s fictive island of 1517. The “origins of environmentalism” lie in such depictions of island edens (Richard Grove), and our course proceeds to analyze classic utopian texts from American, English, and German literatures. Readings extend to utopian visions from Europe and America of the nineteenth and twentieth centuries, as well as literary and visual texts that deal with contemporary nuclear and flood catastrophes. Authors include: Bill McKibben, Jill Kerr Conway, Christopher Newfield, Thomas More, Francis Bacon, Karl Marx, Henry David Thoreau, Robert Owens, William Morris, Charlotte Perkins Gilman, Ayn Rand, Christa Wolf, and others.
Not Offered Every Year
Also Offered As: COML 1160, ENVS 1050, GRMN 1160, STSC 1160
1 Course Unit

ENGL 1589 Liquid Histories and Floating Archives
Climate change transforms the natural and built environments, and it is re-shaping how we understand, make sense, and care for our past. Climate changes history. This course explores the Anthropocene, the age when humans are remaking earth’s systems, from an on-water perspective. In on-line dialogue and video conferences with research teams in port cities on four continents, this undergraduate course focuses on Philadelphia as one case study of how rising waters are transfiguring urban history, as well as its present and future. Students projects take them into the archives at the Independence Seaport Museum and at Bartram’s Garden. Field trips by boat on the Schuylkill and Delaware Rivers and on land to the Port of Philadelphia and to the John Heinz National Wildlife Refuge invite transhistorical dialogues about how colonial and then industrial-era energy and port infrastructure transformed the region’s vast tidal marshlands wetlands. Excursions also help document how extreme rain events, storms, and rising waters are re-making the built environment, redrawing lines that had demarcated land from water. In dialogue with one another and invited guest artists, writers, and landscape architects, students final projects consider how our waters might themselves be read and investigated as archives. What do rising seas subsume and hold? Whose stories do they tell? What floats to the surface?
Not Offered Every Year
Also Offered As: ANTH 1440, COML 1140, ENVS 1440, GRMN 1140, HIST 0872
1 Course Unit

ENGL 1595 Ecocritical Lit: Nature, Ecology and the Literary Imagination
This course introduces students to ecocritical literature. It is an exploration of how language and literature engages with and shapes our relations to and our understandings of the natural world. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENVS 1410
1 Course Unit

ENGL 1599 Spirituality in the Age of Global Warming: Designing a Digital Mapping Project in Scalar
We are living in the midst of one of the most severe crises in the Earth’s history. Science confirms the glaciers are melting, hurricanes are growing more intense, and the oceans are rising. But there is also a deeply spiritual dimension to global warming that does not factor into the scientific explanations of the Anthropocene. “Spirituality” will be defined not in terms of one particular religion, but in relationship to a passionate study of the environment and nature. Readings will include materials from both the sciences and the humanities such as Donella Meadows’s Thinking in Systems, Elizabeth Kolbert’s The Sixth Extinction, Barbara Kingsolver’s Flight Behavior, and films such as Black Fish and Wale Rider. The theoretical focus of the course will be how “multispecies partnerships” can help us better understand and mitigate the effects of Climate Change. This class will work collaboratively on a digital archive with an interactive mapping interface designed in Scalar. This newly developed platform allows for the creation of multimedia exhibits that will document how Global Warming is affecting coral reefs in the tropics, glaciers in the Arctic and Antarctic, rainforests in the Amazon and rivers of Philadelphia. Students will also work individually to design interactive maps on the Scalar platform documenting their own more personal interactions with the environment.
Not Offered Every Year
Also Offered As: ENVS 2430, RELS 2460
1 Course Unit
ENGL 1600 Cultures of The Book
The impact of various technologies (from writing to various forms of manuscript to print to electronics) on the way the written word gives shape to a culture. The emphasis is on western cultures from Plato to the present, but participation by students with interest or expertise in non-western cultures will be of great value to the group as a whole. The course offers an ideal perspective from which students can consider meta-issues surrounding their own special interests in a wide variety of fields, as well as learn to think about the way in which traditional fields of study are linked by common inherited cultural practices and constructions. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year 1 Course Unit

ENGL 1609 Introduction to Print Culture
This course examines the writing, printing, dissemination, interpretation, and censorship of specific works in Early modern England, France, Italy, Spain and America. The course is an introduction to the history of authorship, publishing, and reading at the age of print culture from Gutenberg to Franklin. All the texts analyzed in the course (the Bible, Montaigne’s Essays, Shakespeare’s plays, Don Quixote, Pamela among them) are available in English but the course pays particular attention to the massive range of translations in early modern period. Its main focus are the relation between the “printing revolution” and scribal culture, censorship and transgression, the birth of the author and collaborative writing, and reading practices from humanist techniques to reading of the novels. The course is based on the exceptional collections of rare books and manuscripts at Penn and in Philadelphia and it is taught in the Van Pelt Library. Fall or Spring Also Offered As: HIST 2203 1 Course Unit

ENGL 1650 Introduction to Digital Humanities
This course provides an introduction to foundational skills common in digital humanities (DH). It covers a range of new technologies and methods and will empower scholars in literary studies and across humanities disciplines to take advantage of established and emerging digital research tools. Students will learn basic coding techniques that will enable them to work with a range data including literary texts and utilize techniques such as text mining, network analysis, and other computational approaches. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Fall or Spring Also Offered As: COML 1650, HIST 0870 1 Course Unit

ENGL 1670 Data Science for the Humanities
This course will provide you with a practical introduction to data-driven inquiry in the humanities, with a focus on statistical analysis in the Python programming language. (No prior knowledge of programming is required or expected). See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Spring Mutually Exclusive: PHYS 1100 1 Course Unit

ENGL 1710 Rise of the Novel
This course explores the history of the British novel and the diverse strategies of style, structure, characterization, and narrative techniques it has deployed since the late seventeenth century. While works from the eighteenth and nineteenth centuries will form the core of the reading, some versions of this course will include twentieth-century works. All will provide students with the opportunity to test the advantages and limitations of a variety of critical approaches to the novel as a genre. Readings may include works by Behn, Swift, Defoe, Richardson, Fielding, Lennox, Smollett, Burney, Scott, Austen, the Brontes, Dickens, Eliot, Hardy, Conrad, Joyce, Lawrence, Woolf, Rhys, Greene, Naipaul, Carter, Rushdie, and Coetzee. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year 1 Course Unit

ENGL 1720 18th-Century Novel
This survey of the novel addresses key questions about the novel’s "rise" in the eighteenth century on both sides of the Atlantic, as well as attending to the cultural conditions that attended this new literary form. How did the concurrent "rise" of the middle classes and the emergence of an increasingly female reading public affect the form and preoccupations of early novels? What role did institutions like literary reviews, libraries, and the church play in the novel's early reception? While readings will vary from course to course, students should expect to read such authors as Austen, Behn, Brockden Brown, Burney, Defoe, Fielding, Richardson, Rowlandson, Rowson, Scott, and Smollett. See the English Department's website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year 1 Course Unit

ENGL 1730 19th-Century Novel
This survey of the novel addresses key questions about the novel’s “rise” in the eighteenth century on both sides of the Atlantic, as well as attending to the cultural conditions that attended this new literary form. How did the concurrent “rise” of the middle classes and the emergence of an increasingly female reading public affect the form and preoccupations of early novels? What role did institutions like literary reviews, libraries, and the church play in the novel’s early reception? While readings will vary from course to course, students should expect to read such authors as Austen, Behn, Brockden Brown, Burney, Defoe, Fielding, Richardson, Rowlandson, Rowson, Scott, and Smollett. The course will explore the themes, techniques, and styles of the nineteenth-century novel. It will focus not only on the large structural and thematic patterns and problems within each novel but also on the act of reading as a historically specific cultural ritual in itself. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year 1 Course Unit

ENGL 1740 20th-Century British Novel
This course traces the development of the novel across the twentieth-century. The course will consider the formal innovations of the modern novel (challenges to realism, stream of consciousness, fragmentation, etc.) in relation to major historical shifts in the period. Authors treated might include: Conrad, Lawrence, Joyce, Forster, Woolf, Cather, Faulkner, Hemingway, Achebe, Greene, Rhys, Baldwin, Naipaul, Pynchon, Rushdie, and Morrison. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year Also Offered As: COML 1740 1 Course Unit
ENGL 1745 Writing the Self: Life-Writing, Fiction, Representation
This course investigates how people try to understand who they are by writing about their lives. It will cover a broad range of forms, including memoirs, novels, essay films, and even celebrity autobiographies. The course will be international and in focus and will ask how the notion of self may shift, not only according to the demands of different genres, but in different literary, linguistic, and social contexts. Questions probed will include the following: How does a writer's language—or languages—shape how they think of themselves? To what extent is a sense of self and identity shaped by exclusion and othering? Is self-writing a form of translation and performance, especially in multilingual contexts? What can memoir teach us about the ways writers navigate global literary institutions that shape our knowledge of World Literature? How do various forms of life-writing enable people on the margins, whether sexual, gendered, or racial, to craft narratives that encapsulate their experience? Can telling one's own story bring joy, affirmation, and greater transcultural or even global understanding? In sum, this course proposes to illuminate the many ways in which writing becomes meaningful for those who take it up. The format of the seminar will require students to offer oral presentations on the readings and invite them to craft their own experiences and memories in inventive narrative forms.
Spring, even numbered years only
Also Offered As: COML 0015, GSWS 0051
1 Course Unit

ENGL 1800 Intro to Poetry and Poetics
What is poetry and what place does it have among literary forms? What is its relation to culture, history, and our sense of speakers and audiences? This course will focus on various problems in poetic practice and theory, ranging from ancient theories of poetry of Plato and Aristotle to contemporary problems in poetics. In some semesters a particular school of poets may be the focus; in others a historical issue of literary transmission, or a problem of poetic genres, such as lyric, narrative, and dramatic poetry, may be emphasized. The course will provide a basic knowledge of scansion in English with some sense of the historical development of metrics. This course is a good foundation for those who want to continue to study poetry in literary history and for creative writers concentrating on poetry. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 1810 Sounding Poetry
Never before has poetry been so inescapable. Hip hop, the soundtrack of our times, has made rhyme, meter, and word-play part of our daily lives. How did this happen? This course ranges through oral and lyric traditions in Europe, the Americas, and the Commonwealth. See the English Department's website at www.english.upenn.edu for a description of current offerings.
Fall
Also Offered As: AFRC 1810, COML 1810
1 Course Unit

ENGL 1820 British Poetry 1660 - 1914
This course provides students with a survey of British poetry and poetics from the Restoration to the Modern period, and usually will include writers ranging from Aphra Behn and Alexander Pope to Thomas Hardy. Typically, this course will contain materials from the later seventeenth to the early nineteenth centuries—from the Restoration and Glorious Revolution through the Enlightenment, the American and French Revolutions, and the Napoleonic Wars—though it need not cover the entire period. We will read plays, poetry and prose in order to understand the aesthetic, intellectual, social and political issues of literary production and achievement in this period. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
1 Course Unit

ENGL 1830 American Poetry
Some versions of this course survey American poetry from the colonial period to the present, while others begin with Whitman and Dickinson and move directly into the 20th century and beyond. Typically students read and discuss the poetry of Williams, Stein, Niedecker, H.D., Pound, Stevens, Fearing, Rakoksi, McKay, Cullen, Wilbur, Plath, Rich, Ginsberg, Kerouac, Waldman, Creeley, Ashberry, O'Hara, Corman, Bernstein, Howe, Perelman, Silliman, and Retallack. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 1840 20th-Century Poetry
From abstraction to beat, from socialism to negritude, from expressionism to eco-poetry, from surrealism to visual poetry, from collage to digital poetry, the poetry of the twentieth century has been characterized by both the varieties of its forms and the range of its practitioners. This course will offer a broad overview of many of the major trends and a few minor eddies in the immensely rich, wonderfully varied, ideologically and aesthetically charged field. The course will cover many of the radical poetry movements and individual innovations, along with the more conventional and idiosyncratic work, and will provide examples of political, social, ethnic, and national poetics, both in the Americas and Europe, and beyond to the rest of the world. While most of the poetry covered will be in English, works in translation, and indeed the art of translation, will be an essential component the course. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 1859 The Play: Structure, Style, Meaning
How does one read a play? Theatre, as a discipline, focuses on the traditions of live performance. In those traditions, a play text must be read not only as a piece of literature, but as a kind of "blueprint" from which productions are built. This course will introduce students to a variety of approaches to reading plays and performance pieces. Drawing on a wide range of dramatic texts from different periods and places, we will examine how plays are made, considering issues such as structure, genre, style, character, and language, as well as the use of time, space, and theatrical effects. Although the course is devoted to the reading and analysis of plays, we will also view selected live and/or filmed versions of several of the scripts we study, assessing their translation from page to stage.
Fall or Spring
Also Offered As: COML 1859, THAR 0103
1 Course Unit
ENGL 1860 Early Drama

Early drama in English had its roots as much in Christianity as in Classical antiquity. What grew into the theater of Shakespeare began as networks of strolling players and church authorities in market towns sponsoring cycles of "miracle" and "mystery" plays. This course will introduce students to major dramatic works of the medieval and early modern periods, including plays written for the public stage, closet dramas, masques, mayoral pageants and other kinds of performances. The course will also pay attention to the development of different dramatic genres during these periods, as well as the social and cultural contexts in which they were produced. Students thus will explore the history of drama in English through the renaissance to the closing of the theaters in 1641 and their eventual reopening in 1660. See the English Department's website at www.english.upenn.edu for a description of the current offerings.

Not Offered Every Year
1 Course Unit

ENGL 1870 Drama from 1660 - 1840

This course surveys drama from the Restoration through the Romantic period, and in so doing explores arguably the most tumultuous period of British and American Theater history. These years saw the reopening of the theaters in London in 1660 after their having been closed through two decades of Civil War and Puritan rule. They witnessed the introduction of actresses to the stage, the development of scenery and the modern drop-apron stage, the establishment of theatrical monopolies in 1660 and stringent censorship in 1737, and the gradual introduction, acceptance, and eventual celebration of the stage in America. Perhaps most importantly, they oversaw some of the best comedies and farces in the English language, the introduction of pantomime and the two-show evening, sustained experimentation with music and spectacle on stage, and the transformation of tragedy into a star vehicle for actors and actresses like David Garrick, Sarah Siddons, John Philip Kemble, and Edmund Kean. See the English Department's website at www.english.upenn.edu for a description of the current offerings.

Not Offered Every Year
1 Course Unit

ENGL 1875 Theatre, History, Culture II: Romantics, Realists and Revolutionaries

This course investigates the history of theatre practice from the end of the Eighteenth-Century to the present, with an emphasis on the interplay of mainstream practices with the newly emerging aesthetics of acting, scenography, and theatrical theory, and the interplay of popular entertainment and audiences with the self-defined aesthetic elitism of the Avant Garde. Among the aesthetics and phenomena we will examine are romanticism and melodrama; bourgeois realism and revolutionary naturalism; emotional-realist acting; the reaction against realism; political theatre; physical theatre; theatre and media; non-dramatic theatre; and theatre that challenges long-standing categories of national identity, empire, gender, and sexuality.

Also Offered As: THAR 0102
1 Course Unit

ENGL 1880 African American Drama: From the 1920's to the present

This course will introduce students to Pulitzer-prize winning plays such as Lynn Nottage's Sweat, groundbreaking plays such as Ntozake Shange's For Colored Girls, as well as less known plays that show the wide range of form and themes in 20th and 21st century African American drama. See the English Department's website at www.english.upenn.edu for a description of the current offerings.

Fall or Spring
Also Offered As: AFRC 1880, THAR 1880
1 Course Unit

ENGL 1889 On the Stage and in the Streets: An Introduction to Performance Studies

What do Hamilton, RuPaul's Drag Race, political protest, TikTok Ratatouille, and Queen Elizabeth's funeral have in common? They all compose repertoires of performance. From artistic performances in theatres, galleries, and concert halls to an individual's comportment in everyday life, to sporting events, celebrations, courtroom proceedings, performance studies explores what happens when embodied activities are repeatable and given to be seen. In this course we ask: what is performance? How do we describe, analyze, and interpret it? What do theatre and everyday life have in common? How does performance legitimize or challenge the exercise of power? How has social media shifted our understanding of the relationship of our daily lives to performance? How does culture shape what is considered to be performance and how it functions? What isn't performance? Throughout the semester students will apply key readings in performance theory to case studies drawn from global repertoires of contemporary and historical performance. In addition to analyzing artistic performances, we will also consider sporting events, celebrations, political events, and the performance of everyday life. We will attend to the challenges provoked by performance's embodied, ephemeral, affective, effective, relational, and contingent aspects. Coursework will include discussion posts, class facilitation, and the opportunity to choose between a research paper or creative project for the final assessment.

Also Offered As: ANTH 1104, COML 0104, THAR 0104
1 Course Unit

ENGL 1891 Broadway Musicals in the 21st Century

Wicked, Spring Awakening, Dear Evan Hansen, Hadestown. And of course, Hamilton. The innovations we see in Broadway musicals since 2000 are particularly fascinating in that they, so to speak, boldly go where no musicals have gone before—while at the same time honoring and building on the long-standing traditions of this beloved form. From the powerfully romantic Light in the Piazza, which nods to roots in European operetta, to the boundary-defying Black queerness of A Strange Loop... and everything in between. In this course, we will go year by through musical theater from the quarter-century, to see where the form has gone recently... and where it's headed. In addition to the works already mentioned, we'll look at Caroline or Change, The Color Purple, In the Heights, Fun Home, and more. This course will also consider some recent "revisals," like director Daniel Fish's Oklahoma!, and Marianne Elliott's gender-reassigned Company. reinterpretations of classic American musicals that imagine them in more contemporary light.

Also Offered As: CIMS 1275, THAR 1272
1 Course Unit
ENGL 1896 Backstage Drama in Theatre and Film
Inviting audiences into a special relationship with illusion, backstage dramas (whether on film or on stage) and plays-within-plays reach beyond and alongside traditional plot-driven narratives, to reflect on the process of representation itself. Drawing from classical debates about the relationships between reality, illusion, representation, and imitation (mimesis), we will examine a variety of plays and films as we articulate the complex network of responses and underlying assumptions (whether cultural, political, or social), about art and life, that these works engage.
Fall, odd numbered years only
Also Offered As: ARTH 2830, THAR 2830
1 Course Unit

ENGL 1900 World Film History to 1945
This course surveys the history of world film from cinema's precursors to 1945. We will develop methods for analyzing film while examining the growth of film as an art, an industry, a technology, and a political instrument. Topics include the emergence of film technology and early film audiences, the rise of narrative film and birth of Hollywood, national film industries and movements, African-American independent film, the emergence of the genre film (the western, film noir, and romantic comedies), ethnographic and documentary film, animated films, censorship, the MPDDA and Hays Code, and the introduction of sound. We will conclude with the transformation of several film industries into propaganda tools during World War II (including the Nazi, Soviet, and US film industries). In addition to contemporary theories that investigate the development of cinema and visual culture during the first half of the 20th century, we will read key texts that contributed to the emergence of film theory. There are no prerequisites. Students are required to attend screenings or watch films on their own.
Fall or Spring
Also Offered As: ARTH 1080, CIMS 1010, COML 1011
1 Course Unit

ENGL 1901 World Film History 1945-Present
Focusing on movies made after 1945, this course allows students to learn and to sharpen methods, terminologies, and tools needed for the critical analysis of film. Beginning with the cinematic revolution signaled by the Italian Neo-Realism (of Rossellini and De Sica), we will follow the evolution of postwar cinema through the French New Wave (of Godard, Resnais, and Varda), American movies of the 1950s and 1960s (including the New Hollywood cinema of Coppola and Scorsese), and the various other new wave movements of the 1960s, 1970s and 1980s (such as the New German Cinema). We will then selectively examine some of the most important films of the last two decades, including those of U.S. independent film movement and movies from Iran, China, and elsewhere in an expanding global cinema culture. There will be precise attention paid to formal and stylistic techniques in editing, mise-en-scene, and sound, as well as to the narrative, non-narrative, and generic organizations of film. At the same time, those formal features will be closely linked to historical and cultural distinctions and changes, ranging from the Paramount Decision of 1948 to the digital convergences that are defining screen culture today. There are no prerequisites. Requirements will include readings in film history and film analysis, an analytical essay, a research paper, a final exam, and active participation.
Fall or Spring
Also Offered As: ARTH 1090, CIMS 1020, COML 1022
1 Course Unit

ENGL 1950 Television and New Media
How and when do media become digital? What does digitization afford and what is lost as television and cinema become digitized? As lots of things around us turn digital, have we started telling stories, sharing experiences, and replaying memories differently? What has happened to television and life after New Media? How have television audiences been transformed by algorithmic cultures of Netflix and Hulu? How have (social) media transformed socialities as ephemeral snaps and swiped intimacies become part of the "new" digital/phone cultures? This is an introductory survey course and we discuss a wide variety of media technologies and phenomena that include: cloud computing, Internet of Things, trolls, distribution platforms, optical fiber cables, surveillance tactics, social media, and race in cyberspace. We also examine emerging mobile phone cultures in the Global South and the environmental impact of digitization. Course activities include Tumblr blog posts and Instagram curations. The final project could take the form of either a critical essay (of 2000 words) or a media project.
Spring
Also Offered As: ARTH 1030, CIMS 1030, COML 1031
1 Course Unit

ENGL 1951 The City in Literature and Film
This course focuses on the central place of the city through the history of cinema. The city in question may change depending on the term this course is being offered. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: CIMS 1051, URBS 1051
1 Course Unit

ENGL 2000 Topics In Classicism and Literature: Epic Tradition
This advanced seminar will examine the classical backgrounds of western medieval literature, in particular the reception of classical myth and epic in the literature of the Middle Ages. Different versions of the course will have different emphases on Greek or Latin backgrounds and on medieval literary genres. Major authors to be covered include Virgil, Ovid, Chaucer, and the Gawain-poet.
Not Offered Every Year
Also Offered As: CLST 3708, COML 2000, GSWS 2000
1 Course Unit

ENGL 2010 Old English Seminar
This seminar explores an aspect of Anglo-Saxon culture intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2011 Medieval Literature Seminar
This seminar explores an aspect of medieval literature intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2012 Romance Seminar
This seminar explores an aspect of epic or romance intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit
ENGL 2013 Chaucer Seminar
This course explores an aspect of Chaucer’s writings intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2014 Medieval Literature Seminar: Premodern Animals
This course introduces students to critical animal studies via medieval literature and culture. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 2014, RELS 2014
1 Course Unit

ENGL 2020 17th-Century Literature Seminar
This course explores an aspect of 17th-century literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2021 Topics in Renaissance Literature
This course explores an aspect of renaissance literature intensively; specific topics will vary from year to year. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. See our ENGL catalog, go to ENGL 2310: https://catalog.upenn.edu/courses/engl/
Also Offered As: GSWS 2021
1 Course Unit

ENGL 2030 18th-Century British Literature Seminar
This course explores an aspect of 18th-century British literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2031 18th-Century Seminar: China in the English Imagination
This course explores the material culture of china-mania that spread across England and Europe in the eighteenth century, from chinoiserie vogues in fashion, tea, porcelain, and luxury goods, to the idealization of Confucius by Enlightenment philosophers. The course texts include travel writing, poetry, essays, and plays, and is designed to provide historical background to contemporary problems of Orientalism, Sinophilia, and Sinophobia. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ASAM 2310, COML 2031, EALC 1321
1 Course Unit

ENGL 2041 Romanticism Seminar
This course explores an aspect of Romantic literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2050 19th-Century Literature Seminar
This course explores an aspect of 19th-century literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2051 Environmental Studies Seminar: Coming of Age in the Anthropocene
This seminar combines studies in the 18th and 19th century novel form with environmental studies. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 2052 19th-Century American Literature Seminar
This course explores an aspect of 19th-century American literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2070 Modernism Seminar
This course explores an aspect of literary modernism intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2071 Global Modernism Seminar
This course explores literary modernism as a global and cross-cultural phenomenon. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3850, COML 2071, GRMN 1304
1 Course Unit

ENGL 2072 Modernism Seminar on Gender & Sexuality
This course explores literary modernism through questions of gender and sexuality. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: GSWS 2072
1 Course Unit

ENGL 2073 Modernist Animals: How to Rethink the Human-Animal Divide
This course explores literary modernism through the lens of Animal Studies. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: CIMS 2073, COML 2073
1 Course Unit

ENGL 2080 20th-Century Literature Seminar
The course explores an aspect of 20th-century literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 2080, JWST 2080
1 Course Unit

ENGL 2082 20th-Century American Literature Seminar
The course explores an aspect of 20th-century American literature intensively; specific course topics will vary from year to year. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 2082
1 Course Unit
ENGL 2083 Faking it: Liars, Imitators and Cheats in Literature and Film
Deception and lies are a constant theme and a mechanism of narrative art. For a genre literally synonymous with falsehood, fiction has always been touchy about its relationship to truth: Does the novel neutrally represent reality or does it re-create it? Are characters like living, breathing real people, or are they mere simulations? And if they’re just words on a page (or images on a screen), why are we so moved by their adventures, loves and misfortunes? In this class, we will explore and expand on these questions by focusing on novels and films that deal explicitly and exclusively with fakers, shapeshifters and doppelgangers, lies of necessity and of opportunity, as well as with works that revel in exposing their own manipulative artificiality. We will read psychoanalysts, sociologists, philosophers, and postcolonial thinkers and ask, What does it mean to be authentic? How malleable are our individual identity, race, gender and sexuality? What forces shape it, and how constant is this shape? Are we the same selves when we have a conversation as when we give a presentation? Do we remain ourselves when we talk to customers at our service jobs, to teachers, to students? When we “pass” as a different race? When we speak in a different accent? How do we reconcile the conflicting demands of “be yourself” and “fake it till you make it”? What is the relation between our presentation of ourselves and our selves? Novels and shorts stories for discussion might include classics like Nella Larsen’s Passing, Vladimir Nabokov’s Despair and Patricia Highsmith’s The Talented Mr. Ripley, as well as movies like Gaslight, The Battle of Algiers, The Yes Men, and American Psycho. While much of the weekly work in this class will be reading-and-discussion based, oral presentations – keenly aware of their own artifice – will count toward half of the final grade. A final oral presentation will be based on a creative project in conversation with class materials. The course would satisfy those interested in fulfilling the Advanced Film and Literature and Global Literature and Film requirements. This is a CWIC course, Communication Within the Curriculum.
Spring, even numbered years only
Also Offered As: CIMS 2083, COML 2083
1 Course Unit

ENGL 2085 Nuclear Fictions
The novel and the nuclear, the book and the Bomb: in this course we’ll explore how fiction has grappled with the memory of Hiroshima and Nagasaki, the prospect of nuclear apocalypse, and the present-tense violence of nuclear colonialism. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 2091 The Novel in the Age of the Audiobook
This class is both a critical survey of important recent English-language novels, and a history of the audiobook and its effects on authors, readers, and literary markets. See the English Department website’s at: www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 2092 Kelly Writers House Fellows Seminar
This seminar features visits by eminent writers as “Fellows” of the Kelly Writers House, the student-conceived writing arts collaborative at 3805 Locust Walk. Throughout the semester we will study the work of these writers—and some of the materials “around” them that make the particular contemporary context in which each operates so compelling. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: GSWS 2092
1 Course Unit

ENGL 2093 Imagined Past
This course explores an aspect of early American literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: CIMS 2093
1 Course Unit

ENGL 2100 Paris Modern: Spiral City
Paris has been shaped by a mixture of organic development, which is still today perceptible in the “snail” pattern of its arrondissements whose numbers, from 1 to 20, coil around a central island several times so as to exemplify a “spiral city,” and of the violent cuts, interruptions and sudden transformations that again and again forced it to catch up with modern times, the most visible of which was Baron Haussmann’s destruction of medieval sections of the city to make room for huge boulevards. Thus Parisian modernism has always consisted in a negotiation between the old and the new, and a specific meaning of modernity allegorized for Louis Aragon, the Surrealists and Walter Benjamin consisted in old-fashioned arcades built in the middle of the 19th century and obsolete by the time they turned into icons of Paris. The aim of the class will be to provide conceptual and pragmatic (visual, experiential) links between a number of texts, theories and films deploying various concepts of the modern in Paris, with a guided tour of the main places discussed. The course that Professors Jean Michel Rabate (English) and Ken Lum (Fine Arts) will lead studies Paris as a work of science-fiction where its many futures are embedded in its many pasts, where discontinuity is a continuous process and where the curving line of the snail’s shell is a line of ceaseless curling resulting in a perennial oscillation where an outside converts into an inside and an inside then converts to an outside. The course will travel to Paris over spring break to get an in-depth look at the topics discussed in class.
Fall or Spring
Also Offered As: FNAR 3100
1 Course Unit

ENGL 2111 Irish Literature Seminar
This course explores an aspect of modern Irish literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
1 Course Unit

ENGL 2120 American Literature Seminar
This course explores an aspect of American literature intensively; specific course topics will vary, and have included “American Authors and the Imagined Past” and “American Gothic.” See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: GSWS 2120
1 Course Unit

ENGL 2130 Early American Literature Seminar
This course explores an aspect of early American literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2135 Early American Literature Seminar
This course explores the rise of the “dime novel” across the late eighteenth and nineteenth centuries in the United States. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: LALS 2135
1 Course Unit
ENGL 2140 Modern American Literature Seminar
This course explores an aspect of Modern American literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year 1 Course Unit

ENGL 2145 Failure to Communicate (SNF Paideia Program Course)
This seminar examines “failure to communicate” in a variety of cultural areas, among them literature, romance, politics, theater, law, science, war, and education. Materials will include literary fiction, plays, poetry, film, TV, and assorted nonfiction, journalism and scholarship. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Also Offered As: CIMS 2145 1 Course Unit

ENGL 2150 Trans-Atlantic Literature Seminar
This course examines in-depth trans-Atlantic literature that emerges from and deals with the links and tensions between Europe and the Americas. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year 1 Course Unit

ENGL 2179 The Mediterranean and the World, 1450-1700
Using as our guides the works of Miguel de Cervantes, Michael de Montaigne, William Shakespeare, Baldassare Castiglione, Antonio de Sosa, Elias al-Musili, Ogier Ghiselin de Busbecq, Aḥmad ibn Qāsim Ibn al-Ḥājari, María de Zayas y Sotomayor, and many others, this seminar will analyze the social mutations, religious confrontations, political conflicts, cultural productions and circulation of books and ideas that characterized the Mediterranean world during the sixteenth and seventeenth centuries. Based on a close reading of the authors mentioned above, this seminar will focus on the study of the central transformations – political, religious, cultural, and literary – in the early modern Mediterranean world. Students will also be introduced to original materials belonging to the Rare Books and Manuscripts Collections of the Library: early modern editions of some of the books read in the class, printed ephemera, or manuscript documents belonging to the Lea Collection. Students are expected to be active participants in this class; class attendance, participation, and oral presentations will be required. Students will write a final paper, around 15 pages. Students majoring in History can opt to write a research paper (20 pages) using original primary sources, to fulfill the department research requirement. Fall or Spring Also Offered As: HIST 3602 Mutually Exclusive: HIST 2602 1 Course Unit

ENGL 2180 Literature of Africa and the African Diaspora
This course explores an aspect of the literature of Africa and the African Diaspora intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year Also Offered As: COML 2180 1 Course Unit

ENGL 2190 Postcolonial Literature Seminar
This course explores an aspect of Postcolonial literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year Also Offered As: COML 2190 1 Course Unit

ENGL 2191 The Dictator Novel as Global Form
In this seminar, we will explore the ways in which twentieth- and twenty-first-century writers across the globe have responded to tyrants and tyrannical regimes. Our focus will be a set of outstanding contemporary novels from Latin America, Europe, the Caribbean, Africa, and Asia. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Also Offered As: COML 2191 1 Course Unit

ENGL 2192 Narrating Survival
This course critically examines the way in which "survival" has been/continues to be defined as individual triumph in the 20th and 21st century. The intent here is to dig deeper into current buzzwords like "resilience," "wellness," "grit," and "care" to ask how such concepts have been constructed in different socio-historical moments, by and for whom, and towards what (social, cultural, political, economic) ends. We will pay special attention to the central role that the child plays in these discourses as an icon of both ultimate vulnerability and idealized resilience, and we'll consider the burdens and privileges that such centering might confer upon real-life children. We engage with a generically diverse body of contemporary multiethnic and transnational literature featuring children and young people in crisis, including texts from Black, Latine, Native, Asian and White U.S. writers as well as Dutch, Argentine, Iranian, Malaysian, and Afghan authors. All non-English texts will be read in English translation, with the option for students to read in the original language if they wish and are able. Learning to dialogue across cultures and learning from such interactions with these texts and one other will be an essential part of our approach to exploring these complex questions. Also Offered As: ASAM 1211, COML 2192 1 Course Unit

ENGL 2200 African-American Literature Seminar
In this advanced seminar, students will be introduced to a variety of approaches to African American literature, and to a wide spectrum of methodologies and ideological postures (for example, The Black Arts Movement). The course will present an assortment of emphases, some of them focused on geography (for example, the Harlem Renaissance), others focused on genre (autobiography, poetry or drama), the politics of gender and class, or a particular grouping of authors. See the English Department's website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year Also Offered As: AFRC 2200 1 Course Unit

ENGL 2210 (T)rap Music
This course examines the coming to pass of trap music from several perspectives: 1) that of its technological foundations and innovations (the Roland 808, Auto-tune, FL Studio (FruityLoops), etc.); 2) that of its masters/mastery (its transformation of stardom through the figures of the producer (Metro Boomin) and the rock star (Future)); 3) that of its interpretability and effects (what does the music say and do to us). We will thus engage with this music as a practice of art and form of technosociality that manifests uncanny and maximal attunement with the now. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year Also Offered As: AFRC 2211 1 Course Unit
ENGL 2222 August Wilson and Beyond
"The people need to know the story. See how they fit into it. See what part they play." - August Wilson, King Hedley II
If you want to get to know community members from West Philadelphia, collaborate deeply with classmates, gain deeper and more nuanced understandings of African American history and culture, engage in a wide range of learning methods, and explore some of the most treasured plays in the American theatre, then this is the course for you. No previous experience required, just curiosity and willingness to engage. In this intergenerational seminar, Penn students together with older community members read groundbreaking playwright August Wilson's American Century Cycle: ten plays that form an iconic picture of African American traditions, traumas, and triumphs through the decades, nearly all told through the lens of Pittsburgh's Hill District neighborhood. (Two of Wilson's plays are receiving fresh attention with recent acclaimed film versions: Fences with Denzel Washington and Viola Davis; Ma Rainey's Black Bottom with Davis and Chadwick Boseman.) Class participants develop relationships with one another while exploring the history and culture that shaped these powerful plays. As an Academically Based Community Service (ABCS) course, the class plans and hosts events for a multigenerational, West Philadelphia-focused audience with community partners West Philadelphia Cultural Alliance / Paul Robeson House & Museum, and Theatre in the X. Class members come to a deeper understanding of Black life in Philadelphia through stories community members share in oral history interviews. These stories form the basis for an original performance the class creates, presented at an end-of-semester gathering. Wilson's plays provide the bridge between class members from various generations and backgrounds. The group embodies collaborative service through the art and connection-building conversations it offers to the community.

Fall
Also Offered As: AFRC 2325, THAR 2325
1 Course Unit

ENGL 2250 Race and Ethnicity Seminar
This course explores an aspect of race and ethnicity intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: AFRC 2251
1 Course Unit

ENGL 2260 Latinx Literature Seminar
This course explores an aspect of Latinx literature intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: LALS 2260
1 Course Unit

ENGL 2261 Capitalism, (Neo)Colonialism, Racism, and Resistance
This interdisciplinary seminar examines theory and artistic productions, including literature, films, and performance art, that analyze and critique capitalism, imperialism and (neo)colonialism, racism, and patriarchy. It examines history and culture from an international perspective, giving particular attention to works from the Global South (and from Latin America, especially) as well as works addressing the history of racialized groups within the Global North. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: LALS 2261
1 Course Unit

ENGL 2270 Asian American Literature Seminar
This course is an advanced-level seminar on Asian American culture and politics. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ASAM 2200
1 Course Unit

ENGL 2272 In/Visible: Asian American Cultural Critique
This interdisciplinary seminar examines how popular cultural representations frame Asian Americans as either invisible or hypervisible — our explorations will move across race and national origin, language and class, gender and sexuality. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ARTH 3749, ASAM 2272, GSWS 2272
1 Course Unit
ENGL 2275 The Chinese Body and Spatial Consumption in Chinatown
This is a primarily an art and planning course that centers on the representation of the oriental, specifically the Chinese, in both its historical and present contexts. The localization of the Chinese throughout the Americas within Chinatown precincts were also subject to representational imaginings that were negotiated through the lens of civic planning. This course will study the often fraught negotiation between representation and planning. The hyper-urbanization of China over the past several decades has radically altered traditional conceptions of public space in China. Mass migration from rural to urban areas has meant very high population densities in Chinese cities. Traditional courtyards surrounded by housing and other modestly scaled buildings are rapidly disappearing, incongruent with the demands of heated property development. Moreover, Chinese cities have comparatively little public green space per resident compared to equivalents in the West. Zoning in Chinese cities is also much more varied for any given area than what one would find in cities such as New York, Paris, and London. Intensifying density of urban areas precludes the construction of large public squares. Furthermore, large public squares tend to be either intensively congested and overcrowded or underused due to their oversight by government that render such spaces somewhat opprobrious in terms of use. Historically, the urban courtyards of temples, native place associations, and provincial guilds served as public spaces of gathering. They were also sites of festivals and the conducting of neighborhood and civic business. These spaces have become increasingly privatized or commodified with entrance fees. The air-conditioned concourses of enclosed shopping malls or busy outdoor market streets have become de facto public spaces in China where collective window shopping or promenading is the primary activity rather than bodily repose as one might find in a public space in a large Western city. The seminar/studio will investigate the meaning of the term public in the constitution of Chinese space, audience and critical voice through firstly the enclave of Chinatown and secondly through examples from China. The course will look into the changing conceptualization of public space in Chinatown as it has declined in its traditional form and become reinvented in the form of high-end shopping centered districts. This flux has its roots in post-1979 China as well as the post-1997 reversion of Hong Kong to China. As such, the course will examine the situation of rapid urbanization in China and the concomitant relationship to new Chinese (and Asian) districts in the North American urban and suburban landscape ie Vancouver, Toronto, Arlington (Virginia), Oakland, Los Angeles valley and Queens (Flushing), New York. In what ways can artists and designers respond to and challenge these conceptualizations of the old and the new within the context of urban change? What of the changing formations of the Chinese subject through the experiences of embodiment? How is public space produced through an ethnically bracketed bodily presence. Findings will be translated by the student as tools for design and public art imaginings. This course will include a week s trip to San Francisco to study how intense growth in the city has all but usurped old Chinatown while new and more vibrant Chinese centers have emerged in multiple other districts within the city and the suburbs.
Also Offered As: ASAM 3130, FNAR 3060
1 Course Unit

ENGL 2299 Italian American Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3400, ITAL 3400
1 Course Unit

ENGL 2300 Literary Theory Seminar
This course explores an aspect of literary theory intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 2390, GSWS 2390, LALS 2390, PRTG 0090
1 Course Unit

ENGL 2310 Gender, Sexuality, and Literature Seminar
This advanced seminar focuses on literary, cultural, and political expressions of gender and sexuality. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: AFRC 2310, COML 2310, GSWS 2310
1 Course Unit

ENGL 2315 Gender and Sexuality in the Medieval Imaginary
This course will explore some of the most fascinating uses of gender and sexuality in medieval English literature, from Old English epic poetry to Arthurian romance. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: GSWS 2315
1 Course Unit

ENGL 2321 Criminality and Gender Deviance in Early America
This advanced seminar explores literary, cultural, and political expressions of gender and sexuality, with special foci on criminality and deviance. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: GSWS 2321
1 Course Unit

ENGL 2390 Clarice Lispector
This seminar focuses on the work of Clarice Lispector, the Ukrainian-born Brazilian novelist and short story writer (1920-1977). See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 2390, GSWS 2390, LALS 2390, PRTG 0090
1 Course Unit

ENGL 2400 Literary Theory Seminar
This course explores an aspect of literary theory intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 2410, GSWS 2960
1 Course Unit

ENGL 2401 Literature and Theory Seminar: Theories of World Literature
This course is an introduction to efforts—beginning in the nineteenth century, but with special attention to the late-twentieth and twenty-first centuries—to develop theoretical models and corresponding critical practices for the comprehensive study of world literature. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 2401
1 Course Unit

ENGL 2402 What is Capitalism? Theories of Marx and Marxism
At their root, Marx and Marxsists try to examine the problems with both capitalism and the political and economic discourses that justify or ignore those problems. Today, many around the globe are also reflecting on capitalism’s problems, in the hope of imagining and realizing a better future. This course will trace some of the origins of that renewed inquiry, and examine its limits and possibilities in today’s world. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 2402, GSWS 2410
1 Course Unit
ENGL 2403 Marx’s Century
This course will introduce you to Karl Marx in the context of his century, and it will consider the nineteenth century in turn through the lens of his revolutionary social analysis. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 2403
1 Course Unit

ENGL 2405 Global Feminisms
Feminism has both united women and also generated debates between women of different races, locations and sexual orientations, across the world, and also within the US. Feminism means both understanding the construction of gender and sexuality in society, and challenging the oppressive structures that constrain people of all genders. As such, there can be no single feminism that is globally relevant. How should we, located in a prestigious US university, locate our own ideas about gender and sexuality in a global framework? Each week we will engage with a piece of work—fiction, autobiography, film, historical or activist writing—from a different part of the world. Through them we will explore how histories of colonialism, slavery and race, nation-making and war have led to very different conceptions of the family, sexuality, gender identities the body, labor, and agency around the world. Texts and films will likely include: Domitila Barrios de Chungara, Let Me Speak; Angela Davis, Women, Race and Class; Urvashi Butalia, The Other Side of Silence; Veronique Tadjo, Queen Pokou, Saidiya Hartmann, Lose Your Mother; Joan Scott, The Politics of the Veil; Gaiutra Bahadur, Coolie Woman, The Odyssey of Indenture; Marjane Satrapi Persepolis; Marijie Meerman, Chain of Love; Ousmane Sembene Moolade; A. Revathi, The Truth About Me: A Hijra Life Story; Ama Ata Aidoo, Our Sister Killjoy. Satisfies the Cross-Cultural Requirement of the College’s General Education Curriculum; Fulfills Sectors 1 and 2 of the English major.
Also Offered As: GSWS 2405
1 Course Unit

ENGL 2420 Cultural Studies Seminar
This course explores an aspect of cultural studies intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 2930, CIMS 2420, COML 2420
1 Course Unit

ENGL 2460 Law and Literature Seminar
This course explores an aspect of law and literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 2460
1 Course Unit

ENGL 2521 Apocalypse and the Anthropocene
In this class we will explore the narrative mode of the apocalypse in the context of the geologic designation of the Anthropocene. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 2541 Caravaggio
This lecture course explores the artistic culture of Baroque Rome, with focus on the life and career of Caravaggio.
Not Offered Every Year
Also Offered As: ARTH 2541, ITAL 2541
1 Course Unit

ENGL 2542 Brazilian Baroque
This lecture course explores the art, architecture, and visual culture of the Portuguese Empire with emphasis on Brazil and its relations with Africa and Asia.
Not Offered Every Year
Also Offered As: AFRC 2542, ARTH 2542, LALS 2542
1 Course Unit

ENGL 2570 On Thoughts Occasioned By
The Essay Film is an important tradition within the various genres that constitute the field of Film and Video Art. Through the element of time it differentiates itself from its literary and photographic antecedents. It borrows selectively from both narrative fiction and documentary - highly subjective and occasionally poetic but without perhaps the burden of truth. The Essay Film is an attempt to dimensionalize our experience of the world and our place in it. It represents an argument, a meditation, a critical engagement with a place, a time or a subject. This is a combination seminar/studio course. Through readings, screenings and discussion students will gain an historical perspective on the genre. The core assignment is for each student to complete a short film (20 minutes max.) in the tradition of the Essay Film.
Also Offered As: FNAR 3040
1 Course Unit

ENGL 2595 Imagining Environmental Justice
Advanced seminar in Environmental Humanities centered around issues of international environmental justice. Sustained engagement with Indigenous North American, African American, Palestinian, and South African imaginary traditions will highlight diverse ways of relating to land, water and nonhuman animals challenge that challenge capitalist and colonial logics of extraction. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ANTH 3390, COML 2595
1 Course Unit

ENGL 2596 Ecocritical Seminar: Remediating the Environment
In this course, we will interrogate the term “remediation” as meaning both environmental restoration and media representation. Students will be introduced to the fields of ecocriticism and ecomedia by examining how a variety of materials—from bestselling books to billboards, documentaries, and websites—have informed the cultural imagination of the environment. Students will also discover how media communications and publications can help to remediate the environment in the face of climate catastrophe. This course can be counted as an elective toward the Environmental Humanities minor and as fulfilling the minor’s public engagement component. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: CIMS 2506
1 Course Unit
ENGL 2603 Writing, Publishing, and Reading in Early Modern Europe and the Americas
In this course we will consider the writing, publication, and reading of texts created on both sides of the Atlantic in early modern times, from the era of Gutenberg to that of Franklin, and in many languages. The seminar will be held in the Kislak Center for Special Collections, Rare Books and Manuscripts in Van Pelt Library and make substantial use of its exceptional, multilingual collections, including early manuscripts, illustrated books, plays marked for performance, and censored books. Any written or printed object can be said to have a double nature: both textual and material. We will introduce this approach and related methodologies: the history of the book; the history of reading; connected history; bibliography; and textual criticism. We will focus on particular case studies and also think broadly about the global history of written culture, and about relations between scribal and print culture, between writing and reading, between national traditions, and between what is and what is not "literature." We encourage students with diverse linguistic backgrounds to enroll. As part of the seminar, students will engage in a research project which can be based in the primary source collections of the Kislak Center. History Majors or Minors may use this course to fulfill the US, Europe, or Latin America geographic requirement if that region is the focus of their research paper. Also Offered As: COML 3603, HIST 3603
1 Course Unit

ENGL 2604 American Books/Books in America
This course investigates book histories and the worlds of readers, printers, publishers, and libraries in the Americas, from the colonial period through the nineteenth century. See the English Department's website at www.english.upenn.edu for a description of the current offerings. Also Offered As: HIST 2104
1 Course Unit

ENGL 2605 The Mediterranean World in the Age of Don Quixote
Using as our guides the works of Miguel de Cervantes, Michel de Montaigne, William Shakespeare, Baldassare Castiglione, Antonio de Sosa, Elias al-Musili, and many others, this seminar will analyze the social mutations, religious confrontations, political conflicts, cultural productions and circulation of books, ideas and goods that characterized the Mediterranean world during the sixteenth and seventeenth centuries. Based on close readings of primary and secondary sources, this seminar will focus on the study of the main transformations—political, economic, religious, cultural, and literary—in the early modern Mediterranean world. Students will also be introduced to and learn to analyze original materials from the Library's Kislak Center, where the class will meet, including early modern editions of books we will discuss, maps, ephemera, and manuscript documents. *History Majors will have the opportunity to write a 15-page paper to fulfill the Major research requirement* Also Offered As: HIST 2602
Mutually Exclusive: HIST 3602
1 Course Unit

ENGL 2621 Prints and Politics: From the Early Modern Era to Our Times
By the late fifteenth century, mechanically reproducible images were reshaping the social world. Connecting new audiences across geographies through access to the same visual information, prints launched propagandistic missions, fomented rebellion against authorities, and built networks of progressive thinkers who could envision alternative futures. Prints played a key role in developing what constituted news. Mass-distributed images delivered the mistreatment of the "Indians" by the Spanish and portrayed the packing of Africans on a slave ship. Goya's etchings protested the repression of the Second of May uprising, while the silkscreens of Andy Warhol repeated the image of police dogs attacking civil rights activists in Birmingham. Covering a five-hundred-year history, this course will focus on how printed images created communities and acted as exclusionary devices. We will train our eyes on examples from local collections. Also Offered As: ARTH 3621
1 Course Unit

ENGL 2639 Art Now
One of the most striking features of today's art world is the conspicuous place occupied in it by the photographic image. Large-scale color photographs and time-based installations in projections are everywhere. Looking back, we can see that much of the art making of the past 60 years has also been defined by this medium, regardless of the form it takes. Photographic images have inspired countless paintings, appeared in combines and installations, morphed into sculptures, drawings and performances, and served both as the object and the vehicle of institutional critique. They are also an increasingly important exhibition site: where most of us go to see earthworks, happenings and body-art. This course is a three-part exploration of our photographic present. Spring Also Offered As: ARTH 2940, GSWS 2940, VLST 2360
1 Course Unit

ENGL 2663 Spiegel-Wilks Seminar
Topic varies from semester to semester. While not having any specific pre-requisites, this seminar in contemporary art is designed for junior and senior majors in art history with some knowledge in the field. When appropriate, it may feature special guests from the art world, international travel, and/or curatorial opportunities. Not Offered Every Year Also Offered As: ARTH 3970
1 Course Unit

ENGL 2665 Fakes, Forgeries and Forensics in Digital Media
Fake images on social media are just one of the latest examples of fabrications and modifications that have taken media into dubious territory throughout history. This course will analyze the history of fakes and forgeries and consider whether they devalue the original or not, or even have value in themselves. Along the way, students will learn how fakes and forgeries have been created, what tools can be used to counter the onslaught of illicit creations, and the arts and humanities debates that have arisen surrounding them. After evaluating the ways various media have been modified over time, this course will show students how to use photo manipulation tools to modify digital media. It will also show students how to perform various detailed analyses of digital media to determine their legitimacy. A final project will bring these tools together, as groups of students create a fake or forgery, consider its implications and evaluate a tool's ability to detect it. Fall Also Offered As: CIMS 2665
1 Course Unit
ENGL 2700 Novel Seminar
This course explores an aspect of the novel intensively, asking how novels work and what they do to us and for us. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2720 18th-Century Novel Seminar
This course explores an aspect of 18th-century novel intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: GSWS 2720
1 Course Unit

ENGL 2730 19th-Century Novel Seminar
This course explores an aspect of the 19th-century novel intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
1 Course Unit

ENGL 2740 20th-Century Novel Seminar
This course explores an aspect of the 20th-century novel intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2750 The Novel: Fiction and Connectivity
This seminar explores the ways in which long narratives, from ancient epic to 21st-century TV serials, have always engaged their audiences by providing a sense of connection among individuals, and by modeling the relationship between individuals and society. The course will zero-in on this aspect of storytelling's cultural function. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 2800 Poetry and Poetics Seminar
This course explores an aspect of poetry and poetics intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 2800
1 Course Unit

ENGL 2801 The Person in the Poem
Through the study of a wide variety of poems from the Renaissance to the present, students in this seminar will expand their familiarity with modern English-language poetry and will develop a understanding of fundamental poetic concepts—especially those concepts related to the question of "the person in the poem": "author," "voice," "persona," "address," "personification," "representation," and "referentiality". See the English Department's website at www.english.upenn.edu for a description of the current offerings.
1 Course Unit

ENGL 2810 Poetry and Sound Seminar: Music and Literature
The seminar explores the relationship of poetry and music intensively. See the English Department's website at www.english.upenn.edu for current offerings.
Not Offered Every Year
Also Offered As: COML 2810
1 Course Unit

ENGL 2830 American Poetry Seminar
This course devotes itself to the in-depth study of American poetry. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 2831 Walt Whitman and the People's Press
Walt Whitman and the People's Press: A Course to Design and Program a Mobile Printing Space as a Public Art Project. Inspired by Whitman at 200, a region-wide celebration of Walt Whitman, this hands-on and collaborative course will engage students with artists, writers, community leaders and the public to design and program a mobile poetry printing facility that recognizes the complicated legacy of Walt Whitman in the 21st Century. To do this students and instructors will consider Whitman's poetry as well as in his historical period and his place in Philadelphia and Camden. At the same time students will learn to use a press, design materials and create their own multimedia responses to Whitman. Students in this course should expect to read a great deal of poetry but also to be ready to work with their classmates to create responses to Whitman and to see and experience Philadelphia and Camden in new ways.
Not Offered Every Year
1 Course Unit

ENGL 2840 20th-Century Poetry Seminar
The course explores an aspect of 20th-century poetry intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 2840
1 Course Unit

ENGL 2841 Mourning and Sexuality in the English Elegy
From antiquity to the present, poets have written elegies to express their diverse experiences of the mingling of love and loss. In this advanced seminar on poetic history, genre, and form, we'll explore a major poetic genre—the elegy—in relation to its two, intertwined themes: death and sex. All of the elegies we'll read raise challenging questions about desire, identification, reproduction, gender, and sexuality. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: GSWS 2841
1 Course Unit
ENGL 2850 The Black Arts Movement: Theatre and Performance
This course examines the Theatre and Performance practices of the Black Arts Movement from the mid-1960s to mid-1970s. The Black Arts Movement (BAM) emerges in New York, New Jersey, Chicago, Los Angeles, San Francisco, and Philadelphia among other locations, as a cultural component of the Black Power Movement, and its legacy continues to this day. BAM artists, poets, playwrights, musicians, dancers, producers, directors, and teachers, shared a goal to develop an alternative theatre based in Africanist and Black aesthetics combining poetry, music, and dance in a non-linear fashion allowing stories to emerge through alternative and abstract structures that are activist in nature. We will ground our examination of the period in a growing global black consciousness, as well as the relationship between black aesthetics and self-determination. The course will explore a breadth of mid twentieth century Black experimental theatre ranging from Jean Genet’s The Blacks and Imamu Amiri Baraka’s Black Arts Repertory Theater and School, to Ntozake Shange’s Choreopoems, and the performance poetry Jayme Cortez. The course culminates in the work of present-day performance artists that have taken up and evolved the form. The course is designed to incorporate theory and practice through play and poetry readings, movement investigations, student presentations of Theatre/Performance Artists, and viewing performances either virtually or in person. Students will develop either a choreopoem of their own or curate an imagined Black Arts Movement theatre festival or season.
Also Offered As: AFRC 2852, THAR 2850
1 Course Unit

ENGL 2860 Drama to 1660 Seminar
This course explores an aspect of drama before 1660 intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: GSWS 2860
1 Course Unit

ENGL 2874 The Musical Theatre of Stephen Sondheim
Just days before Stephen Sondheim died in November 2021, he attended a revival of Assassins at Classic Stage Company, as well as a radical rethinking of Company that had transferred from London to New York. A few days later, a public performance of the song “Sunday” was organized in Duffy Square by Lin-Manuel Miranda. A new production of Into the Woods is currently on Broadway, and another of Sweeney Todd is planned for February 2023. Though it’s been nearly 15 years since Sondheim’s final new musical, he is very much part of our theatrical present—through his own works, which continue to be produced internationally, and through his influence on several generations of composers, lyricists, and more. Still today, among theatre critics and a large sector of the public, Sondheim is generally considered the most significant composer and lyricist in the contemporary theatre; he is, in fact, accorded the kind of serious consideration generally reserved for “legitimate” playwrights.
In this seminar, we will examine in detail Stephen Sondheim’s writing over six decades. We’ll begin with Sondheim’s earliest work as a lyricist, collaborating with composers Jule Styne (Gypsy), Leonard Bernstein (West Side Story), and later, Richard Rodgers (Do I Hear a Waltz?). Beginning in 1970, Sondheim – now both composer and lyricist – in partnership with director Harold Prince produced a series of musicals (including Company, Follies and Sweeney Todd,) still thought to be among the most innovative and substantial in the history of the genre. We will also focus on Sondheim’s musicals after his 1981 break with Prince. These later works, created with writers and directors including James Lapine (Sunday in the Park with George, Into the Woods, Passion), Jerry Zaks (Assassins), and John Doyle (Road Show) are often smaller in scale, intensely personal, and incorporate elements of performance art and popular culture. Finally, we will consider revival productions of Sondheim’s work, which often are reconceived from their original form, often with Sondheim’s involvement and occasional rewriting. This course is open to all students interested in theatre and musical theatre. The ability to read music is not required.
Also Offered As: CIMS 1274, THAR 1274
1 Course Unit

ENGL 2879 Acting Shakespeare
All the world’s a stage and Shakespeare’s plays were written to be performed on it. In this open-level acting course we’ll explore the performance of three of Shakespeare’s greatest dramatic works (Hamlet, Twelfth Night, and Romeo and Juliet). We’ll dive deep into the language, verse, rhetoric, and dramaturgy of Shakespeare’s texts to create performances that are passionate, spontaneous, and real. Through acting exercises, text analysis, scene study, and vocal training, we will develop the skills needed to bring Shakespeare’s dramatic works to their most impactful life. Students will leave the course not only with techniques to perform and appreciate Shakespeare’s work, but with expressive tools that will serve them in all kinds of performance or public speaking.
Not Offered Every Year
Also Offered As: THAR 2236
1 Course Unit
ENGL 2880 Theatre and Politics
This course will examine the relationship between theatre and politics in the twentieth and twenty-first centuries. How do theatre artists navigate their artistic and political aims? How do we distinguish between art and propaganda? Throughout the semester we will ask how the unique components of theatre—its poetic structure, engagement with spectators, aesthetics of representation, relationship to reality, and rehearsal process—contribute to its political capacity. Students will read a variety of plays drawn from late twentieth century and contemporary global theatre practice alongside political and aesthetic theory to interrogate the relationship between artistic production, power, and resistance. We will conclude with a consideration of the ways politics is itself a performance, considering how power is supported by theatrical means and how performance functions in resistance movements.
Also Offered As: COML 2820, LALS 2820, THAR 2820
1 Course Unit

ENGL 2881 The Threat of Climate Change and Theatre
Can theatre save the world? In the face of the climate crisis, this question feels especially urgent. This course will consider the relationship of theatre to the environment and climate change, looking at how we got to this point, and where we might go from here. We will consider how ideas about the environment have been spread through classic texts such as Shakespeare's The Tempest and Ibsen's Enemy of the People. We'll compare how non-western performances offer different relationships with the environment. And we'll analyze how performance has responded to climate anxiety; through visions of dystopia and an end of the world, as in Caryl Churchill's The Skriker and Anne Washburn's Mr. Burns, A Post-Electric Play; through arts activism; and through experimental performance like environmental and immersive theatre. This course is for anyone who is concerned about climate change and interested in how the arts could respond. Most sessions will function as seminar, with short lectures and in-depth discussion about artistic and theoretical texts. We will also workshop different ideas on their feet. The aim is for students to become comfortable enough with this artistic and theoretical mode that they can critique performances across genres from this perspective, articulate their own relationship to it, and see how it might inform their own work.
Also Offered As: THAR 2820
1 Course Unit

ENGL 2882 Method Acting: From Self to Stage and Screen
What, exactly, is “method acting”? Jeremy Strong became notorious on television's Succession for “staying in character” while filming, to the great irritation of his castmates. Jared Leto “transformed” himself by gaining sixty pounds for a role in Chapter 27, then losing another thirty for a role in Dallas Buyer’s Club. Are such approaches really “method” acting? Are they healthy and sustainable? And do they produce truly compelling performances? This course aims to demystify “the method” through a combination of historical inquiry and hands-on acting work. We will explore the cultural phenomenon of “the method” by tracing its historical, theatrical roots, from the core theories and practices of Russian actor-director Konstantin Stanislavsky through the American Group Theatre experiments of the 1930s, the heyday of New York’s Actors Studio in the 1950s, and its culmination in iconic stage and film performances. (One prime example is Marlon Brando’s famed portrayal of Stanley in Tennessee Williams’s A Streetcar Named Desire, as directed by Elia Kazan). Our studies will involve reading historical, theoretical, and dramatic texts, viewing selected films, and practicing acting exercises. Course assessment will comprise participation, facilitation, short responses, and a final project that can take the form of a research paper, presentation, or performance.
Also Offered As: CIMS 2810, THAR 2810
1 Course Unit

ENGL 2888 American Theatre and Performance
This course examines the development of the modern American theatre from the turn of the century to the present day. Progressing decade by decade the course investigates the work of playwrights such as Eugene O’Neil, Arthur Miller, Tennessee Williams, Edward Albee, David Mamet, August Wilson and Tony Kushner, theatre companies such as the Provincetown Players and the Group Theatre, directors, actors, and designers. Some focus will also be given to major theatrical movements such as the Federal Theatre Project, Off-Broadway, regional theatre, experimental theatre of the Sixties, and feminist theatre.
Not Offered Every Year
Also Offered As: THAR 2720
1 Course Unit

ENGL 2890 Icons in Performance: Actors and Others Who Have Shaped the Arts
Many talented performers bring works to life on a stage or in film. But a select few artists are so distinctive they become icons, defining for audiences—often for many years beyond their careers—the art they serve. Marlon Brando defined a new kind of American acting. Sidney Poitier broke the color barrier for leading man movie stars. Maria Callas showed that opera was equal parts theatre and music. Greta Garbo helped us understand the visual power of a film image. This seminar course will focus on iconic performers, directors and others, and the roles they play in defining their art forms. It is part analysis (interpreting in detail what it is these artists do) and part cultural study (why it matters, and also seeking to understand the larger circumstances at play in forging an icon). In addition to the performers mentioned above, we’ll also study Mae West, Fred Astaire, Marilyn Monroe, Elvis Presley, Judy Garland, Frank Sinatra, and more. We will also look at a handful of iconic directors—including Alfred Hitchcock, Douglas Sirk, and others—whose style makes a definitive mark on American film and theater. And we will also look at how critics (in addition to popular audiences) assess performers through comparisons, and by understanding the evolution and tradition of the art. To support our work, we will use film, audio recordings, scripts, criticism and analytical essays, biography, and more.
Also Offered As: CIMS 2840, THAR 2840
1 Course Unit
ENGL 2999 Dramaturgy
This course will examine the functions and methods of the dramaturg—the person in the theatrical process who advises the artistic collaborators on (among other things) new play development, the structure of the script, the playwright’s biography and other writings, the play’s first production and its subsequent production history, and the historical and regional details of the period depicted in the plays action. We will study the history of the dramaturg in the American theatre and discuss contemporary issues relating to the dramaturg’s contribution to the theatrical production (including the legal debates about the dramaturg’s contribution to the creation of RENT). And, in creative teams, the class will create dramaturgical portfolios for a season of imaginary (and, potentially, a few actual) theatrical productions.
Not Offered Every Year
Also Offered As: THAR 2740
1 Course Unit

ENGL 2900 Global Film Theory
This course will provide an introduction to some of the most important film theory debates and allow us to explore how writers and filmmakers from different countries and historical periods have attempted to make sense of the changing phenomenon known as “cinema,” to think cinematically. Topics under consideration may include: spectatorship, authorship, the apparatus, sound, editing, realism, race, gender and sexuality, stardom, the culture industry, the nation and decolonization, what counts as film theory and what counts as cinema, and the challenges of considering film theory in a global context, including the challenge of working across languages. There will be an asynchronous weekly film screening for this course. No knowledge of film theory is presumed.
Not Offered Every Year
Also Offered As: ARTH 2950, CIMS 2950, COML 2950, GSWS 2950
Mutually Exclusive: ARTH 6950
1 Course Unit

ENGL 2901 Film Festivals
This course is an exploration of multiple forces that explain the growth, global spread and institutionalization of international film festivals. The global boom in film industry has resulted in an incredible proliferation of film festivals taking place all around the world, and festivals have become one of the biggest growth industries. A dizzying convergence site of cinephilia, media spectacle, business agendas and geopolitical purposes, film festivals offer a fruitful ground on which to investigate the contemporary global cinema network. Film festivals will be approached as a site where numerous lines of the world cinema map come together, from culture and commerce, experimentation and entertainment, political interests and global business patterns. To analyze the network of film festivals, we will address a wide range of issues, including historical and geopolitical forces that shape the development of festivals, festivals as an alternative marketplace, festivals as a media event, programming and agenda setting, prizes, cinephilia, and city marketing. Individual case studies of international film festivals—Cannes, Berlin, Venice, Rotterdam, Karlovy Vary, Toronto, Sundance among others—will enable us to address all these diverse issues but also to establish a theoretical framework with which to approach the study of film festival. For students planning to attend the Penn-in-Cannes program, this course provides an excellent foundation that will prepare you for the on-site experience of the King of all festivals.
Not Offered Every Year
Also Offered As: ARTH 3910, CIMS 2010
1 Course Unit

ENGL 2910 Contemporary American Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3914, CIMS 2014
1 Course Unit

ENGL 2911 American Independents
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3911, CIMS 2011
1 Course Unit

ENGL 2920 Contemporary European Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3915, CIMS 2015, COML 2920
1 Course Unit

ENGL 2930 Transnational Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3912, CIMS 2012, COML 2012
1 Course Unit

ENGL 2931 World Cinema
This topic course explores aspects of Film Practice intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3902, CIMS 2022, COML 2931
1 Course Unit

ENGL 2932 Bollywood and Beyond
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3916, CIMS 2016, COML 2932
1 Course Unit
ENGL 2933 Japanese Cinema
This course is a survey of Japanese cinema from the silent period to the present. Students will learn about different Japanese film genres and histories, including (but not limited to) the benshi tradition, jidaigeki (period films), yakuza films, Pink Film, experimental/arthouse, J-horror, and anime. Although the course will introduce several key Japanese auteurs (Mizoguchi, Ozu, Kurosawa, Oshima, Suzuki, etc.), it will emphasize lesser known directors and movements in the history of Japanese film, especially in the experimental, arthouse, and documentary productions of the 1960s and 1970s. Finally, in addition to providing background knowledge in the history of Japanese cinema, one of the central goals of the course will be to interrogate the concept of “national” cinema, and to place Japanese film history within a international context. Fall or Spring
Also Offered As: ARTH 3100, CIMS 3100
1 Course Unit

ENGL 2934 Cinema and Socialism
Films from socialist countries are often labeled and dismissed as “propaganda” in Western democratic societies. This course complicates this simplistic view, arguing for the value in understanding the ties between socialist governments, the cinematic arts, and everything in between. We will examine films from past and present socialist countries such as the Soviet Union, China, North Korea, and Cuba, as well as films made with socialist aspirations. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3100, CIMS 3100, EALC 2314, REES 3770
1 Course Unit

ENGL 2935 Culture on Trial: Race, Media & Intellectual Property
This course explores the US intellectual property regime’s impact on the production, distribution and consumption of media and art. By the end of the class, students will come away with historical, theoretical, and practical understandings of how media technology changes the law and how the law has subsequently responded to changes in media technology. This course is affiliated with CWIC (Communication Within the Curriculum). See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: CIMS 2935, SOCI 2973
1 Course Unit

ENGL 2940 Documentary Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3901, CIMS 2021
1 Course Unit

ENGL 2941 Historical Films
This topic course explores aspects of Film Practice intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3900, CIMS 2020
1 Course Unit

ENGL 2942 Romantic Comedy
This topic course explores aspects of Film Practice intensively. Specific course topics vary from year to year. See the Cinema Studies website at <http://cinemastudies.sas.upenn.edu/> for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3901, CIMS 2021
1 Course Unit

ENGL 2950 Digital and New Media Seminar
This course explores a particular topic in the study of digital and new media in an intensive and in-depth manner. See the English Department’s website at: www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 2920, CIMS 2951, COML 2960
1 Course Unit

ENGL 2951 Virtual Reality Lab
In this collaboration between Penn and the Philadelphia Museum of Art (PMA), students will work with with curators to create virtual reality projects connected to the museum’s collections. This course mixes virtual reality theory, history, and practice. We will read a wide range of scholarship, manifestoes, and memoirs that examine virtual reality and other immersive technologies, stretching from the 18th century to today. We will explore virtual reality projects, including narrative and documentary films, commercial applications, and games. We will work with many different virtual reality systems. And we will learn the basics of creating virtual reality, making fully immersive 3-D, 360-degree films with geospatial soundscapes. Finally, we will take what we have learned out of the classroom, working with the Philadelphia Museum of Art curators to create virtual reality experiences based around the museum’s objects and exhibits. Students will gain an understanding of the unique approaches needed to appeal to museum visitors in a public setting, so we can make viable experiences for them. No previous knowledge of VR or experience is necessary.
Not Offered Every Year
Also Offered As: CIMS 2950
1 Course Unit

ENGL 2952 Mobile Phone Cultures
Over the years, the cellphone or the mobile phone ceased to be just an extension of the landline telephone as a range of locative, social and networked media converged into it. Even as they have global impact, mobile media technologies influence and are influenced by socio-cultural factors in specific places, and so mobile phone cultures are both global and local at the same time. In this course, we will be studying the revolutions in youth culture, desire, gender norms, and political propaganda that are emerging as new hardware, apps, and internet services are being added to mobile media. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: CIMS 2952
1 Course Unit
ENGL 2953 Digital Infrastructures & Platforms
Platforms ranging from ride-hailing and food delivery apps (Uber and Swiggy) to subscription-based audiovisual content providers (Netflix and SonyLIV) mediate multisided transactions (markets) and operate based on algorithmic collection, circulation, and monetization of user data. In this course, we will engage with a variety of readings about multi-situated study of apps, paying attention to both app interfaces as well as their connection to backend systems and infrastructures like content delivery networks and software development kits. In what ways do processes of data storage/distribution, content encryption/decryption and encoding/decoding make “seamless” streaming on Hulu/Prime Video and instantaneous digital payments on Venmo and PayTM possible? We will begin with how infrastructures have been studied in the past, and then in particular focus on media infrastructures such as satellite systems, optical fiber cables, cell antennas, and data centers. The course readings will consider the varied definitions of platforms and examine the socio-political effects of the proliferation of platforms in different regions of the world. In studying superapps and platforms like WeChat (China), LINE (Japan), and Jio (India), we will try to comprehend in what ways have discourses of platformization been shaped by governmental regulation, cultural practices, and socio-politics of regions. We will explore questions like: in what ways are infrastructures and apps related? How do content creators and SVoD audiences navigate algorithmic opacity? Why do BigTech companies float competing discourses about platforms? What are the connections between infrastructural investments and platform capitalism? What does it mean to have digital lives in a platform society? In what ways do digital infrastructures and platforms create the foundations for smart cities and Internet of Things? Course assignments include a final research paper (2000 words) as well as project-based case studies of platform companies and socio-material assessments of infrastructures.
Not Offered Every Year
Also Offered As: CIMS 2953
1 Course Unit

ENGL 2970 Participatory Community Media, 1970-Present
What would it mean to understand the history of American cinema through the lens of participatory community media, collectively-made films made by and for specific communities to address personal, social and political needs using a range of affordable technologies and platforms, including 16mm film, Portapak, video, cable access television, satellite, digital video, mobile phones, social media, and drones? What methodologies do participatory community media makers employ, and how might those methods challenge and transform the methods used for cinema and media scholarship? How would such an approach to filmmaking challenge our understanding of terms like “authorship,” “amateur,” “exhibition,” “distribution,” “venue,” “completion,” “criticism,” “documentary,” “performance,” “narrative,” “community,” and “success”? How might we understand these U.S.-based works within a more expansive set of transnational conversations about the transformational capacities of collective media practices? This course will address these and other questions through a deep engagement with the films that make up the national traveling exhibition curated by Louis Massiah and Patricia R. Zimmerman, We Tell: Fifty Years of Participatory Community Media, which foregrounds six major themes: Body Publics (public health and sexualities); Collaborative Knowledges (intergenerational dialogue); Environments of Race and Place (immigration, migration, and racial identities unique to specific environments); States of Violence (war and the American criminal justice system); Turf (gentrification, homelessness, housing, and urban space); and Wages of Work (job opportunities, occupations, wages, unemployment, and underemployment). As part of that engagement, we will study the history of a series of Community Media Centers from around the U.S., including Philadelphia’s own Scribe Video Center, founded in 1982 by Louis Massiah, this course’s co-instructor. This is an undergraduate seminar, but it also available to graduate students in the form of group-guided independent studies. The course requirements include: weekly screenings, readings, and seminar discussions with class members and visiting practitioners, and completing both short assignments and a longer research paper.
Also Offered As: AFRC 3932, ARTH 3931, CIMS 3931, COML 3931, GWS 3931
Mutually Exclusive: ARTH 6931
1 Course Unit

ENGL 3001 First-Year Seminar: Creative Writing
First-Year Seminars will afford entering students who are considering literary and creative writing study as their focus the opportunity to explore a particular and limited subject with a professor whose current work lies in that area. Topics may range from first-person storytelling to poetry and fiction to writing about art and other themes. Small class size will insure all students the opportunity to participate in lively discussions. Students may expect frequent and extensive writing assignments, but these seminars are not writing courses; rather, they are intensive introductions to the serious study of literature and creative writing.
Fall or Spring
1 Course Unit

ENGL 3010 Introduction to Creative Writing: Poetry and Fiction
An introduction to writing fiction and poetry. We will focus on the main tools of fiction, such as characterization, dialogue, and description, as well as the forms of poetry, such as sound, image, and enjambment. Suitable for beginners or more experienced writers who want to return to fundamentals. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Credits</th>
<th>Semester</th>
<th>Course Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 3011</td>
<td>Introduction to Creative Writing: Poetry and Memoir</td>
<td>An introduction to writing poetry and memoir. We will focus on the main tools of poetry, such as sound, image, and enjambment, as well as the forms of memoir, including personal narrative, dialogue, description, and character development. Suitable for beginners or more experienced writers who want to return to fundamentals. To learn more about this course, visit the Creative Writing Program at <a href="https://creative.writing.upenn.edu">https://creative.writing.upenn.edu</a>.</td>
<td>Fall or Spring</td>
<td>1 Course Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 3012</td>
<td>Introduction to Creative Writing: Poetry and Creative Nonfiction</td>
<td>An introduction to writing poetry and creative nonfiction. We will focus on the main tools of poetry, such as sound, image, and enjambment, as well as the forms of creative nonfiction, including reportage, interviews, personal essays, and memoir. Suitable for beginners or more experienced writers who want to return to fundamentals. To learn more about this course, visit the Creative Writing Program at <a href="https://creative.writing.upenn.edu">https://creative.writing.upenn.edu</a>.</td>
<td>Fall or Spring</td>
<td>1 Course Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 3013</td>
<td>Introduction to Creative Writing: Poetry and Essay</td>
<td>An introduction to writing poetry and essay. We will focus on the main tools of poetry, such as sound, image, and enjambment, as well as the forms of essay, including reportage, interviews, personal narrative, and commentary. Suitable for beginners or more experienced writers who want to return to fundamentals. To learn more about this course, visit the Creative Writing Program at <a href="https://creative.writing.upenn.edu">https://creative.writing.upenn.edu</a>.</td>
<td>Fall or Spring</td>
<td>1 Course Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 3014</td>
<td>Introduction to Creative Writing: Fiction and Essay</td>
<td>An introduction to writing fiction and essay. We will focus on the main tools of fiction, such as characterization, dialogue, and description, as well as the forms of essay, including reportage, interviews, personal narrative, and commentary. Suitable for beginners or more experienced writers who want to return to fundamentals. To learn more about this course, visit the Creative Writing Program at <a href="https://creative.writing.upenn.edu">https://creative.writing.upenn.edu</a>.</td>
<td>Fall or Spring</td>
<td>1 Course Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 3015</td>
<td>Introduction to Creative Writing: Fiction and Journalism</td>
<td>An introduction to writing fiction and journalistic writing. We will focus on the main tools of fiction, such as characterization, dialogue, and description, as well as the forms of journalistic writing, including reporting, interviewing, editing, and commentary. Suitable for beginners or more experienced writers who want to return to fundamentals. To learn more about this course, visit the Creative Writing Program at <a href="https://creative.writing.upenn.edu">https://creative.writing.upenn.edu</a>.</td>
<td>Fall or Spring</td>
<td>1 Course Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 3016</td>
<td>Introduction to Creative Writing: Fiction and Memoir</td>
<td>An introduction to writing fiction and memoir. We will focus on the main tools of fiction, such as characterization, dialogue, and description, as well as the forms of memoir, including personal narrative, dialogue, description, and character development. Suitable for beginners or more experienced writers who want to return to fundamentals. To learn more about this course, visit the Creative Writing Program at <a href="https://creative.writing.upenn.edu">https://creative.writing.upenn.edu</a>.</td>
<td>Fall or Spring</td>
<td>1 Course Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 3017</td>
<td>Introduction to Creative Writing: Memoir and Literary Journalism</td>
<td>A workshop focused on the way a writer constructs characters in memoirs, personal essays, and journalistic profiles. Students will examine how nonfiction writers must shape information to render people on the page in a way that is honest and engaging. Suitable for beginners or more experienced writers who want to return to fundamentals. To learn more about this course, visit the Creative Writing Program at <a href="https://creative.writing.upenn.edu">https://creative.writing.upenn.edu</a>.</td>
<td>Fall or Spring</td>
<td>1 Course Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 3018</td>
<td>Introduction to Creative Writing: Memoir and Creative Nonfiction</td>
<td>An introduction to writing memoir and creative nonfiction. Students will read in a wide variety of subgenres, forms, and traditions (including memoir, criticism, lyrical and hermit-crab essays, travel writing, and food writing) and respond creatively with their own work, mining their experiences and memories to generate brand-new material. Suitable for beginners or more experienced writers who want to return to fundamentals. To learn more about this course, visit the Creative Writing Program at <a href="https://creative.writing.upenn.edu">https://creative.writing.upenn.edu</a>.</td>
<td>Fall or Spring</td>
<td>1 Course Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 3019</td>
<td>Introduction to Creative Writing: Sports Narratives</td>
<td>An introduction to writing personal essay, short fiction, and journalism through the lens of sports. Students will study and discuss a range of writing and other media (films, podcasts, etc.) that center around athletes, fans, and sports culture and will write creative pieces in each of the modes studied. This course is suitable for beginners as well as more experienced writers with an interest in sports. To learn more about this course, visit the Creative Writing Program at <a href="https://creative.writing.upenn.edu">https://creative.writing.upenn.edu</a>.</td>
<td>Fall or Spring</td>
<td>1 Course Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 3020</td>
<td>Introduction to Creative Writing: Extreme Noticing</td>
<td>Whether working on fiction, nonfiction, poetry, or any other genre, the writer has to pay attention to the very small, to zoom in on the specific detail or insight that can make even the most mundane moment feel entirely new. Noticing in this way is a skill that, like most skills, is developed with practice. In this class, we’ll practice paying attention to the small. To learn more about this course, visit the Creative Writing Program at <a href="https://creative.writing.upenn.edu">https://creative.writing.upenn.edu</a>.</td>
<td>Fall or Spring</td>
<td>1 Course Unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 3021</td>
<td>Introduction to Creative Writing: Animal Tales</td>
<td>This workshop-style course provides an introduction to creative writing in multiple genres, focusing on the real and imagined lives of animals from ancient fables through twenty-first-century stories, poems, essays, and hybrid-genre works. Students will craft their own original pieces, read and comment on assigned readings, and use in-class exercises to push the boundaries of our own writing. To learn more about this course, visit the Creative Writing Program at <a href="https://creative.writing.upenn.edu">https://creative.writing.upenn.edu</a>.</td>
<td>Fall or Spring</td>
<td>1 Course Unit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ENGL 3022 Introduction to Creative Writing: Writing and Performance
This creative writing workshop includes the study of writing as a multimedia entity and as exciting ground for experimentation. Through writing, discussion, sound work, movement, and the exploration of hybrid, multimedia texts by writer-performers and installation artists, you will write and make your own experiments across writing and performance. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3024 Introduction to Creative Writing: Imitations and Writing in Form
How can the imitation of literary forms be a way into improving your writing? This course works around the idea of imitation as a way of constructing generative practices of writing. We’ll begin by looking at examples of literary forms and their imitations before we work on our own imitation and how to use them - or how break them into any style. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Spring
1 Course Unit

ENGL 3025 Introduction to Creative Writing: Writing Asian American Lives
What does it mean to be Asian American? How do religion, ethnicity, gender, class, nationality, and immigration status define this group? This course will explore these questions through an introductory fiction, nonfiction, and poetry creative writing workshop. In addition to critiquing each other’s short stories, essays, and poems, we will read works by a number of authors as springboards to examine representations of identity, inclusion, and exclusion. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall
Also Offered As: ASAM 1200
1 Course Unit

ENGL 3026 Introduction to Creative Writing: Writing Real Science
Most if not all fiction and nonfiction requires some kind of research. Our readings will explore how writers incorporate scientific knowledge into their prose without compromising craft. This course will explore ways to bring real science into our pieces and make them fun, exciting and fresh. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Also Offered As: ASAM 1226
1 Course Unit

ENGL 3027 Introduction to Creative Writing: Poetry and Life Writing
An introduction to the craft of poetry and life writing. We will focus on the main tools of poetry, such as sound, image, and enjambment, as well as the forms of life writing, including narrative, description, and personal commentary. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
1 Course Unit

ENGL 3028 Introduction to Creative Writing: Breath and Movement
Amid an intensifying climate crisis and widespread air pollution, an ongoing airborne pandemic, and the terrible refrain of “I can’t breathe” that has echoed for a decade, the politicization of breath speaks to the precarity of our time. In this creative writing workshop, we will engage with poetry, prose, and performance to study how artists and writers are thinking about breath and movement today. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
1 Course Unit

ENGL 3029 Introduction to Creative Writing: Through the 1619 Project
This introductory creative writing workshop offers an opportunity to hone creative writing skills through the revelatory framework of Nikole Hannah-Jones's 1619 Project. Through a study of this country's foundations and present tense, students will write, workshop, and revise poems and short prose throughout the semester. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Spring
1 Course Unit

ENGL 3100 Poetry Workshop
In this workshop, students will work across a range of poetic forms that may include list, lyric, documentary, collage, erasure, epistolary, sound-based, prose, performative, and other shapes and experiments, and will explore how contemporary poetry and poetics make us think differently about language and meaning. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3101 Poetry Workshop
Students will develop techniques for generating poems along with the critical tools necessary to revise and complete them. Through in-class exercises, weekly writing assignments, readings of established and emerging poets, and class critique, students will acquire an assortment of resources that will help them develop a more concrete sense of voice, rhythm, prosody, metaphor, and images as well as a deeper understanding of how these things come together to make a successful poem. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: AFRC 3101
1 Course Unit

ENGL 3102 Attention Poetics
This is a poetry workshop about paying close attention: to the ordinary and the ephemeral, as well as to the extraordinary and the large, often inexorable systems around us. Experienced poets and students new to poetry are all welcome. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Also Offered As: GSWS 3102
1 Course Unit

ENGL 3104 Poetry Lab
A creative writing workshop in which students will learn to experiment and deepen their writing practice using the tools of poetry. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Also Offered As: GSWS 3104
1 Course Unit

ENGL 3105 Advanced Poetry Writing Workshop
This workshop is suitable for students with some prior experience in poetry who are interested in pushing their practice and learning new poetic forms, such as long poems, serial poems, cross-genre work, multimedia poetry, or poetry informed by research. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit
ENGL 3201 Fiction Workshop: Flash Fiction
We live in an age of condensed information. Where does the art of fiction fit into our soundbite-driven lives? Short-form fiction - also called flash fiction, sudden fiction, or microfiction - is more than just "really short stories." Every word in a piece of microfiction is the proverbial ant, carrying fifty times its own weight. Students will read short-works of fiction and will write and workshop their own. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3202 Speculative Fiction
Some of the most powerful and popular storytelling across history has examined the nuances of the human condition in our own future, in alternate realities, and on other worlds, using ghosts, gods, magic, talking animals, animate machines, or the walking dead. In this workshop course, we will learn techniques to weave our own speculative tales. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
1 Course Unit

ENGL 3203 Horror, Mystery, Suspense
Students should come prepared to read a wide range of speculative fiction in horror, mystery, and suspense, and to craft their own canny, uncanny, and original contributions to the genres of slow-ratcheted, nigh-unbearable tension and white-knuckle, heart-pounding terror. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
1 Course Unit

ENGL 3204 The Art of Haunting
In this reading-intensive speculative fiction workshop course, we will explore the literature and art of haunted spaces and write our own tales of haunting. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
1 Course Unit

ENGL 3205 Science Fiction
A speculative creative writing workshop devoted to science fiction. Students can expect to read texts by a variety of practitioners of science fiction, complete regular writing assignments, and workshop writing by their peers. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall
1 Course Unit

ENGL 3206 Fantasy
A speculative writing workshop devoted to the genres of fantasy. Students can expect to read texts by a variety of practitioners of fantasy, complete regular writing assignments, and workshop writing by their peers. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
1 Course Unit
ENGL 3207 I Was a Teenage Monster: Coming of Age in Speculative Writing
This writing workshop explores representations growing up strange. How can fantastic exaggeration accurately represent coming-of-age experiences and the trials of teenhood? We'll examine monstering in TV, film, comics, novels, and poems, and write our own stories, poems, or essays of the strange and the monstrous. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall
1 Course Unit

ENGL 3208 Advanced Fiction Workshop: Short Fiction
This workshop is suitable for students with some prior experience in fiction who are interested in pushing their practice further. Students will write and workshop their own original stories as well as discuss works of fiction. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3209 The Novella
A creative writing workshop devoted to the art and practice of the novella, the genre of fiction that in its length and breadth dwells between the short story and the full-length novel. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3210 The Novel
In this course, students will make progress on, or in some cases complete, a full-length novel. Ideal for students who have already put thought into and begun work on their novel. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3211 Fiction Workshop: Friends and Frenemies
How many kinds of love exist among friends? What is the difference between friendship and romance? In what ways do the ideals of femme, mas, trans, and cis complicate friendship? What are sisterhoods and what are bromances? What is a frenemy? What do race and class have to do with ardor and amity? This fiction workshop will explore not only how we experience friendship, but also how we write it. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall
1 Course Unit

ENGL 3212 Autofiction
What we write can feel close to home, our characters and events firmly rooted in the real. But what is the overlap between writer and character? Writer and story? In this writing workshop, students will study the modern tradition of autofiction, or fictionalized autobiography, and write autofiction of their own. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall
1 Course Unit

ENGL 3213 Fiction Workshop: Divergent Words
This fiction writing workshop invites students to be apprenticed by visceral, divergent literature, and through collaborative discussion, weekly writing, and drafting and workshop of our own original pieces, illuminate our own divergent writing practice. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
1 Course Unit

ENGL 3214 Points of View: Writing Polyvocal Fiction
Do multiple characters in a work of fiction experience the same event from different points of view, or do they examine different events in kaleidoscopic perspectives? This polyvocal fiction workshop will interrogate how we write one story from the point of view of two or more characters. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
1 Course Unit

ENGL 3215 The Art of Fiction
In this generative, interactive workshop we’ll investigate literary fiction technique through a series of directed prompts designed to unfetter your imagination and bring your fiction writing to the next level. This class is appropriate for fiction writers of every level. Come prepared to take creative risks as you deepen your art and advance your craft. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
1 Course Unit

ENGL 3250 Writing for Children
A creative writing workshop devoted to the art and practice of writing for children. Students can expect to read texts by a variety of practitioners of the genre, complete regular writing assignments, and workshop writing by their peers. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3251 Writing for Children
Also Offered As: AFRC 3251
1 Course Unit

ENGL 3252 Writing for Young Adults
This writing workshop will explore the craft of young adult literature. Students will focus on concerns crucial to writing about and for teens, such as voice, point of view, immediacy, and pacing, and will draw on the many possibilities available in YA literary fiction: blurred genres, unreliable narrators, surrealism, retellings, and issues of identity and self-discovery. We will look beyond straightforward prose into forms such as epistolary and verse novels and other experimental mashups. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit
ENGL 3253 Writing for Young Adults
This writing workshop will explore the craft of young adult literature. Students will focus on concerns crucial to writing about and for teens, such as voice, point of view, immediacy, and pacing, and will draw on the many possibilities available in YA literary fiction: blurred genres, unreliable narrators, surrealism, retellings, and issues of identity and self-discovery. We will look beyond straightforward prose into forms such as epistolary and verse novels and other experimental mashups. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: AFRC 3253
1 Course Unit

ENGL 3254 Advanced Writing for Children
This workshop is suitable for students with some prior experience in writing for children, including early chapter books and teen fiction. Exercises may include studies in voice, point of view, plot development, humor, description, developing a fantasy world, writing historical fiction, or memoir. Students will read and discuss a wide variety of published work for children and workshop the writing of their peers. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3255 Advanced Writing for Children
This workshop is suitable for students with some prior experience in writing for children, including early chapter books and teen fiction. Exercises may include studies in voice, point of view, plot development, humor, description, developing a fantasy world, writing historical fiction, or memoir. Students will read and discuss a wide variety of published work for children and workshop the writing of their peers. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: AFRC 3255
1 Course Unit

ENGL 3256 Advanced Writing for Young Adults
This workshop is suitable for students with some prior experience in writing for young adults and want to spend the semester making significant progress toward the completion of a YA novel. All YA genres are welcome and celebrated, from realism to speculative fiction, and those writing YA crossover (sometimes called new adult) are also welcome. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3257 Advanced Writing for Young Adults
This workshop is suitable for students with some prior experience in writing for young adults and want to spend the semester making significant progress toward a major work for young adults. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: AFRC 3257
1 Course Unit

ENGL 3300 Creative Nonfiction Workshop: Exploring the Genre
A workshop course in the writing of creative nonfiction. Topics may include memoir, family history, travel writing, documentary, and other genres in which literary structures are brought to bear on the writing of nonfiction prose. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3301 Essays, Fragments, Collage: The Art of the Moment
In this creative nonfiction writing workshop we'll explore the moments of our lives through prompts that range from the tactile to the auditory, the documented to the whispered. We'll write and workshop works in essay, fragment, collage, and memoir. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3302 Experimental Nonfiction
A creative nonfiction workshop with an emphasis on writing that doesn't quite fit into any particular genre. While narrative nonfiction often fears straying too far from stale and safe "journalistic" techniques, we will cook up our own new theories for what it means to compose radical contemporary nonfiction. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3303 Creative Nonfiction Workshop: The Art of Experience
Experience can be an elusive thing to capture: a strange hybrid of the highly subjective and the more tangible zone of perceptible fact. How do we strike a balance in narrative nonfiction? Each week we will review classics in the genre, do in-class writing exercises, go on periodic "experiential" assignments, and explore how the art of playing around with the raw material of everyday life (i.e., "reality") can make for great and unexpected stories. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3304 Creative Nonfiction Workshop: Travel Writing
This creative nonfiction workshop focuses on travel as a deliberate act or an act of improvisation, as never-ending process or a fixed journey. Students will observe themselves as travelers and record what they see and what happens around them. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3305 Creative Nonfiction Workshop: Youth Voices Amplified
Youth Voices Amplified is an improvisational workshop in creative nonfiction that connects you to current reporting opportunities; gives you structured choice in assignments; and teaches you how to write about hard subjects for and about young people. Big questions about the social, emotional, relational and physical structures that affect young people require clear, engaging prose that avoids self-importance. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit
ENGL 3306 Writing and Politics
This is a course for students who are looking for ways to use their writing to participate in electoral politics. Student writers will use many forms, including essay, social media posts, videos, scripts, and podcasts, to explore our desire to live responsibly in the world and to have a say in the systems that govern and structure us. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Also Offered As: AFRC 3306
1 Course Unit

ENGL 3307 Creative Nonfiction Writing
A workshop course focused on the art and craft of the essay. In addition to discussing essay form, students will collaboratively workshop their own original writing. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall
1 Course Unit

ENGL 3308 Cooking with Words
This writing workshop will be devoted to the topic of food, although it is not, strictly speaking, a course on food writing. Instead, we will read a manageable and engaging syllabus of writers who have used food in their work and then craft our own original writing using food as the catalyst for the larger story. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
1 Course Unit

ENGL 3350 Advanced Creative Nonfiction Workshop: Narrative Nonfiction
This is a course for students who love the written word and desire to advance their ability to write and craft narrative nonfiction. It is a course in applying devices of fiction to nonfiction writing without compromise of facts. Writing will be emphasized, and so will avenues of storytelling through such components as creating a narrative spine, building a dramatic plot, character development, scene-setting and use of quotes, and significant reportage. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3351 Writing About Mental Health and Addiction
There are many reasons mental illness and addiction are so pervasive, and so difficult to treat and discuss. But there is one baseline problem we can immediately address: learning how to do more effective writing about behavioral health. In this advanced writing course, one of the first of its kind for undergraduates in the country, students explore nonfiction writing on behavioral health and then create, workshop, and rewrite their own work in memoir, narrative longform, investigative reporting, medical science writing, or some combination of these. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3352 Creative Nonfiction: Look In; Look Out
Creative nonfiction is an art form that calls on both the literary techniques of fiction and the reporting strategies of journalism. This advanced workshop uses essay and memoir genres to explore connections between the personal and the universal. Students will experiment with narrative stance and form such as lyric, hermit crab, braided, and epistolary. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3353 Advanced Creative Nonfiction: Xfic
In this advanced creative nonfiction workshop, students write and publish work in Xfic, Penn's innovative nonfiction literary journal. In Xfic, test the boundaries of longform creative nonfiction through innovative and experimental techniques. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3354 Writing Humor and Comedy
A writing workshop devoted to helping students develop their skills in humor and comedy writing. Topics may include writing for the page as well as comedy sketches and short plays for performance. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3355 Memoir Workshop
A creative writing workshop devoted to the craft of memoir. Students will work with some of the forms of memoir, including personal narrative, dialogue, description, and character development, and will explore how memoir can expand our understanding of truth, imagination, memory, and why a story matters. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
1 Course Unit

ENGL 3356 Asian American Nonfiction Workshop
Contemporary literature has seen a recent rise of Asian American nonfiction writing, particularly in the form of essays and memoirs. Asian American writers are reshaping the form of the immigration story and the personal narrative, and are adding their voices to the pressing topics of political activism, STEM, and mental health. This course will include readings by authors such as Hsu, Hong, Nunez, Chang, Fan, Wang, Jacob, and Kalanithi, among others. For memoir and personal pieces, we will discuss how these writers transform their own material through craft, structure, and perspective. For essays, we will discuss how writers use research (and, yes, craft!) to present difficult and/or technical information in an engaging way. Students will write and workshop their own pieces of nonfiction (8-12 pages), with a choice of memoir or essay. No prior experience is necessary except for an eagerness to engage with the material and an open-mindedness during workshop discussions.
Also Offered As: ASAM 3356
1 Course Unit

ENGL 3340 Journalistic Writing: Exploring the Genre
Journalism has been called the first rough draft of history, because it attempts to answer a basic everyday question: What's happening? This workshop-based course explores the techniques that make a good journalism story, including fact gathering, ledes, structure, kickers, interviewing, quotes, description, and journalistic ethics, and the basic skills needed to produce journalism across print and digital mediums. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit
ENGL 3401 Entrepreneurial Journalism
This class is designed to help students develop their own digital journalism models. Working alone or in small groups, students will conceive of a unique site or app and then spend the semester fine-tuning the concept and developing a basic business plan before presenting them before a panel of outside judges and competing for seed funding. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3402 Guinea-Pig Journalism
Guinea-pig journalism is nonfiction writing in which the author seeks out new experiences and writes about them in the first person. The genre can include travel writing, undercover investigative reporting, comic narratives of unusual self-experiments, and more. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3403 Food Journalism
A creative writing workshop devoted to the craft of food journalism. Writing exercises and assignments may include restaurant reviews, food memoirs, interviews, profiles, and reportage. Students will be encouraged to think through the links between food and culture, identity, politics, and history. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3404 Environmental Journalism
A creative writing workshop devoted to journalistic writing about the environment. Taking inspiration from the long history of naturalist writing as well as the current state of reporting on the climate, students will craft their own reportage, opinion pieces, and criticism. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3405 Magazine Journalism
A creative writing workshop devoted to writing for print and digital magazines. We will delve into what it takes to report for a range of mainstream and independent magazine outlets; explore how time works in longform reporting and the specific demands magazines place on storytelling; design and practice pitching stories to magazine editors; and produce our own original work. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3406 Writing about Health and Medicine
In this creative writing workshop, we'll focus on the fundamentals of good science journalism, with an emphasis on how to evaluate the strength of published research and integrate it into our own writing for a broad audience. This course is designed both for students who have little background in science and for science and pre-med students who want to become stronger writers. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3407 Writing about Health and Medicine
In this creative writing workshop, we'll focus on the fundamentals of good science journalism, with an emphasis on how to evaluate the strength of published research and integrate it into our own writing for a broad audience. This course is designed both for students who have little background in science and for science and pre-med students who want to become stronger writers. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3408 Long-Form Journalism
The so-called “New Journalists” have thrived ever since the iconoclastic 1960s, their chief impact on the field of journalism being to write fact-based journalism that reads like fiction. We will study and practice the novelistic techniques of this sort of journalism, including narrative storytelling, dramatic arcs, structural cliffhangers, shifting points of view, author’s voice, and dialogue as action. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3409 Documentary Writing
A creative writing workshop devoted to the art of documentary writing. Assignments may include working with found materials; observation and reportage; fact-based reporting; documentary work in literary genres; and learning from documentary film. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3410 Writing from Photographs
A creative writing course built entirely around crafting our own writing out of photographs. We will consider the image as documentary source, as thematic constraint, or as narrative inspiration as we write and workshop our own original pieces in this collaborative course. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3411 Writing about the Arts and Popular Culture
This workshop-oriented course concentrates on all aspects of writing about artistic endeavor, including criticism, reviews, profiles, and essays. For the purposes of this class, the arts will be interpreted broadly, and students will be write about both the fine arts and popular culture, including fashion, sports, and entertainment. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3412 Advanced Writing Projects in the Arts and Popular Culture
This advanced course in writing about the arts and popular culture (interpreted broadly) is limited in enrollment and focuses on a semester-long project that each student defines in consultation with the instructor: most typically, a lengthy feature (6,000+ words) of the sort that regularly appears in the New Yorker, the New York Times Magazine or Rolling Stone, but other approaches to the project will be considered. Ideally, students will have already taken Writing about the Arts and Popular Culture, but that is not a firm prerequisite and other students should absolutely feel free to consider this course. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Spring
1 Course Unit
ENGL 3413 Journalistic Storytelling
Journalistic Storytelling is about mastering the mechanics of effective nonfiction narrative storytelling. What are the best ways to put the reader into your story? What are the elements that make a piece work? What are the elements of a good opening? When is it better to “show” as opposed to “tell”? When is it best to use first, second or third person? We’ll work in different genres, including observational pieces, profiles, personal pieces, and long-form third-person pieces. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3414 Journalistic Writing in Science, Technology, Society
This workshop is intended for students interested in using popular science writing to broaden public understanding of science, technology, and society. Good science writing helps the public understand how to judge scientific claims; students will hone journalistic skills such as how to research a topic; how to identify interviewees and conduct interviews; and how to redraft and edit. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: STSC 2202
1 Course Unit

ENGL 3415 Global Journalism
Students in this course will have an opportunity to write in a variety of modes, including factual reportage, op-ed, review, and analysis about people and places that take them beyond their own immediate experience. The intent is to use reporting to enlarge the area of personal experience, thus enabling students to become more conscious of, and to move beyond, cultural assumptions, presuppositions, and prejudices. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3416 The Art of the Profile
Students in this class will explore and practice the key elements of profile-writing: gaining access to the profile subject; conducting an effective interview and extracting quotes that reveal the person; observing the profile subject in action; extracting details that reveal the person; and making the profile subject compelling and relatable for the reader. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3417 Political Journalism
The prime goal of this course is to help students develop political writing skills: a respect for factual reporting, context and perspective, and informed opinion. This course will explore the daunting challenges that political journalists face when writing about polarizing topics for polarized audiences while grappling with the thorny issues of “objectivity” and “balance.” This course is designed to be timely, so we’ll closely monitor breaking stories as they arise. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3418 Political Commentary Writing
This course focuses entirely on the daunting art of political commentary writing. Students will track the news as it unfolds, and, most importantly, write commentary pieces in a shared publication space for this course. At a time when Americans are more awash in opinions than ever before, the aim is to master the craft of writing clear, responsible, incisive, substantive, and entertaining point-of-view journalism backed up with factual research. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3419 Political Journalism: The Congressional Midterms
This course focuses entirely on the daunting art of writing political journalism about the congressional midterms. Students who are passionate about writing and politics will track current congressional midterm campaigns and write for collaborative workshop. At a time when Americans are more awash in opinions than ever before, the aim is to master the craft of writing clear, responsible, incisive, substantive, and entertaining journalism backed up with factual research. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3420 Political Journalism: The Presidential Primaries
This course focuses entirely on the daunting art of writing political journalism about the presidential primaries. Students who are passionate about writing and politics will track the current presidential primary campaigns and write for collaborative workshop. At a time when Americans are more awash in opinions than ever before, the aim is to master the craft of writing clear, responsible, incisive, substantive, and entertaining journalism backed up with factual research. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3421 Political Journalism: The Presidential Election
This in-depth course on political journalism will feature the clash between candidates who seek office in the White House. Students will write weekly, chronicling and analyzing the twists and turns of campaign rhetoric, campaign ads, and media coverage; presidential debates will be grist for much of our writing. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3422 Advanced Long-Form Nonfiction
An advanced course in long-form nonfiction journalistic writing for a select group of experienced and self-starting student writers. Ideally, each accepted member will have already taken one or two nonfiction workshops. This is a kind of master course, limited in enrollment and devoted to your pursuit of a reporting and writing project you may have long wished to take up but never had the opportunity. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Spring
1 Course Unit
ENGL 3423 Planet on the Brink: Climate and Environment Journalism
A course for students who want to try their hand at formulating publication-quality fact and opinion pieces on urgent topics that regularly command today's headlines, such as global warming; the sixth extinction; and how to prevent the next pandemic. A course for STEM students who are writing-curious; journalism students interested in sci-tech writing; and prose writers who care about using facts to tell urgently important stories. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
1 Course Unit

ENGL 3424 Let It Rock: The Rolling Stones, Writing and Creativity
A creative writing workshop devoted to criticism, reviews, profiles, interviews and essays about the Rolling Stones. This course will focus on the band's songs, films, solo projects and lifestyles as a source of creative inspiration. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
1 Course Unit

ENGL 3425 Station to Station: The Art and Life of David Bowie
A creative writing workshop devoted to criticism, reviews, profiles, interviews and essays about David Bowie. This course will focus on Bowie's music, films, and other projects as sources of creative inspiration. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
1 Course Unit

ENGL 3426 The Art of Editing
A course for student writers of all kinds who are seeking hands-on experience in editing, whether copyediting and proofreading, line editing, developmental editing, or content editing. Topics covered may include the technical aspects of editing, the publishing profession, and the politics of language standards. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
1 Course Unit

ENGL 3428 Deep Dive Arts and Culture Writing
This course focuses on a semester-long project that takes a deep dive into some aspect of arts and culture. Students will be invited to chart their own course into a topic they are passionate about, whether it be an aspect of the fine arts or a crucial element in pop culture, fashion, sports, comedy, or some other field. Ideally, students will have already taken Writing about the Arts and Popular Culture, but that is not a firm prerequisite and other students should absolutely feel free to consider this course. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Spring
1 Course Unit

ENGL 3501 Writing and Witnessing
This course will explore one of the fundamental questions we face as humans: how do we bear witness to ourselves and to the world? How do we live and write with a sense of response-ability to one another? How does our writing grapple with traumatic histories that continue to shape our world and who we are in it? The very word “witnessing” contains a conundrum within it: it means both to give testimony, such as in a court of law, and to bear witness to something beyond understanding. In this class, we will explore both senses of the term “witness” as we study work by writers such as Harriet Jacobs, Paul Celan, M. NourbeSe Philip, Bhanu Kapil, Layli Long Soldier, Claudia Rankine, Juliana Spahr, and others that wrestles with how to be a witness to oneself and others during a time of ongoing war, colonialism, racism, climate change, and other disasters. Students are welcome in this class no matter what stage you are at with writing, and whether you write poetry or prose or plays or make other kinds of art. Regardless of your experience, in this class you'll be considered an "author," which in its definition also means a "witness." We will examine and question what authorship can do in the world, and we will analyze and explore the fine lines among being a witness, a bystander, a participant, a spectator, and an ally. In this class you will critically analyze and write responses to class readings; you'll do writing exercises related to the work we read; and you'll complete (and be workshoped on) a portfolio of creative writing (and/or art) that bears witness to events that matter to you.
Not Offered Every Year
Also Offered As: COML 3501, GSWS 3501
1 Course Unit

ENGL 3502 Writing and Borders
Many writings are influenced by crossings, borders, and war. But many of these writings also exceed the limits of form: the drive to put down experience in poems spills out into prose, and vice versa; the borders of poetic form seem to be incapable of holding or transferring experience into language. Students will explore their own experimentations across borders. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
1 Course Unit

ENGL 3504 Across Forms: Art and Writing
What if a poem spoke from inside a photograph? What if a sculpture unfurled a political manifesto? What if a story wasn't just like a dance, but was a dance-or a key component of a video, drawing, performance, or painting? In this course, artists and writers will develop new works that integrate the forms, materials, and concerns of both art and writing. Many artists and writers employ writing in their practices, but many writers have practices that go beyond the page and deserve attention as art. This course will employ critique and workshop, pedagogic methodologies from art and writing respectively, to support and interrogate cross-pollination between writing and art practices. Additionally, the course will examine a field of artists and writers who are working with intersections between art and writing to create dynamic new ways of seeing, reading, and experiencing.
Fall
Also Offered As: FNAR 3080
Mutually Exclusive: FNAR 5056
1 Course Unit
ENGL 3508 Queer Forms
Queer and trans writers have always queered form, constantly inventing new ways to express new forms of becoming. And yet, much of the attention paid to LGBTQ+ writing has focused on identity and content rather than looking at the many innovations in form that queer and trans writers are always producing. This multi-genre creative/critical workshop will examine some of the methods contemporary LGBTQ+ writers have used to queer genre and form in their writing, whether they are working through fiction, poetry, essay, play/performance, or some combination thereof. Queer theorist José Esteban Muñoz’s notions of disidentification and queer futurity will help guide our thinking in this course. Students will read and write creative/critical responses each week to a wide range of writing that queers form. The class will include weekly workshop and students will work towards a final project that incorporates all they have learned over the term, generating ever new queer forms of making.
Also Offered As: COML 3508, GSWS 3508
1 Course Unit

ENGL 3510 Making Comics
Open to both beginners and enthusiasts alike, this creative writing workshop will expose students to the unique language of comics and allow students to create their own stories in the medium. Through essential critical readings, practical homework, and lab assignments, students will develop an understanding of how text and sequential images combine, and will take on a variety of roles in the making of comics (writing, illustrating, page layout, inking, character creation, and more). To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3511 Writing through Culture and Art
This is a year-long creative writing class, given as a collaboration between the Center for Programs in Contemporary Writing and the Philadelphia Museum of Art. Students will be encouraged to develop correspondent methods of responding to the PMA’s exhibitions. The class will involve regular trips to attend concerts, museums and lectures. Students will have access to the most cutting-edge artists today via class visits and studio visits, and the course will culminate in a publication of student work. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3512 Duchamp Is My Lawyer
This course examines the impact of copyright law on artists and creative industries. Looking at publishing, music, film, and software, we will ask how the law drives the adoption of new media, and we will consider how regulation influences artistic decisions. A mix of the theoretical with the practical, we will be using UbuWeb (the largest and oldest site dedicated to the free distribution of the avant-garde) as our main case study. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Spring
Also Offered As: CIMS 3512
1 Course Unit

ENGL 3513 Cities and Stories
So much of what we know about cities comes from the stories we tell about them. This course takes the city-in-stories as both our subject and our muse. We will work across genres and disciplines, reading a mix of fiction and nonfiction in which cities figure prominently, from Italo Calvino’s Invisible Cities to Sarah Broom’s Yellow House. We’ll go from Mumbai, in Katherine Boo’s Behind the Beautiful Forevers, to Oakland, in Tommy Orange’s There There. With each text, we’ll examine how the city is represented, including what and who we see and don’t see, and the role it plays in the narrative. We’ll also explore the author’s craft and write our own creative nonfiction about city streets and neighborhoods. The class will be part discussion-based seminar and part peer-review writing workshop. It is open to both creative writing and urban studies students excited to explore the intersections between our stories, our cities, and ourselves.
Spring
Also Offered As: URBS 3500
1 Course Unit

ENGL 3514 Writing Towards Transformation
Writing Towards Transformation is a critical and creative writing workshop focused on developing works across genres that express and elaborate upon current and historical conditions of crisis and injustice. Using guided meditation, critical feedback and healthy, ethical discussion, the students of the class will develop manuscripts of poems, short stories, essays, plays and/or screenplays that in some way articulate their analysis of the present and the past towards a transformative future. We will read essays, manifestos, theater and fiction as well as view films that will hopefully inspire each student to develop texts and scripts of hope. Writers used as models of inspiration will include Gary Indiana, Valerie Solanas, June Jordan, Bertolt Brecht, Cherrie Moraga, Leslie Feinberg and Toni Cade Bambara, among many others. This is a graduate level course open to undergraduates by permission of the instructor.
Also Offered As: GSWS 3514, LALS 3514
1 Course Unit

ENGL 3515 Translating Laughter
While this course will deal with the history and theory of translation at large, the practical aspect of the course or the workshop component of it will focus on translating humor from various texts and mediums. We will begin by examining the history and theory of translation, read theory on translation and parody, and examine specific passages and how they manifest themselves in literary and visual translations. Finally, we will set workshops to present, share, and examine the effects of our translations together. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
1 Course Unit

ENGL 3516 Writing as Translation
This workshop course is devoted to creative writing as inherently a form of translation. Some or all students will try their hands at writing their own translations, although please note that knowledge of a language other than English is not required. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
1 Course Unit
ENGL 3517 Plague Lab: Writing through Infection and Affliction
How do we write through a plague? In this creative writing class we will begin with the question of how plagues make and disrupt meaning. In addition to canonical examples, we’ll explore off-center, anti-colonial, and non-Western literary and popular culture works. Students will then produce across a number of genres including poetry, fiction, memoir, zines, double-blind studies, sculpture, installation, performance, or found object scavenging. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
Also Offered As: FNAR 3517, THAR 1117
1 Course Unit

ENGL 3600 Screenwriting Workshop
This is a workshop-style course for those who have thought they had a terrific idea for a movie but didn't know where to begin. The class will focus on learning the basic tenets of classical dramatic structure and how this (ideally) will serve as the backbone for the screenplay of the aforementioned terrific idea. Each student should, by the end of the semester, have at least thirty pages of a screenplay completed. Classic and not-so-classic screenplays will be required reading for every class, and students will also become acquainted with how the business of selling and producing one's screenplay actually happens.
Fall or Spring
Also Offered As: CIMS 1160
1 Course Unit

ENGL 3601 Advanced Screenwriting
This is a workshop style course for students who have completed a screenwriting class, or have a draft of a screenplay they wish to improve or want to learn everything in one shot and are ready to do a lot of writing, and even more rewriting.
Fall or Spring
Also Offered As: CIMS 1300
1 Course Unit

ENGL 3603 Writing for Television
This is a workshop-style course for those who have an interest in writing for television. The course will consist of two parts: First, students will develop premise lines, beat sheets and outlines for an episode of an existing television show. Second, students will develop their own idea for a television series which will culminate in the writing of the first 30 pages of an original television pilot.
Fall or Spring
Also Offered As: CIMS 1170
1 Course Unit

ENGL 3604 Playwriting Workshop
This course is designed as a hands-on workshop in the art and craft of dramatic writing. It involves the study of new plays, the systematic exploration of such elements as storymaking, plot, structure, theme, character, dialogue, setting, etc.; and most importantly, the development of students’ own short plays through a series of written assignments and in-class exercises. Since a great deal of this work takes place in class - through lectures, discussions, spontaneous writing exercises, and the reading of student work - weekly attendance and active participation is crucial. At the end of the semester, students’ plays are read in a staged reading environment by professional actors.
Spring
Also Offered As: THAR 0114
1 Course Unit

ENGL 3605 Advanced Playwriting
This course is intended to reinforce and build upon the areas covered in Level 1 Playwriting (THAR 0114) so that students can refine the skills they've acquired and take them to the next level. Topics covered will include techniques for approaching the first draft, in-depth characterization, dramatic structure, conflict, shaping the action, language/dialogue (incl.subtext, rhythm, imagery, exposition etc), how to analyse your own work as a playwright, dealing with feedback, the drafting process, techniques for rewriting, collaboration (with directors, actors etc) and the 'business of the art' - working with theatres, agents, dramaturgs etc. Students will undertake to write their own one-act plays over the course. The classes will be a mixture of lecture, discussion, study of dramatic texts, writing exercises and in-class analysis of students' work.
Not Offered Every Year
Also Offered As: THAR 0114
Prerequisite: THAR 0114
1 Course Unit

ENGL 3606 Experimental Playwriting
A course on writing for theater and performance. Students will take cues from myriad experimental playwrights and performance artists who have challenged conventional ideas of what a script should look and sound like, how narrative is constructed, how characters are built, and what a setting can be. This class will push beyond the formal structures of the well-made play script and address how writers explore and reinvent form and language as a means for radical change. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
Also Offered As: THAR 3606
1 Course Unit

ENGL 3607 Adaptation
This course is designed to explore the techniques and practices of adaptation in order to transform stories not originally written for the stage into plays. We will reimagine material from other media, considering how the original author’s intent intersects with a student’s own artistic voice. Through reading and writing exercises, we will focus on themes, characters, setting, as well as theatricality, and better understand the value of transferring ideas from the page to the stage. Students will investigate what makes a story stage worthy as they work to create a short play from source material of their choosing.
Also Offered As: THAR 1115
1 Course Unit
ENGL 3608 The Planets in my Pen: Experiments in Writing, Visual Art & Performance
The Planets in my Pen is a multi-genre creative arts workshop constellated around experimentation. We will be looking at innovative writing, visual art and film as models for the making of poetry, fiction, memoir, drawing, painting, sculpture, installation, plays and performance. The genres, techniques and movements of science fiction, surrealism, performance art and the political essay will be key with an emphasis on feminist, queer, left and anticolonial models of art and world making. The works of William S. Burroughs, John Rechy, Nelly Santiago, Jean Genet, Ntozake Shange, Octavia Butler, Adrienne Kennedy, Lucrecia Martel, Aimé Césaire, Jamaica Kincaid, Regina Jose Galindo, Raul Ruiz, Josefina Baez, Zadie Smith and Cherrie Moraga will be among those read, viewed and studied. As their final project students will submit a final manuscript, performance and/or art object as well as participate in a public reading/viewing/screening.
Also Offered As: GSWS 3600, LALS 3600, THAR 3600
1 Course Unit

ENGL 3609 The Short Film: Writing, Producing and Directing
In this class students will write and prepare a short film for production with the INTENT to direct it. The first half of class is devoted to coming up with an idea and writing a short film with a total run time of around 8-12 minutes. This is the ideal length for a short. The second half of the class is devoted to preparing to shoot the film which will include scheduling, budgeting, casting, crewing up, location scouting and creating a directorial look book for the film. At the end of class each student will have a short film script and all the necessary materials to start production of that film. The below documents are required to pass the class and presented as one all inclusive PDF document at the end of the semester.
Fall or Spring
Also Offered As: CIMS 1180
1 Course Unit

ENGL 3630 Here I/We Stand: Writing/Performing Self and Community
This writing for performance workshop will focus on the creation of plays, solo performance, collectively devised work, screenplays and videos. Students can work in both the autobiographical mode common to one person shows, traditional theater and screenplay form as well as avant-garde and experimental techniques. We will write and use theater exercises to develop character and narratives that either directly or obliquely speak to the conditions of subjects who struggle to make art and sense out of self and community, history and society, memory and fantasy. We will read the work of playwrights and solo performers as well as view film and video with an emphasis on the work of leftist, feminist, queer/trans, BIPOC and social justice artists such as Jean Genet, Bertolt Brecht, Ntozake Shange, Adrienne Kennedy, Cherrie Moraga, Luis Alfaro, Holly Hughes, Kate Bornstein, Ana Mendieta, Valerie Solanas, Wallace Shawn, Tomata du Plenty, Teatro Campesino and ACT UP.
Also Offered As: GSWS 3630
1 Course Unit

ENGL 3650 Self-Scripting: Writing through Body and Space
Students in Self-Scripting will write through a variety of exercises and activities that put text into play with the body and space. Over the course of the semester, students will actively engage space and composition as they develop and explore scriptwriting for performance. This course aims to expand on techniques for writing plays, poetry, and experimental biography. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
Also Offered As: THAR 0115
1 Course Unit

ENGL 3651 Passion Projects: Radical Experiments in Writing Plays, Screenplays, and Pilots
This creative writing workshop will focus on writing for screen, stage and internet and is open to undergraduate and graduate students at every level of writing experience. The course will be writing intensive and also include the reading and analysis of feminist, trans, queer, working class and racially liberatory plays, films, television and performance as models of inspiration. Meditation, drawing, theater games, improv exercises, screenings and outings to see work on and off campus will round out this holistic and experimental approach to making work that illuminates and entertains audiences from across the US and global audience spectrum.
Also Offered As: GSWS 3651, LALS 3651
1 Course Unit

ENGL 3652 Is This Really Happening? Performance and Contemporary Political Horizons
This class addresses the meeting points inside of and between a range of resistant performance practices with a focus on artists using performance to address political and social encounters in the contemporary moment. Performance, a chaotic and unruly category that slides across music, dance, theater and visual art, has long been a container for resistant actions/activities that bring aesthetics and politics into dynamic dialogue. Embracing works, gestures, movements, sounds and embodiments that push against and beyond the conventions of a given genre, performance can't help but rub uncomfortably against the status quo. Scholars working across Performance Studies and Black Studies importantly expanded critical discourse around performance to address the entanglement of the medium with physical, psychic, spatial and temporal inhabitations of violence and power. Generating copious genealogies of embodied resistance, this scholarship instigates a complex, interdisciplinary and multidimensional perspective on intersections between art and life, performance and politics. The class hosts a series of public lectures, presentations and performances by visual artists, choreographers, theater artists, composers/musicians, performers, curators and activists engaged with the social and political moment. Presentations will be open to the public with students in the course developing in-depth research into the work of each visiting artist/performer/presenter to engage the larger context of each visitor's scholarship and/or practice through readings, discussion and in-class presentations. This course is open to all interested students. No prior requisites or experience with performance or the performing arts is necessary.
Also Offered As: FNAR 3160, GSWS 0860
1 Course Unit
ENGL 3653 Collaborative Practices: Staging Projects Together
Collaborative Practices is an ABCS course in which Penn students will build and hone their stage practices in collaboration with young artists and performers in Philadelphia. Collaborative Practices offers models for staging original works in collaboration from start to finish and interrogates assumptions about collaboration inside a hands-on mentorship relationship. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3899 Independent Study: Bassini Writing Apprenticeship
The Bassini Writing Apprenticeship is a supervised independent study in creative writing. For more information, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3998 Creative Writing Honors Thesis
The Creative Writing Honors Thesis is a supervised independent study in creative writing to be submitted for the consideration of Honors in English. For more information, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 3999 Independent Study in Creative Writing
A supervised independent study in creative writing. For more information, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
1 Course Unit

ENGL 4097 Honors Thesis Seminar
This seminar is a workshop for seniors in the Honors Program. Admitted students will compose a critical essay of substantial length under the supervision of a faculty advisor.
Fall or Spring
1 Course Unit

ENGL 4098 Senior Thesis Independent Study
Supervised reading and research toward the Senior Honors Thesis.
Fall or Spring
1 Course Unit

ENGL 4500 One Series: Medieval/Renaissance
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the Medieval and/or Renaissance period. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4501 One Series: Medieval/Renaissance with Theory and Poetics
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the Medieval and/or Renaissance period with a focus on Theory & Poetics. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4502 One Series: Medieval/Renaissance with Difference and Diaspora
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the Medieval and/or Renaissance period with a focus on Difference and Diaspora. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4503 One Series: Medieval/Renaissance with Theory & Poetics and Difference and Diaspora
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the Medieval and/or Renaissance period with a focus on both Theory & Poetics and Difference & Diaspora. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4504 One Series: Literature of the Long 18th Century
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the Long 18th Century. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4505 One Series: Literature of the Long 18th Century with Theory and Poetics
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the Long 18th Century with a focus on Theory and Poetics. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4506 One Series: Literature of the Long 18th Century with Difference and Diaspora
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the Long 18th Century with a focus on Difference and Diaspora. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4507 One Series: Literature of the Long 18th Century with Theory & Poetics and Difference and Diaspora
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the Long 18th Century with a focus on Theory & Poetics and Difference & Diaspora. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit
ENGL 4508 One Series--19th Century Literature
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the 19th Century. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4509 One Series--19th Century Lit with Theory and Poetics
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the 19th Century with a focus on Theory and Poetics. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4510 One Series--19th Century Lit with Difference and Diaspora
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the 19th Century with a focus on Difference and Diaspora. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4511 One Series--19th Century Lit with Theory & Poetics and Difference & Diaspora
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the 19th Century with a focus on Theory & Poetics and Difference & Diaspora. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4512 One Series--20th/21st Century
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the 20th/21st Century. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4513 One Series--20th/21st Century with Theory and Poetics
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the 20th/21st Century with a focus on Theory and Poetics. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4514 One Series--20th/21st Century with Difference and Diaspora
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the 20th/21st Century with a focus on Difference and Diaspora. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4515 One Series--20th/21st Century with Theory & Poetics and Difference & Diaspora
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major literary text from the 20th/21st Century with a focus on Theory & Poetics and Difference & Diaspora. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
Also Offered As: CIMS 4516
1 Course Unit

ENGL 4516 One Series--Major Film
This seminar offers students the opportunity to undertake a semester-long in-depth study of a major film regardless of origin. Discussions will address emergent research methods, advanced writing and critical thinking issues, and debates surrounding canonization. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4517 One Series--Love and Rockets: The Great American Comic Book
This One Series course explores Love and Rockets, an anthology comic book series created by the collective known as Los Bros Hernandez and published continuously since 1978. We will approach the series through the lenses of Comics Studies and Latinx Studies. Is it true, as one scholar says, that, "Love and Rockets is the closest thing we have to The Great American Comic Book?" How does the series continue or challenge the legacy of the underground comix movement of the 1960s and 1970s? We will consider how Love and Rockets incorporates elements of the anarchist LA punk scene, challenges notions of Latinidad, and expands the visual vernacular of gender & sexuality in American comics. Alongside two representative volumes from Love and Rockets, we will read criticism, watch documentaries, incorporate our own comics research, and write comics of our own. Assignments will include brief research exercises and short writing in various forms. For the final projects, students will have the choice of a critical essay or creative project. Students will come away from the class with increased visual literacy as well as a basic theoretical framework for ethnic studies writ large.
Also Offered As: LALS 4517
1 Course Unit

ENGL 4599 Study Abroad--Advanced Seminar
Study Abroad number reserved for XCAT requests that fulfill Advanced Seminar for English
1 Course Unit

ENGL 4955 JRS Med/Ren & 20C-21C Lit
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, as well as debates in both Medieval/Renaissance and 20th and/or 21st Century Literature. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit
ENGL 4956 JRS Med/Ren & 20C-21C Lit with Theory and Poetics
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, as well as debates in both Medieval/Renaissance and 20th and/or 21st Century Literature. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4957 JRS Med/Ren & 20C-21C Lit with Difference and Diaspora
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Difference and Diaspora, as well as debates in both Medieval/Renaissance and 20th and/or 21st Century Literature. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4958 JRS Med/Ren & 20C-21C Lit with Theory and Poetics & Difference and Diaspora
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory, Poetics, Difference and Diaspora, as well as debates in both Medieval/Renaissance and 20th and/or 21st Century Literature. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4976 JRS 19C Lit & 20C-21C Lit
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, as well as debates in both 19th Century literature and 20th and/or 21st Century Literature. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4977 JRS 19C Lit & 20C-21C Lit with Difference and Diaspora
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, as well as debates in both 19th Century literature and 20th and/or 21st Century Literature. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4978 JRS 19C Lit & 20C-21C Lit with Theory and Poetics
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, as well as debates in both 19th Century literature and 20th and/or 21st Century Literature. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4979 JRS 19C Lit & 20C-21C Lit with Theory and Poetics and Difference and Diaspora
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, Difference and Diaspora, as well as debates in both 19th Century literature and 20th and/or 21st Century Literature. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4980 JRS 20C-21C Lit with Theory & Poetics and Difference and Diaspora
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, as well as debates in both 20th and/or 21st Century Literature, with an added focus on difference and diaspora. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4984 JRS Med/Ren
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, as well as debates within the Medieval and/or Renaissance period. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4985 JRS Med/Ren with Theory & Poetics
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, as well as debates within the Medieval and/or Renaissance period. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4986 JRS Med/Ren with Difference and Diaspora
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, as well as debates within the Medieval and/or Renaissance period, with a focus on difference and diaspora. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4987 JRS Med/Ren with Theory & Poetics and Difference and Diaspora
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, as well as debates within the Medieval and/or Renaissance period, with an added focus on difference and diaspora. See the English Department's website at www.english.upenn.edu for a description of current offerings.
1 Course Unit
ENGL 4988 JRS Long 18C Lit
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, and debates within the Literature of the Long 18th Century period. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4989 JRS Long 18C Lit with Theory and Poetics
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, as well as debates within the Literature of the Long 18th Century period. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4990 JRS Long 18C Lit with Difference and Diaspora
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, and debates within the Literature of the Long 18th Century period, with a focus on difference and diaspora. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4991 JRS Long 18C Lit with Theory & Poetics and Difference and Diaspora
This course offers English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, as well as debates in the Literature of the Long 18th Century period, with an added focus on difference and diaspora. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
Fall or Spring
1 Course Unit

ENGL 4992 JRS 19C Literature
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, and debates within 19th Century Literature. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4993 JRS 19C Literature with Theory & Poetics
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, as well as debates within 19th Century Literature. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4994 JRS 19C Literature with Difference and Diaspora
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, and debates within 19th Century Literature, with a focus on difference and diaspora. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4995 JRS 19C Literature with Theory & Poetics and Difference and Diaspora
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, as well as debates in 19th Century Literature, with an added focus on difference and diaspora. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4996 JRS 20C-21C Literature
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, and debates within 20th Century Literature. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4997 JRS 20C-21C Literature with Theory & Poetics
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, Theory and Poetics, as well as debates within 20th-21st Century Literature. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit

ENGL 4998 JRS 20C-21C Literature with Difference and Diaspora
This course offers junior English majors the opportunity to design and undertake a semester-long research and writing project in an advanced seminar setting. Discussions will address research methods, advanced writing and critical thinking issues, and debates within 20th Century Literature, with a focus on difference and diaspora. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
1 Course Unit
**ENGL 5001 Cinema and Globalization**
In this course, we will study a number of films (mainly feature films, but also a few documentaries) that deal with a complicated nexus of issues that have come to be discussed under the rubric of "globalization." Among these are the increasingly extensive networks of money and power, the transnational flow of commodities and cultural forms, and the accelerated global movement of people, whether as tourists or migrants. At stake, throughout, will be the ways in which our present geographical, economic, social, and political order can be understood and represented. What new narrative forms have arisen to make sense of contemporary conditions? Films will include: The Year of Living Dangerously, Perfumed Nightmare, Dirty Pretty Things, Monsoon Wedding, Babel, Y Tu Mama Tambien, Maria Full of Grace, In This Word, Darwin's Nightmare, Black Gold, Life and Debt, The Constant Gardener, Syriana, and Children of Men. In addition to studying the assigned films carefully, students will also be expected to read a selection of theoretical works on globalization (including Zygmunt Bauman's Globalization: The Human Consequences) and, where appropriate, the novels on which the assigned films are based. Advance viewing of the films is required. (I find it is best to place films on reserve for students’ use, or to ask that students get their own DVDs from Amazon or Netflix, but screenings can certainly be arranged.) Writing requirements: either a mid-term and final paper, or an in-class power point presentation and final paper. Not Offered Every Year
Also Offered As: CIMS 5001
1 Course Unit

**ENGL 5002 Hollywood Film Industry**
This is a course on the history of Hollywood. It seeks to unravel Hollywood's complex workings and explains how the business and politics of the film industry translate into the art of film. We will trace the American film industry from Edison to the internet, asking questions such as: What is the relationship between Hollywood and independent film? How has the global spread of Hollywood since the 1920s changed the film industry? How has Hollywood responded to crises in American politics (e.g., world wars, the cold war, terrorism)? And how have new technologies such as synchronized sound, color cinematography, television, home video, computer graphics, and other digital technologies changed film and Hollywood? We will look closely at representative studios (Paramount, Disney, and others), representative filmmakers (Mary Pickford, Frank Capra, and George Lucas, among many others), and we will examine the impact of industrial changes on the screen. Not Offered Every Year
Also Offered As: CIMS 5002
1 Course Unit

**ENGL 5003 Copyright and Culture**
In this course, we will look at the history of copyright law and explore the ways that copyright has both responded to new media and driven art and entertainment. How, for example, is a new medium (photography, film, the Internet, etc.) defined in relation to existing media? What constitutes originality in collage painting, hip hop music, or computer software? What are the limits of fair use? And how have artists, engineers and creative industries responded to various changes in copyright law? A major focus of the course will be the lessons of history for the current copyright debates over such issues as file sharing, online video, and remix culture. In this course, we will look at the history of copyright law and explore the ways that copyright has both responded to new media and driven art and entertainment. How, for example, is a new medium (photography, film, the Internet, etc.) defined in relation to existing media? What constitutes originality in collage painting, hip hop music, or computer software? What are the limits of fair use? And how have artists, engineers and creative industries responded to various changes in copyright law? A major focus of the course will be the lessons of history for the current copyright debates over such issues as file sharing, online video, and remix culture. Not Offered Every Year
Also Offered As: CIMS 5003
1 Course Unit

**ENGL 5004 Horror Cinema**
The course will explore European Horror Cinema from the 1970s to the present time, focusing on a number of cult films that have helped rejuvenate and redefine the genre in a radically modern sense by pushing the envelope in terms of subversive representation of gore, violence and sex. We will look at various national cinemas (primarily Western Europe – Italy, France, Spain, Germany, Belgium, The Netherlands – with the occasional foray into Eastern Europe and Scandinavia) and at a range of subgenres (giallo, mondo, slasher, survival, snuff, ...) or iconic figures (ghosts, vampires, cannibals, serial killers, ...). Issues of ethics, ideology, gender, sexuality, violence, spectatorship will be discussed through a variety of critical lenses (psychoanalysis, socio-historical and cultural context, aesthetics, politics...). The class will be conducted entirely in English. Be prepared for provocative, graphic, transgressive film viewing experiences. Not for the faint of heart!
Not Offered Every Year
Also Offered As: CIMS 5004
1 Course Unit

**ENGL 5005 Sex/Love/Desire In Art Cinema**
This topic course explores multiple and different aspects of Cinema Studies. Specific course topics vary from year to year. See the Cinema Studies website at cinematstudies.sas.upenn.edu/courses for a description of the current offerings. Not Offered Every Year
Also Offered As: CIMS 5005
1 Course Unit

**ENGL 5010 Introduction to Old English Language and Literature**
This is an accelerated study of the basic language of Anglo-Saxon England, together with a critical reading of a variety of texts, both prose and poetry. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. Not Offered Every Year
1 Course Unit
ENGL 5030 Transnational TV
How are television and nation historically related, and how has television been part of new kinds of nationalization and globalization projects? Television content like telenovelas or BBC news have often transnationally moved and television infrastructures like satellites and optical fiber cables have had a global footprint. We will discuss both the local situatedness of televical production and reception cultures as well as their ability to impact global issues and discourses. The course is interested in how television schedules historically have been part of everyday lives of people and how more recently, on-demand TV content shapes and is shaped by quotidian rhythms of people’s lives in different countries with specific socio-cultural contexts. The course particularly focuses on how global television cultures have been transformed due to shifts from broadcasting technologies to (Internet) streaming services: In what ways has the television landscape changed and remained the same with the emergence of global subscription TV platforms like Netflix and Prime Video as they commission and develop content in collaboration with local and national artists and practitioners? How are regional streamers competing with and resisting the expansion of Netflix? What explains the growing transnational exports of Turkish dizi and Korean TV dramas? We will attend to both emerging genres of content and trace the new distribution circuits of transnational television.
Not Offered Every Year
Also Offered As: CIMS 5030
1 Course Unit

ENGL 5050 Digital Humanities Studies
This course is designed to introduce advanced undergraduate and graduate students to the range of new opportunities for literary research afforded by Digital Humanities and recent technological innovation. Digital Humanities: you’ve heard of it. Maybe you’re excited about it, maybe you’re skeptical. Regardless of your primary area of study, this course will give you the critical vocabularies and hands-on experience necessary to understand the changing landscape of the humanities today. Topics will include quantitative analysis, digital editing and bibliography, network visualization, public humanities, and the future of scholarly publishing. Although we will spend a good portion of our time together working directly with new tools and methods, our goal will not be technological proficiency so much as critical competence and facility with digital theories and concepts. We will engage deeply with media archaeology, feminist technology studies, critical algorithm studies, and the history of material texts; and we will attend carefully to the politics of race, gender, and sexuality in the field. Students will have the opportunity to pursue their own scalable digital project. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: CIMS 5051, COML 5050
1 Course Unit

ENGL 5180 King Arthur: Medieval to Modern
From the Middle Ages to the present, stories about King Arthur, the brave deeds of the nights of the Round Table, and Merlin’s mysterious prophecies have mesmerized readers and audiences. In this course, we will study nearly 1000 years of literature about King Arthur, beginning with Geoffrey of Monmouth’s twelfth-century History of the Kings of Britain and Sir Gawain and the Green Knight, and ending with Mark Twain, Alfred Lord Tennyson, and the fantasy fiction classic, T. H. White’s Once and Future King. We will also be reading authors who repurposed Arthurian literature to think about gender relations (for example, Elizabeth Phelps’ critique of domesticity), colonialism and nationalism (Wales and India), and religious cultures (for example, the medieval Hebrew version of King Arthur). Throughout the course, we will think about what Arthurian legends mean to the way we write history and the ways in which we view our collective pasts (and futures). Assignments will include response papers, an oral presentation, and a final paper.
Not Offered Every Year
1 Course Unit

ENGL 5240 Topics in Medieval Studies
This course covers topics in Medieval literature. Its emphasis varies with instructor. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
Also Offered As: COML 5240, GSWS 5240
1 Course Unit

ENGL 5245 Topics in Medieval Studies: Premodern Animals (c.500-c.1500)
From St. Cuthbert, whose freezing feet were warmed by otters, to St. Guinefort, a miracle-performing greyhound in 13th-century France, to Melusine, the half-fish, half-woman ancestress of the house of Luxembourg (now the Starbucks logo), medieval narratives are deeply inventive in their portrayal of human-animal interactions. This course introduces students to critical animals studies via medieval literature and culture. We will read a range of genres, from philosophical commentaries on Aristotle and theological commentaries on Noah’s ark to werewolf poems, beast fables, political satires, saints’ lives, chivalric romances, bestiaries, natural encyclopaedias, dietary treatises and travel narratives. Among the many topics we will explore are the following: animals in premodern law; comfort and companion animals; vegetarianism across religious cultures; animal symbolism and human virtue; taxonomies of species in relation to race, gender, and class; literary animals and political subversion; menageries and collecting across medieval Europe, the Near East, and Asia; medieval notions of hybridity, compositeness, trans-species identity, and interspecies relationships; art and the global traffic in animals (e.g., ivory, parchment); European encounters with New World animals; and the legacy of medieval animals in contemporary philosophy and media. No prior knowledge of medieval literature is required. Students from all disciplines are welcome.
Also Offered As: CLST 7710, COML 5245, RELS 6101
1 Course Unit

ENGL 5250 Chaucer
An advanced introduction to Chaucer’s poetry and Chaucer criticism. Reading and discussion of the dream visions, Troilus and Criseyde, and selections from Canterbury Tales, from the viewpoint of Chaucer’s development as a narrative artist. See the English Department’s website at www.english.upenn.edu for a description of current offerings.
Not Offered Every Year
1 Course Unit
ENGL 5380 Major Renaissance Writers
This is a monographic course, which may be on Spenser, Milton, or
other major figures of the period. See the English Department’s website
at www.english.upenn.edu for a complete description of the current
offerings.
Not Offered Every Year
1 Course Unit

ENGL 5400 Topics in 18th Century British Literature
This course covers topics in 18th Century British literature. Its emphasis
varies with instructor. See the English Department’s website at
www.english.upenn.edu for a complete description of the current
offerings.
Not Offered Every Year
1 Course Unit

ENGL 5410 Topics in Cultural History
Topic for Fall 2021: Making and Marking Time.
Not Offered Every Year
Also Offered As: ARTH 5870, COML 5410, GRMN 5410
1 Course Unit

ENGL 5430 Environmental Humanities: Theory, Method, Practice
Environmental Humanities: Theory, Methods, Practice is a seminar-style
course designed to introduce students to the trans- and interdisciplinary
field of environmental humanities. Weekly readings and discussions will
be complemented by guest speakers from a range of disciplines including
ecology, atmospheric science, computing, history of science, medicine,
anthropology, literature, and the visual arts. Participants will develop their
own research questions and a final project, with special consideration
given to building the multi-disciplinary collaborative teams research in
the environmental humanities often requires.
Not Offered Every Year
Also Offered As: COML 5430, ENVS 5410, GRMN 5430, SPAN 5430
1 Course Unit

ENGL 5440 18th-century Visual Cultures of Race & Empire
This course approaches the Western history of race and racial
classification (1600-1800) with a focus on visual and material culture,
natural history, and science that connected Atlantic and Pacific worlds.
Across the long eighteenth century, new knowledges about human
diversity and species distinctions emerged alongside intensifications of
global trade with Asia. The course will include case studies of chinoiserie
textiles, portraits of consuming individuals, natural history prints and
maps, Chinese export porcelain and furnishings, and "blackamoor"
sculpture. Objects of visual and material culture will be studied alongside
readings on regional and world histories that asserted universal freedoms
as well as hierarchies of human, animal, and plant-kind. Keeping in
mind that the idea of race continues to be a distributed phenomenon
- across color, gender, class, religion, speech, culture - we will explore
changing vocabularies of difference, particularly concerning skin color,
across a range of texts and images. Knowledge often does not take
written or literary form, and for this reason, we will study examples of
visual and material culture as well as forms of technology that were
critical to defining human varieties, to use the eighteenth-century term.
Although we will be reading texts in English, some in translation, we will
also account for European and non-European knowledge traditions -
vernacular, indigenous - that informed scientific and imaginative writings
about the globe. Topics may include cultural and species distinction,
global circulations of commodities between the East and West Indies,
the transatlantic slave trade, the casta system of racial classification
in the Americas, religious and scientific explanations of blackness and
whiteness, and visual representations of non-European people.
Spring
Also Offered As: ARTH 5680, COML 5041
1 Course Unit

ENGL 5450 Eighteenth-Century Novel
A survey of the major novelists of the period, often beginning with Defoe
and a few of the writers of amatory fiction in the early decades of the
century and then moving on to representative examples of the celebrated
novels by Richardson, Fielding, and others of the mid-century and after.
See the English Department’s website at www.english.upenn.edu for a
complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5480 English Literature and Culture, 1650-1725
English 5480 studies the literature of this period in the context of
the artistic and cultural milieu of the later seventeenth and early
eighteenth centuries. Texts usually include works by Dryden, Rochester,
Swift, Pope, and Defoe. See the English Department’s website at
www.english.upenn.edu for a complete description of the current
offerings.
Not Offered Every Year
1 Course Unit

ENGL 5500 Topics in Romanticism
This class explores the cultural context in which the so-called Romantic
Movement prospered, paying special attention to the relationship
between the most notorious popular genres of the period (gothic fiction
and drama) and the poetic production of both canonical and emerging
poets. See the English Department’s website at www.english.upenn.edu
for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit
ENGL 5530 British Women Writers
A study of British women writers, often focusing on the women authors who came into prominence between 1775 and 1825. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5560 Topics in 19th-Century British Literature
This course covers topics in nineteenth-century British Literature, its specific emphasis varying with the instructor. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5600 The Novel
This course will provide an intensive introduction to the study of the novel, approaching the genre from a range of theoretical, critical, and historical perspectives. It may examine conflicting versions of the novel's history (including debates about its relationship to the making of the individual, the nation-state, empire, capital, racial and class formations, secularism, the history of sexuality, democracy, print and other media, etc.), or it may focus on theories of the novel, narratology, or a particular problem in novel criticism. It may attend to a specific form or subgenre of fiction, or it may comprise a survey of genres and texts. See the English Department's website at: www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5640 British Modernism
An introduction to British Literary Modernism. Specific emphasis will depend on instructor. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5690 Topics in 20th-Century American Literature
This course covers topics in 20th-century literature, its emphasis varying with instructor. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5700 Topics in Afro-Diasporic Literature and Culture
This course treats some important aspect of African American and Afro-Diasporic literature and culture. Some recent versions of the course have focused on the emergence of African-American women writers, on the relation between African-American literature and cultural studies, and on the Harlem Renaissance. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
Also Offered As: AFRC 5701, COML 5700
1 Course Unit

ENGL 5720 Topics in African Literature
This course is based on a selection of representative texts written in English, as well as a few texts in English translation. It involves, a study of themes relating to social change and the persistence of cultural traditions, followed by an attempt at sketching the emergence of literary tradition by identifying some of the formal conventions of established writers in their use of old forms and experiments with new. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5730 Topics in Criticism & Theory: Object Theory
Topics vary annually
Not Offered Every Year
Also Offered As: ARTH 5730, CIMS 5730, COML 5730, GRMN 5730, REES 6683
1 Course Unit

ENGL 5735 Topics in Criticism: What is Poetics?
What is poetics? How does it differ from other forms of criticism in terms of both attitude or posture and method? In terms of practices of art and politics, What is its relationship to poieis and ethics -- what is poetics? -- as articulated by such varied thinkers as Joan Retallack, Denise Ferreira Da Silva and R.A. Judy What's to be observed about the current turn of black studies toward poetics? For the seminar, let's think about the above as matters of a) critical inquiry b) art practice and c) professional discipline. It may be possible to triangulate by way of "critique" and "aesthetics." Proposing the inseparability of critical inquiry and writing practice, the final assignment will be deemed experimental since the monograph-ish essay won't be presumed. Consequently, we will discuss the institutional state/status of what participants will have made. Possible readings include Michel Foucault, What is Critique?; Gilles Deleuze and Felix Guattari, What is Philosophy?; Hortense Spillers, Black, White & in Color (selections); Joan Retallack, The Poethical Wager; Denise Ferreira Da Silva, Unpayable Debt; Boris Groys, Going Public; Rachel Zolf, No One's Witness; Leslie Scalapino, Objects in the Terrifying Tense/Longing from Taking Place.
Also Offered As: COML 5735
1 Course Unit

ENGL 5740 Introduction to Bibliography
This course offers an introduction to the principles of descriptive and analytic bibliography and textual editing. The history of authorship, manuscript production, printing, publishing, and reading will be addressed as they inform an understanding of how a particular text came to be the way it is. Diverse theories of editing will be studied and put into practice with short passages. The course is generally suitable for students working in any historical period, but particular emphases specified in the current offerings on the English website. www.english.upenn.edu
Not Offered Every Year
1 Course Unit
ENGL 5745 Material Texts
This course offers an introduction to the relationship of texts to their production, circulation, and physical forms, including the history of textual production and reproduction. Students will gain technical expertise and experience through a series of hands-on exercises in bibliographical analysis, but will mainly practice a "way of seeing" material texts that can be brought to bear on literary criticism, cultural or media studies, and historiography, beyond the technical work of bibliography. Different instructors will emphasize different aspects of this topic. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5790 Provocative Performance
What is feminist theatre? How do artists use live performance to provoke not only thought and feeling, but also social, personal, and political change? This course will examine a wide array of plays and performances by and about women; these pieces are, in turn, serious, hilarious, outrageous, poignantly-and always provocative. Our focus will be on English-language works from the late 20th century to the present (#metoo) moment. We will read these performance texts and/or view them on stage/screen; we will also read essays that provide contextual background on feminist theatre theory and history. Throughout the semester, we will engage diverse perspectives on women and race, ethnicity, class, sexuality, and gender identity; the issues we encounter will also include marriage and motherhood, career and community, feminism and friendship, and patriarchy and power. The class will take full advantage of any related events occurring on campus or in the city, and will feature visits with guest speakers. Students will have the opportunity to pursue research on their own areas of interest (some recent examples are "women in comedy," trans performance, drag kings, feminist directing, etc.).
Not Offered Every Year
Also Offered As: GSWS 5790, THAR 5790
1 Course Unit

ENGL 5820 American Literature to 1810
In this course we shall examine the ways various voices--Puritan, Indian, Black, Female, Enlightened, Democratic--intersect with each other and with the landscape of America to produce the early literature(s) of America. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5840 Environmental Imaginaries
Drawing on theories of worldmaking and ethnographic works on culture and environment, this seminar will examine the production of Cartesian-based environmental imaginaries and their alternatives across a range of genres and practices. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5890 Twentieth-Century American Poetry
See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5900 Recent issues in Critical Theory
This course is a critical exploration of recent literary and cultural theory, usually focusing on one particular movement or school, such as phenomenology, psychoanalysis, the Frankfurt School, or deconstruction. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
Also Offered As: COML 5901
1 Course Unit

ENGL 5910 Russian and Soviet Cultural Institutions
In this seminar, we will study Russian and Soviet culture through the history of its institutions, in the broader social-institutional context of land-based European empire and state socialism. The course will include material from the eighteenth to the twenty-first centuries, but attention will be focused disproportionately on the twentieth century. Each unit will focus on a specific social institution of culture, yet will also require the reading/viewing of canonical texts and films. Topics will include: reading publics and education; authorship and professionalization; cultural management of social, ethnic, gender and national diversity (including via institutions of translation); journals and publishing houses; genres; the Union of Soviet Writers; censorship and unofficial dissemination; the film industry; cultural history and memory (jubilee celebrations); the culture industry.
Not Offered Every Year
Also Offered As: COML 6530, REES 6150
1 Course Unit

ENGL 5920 20th-Century Literature and Theory
This course treats some aspect of literary and cultural politics in the 20th-Century with emphasis varying by instructor. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5930 Classical Film Theory
At a moment when contemporary film and media theory has become increasingly interested in how earlier film theories can help us understand our moment of transition, this course will give students the opportunity to read closely some of those key early texts that are preoccupied with questions and problems that include: the ontology of film, the psychology of perception, the transition to sound, the politics of mass culture, realism, and ethnography. Course requirements: ; completion of all readings and screenings; participation in class discussion; weekly online responses; 20-25 page paper.
Not Offered Every Year
Also Offered As: ARTH 5930, CIMS 5930, COML 5930, GSWS 5930
1 Course Unit

ENGL 5931 Contemporary Film Theory
In this course, we will dig in to a variety of contemporary film theory debates in the context of earlier texts with which they engage or against which they define themselves. We will also watch films weekly and consider the relationship between theory and practice. Course requirements: ; completion of all readings and screenings; participation in class discussion; weekly online responses; 20-25 page paper.
Not Offered Every Year
Also Offered As: ARTH 5931, CIMS 5931, GSWS 5931
1 Course Unit
ENGL 5932 The Place of Film and Media Theory
Taking its title from a recent special issue in the journal Framework, this seminar will engage the where of film and media theory. At a moment when this discourse, often presumed to have roots in Anglo and Western European traditions, is purportedly undergoing a global turn, we will consider how some of film and media theory’s key terms and preoccupations including realism, documentary, genre, identity, sound, spectatorship, nation, auteur, and screens are being inflected by expanded geographic, linguistic, aesthetic and cultural frames. We will grapple with some of the logistical challenges, motivations, resistances, and questions that scholars encounter as they attempt to shift film and media theory’s borders; compare contemporary efforts to broaden the discourse’s geographic horizon with earlier efforts to do the same; and consider what happens to the viewer’s sense of space and place in different media environments. Course requirements: full participation in readings, screenings, discussion, and class presentations; 20-25 page research paper + annotated bibliography.
Not Offered Every Year
Also Offered As: ARTH 5932, CIMS 5932, GSWS 5932
1 Course Unit

ENGL 5933 Cinema and Media Studies Methods
This proseminar will introduce a range of methodological approaches (and some debates about them) informing the somewhat sprawling interdisciplinary field of Cinema and Media Studies. It aims to equip students with a diverse—though not comprehensive—toolbox with which to begin conducting research in this field; an historical framework for understanding current methods in context; and a space for reflecting on both how to develop rigorous methodologies for emerging questions and how methods interact with disciplines, ideologies, and theories. Students in this class will also engage scholars participating in the Cinema and Media Studies colloquium series in practical discussions about their methodological choices. The course’s assignments will provide students with opportunities to explore a particular methodology in some depth through a variety of lenses that might include pedagogy, the conference presentation, grant applications, the written essay, or an essay in an alternative format, such as the graphic or video essay. Throughout, we will be trying to develop practical skills for the academic profession. Although our readings engage a variety of cinema and media objects, this course will be textually based. No prior experience needed. The course is open to upper-level undergraduates with relevant coursework in the field by permission of instructor only. Course Requirements: Complete assigned readings and actively participate in class discussion: 20%; Reading responses: 10%; Annotated bibliography or course syllabus on a particular methodology: 20%; SCMS methodology-focused conference paper proposal according to SCMS format: 10%; Research paper, grant proposal, or essay in an alternative format using the methodology explored in the syllabus or bibliography: 40%.
Fall
Also Offered As: ARTH 5933, CIMS 5933, COML 5940, GSWS 5933
1 Course Unit

ENGL 5940 Theories of Nationalism
You cannot build a wall to stop the free flow of literary and creative ideas. But in constructing narratives of national identity, states have long adopted particular texts as "foundational." Very often these texts have been epics or romances designated "medieval," that is, associated with the period in which specific vernaculars or "mother tongues" first emerged. France and Germany, for example, have long fought over who "owns" the Strasbourg oaths, or the Chanson de Roland; new editions of this epic poem, written in French but telling of Frankish (Germanic) warriors, have been produced (on both sides) every time these two countries go to war. In this course we will thus study both a range of "medieval" texts and the ways in which they have been claimed, edited, and disseminated to serve particular nationalist agendas. Particular attention will be paid to the early nineteenth century, and to the 1930s. Delicate issues arise as nations determine what their national epic needs to be. Russia, for example, needs the text known as The Song of Igor to be genuine, since it is the only Russian epic to predate the Mongol invasion. The text was discovered in 1797 and then promptly lost in Moscow’s great fire of 1812; suggestions that it might have been a fake have to be handled with care in Putin’s Russia. Similarly, discussing putative Mughal (Islamic) elements in so-called "Hindu epics" can also be a delicate matter. Some "uses of the medieval" have been exercised for reactionary and revisionist causes in the USA, but such use is much more extravagant east of Prague. And what, exactly, is the national epic of the USA? What, for that matter, of England? Beowulf has long been celebrated as an English Ur-text, but is set in Denmark, is full of Danes (and has been claimed for Ulster by Seamus Heaney). Malory’s Morte Darthur was chosen to provide scenes for the queen’s new robing room (following the fire that largely destroyed the Palace of Westminster in 1834), but Queen Victoria found the designs unacceptable: too much popery and adultery. Foundations of literary history still in force today are rooted in nineteenth-century historiography: thus we have The Cambridge History of Italian Literature and The Cambridge History of German Literature, each covering a millennium, even though political entities by the name of Italy and Germany did not exist until the later nineteenth century. What alternative ways of narrating literary history might be found? Itinerary models, which do not observe national boundaries, might be explored, and also the cultural history of watercourses, such as the Rhine, Danube, or Nile. The exact choice of texts to be studied will depend in part on the interests of those who choose to enroll. Faculty with particular regional expertise will be invited to visit specific classes.
Not Offered Every Year
Also Offered As: COML 5904, ITAL 5940
1 Course Unit

ENGL 5950 Post-Colonial Literature
This course covers topics in Post-Colonial literature with emphasis determined by the instructor. The primary focus will be on novels that have been adapted to film. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit
ENGL 5970 Modern Drama
This course will survey several basic approaches to analyzing dramatic literature and the theatre. The dramatic event will be broken into each of its Aristotelian components for separate attention and analysis: Action (plot), Character, Language, Thought, Music and Spectacle. Several approaches to analysing the dramatic text will be studied: phenomenological, social-psychological, semiotic, and others. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 5980 Theories of Gender & Sexuality
This course addresses the history and theory of gender and sexuality. Different instructors will emphasize different aspects of the topic. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Also Offered As: COML 5980, GSWS 5980
1 Course Unit

ENGL 5991 Media, Platform, Experience
This graduate seminar explores processes and sites of production, distribution, and consumption of audio-visual contents in the contemporary media environment with a focus on both platform logics and user interaction experiences. While “new” media, such as social media, cellphone apps, streaming platforms, video games, and drones increasingly dominate everyday life, “old” media including film, television, and books do not disappear but continue to be consumed and transformed in a new media ecology. Crossing the old/new divide, this course seeks to delineate a fuller picture of the choices, constraints, and experiences available for contemporary media users situated in both the Global North and South. We will attend to both the infrastructures and platforms shaping the circulatory dynamics of the current global media landscape as well as the phenomenological dimensions of media consumption by combining broad discussions of interface, algorithms, temporality, screen, and post-cinema, etc., with case studies that examine specific platforms (e.g. Netflix, Bilibili) and media forms (e.g. Gifs, reaction videos, etc.).
Not Offered Every Year
Also Offered As: ARTH 5940, CIMS 5940
1 Course Unit

ENGL 6000 Proseminar
Literary studies continue to be reconfigured by a variety of theoretical and methodological developments. Various forms of Marxist and post-structuralist enquiry, as well as the often confrontational debates between theoretical and political positions as varied as Deconstruction, New Historicism, Cultural Materialism, Feminism, Queer Studies, Minority Discourse Theory, Colonial and Post-colonial Studies, Cultural Studies, and Ecological Studies, have altered disciplinary agendas and intellectual priorities for students embarked on the professional study of literature. In this course we will study key texts, statements and debates that define these issues, and ask what it means to read in depth, on the surface, or somewhere in-between.
Not Offered Every Year
1 Course Unit

ENGL 6120 Hannah Arendt: Literature, Philosophy, Politics
The seminar will focus on Arendt’s major work, The Origins of Totalitarianism (and its three parts, Anti-Semitism, Imperialism, Totalitarianism). We will also discuss the reception of this work and consider its relevance today.
Not Offered Every Year
Also Offered As: COML 6120, GRMN 6120, JWST 6120, PHIL 5439
1 Course Unit

ENGL 6160 Approaches to Literary Texts
Most seminars focus on literary texts composed during a single historical period; this course is unusual in inviting students to consider the challenges of approaching texts from a range of different historical eras. Taught by a team of literary specialists representing diverse periods and linguistic traditions and conducted as a hands-on workshop, this seminar is designed to help students of literature and related disciplines gain expertise in analysis and interpretation of literary works across the boundaries of time, geography, and language, from classic to modern. Students will approach literature as a historical discipline and learn about key methodological issues and questions that specialists in each period and field ask about texts that their disciplines study. The diachronic and cross-cultural perspectives inform discussions of language and style, text types and genres, notions of alterity, fictiveness, literariness, symbolism, intertextuality, materiality, and interfaces with other disciplines. This is a unique opportunity to learn in one course about diverse literary approaches from specialists in different fields.
Not Offered Every Year
Also Offered As: CLST 7601, COML 6160, EALC 8290, REES 6450, ROML 6160
1 Course Unit

ENGL 6400 Franz Kafka and J. M. Coetzee
This seminar will listen attentively to the echoes of Franz Kafka in the novels of J.M. Coetzee. Building on Gilles Deleuze and Felix Guattari’s concept of a minor literature, elaborated on the example of Kafka’s oeuvre, we will situate Kafka against the backdrop of the German-speaking Jewish community of Habsburg-era Prague and read Coetzee within the context of apartheid and his native South Africa. Beyond an investigation of empire and its aftermath, this course will consider the arguably posthuman ethics of these authors, examining them through the lens of animal studies and the environmental humanities in order to reveal how they anticipate and participate in current thinking on the Anthropocene. Reading Kafka’s fables beside Coetzee’s allegorical narratives, the seminar will follow the twisted course taken by literary justice from the Josef K. of Kafka’s Trial to Coetzee’s Life and Times of Michael K. Alongside these two towering figures, the influence of and affinities with other German-language authors (Heinrich von Kleist, Hugo von Hofmannsthal, Robert Walser) and Anglophone contemporaries (Samuel Beckett, Nadine Gordimer, Cormac McCarthy) will also be considered. Other works to be read will include Kafka’s Castle, in the Penal Colony, Metamorphosis and late animal stories as well as Coetzee’s In the Heart of the Country, Waiting for the Barbarians and Elizabeth Costello. Advanced undergraduates may enroll with the permission of the instructor. Readings and discussions in English.
Not Offered Every Year
Also Offered As: COML 5400, GRMN 5400
1 Course Unit
ENGL 6490 Socialist and Post-Socialist Worlds
In 1989-1991, a whole world, perhaps many worlds, vanished: the worlds of socialism. In this graduate seminar we will investigate key cultural works, theoretical constructs and contexts spanning the socialist world(s), focused around the USSR, which was for many the (not uncontested) center of the socialist cosmos. Further, we will study the cultural and political interrelationships between the socialist world(s) and anticolonial and left movements in the developing and the capitalist developed nations alike. Finally, we will investigate the aftermath left behind as these world(s) crumbled or were transformed beyond recognition at the end of the twentieth century. Our work will be ramified by consideration of a number of critical and methodological tools for the study of these many histories and geographies. The purview of the course is dauntingly large - global in scale - and therefore "coverage" will of necessity be incomplete. In addition to the lead instructor, a number of guest instructors from Penn and from other institutions will join us to lead our investigations into specific geographies, moments and areas. Additionally, four weeks have been left without content, to be filled in via consensus decision by the members of the seminar.
Not Offered Every Year
Also Offered As: AFRC 7080, COML 7080
1 Course Unit

ENGL 6770 Black Speculative Futures
Why do black cultural producers turn to the speculative? What, in turn, is speculative about blackness? These questions frame this seminar's exploration of how black artists, theorists, and activists imagine different futures, often in the service of critiquing power asymmetries and creating radical transformation in the present. We will explore how the speculative works differently across black literature, visual culture and performance. Additionally, inspired by the multi-disciplinary work that we encounter in the course, we will experiment with crafting our own embodied speculative art in order to better understand its function as both art practice and politics. The course will be divided between discussions centered on close reading of primary and secondary material and creative writing/movement exploration (no previous movement experience necessary). Occasional guest lectures with visiting artists will provide additional fodder for our critical and creative work.
Not Offered Every Year
Also Offered As: AFRC 6770, ANTH 6770
1 Course Unit

ENGL 6800 Studies in the 20th Century
Topics will vary. Please see the French department's website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: FREN 6800
1 Course Unit

ENGL 6840 The French Novel of the 20th Century
Topics vary. Please check the French department's website for the course description. https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: FREN 6840
1 Course Unit

ENGL 7050 Interdisciplinary Approaches to Literature
This course will explore one or more interdisciplinary approaches to literature. Literary relationships to science, art, or music may provide the focus. See the English Department's website at www/english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7052 Form, Figure, Metaphor
This course will explore the tensions and overlaps between three concepts in literary studies: form, figure, and metaphor. Through readings of works in literary theory, literature, and literary criticism, we will ask what it means to pay attention to the form of a literary text, whether at the micro scale of its literary figures or the macro scale of its overarching structure. We will historicize the shifting relations between our three key terms by exploring their role in ancient rhetoric, Victorian aesthetic theory, Russian formalism, the New Criticism, and deconstruction, among other literary-critical schools. Special attention will be paid to the notion of metaphor as it operates across genres and disciplines. While our focus will be on modern European and American literary theory, students will come away with interpretive tools beneficial to the study of literature of any period or genre.
Also Offered As: COML 6860
1 Course Unit

ENGL 7060 Ancient and Medieval Theories and Therapies of the Soul
This course focuses on premodern conceptions of the 'soul', the force felt to animate and energize a human body for as long as it was considered alive, and to activate virtually all aspects of its behavior through time. Premodern concepts of the soul attempted to account for a person's emotions and desires, perceptions, thoughts, memory, intellect, moral behavior, and sometimes physical condition. The course will trace the various ancient theories of the soul from the Presocratics, Plato, Aristotle, Stoic thought in Greek and Latin, medical writers (Hippocrates, Hellenistic doctors, Galen), and Neoplatonists, to the medieval receptions and transformations of ancient thought, including Augustine and Boethius, Avicenna's interpretation of Aristotle and its medieval influence, and Aquinas and other later medieval ethicists. These premodern conceptions of the soul have a surprisingly long afterlife, reaching into the literary cultures and psychological movements of early modernity and beyond. Knowledge of Greek or Latin not required, but see the following: The seminar will meet for one two-hour session per week, and a separate one-hour 'breakout' session during which students who have registered for GREK 7203 will meet to study a selection texts in Greek, and students who have registered for COML/ENGL will meet to discuss medieval or early modern texts relevant to their fields of study.
Not Offered Every Year
Also Offered As: COML 6100, GREK 7203
1 Course Unit

ENGL 7080 Cultural and Literary Theory of Africa and the African Diaspora
This course introduces students to the theoretical strategies underlying the construction of coherent communities and systems of representation and how those strategies influence the uses of expressive culture over time. Topics vary. See the Africana Studies Department's website at https://africanaStudies.sas.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: AFRC 7080, COML 7080
1 Course Unit

University of Pennsylvania Undergraduate Catalog 1023
2023-24 Catalog | Generated 08/02/23
ENGL 7150 Middle English Literature
This seminar will study a number of selected Middle English texts in depth. Attention will be paid to the textual transmission, sources, language, genre, and structure of the works. Larger issues, such as the influence of literary conventions (for example, "courtly love"), medieval rhetoric, or medieval allegory will be explored as the chosen texts may require. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7210 Medieval Poetics
This course may include some of the following fields: studies of medieval stylistic practices, formal innovations, and theories of form; medieval ideas of genre and form; medieval thought about the social, moral, and epistemological roles of poetry; interpretive and pedagogical traditions of medieval literary cultures of Europe and pre-modern India (with their roots in ancient thought about poetic form). See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
No Offered Every Year
1 Course Unit

ENGL 7215 Medieval Poetics: Europe and India
This is a comparative course on medieval stylistic practices, formal innovations, and especially theories of form. Our common ground will be the theories that were generated in learned and pedagogical traditions of medieval literary cultures of Europe and pre-modern India (with their roots in ancient thought about poetic form). See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Also Offered As: CLST 7701, COML 7210
1 Course Unit

ENGL 7300 Topics in 16th-Century History and Culture
This is an advanced course treating topics in 16th Century history and culture particular emphasis varying with instructor. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7310 Renaissance Poetry
An advanced seminar in English poetry of the early modern period. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7340 Renaissance Drama
This is an advanced course in Renaissance drama which will include plays by non-Shakespearean dramatists such as Marlowe, Jonson, and Middleton. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7360 Renaissance Studies
This is an advanced topics course treating some important issue in contemporary Renaissance studies. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7390 Milton
An examination of Milton’s major poetry and prose with some emphasis on the social and political context of his work. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7450 Restoration and 18th-Century Fiction
This is an advanced course in the fiction of the Restoration and the 18th Century, the period of “The rise of the novel”. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7480 Studies in the Eighteenth Century
This course varies in its emphases, but in recent years has explored the theory of narrative both from the point of view of eighteenth-century novelists and thinkers as well as from the perspective of contemporary theory. Specific attention is paid to issues of class, gender, and ideology. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7530 Victorian British Literature
An advanced seminar treating some topics in Victorian British Literature, usually focusing on non-fiction or on poetry. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7600 Realisms Seminar--19th Century to Contemporary
An advanced graduate seminar focused on Realism and spanning several centuries. This two-part course will consider the literary history of realism and will take on some fundamental epistemological questions entailed by the novel’s attempts to represent the real. We will read major theories of realism alongside canonical and marginal realist fiction. Emily Steinlight will address the variously formal, aesthetic, political, and epistemological status of realism in nineteenth-century novels and in theories old and new; some discussion will focus on the concept of totality and on the uneven histories and revitalized uses of realism across contexts. Heather Love will address the relation between classical realism, hyperrealism, and modernist/avant-garde departures in the 20th and 21st centuries, with special attention paid to the role of observation and description in literature and the social sciences. The range of readings may include novels by Honoré de Balzac, George Eliot, Leo Tolstoy, George Gissing, Mariano Azuela, Virginia Woolf, Patricia Highsmith, Nicholson Baker, Georges Perec, Karl Ove Knausgaard, and Rachel Cusk, as well as critical and theoretical work by Viktor Schklovsky, Georg Lukács, Ian Watt, Roland Barthes, Catherine Gallagher, Fredric Jameson, Elaine Freedgood, Anna Kornbluh, Colleen Lye, the Warwick Research Collective, and others.
Also Offered As: COML 7600
1 Course Unit
ENGL 7610 British Modernism
This course treats one or more of the strains of British modernism in fiction, poetry, or the arts. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7680 Genres of Writing
Please check the department's website for the course description: https://www.english.upenn.edu. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7690 Feminist Theory
Specific topic varies. The seminar will bring together the study of early modern English literature and culture with histories and theories of gender, sexuality and race. Contact with 'the East' (Turkey, the Moluccas, North Africa and India) and the West (the Americas and the Caribbean) reshaped attitudes to identity and desire. How does this history allow us to understand, and often interrogate, modern theories of desire and difference? Conversely, how do postcolonial and other contemporary perspectives allow us to re-read this past? See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7700 Afro-American Literature
An advanced seminar in African-American literature and culture. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7710 Textual Production
This course is based on library work and is intended as a practical introduction to graduate research. It addresses questions of the history of the book, of print culture, and of such categories as "work," "character," and "author," as well as of gender and sexuality, through a detailed study of the (re)production of Shakespearean texts from the seventeenth to the twentieth century. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7730 Modernism
An interdisciplinary and international examination of modernism, usually treating European as well as British and American modernists.
Not Offered Every Year
Also Offered As: COML 7670
1 Course Unit

ENGL 7740 Postmodernism
An advanced seminar on postmodernist culture. Recently offered as a study of relationship between poetry and theory in contemporary culture, with readings in poststructuralist, feminist, marxist, and postcolonial theory and in poets of the Black Mountain and Language groups. See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7750 African Literature
An advanced seminar in anglophone African literature, possibly including a few works in translation. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7780 20th-Century Aesthetics
This course explores notions that have conditioned 20th century attitudes toward beauty among them ornament, form, fetish, the artifact "women", the moves to 20th century fiction, art manifestos, theory, and such phenomena as beauty contests and art adjudications. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7785 Topics in Post-45 Literature, Cold War
This course considers the literature and culture of the Cold War period (1945-1991). Different instructors will emphasize different topics within these fields. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7830 Major American Author
A seminar treating any one of the major American Writers. Past versions have focused on Melville, Whitman, Twain, James, Pound, Eliot, and others. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7900 Recent Issues in Critical Theory
See the English Department’s website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7901 Recent Issues in Critical Theory Related to Gender & Sexuality
This course will provide an overview of critical theory related to the study of gender and/or sexuality. Different instructors will emphasize different topics within these fields. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
Also Offered As: COML 7901, GSWS 7901
1 Course Unit
ENGL 7905 Modern Literary Theory and Criticism
This course will provide an overview of major European thinkers in critical theory of the 20th and 21st centuries. We will pay particular attention to critical currents that originated in Eastern European avant-garde and early socialist contexts and their legacies and successors. Topics covered will include: Russian Formalism and its successors in Structuralism and Deconstruction (Shklovsky, Levi-Strauss, Jakobson, Derrida); Bakhtin and his circle, dialogism and its later western reception; debates over aesthetics and politics of the 1930s (Lukacs, Brecht, Adorno, Benjamin, Radek, Clement Greenberg); the October group; Marxism, new Left criticism, and later lefts (Althusser, Williams, Eagleton, Jameson, Zizek).
Fall or Spring
Also Offered As: COML 6050, ENGL 6050, FREN 6050, GRMN 6050, ITAL 6050, REES 6435
1 Course Unit

ENGL 7920 Study of a Genre: The Manifesto
If ubiquity confers significance, the manifesto is a major literary form, and yet it has been relatively marginalized in genre studies, where attention to the manifesto has been largely devoted to anthologies. In this seminar we will focus on the manifesto as a genre by exploring its histories, rhetorics, definitions and reception from a Black Studies framework. Associated with politics, art, literature, pedagogy, film, and new technologies, the manifesto involves the taking of an engaged position that is tied to the moment of its enunciation. The manifesto's individual or collective authors seek to provoke radical change through critique and the modeling of new ways of being through language and images. Included on the syllabus will be anticolonial, anti-racist, feminist, LGBTQ manifestos of the 18th through 21st centuries from throughout the Black world. In addition to leading class discussion, students will be responsible for a seminar paper or a final project to be developed in consultation with the instructor.
Not Offered Every Year
Also Offered As: AFRC 7920, LALS 6971, SPAN 6971
1 Course Unit

ENGL 7940 Postcolonial Literature
An advanced seminar treating a specific topic or issue in Postcolonial Literature. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7950 Topics in Poetics
Topics in poetics will vary in its emphasis depending on the instructor. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 7971 Afro-Latin America
In-depth analysis of the black experience in Latin America and the Spanish, French and English-speaking Caribbean, since slavery to the present. The course opens with a general examination of the existence of Afro-descendants in the Americas, through the study of fundamental historical, political and sociocultural processes. This panoramic view provides the basic tools for the scrutiny of a broad selection of literary, musical, visual, performance, and cinematic works, which leads to the comprehension of the different ethical-aesthetic strategies used to express the Afro-diasporic experience. Essential concepts such as negritude, creolite, and mestizaje, as well as the most relevant theories on identity and identification in Latin America and the Caribbean, will be thoroughly examined, in articulation with the interpretation of artistic works. Power, nationalism, citizenship, violence, religious beliefs, family and community structures, migration, motherhood and fatherhood, national and gender identities, eroticism, and sexuality are some of the main issues discussed in this seminar.
Not Offered Every Year
Also Offered As: AFRC 6971, LALS 6971, SPAN 6971
1 Course Unit

ENGL 7990 Topics in American Literature
An advanced topics course in American literature, with the curriculum fixed by the instructor. Recently offered with a focus on American Literature of Social Action and Social Vision. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
1 Course Unit

ENGL 8000 Teaching of Literature and Composition
A course combining literary study with training in teaching. These courses will normally be taken by students in their first semester of teaching.
Fall
1 Course Unit

ENGL 8500 Field List
Students work with an adviser to focus the area of their dissertation research. They take an examination on the field in the Spring and develop a dissertation proposal. 
Fall or Spring
1 Course Unit

ENGL 8510 Dissertation Proposal
A continuation of ENGL 8500.
Fall or Spring
1 Course Unit

ENGL 8550 Dissertation Proposal
A continuation of ENGL 8500.
Fall or Spring
1 Course Unit

ENGL 9000 The Short Story
A workshop course devoted to the craft of short fiction. Assignments will include informal exercises as well as formal crafted pieces.
1 Course Unit

ENGL 9001 Fiction Workshop
A workshop course in the craft of fiction.
1 Course Unit

ENGL 9002 Memoir Workshop
A creative writing workshop devoted to the craft of memoir. Students will work with some of the forms of memoir, including personal narrative, dialogue, description, and character development, and will explore how memoir can expand our understanding of truth, imagination, memory, and why a story matters.
1 Course Unit
ENGL 9005 Finding Voice: Perspectives on Race, Class and Gender
This writing workshop explores the influence of identity, primarily race, class, gender, and sexuality, on the ways we convey our personal truths to the world.
Not Offered Every Year
Also Offered As: AFRC 9005, GSWS 9005, URBS 9005
1 Course Unit

ENGL 9006 Learning from James Baldwin
This class will examine the intellectual legacy that James Baldwin left to present-day writers such as Toni Morrison, Charles Johnson, Ta-Nehisi Coates, Thulani Davis, Caryl Phillips, and others. We will spend time reading and discussing Baldwin’s novels, short stories, plays and essays, and students will research subjects of their own choosing about Baldwin’s life and art.
Also Offered As: AFRC 9006, GSWS 9006, URBS 9006
1 Course Unit

ENGL 9007 Writing through Music
This writing workshop will focus on the provocative interchanges between music and creative writing. We will consider music of all kinds, all genres (jazz, classical, hip-hop, ambient, folk, electronic, experimental, etc.), as a springboard for the imagination, as a counterpoint to forms of language, and as a tool for cultivating creative writing practices.
1 Course Unit

ENGL 9008 Writing Experiments
A workshop course devoted to cultivating experimental approaches in your writing. Practitioners of prose, poetry, and mixed-genre writing—as well as students who are new to any of these genres—are all welcome. We will test the boundaries of form and language as we hone our skills, experiment with new tools, read a number of writings by authors who break the rules, and explore what taking risks can teach us about our craft.
1 Course Unit

ENGL 9009 Creative Research: A Writer’s Workshop
Many writers think of research as a “task” that is somehow separate from writing. In truth, it’s as much a part of the process as waiting for le mot juste. Research is much more than gathering material and filling in the blanks. It is the process of discovering your material at its deepest source. Students in this course will adopt a mindset of discovery and playfulness as we explore a variety of innovative research methods and hone the fine art of looking right under your nose.
Not Offered Every Year
1 Course Unit

ENGL 9010 Writing for Young Readers
A creative writing workshop devoted to writing for young readers. Young adult, middle-grade, and other kinds of writing will be addressed.
1 Course Unit

ENGL 9011 Screenwriting
This creative writing workshop is devoted to writing scripts for film, video, and television.
1 Course Unit

ENGL 9012 Journalistic Writing
This course is devoted to the art of journalistic writing and will address genres such as straight news, narrative longform, interviews, profiles, criticism, features, and more, as well as writing for a range of platforms, including newspapers, magazines, and websites.
1 Course Unit

ENGL 9013 Memoir Writing
This memoir workshop will shine light on the human experience as viewed through your personal lens. We’ll see how memoir can illuminate larger cultural themes - from the inhumanity of war, to racism, misogyny, and economic inequality - as viewed through lived experiences.
Also Offered As: GSWS 9013, URBS 9013
1 Course Unit

ENGL 9015 Writing and Place
In this creative writing workshop we will consider how writing about place - geography, architecture, landscape, cities, and so on - opens up both our imaginations and our ideas about literary form. Course offerings may include workshops devoted to poetry, fiction, travel writing, and cross-genre writing.
1 Course Unit

ENGL 9016 Being Human: A Personal Approach to Race, Class & Gender
In this workshop, we will address the ways race, class, and gender impact our lives, our work, and our culture. As a class, we will create connection and community by practicing deep listening, daily writing, deep reading, and the sharing of ideas and observations.
Not Offered Every Year
Also Offered As: AFRC 9016, GSWS 9016, URBS 9016
1 Course Unit

ENGL 9017 Considering Race, Class and Punishment in the American Prison System
This graduate writing seminar will examine the origins, myths, and realities of the complex industry that currently imprisons more than 2,300,000 men, women and teens in America’s city, county, state and federal prisons - the largest prison population and highest per-capita rate of imprisonment in the world.
Not Offered Every Year
Also Offered As: AFRC 9017, GSWS 9017, URBS 9017
1 Course Unit

ENGL 9099 Independent Study
Open to students who apply to the graduate chair with a written study proposal approved by the advisor. The minimum requirement is a long paper. Limited to 1 CU.
Fall, Spring, and Summer Terms
1 Course Unit

ENGL 9999 Independent Study
Open to students who apply to the graduate chair with a written study proposal approved by the advisor. The minimum requirement is a long paper. Limited to 1 CU.
Fall, Spring, and Summer Terms
1 Course Unit

English Literature (ENLT)

The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).

ENLT 1000 Ways of Reading
1 Course Unit
ENLT 1200 Literature, Culture, and Society
Stories matter. They encourage imagination through visions of what could be, even as they challenge us to think critically about the historical realities that influence our daily experiences. Stories also connect us within a web of social and cultural relations that are often hidden in plain view. In this course, we'll explore what this means for each of us through reading, writing, and other forms of active engagement with a wide array of literary texts. Some texts will challenge us to question who we are, what we think, and which roles we play in the world. Others will invite us to reflect on how meaning-making operates across genre, space, and time. But all will offer us examples of why storytelling is a key component of what makes us human. This course is for everyone, including folks who might not traditionally gravitate toward studying literature. During our time together, we'll build foundations for close reading and critical analysis while engaging with physical and digital texts—from classical epics to future-focused media. We'll even play with emergent ideas about society and culture that propose concrete steps for making a better world. The goal is to practice deep work with diverse stories that reflect who we are and what we hope to become. Essential Questions: The course will revolve around five guiding questions, including: • How do literary texts reflect, challenge, and influence cultural norms, identities, and societal structures? • What roles do narratives play in shaping our perceptions of social hierarchies, politics, and power relations? • How can we craft compelling, thoughtful, responses to complex work? • How do we interpret notions of gender, race, and class through literature? • What can creative work teach us about our personal and professional lives? Course Block Contributions: • English Literature • Social Difference, Diversity, Equity, and Inclusion Concentration Contributions: • Creative Studies • Literature, Culture, and Tradition • Individualized Studies
1 Course Unit

ENLT 1400 History in Eight Books
This course provides a broad overview of the history of literature in English from the tenth century to the twentieth. Rather than aim for complete coverage of a thousand years of literary production, we will spend each week delving deeply into one text from a particular historical moment, reading eight works in total. We will familiarize ourselves with literary texts – such as A Midsummer Night’s Dream, Leaves of Grass, and Beloved – that range widely in form, genre, and thematic concern; we will examine how these texts negotiate their sociocultural contexts instead of merely reproducing them; and we will practice how to ask productive questions about literature. Assignments will include regular discussion posts, close reading exercises, a critical bibliography, and a final paper.
1 Course Unit

ENLT 2000 Topics in English Literature
Topics in English Literature. Topics offered will differ.
Fall or Spring
1 Course Unit

ENLT 3000 Radical Literature
In 2018, Dan Rather on the left and Nikki Haley on the right claimed that dissent is As American as apple pie. This course examines the roots of that statement and the repercussions of dissent on national identity and literary production. Class readings and discussions address dissenters who are known for their political positions, such as Thomas Paine and Frederick Douglass, and those who known for their dissent from literary norms, such as Emily Dickinson and Walt Whitman. Explore questions of literary style, its connection to politics, and how dissenting politics call for rethinking literary norms while also connecting to time-honored literary values. Through discussions, papers, and a research project, you can discover what values Americans share around political and stylistic dissent that continue to resonate today.
1 Course Unit

Environmental Studies (ENVS)

ENVS 0053 Sustainable Development and Culture in Latin America
This interdisciplinary course exposes students to the three dimensions of sustainable development - environmental, economic, and social - through an examination of three products - peyote, coca, and coffee - that are crucial in shaping modern identity in areas of Latin America. The course integrates this analysis of sustainable development in relation to cultural sustainability and cultural practices associated with peyote, coca, and coffee and their rich, traditional heritage and place in literature, film, and the arts.
Fall, even numbered years only
Also Offered As: ANTH 0091, LALS 0091, SPAN 0091
1 Course Unit
ENVS 0054 Latinx Environmental Justice
This course explores the involvement of the Latinx environmental justice movement since the 1960s. It addresses theories and concepts of environmental racism and environmental justice, underscoring how Latinx have challenged, expanded, and contributed to the environmental justice discourse. In this course, students will explore national case studies of environmental and racial injustice as they bear on Latinx communities both in rural areas and in urban barrios throughout the United States. The course will analyze these case studies through the lens of Latinx artistic and literary texts (essays, paintings, short stories, documentaries, and short films) as they provide a unique historic and multicultural perspective of the Latinx experience with environmental injustice and of how Latinxs imagine alternative transitions and responses to environmental marginalization. In addition, the works of Latinx artists and writers will serve as case studies to deconstruct racial stereotypes of Latinx as unconcerned about environmental issues, shedding light on how they share a broad engagement with environmental ideas. The case studies analyzed in this course emphasize race and class differences between farmworkers and urban barrio residents and how they affect their respective struggles. The unit on farmworkers will focus on workplace health issues such as toxic chemicals and collective bargaining contracts. The unit on urban barrios will focus on gentrification, affordable housing, and toxic substances in the home. We will also review current and past programs that have been organized to address the aforementioned problems. This is an Academically Based Community Service Course (ABCS course) through which students will learn from and provide support to a Latinx-serving organization in the City of Philadelphia on preventing exposure to hazardous substances, thus bridging the information gap on environmental justice issues in the Latinx community in Philadelphia. Information dissemination and education efforts will be conducted by collaborating with Esperanza Academy Charter School in Philadelphia to implement lessons on preventing exposure to hazardous substances. Studying environmental justice and pairing it with community service will heighten students’ awareness of the complexities of culture, race, gender, and class while providing them with an invaluable experience of cross-cultural understanding.

Spring
Also Offered As: ANTH 0930, LALS 0093, SPAN 0093, URBS 0093
1 Course Unit

ENVS 1000 Introduction to Environmental Science
This course will explore the physical science of the Earth’s environment and human interactions with it. Coverage will include the Earth’s various environmental systems, various environmental problems, and the direct and indirect causes of these environmental problems. Freshman seminar will mirror the ENVS 1000 recitation, and have additional discussions and social media projects.

Spring
1 Course Unit

ENVS 1020 Humans and the Earth System: How it Works, How We Got Here, and How to Save Our Planet
As our planet’s climate changes, it is imperative to understand the basic structures of the earth system and our connections to these, past, present, and future. The goal of this course is to help students develop an integrated understanding of climate change, linking the fundamental science - from the microscopic to the global scale - to human actions and possible futures. This course brings together approaches from environmental science, social sciences, history, and policy. Beyond providing basic climate and environmental literacy, we will also explore current and projected impacts of change, including changes to human life and biodiversity as well as other physical and biological systems. The course is divided into three units: 1. Science: what are the chemical and physical drivers of our changing climate, and what are the biological, health and environmental implications so far. 2. Impacts: how human activity has affected environments and climate so far and how climate change is currently impacting society, nature, agriculture, health, cities, and the most vulnerable communities. 3. Solutions: the roles of policy, business, agriculture, planning, and personal choices. The course is open to undergraduate students of all disciplines. While the reading and weekly assignments will be specific to the module, students may define a capstone project that reflects their academic interests.

Spring
Also Offered As: ANTH 1610
1 Course Unit

ENVS 1040 Water Worlds: Cultural Responses to Sea Level Rise & Catastrophic Flooding
As a result of climate change, the world that will take shape in the course of this century will be decidedly more inundated with water than we’re accustomed to. The polar ice caps are melting, glaciers are retreating, ocean levels are rising, polar bear habitat is disappearing, countries are jockeying for control over a new Arctic passage, while low-lying cities and small island nations are confronting the possibility of their own demise. Catastrophic flooding events are increasing in frequency, as are extreme droughts. Hurricane-related storm surges, tsunamis, and raging rivers have devastated regions on a local and global scale. In this seminar we will turn to the narratives and images that the human imagination has produced in response to the experience of overwhelming watery invasion, from Noah to New Orleans. Objects of analysis will include mythology, ancient and early modern diluvialism, literature, art, film, and commemorative practice. The basic question we’ll be asking is: What can we learn from the humanities that will be helpful for confronting the problems and challenges caused by climate change and sea level rise?

Not Offered Every Year
Also Offered As: CIMS 1130, COML 1130, GRMN 1130
1 Course Unit
ENVS 1043 Repairing the Planet: Tools for the Climate Emergency
This course is a comprehensive introduction to the climate emergency and the tools with which we can fight it. It will integrate natural science, social science, philosophy of science, history, ethics, and policy. The course opens with an overview of the historical discovery of global warming and our contemporary understanding of climate change. We then turn to the framework that the United Nations' Intergovernmental Panel on Climate Change has developed to study climate risks, focusing on both general issues and case studies throughout the world. The existence and severity of these risks raises questions of climate justice at many levels: individuals to individuals, countries to countries, and the present generation to future generations. We will study these issues in detail, and then examine the policy tools developed to address them. Although we will discuss national and sub-national policy and policy proposals such as the Green New Deal, special attention will be given to global policy tools, especially the Framework Convention on Climate Change and the Paris Agreement. In addition to standard writing assignments, students will have a chance to develop policy proposals that address the core issues of the class.
Also Offered As: PHIL 1571
1 Course Unit

ENVS 1050 Sustainability & Utopianism
This seminar explores how the humanities can contribute to discussions of sustainability. We begin by investigating the contested term itself, paying close attention to critics and activists who deplore the very idea that we should try to sustain our, in their eyes, dystopian present, one marked by environmental catastrophe as well as by an assault on the educational ideals long embodied in the humanities. We then turn to classic humanist texts on utopia, beginning with More's fictive island of 1517. The "origins of environmentalism" lie in such depictions of island edens (Richard Grove), and our course proceeds to analyze classic utopian tests from American, English, and German literatures. Readings extend to utopian visions from Europe and America of the nineteenth and twentieth centuries, as well as literary and visual texts that deal with contemporary nuclear and flood catastrophes. Authors include: Bill McKibben, Jill Kerr Conway, Christopher Newfield, Thomas More, Francis Bacon, Karl Marx, Henry David Thoreau, Robert Owens, William Morris, Charlotte Perkins Gilman, Ayn Rand, Christa Wolf, and others.
Not Offered Every Year
Also Offered As: COML 1160, ENGL 1579, GRMN 1160, STSC 1160
1 Course Unit

ENVS 1410 Ecocritical Lit: Nature, Ecology and the Literary Imagination
This course introduces students to ecocritical literature. It is an exploration of how language and literature engages with and shapes our relations to and our understandings of the natural world. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 1595
1 Course Unit

ENVS 1440 Liquid Histories and Floating Archives
Climate change transforms the natural and built environments, and it is re-shaping how we understand, make sense, and care for our past. Climate changes history. This course explores the Anthropocene, the age when humans are remaking earth's systems, from an on-water perspective. In on-line dialogue and video conferences with research teams in port cities on four continents, this undergraduate course focuses on Philadelphia as one case study of how rising waters are transfiguring urban history, as well as its present and future. Students' projects take them into the archives at the Independence Seaport Museum and at Bartram's Garden. Field trips by boat on the Schuylkill and Delaware Rivers and on land to the Port of Philadelphia and to the John Heinz National Wildlife Refuge invite transhistorical dialogues about how colonial and then industrial-era energy and port infrastructure transformed the region's vast tidal marshlands wetlands. Excursions also help documenting how extreme rain events, storms, and rising waters are re-making the built environment, redrawing lines that had demarcated land from water. In dialogue with one another and invited guest artists, writers, and landscape architects, students' final projects consider how our waters might themselves be read and investigated as archives. What do rising seas subsume and hold? Whose stories do they tell? What floats to the surface?
Not Offered Every Year
Also Offered As: ANTH 1440, COML 1140, ENGL 1589, GRMN 1140, HIST 0872
1 Course Unit

ENVS 1450 Global Sustainabilities
This research-oriented seminar focuses on the ways in which "sustainability" and "sustainable development" are linguistically and culturally translated into the world's languages. We may take the terms for granted, but they have only really been on the global stage since they were widely introduced in the 1987 United Nations report, Our Common Future. Seminar participants will first become acquainted with the cultural and conceptual history of the terms and the UN framework within which sustainability efforts directly or indirectly operate. Having established the significance of cultural and linguistic difference in conceiving and implementing sustainability, participants will collaboratively develop a research methodology in order to begin collecting and analyzing data. We will draw heavily on Penn's diverse language communities and international units. Seminar members will work together and individually to build an increasingly comprehensive website that provides information about the world's languages of sustainability.
Not Offered Every Year
Also Offered As: COML 1170, GRMN 1170
1 Course Unit
ENVS 1540 Comparative Cultures of Sustainability
Sustainability is more than science, engineering, policy, and design. Surveying the world, we see that the politics and practice of sustainability play out in different ways depending on cultural factors. Some cultures are more prone to pursue ecological goals than others. Why? Do the environmental history and experience of a nation affect policy? Do nature and the environment play a crucial role in the cultural memory of a nation? Can cultural tools be effectively leveraged in order to win approval for a politics of sustainability? And what can we, as residents of a country where climate change and global warming are flashpoints in an enduring culture war, learn from other cultures? This course is designed to equip undergraduate students with the historical and cultural tools necessary to understand the cultural aspects of sustainability in two countries noted for their ecological leadership and cultural innovation, Germany and the Netherlands. This hybrid course combines online instruction with a short-term study abroad experience in Berlin and Rotterdam. During the pre-tip online portion of the course, students will become acquainted with the cultural histories of German and Dutch attitudes toward sustainability and the environment through a combination of recorded lectures by the instructor, reading assignments, viewing assignments (documentary and feature films), threaded discussions, and short written assignments. The goal of the pre-tip instruction are to help students develop tools for analyzing and interpreting cultural difference, construct working models of German and Dutch concepts of sustainability, and formulate hypotheses about the relation between culture and policy in Germany and the Netherlands. The class will spend a total of ten days in Europe: five days in Berlin and five days in the area of Rotterdam. The days will be jam-packed with visits to important sites of sustainable practice; discussion with policy makers, activists, and scientists; and immersion in the cultures of the Netherlands and Germany. Upon our return from Europe, the class will debrief and students will present online projects. There are no prerequisites or language requirements.
Summer Term
Also Offered As: GRMN 1150
1 Course Unit

ENVS 1550 Forest Worlds: Mapping the Arboreal Imaginary in Literature and Film
The destruction of the world’s forests through wild fires, deforestation, and global heating threatens planetary bio-diversity and may even, as a 2020 shows, trigger civilizational collapse. Can the humanities help us think differently about the forest? At the same time that forests of the world are in crisis, the “rights of nature” movement is making progress in forcing courts to acknowledge the legal “personhood” of forests and other ecosystems. The stories that humans have told and continue to tell about forests are a source for the imaginative and cultural content of that claim. At a time when humans seem unable to curb the destructive practices that place themselves, biodiversity, and forests at risk, the humanities give us access to a record of the complex inter-relationship between forests and humanity. Forest Worlds serves as an introduction to the environmental humanities. The environmental humanities offer a perspective on the climate emergency and the human dimension of climate change that are typically not part of the study of climate science or climate policy. Students receive instruction in the methods of the humanities - cultural analysis and interpretation of literature and film - in relation to texts that illuminate patterns of human behavior, thought, and affect with regard to living in and with nature.
Spring
Also Offered As: CIMS 1520, COML 1054, GRMN 1132
1 Course Unit

ENVS 1615 Urban Environments: Speaking About Lead in West Philadelphia
Lead poisoning can cause learning disabilities, impaired hearing, behavioral problems, and at very high levels, seizures, coma and even death. Children up to the age of six are especially at risk because of their developing systems; they often ingest lead chips and dust while playing in their home and yards. In ENVS 1615, Penn undergraduates learn about the epidemiology of lead poisoning, the pathways of exposure, and methods for community outreach and education. Penn students collaborate with middle school and high school teachers in West Philadelphia to engage middle school children in exercises that apply environmental research relating to lead poisoning to their homes and neighborhoods.
Fall
1 Course Unit

ENVS 1625 Community Based Environmental Health
From the fall of the Roman Empire to Love Canal to the epidemics of asthma, childhood obesity and lead poisoning in West Philadelphia, the impact of the environment on health has been a continuous challenge to society. The environment can affect people’s health more strongly than biological factors, medical care and lifestyle. The water we drink, the food we eat, the air we breathe, and the neighborhood we live in are all components of the environment that impact our health. Some estimates, based on morbidity and mortality statistics, indicate that the impact of the environment on health is as high as 80%. These impacts are particularly significant in urban areas like West Philadelphia. Over the last 20 years, the field of environmental health has matured and expanded to become one of the most comprehensive and humanly relevant disciplines in science. This course will examine not only the toxicity of physical agents, but also the effects on human health of lifestyle, social and economic factors, and the built environment. Topics include cancer clusters, water borne diseases, radon and lung cancer, lead poisoning, environmental tobacco smoke, respiratory diseases and obesity. Students will research the health impacts of classic industrial pollution case studies in the US. Class discussions will also include risk communication, community outreach and education, access to health care and impact on vulnerable populations. Each student will have the opportunity to focus on Public Health, Environmental Protection, Public Policy, and Environmental Education issues as they discuss approaches to mitigating environmental health risks. This honors seminar will consist of lectures, guest speakers, readings, student presentations, discussions, research, and community service. The students will have two small research assignments including an Environmental and Health Policy Analysis and an Industrial Pollution Case Study Analysis. Both assignments will include class presentations. The major research assignment for the course will be a problem-oriented research paper and presentation on a topic related to community-based environmental health selected by the student. In this paper, the student must also devise practical recommendations for the problem based on their research.
Fall
1 Course Unit
ENVS 1635 Urban Environments: Prevention of Tobacco Smoking in Adolescents
Cigarette smoking is a major public health problem. The Centers for Disease Control and Prevention reports that more than 80% of current adult tobacco users started smoking before age 18. The National Youth Tobacco Survey indicated that 12.8% of middle school students and 34.8% of high school students in their study used some form of tobacco products. In ENVS 1635, Penn undergraduates learn about the short and long term physiological consequences of smoking, social influences and peer norms regarding tobacco use, the effectiveness of cessation programs, tobacco advocacy and the impact of the tobacco settlement. Penn students will collaborate with teachers in West Philadelphia to prepare and deliver lessons to middle school students. The undergraduates will survey and evaluate middle school and Penn student smoking. One of the course goals is to raise awareness of the middle school children to prevent addiction to tobacco smoke during adolescence. Collaboration with the middle schools gives Penn students the opportunity to apply their study of the prevention of tobacco smoking to real world situations.
Spring
1 Course Unit

ENVS 1645 Urban Environments: The Urban Asthma Epidemic
Asthma as a pediatric chronic disease is undergoing a dramatic and unexplained increase. It has become the number one cause of public school absenteeism and now accounts for a significant number of childhood deaths each year in the USA. The Surgeon General of the United States has characterized childhood asthma as an epidemic. In ENVS 1645, Penn undergraduates learn about the epidemiology of urban asthma, the debate about the probable causes of the current asthma crisis, and the nature and distribution of environmental factors that modern medicine describes as potential triggers of asthma episodes. Penn students will co-teach asthma classes offered in public schools in West Philadelphia and survey asthma caregivers, providing them with the opportunity to apply theoretical knowledge to real-world situations, promote community education and awareness about asthma, and use problem-solving learning to enhance student education in environmental health.
Spring
1 Course Unit

ENVS 1650 The Role of Water in Urban Sustainability and Resiliency
This course will provide an overview of the cross-disciplinary fields of civil engineering, environmental sciences, urban hydrology, landscape architecture, green building, public outreach and politics. Students will be expected to conduct field investigations, review scientific data and create indicator reports, working with stakeholders and presenting the results at an annual symposium. There is no metaphor like water itself to describe the cumulative effects of our practices, with every upstream action having an impact downstream. In our urban environment, too often we find degraded streams filled with trash, silt, weeds and dilapidated structures. The water may look clean, but is it? We blame others, but the condition of the creeks is directly related to how we manage our water resources and our land. In cities, these resources are often our homes, our streets and our communities. This course will define the current issues of the urban ecosystem and how we move toward managing this system in a sustainable manner. We will gain an understanding of the dynamic, reciprocal relationship between practices in an watershed and its waterfront. Topics discussed include: drinking water quality and protection, green infrastructure, urban impacts of climate change, watershed monitoring, public education, creating strategies and more.
Not Offered Every Year
Prerequisite: ENVS 1000 OR EASC 1000
1 Course Unit

ENVS 1665 Air Pollution: Sources & Effects in Urban Environments
This is an ABCS course designed to provide the student with an understanding of air pollution at the local, regional and global levels. The nature, composition, and properties of air pollutants in the atmosphere will also be studied. The course will focus on Philadelphia's air quality and how air pollutants have an adverse effect on the health of the residents. The recent designation by IARC of Air Pollution as a known carcinogen will be explored. How the community is exposed to air pollutants with consideration of vulnerable populations will be considered. Through a partnership with Philadelphia Air Management Service (AMS) agency the science of air monitoring and trends over time will be explored. Philadelphia's current non-attainment status for PM2.5. and ozone will be studied. Philadelphia's current initiatives to improvethe air quality of the city will be discussed. Students will learn to measure PM2.5 in outdoor and indoor settings and develop community-based outreach tools to effectively inform the community of Philadelphia regarding air pollution. The outreach tools developed by students may be presentations, written materials, apps, websites or other strategies for enhancing environmental health literacy of the community. A project based approach will be used to include student monitoring of area schools, school bus routes, and the community at large. The data collected will be presented to students in the partner elementary school in West Philadelphia. Upon completion of this course, students should expect to have attained a broad understanding of and familiarity with the sources, fate, and the environmental impacts and health effects of air pollutants.
Fall
1 Course Unit

ENVS 2390 Freshwater Ecology
Survey of the physical, chemical and biological properties of freshwater ecosystems, both riverine and lentic, natural and polluted.
Spring
Also Offered As: BIOL 4615
Mutually Exclusive: BIOL 5615
Prerequisite: BIOL 1101 OR BIOL 1121
1 Course Unit
ENVS 2400 Petrosylvania: Reckoning with Fossil Fuel
Fossil fuel powered the making--now the unmaking--of the modern world. As the first fossil fuel state, Pennsylvania led the United States toward an energy-intensive economy, a technological pathway with planetary consequences. The purpose of this seminar is to perform a historical accounting--and an ethical reckoning--of coal, oil, and natural gas. Specifically, students will investigate the histories and legacies of fossil fuel in connection to three entities: the Commonwealth of Pennsylvania, the City of Philadelphia, and the University of Pennsylvania. Under instructor guidance, students will do original research, some of it online, much of it in archives, on and off campus, in and around Philadelphia. Philly-based research may also involve fieldwork. While based in historical sources and methods, this course intersects with business, finance, policy, environmental science, environmental engineering, urban and regional planning, public health, and social justice. Student projects may take multiple forms, individual and collaborative, from traditional papers to data visualizations prepared with assistance from the Price Lab for Digital Humanities. Through their research, students will contribute to a multi-year project that will ultimately be made available to the public.
Also Offered As: HIST 2157
1 Course Unit

ENVS 2410 Religion and Ecology
This class will introduce the overlaps between religion and ecology. Rather than assuming that there is a necessary positive or negative relationship between religion and ecology, we will look at how these relationships have materialized in complicated ways at different moments in history. We'll consider perspectives and case studies from a range of different traditions, with a special attention paid to the genesis of the field of Religion and Ecology in critiques of Christian attitudes toward the environment in the 1960s and 1970s. Not Offered Every Year
Also Offered As: ANTH 2110, RELS 2110
1 Course Unit

ENVS 2420 Animals and Religion
Religion is full of animals—lions and lambs, monkeys and elephants, buffalo and snakes, even mythical beasts. The identity of the human being is explained, in many traditions, by contrast with the identity of other species. We know who we are because we know who they are, or do we? This course interrogates—through an exploration of sacred texts, art, film, and museum artifacts—the tension present in many traditions between an anthropocentric prioritization of the human being and religious resources that encourage a valuing of other animal species. We'll explore the way animals function both as religious objects and as religious subjects across diverse traditions, asking how human-animal relationships have shaped religion and how religion has shaped the way we think about and interact with other animals. We'll ask how religion has engaged with animals over time and across global cultures, understanding them as symbols, messengers, and manifestations of the divine; as material for ritual and sacrifice; as kin and subordinates; as food and as filth; as helpmeets and as tempters. How have these perspectives shaped animal ethics, influencing the treatment, use, and consumption of animals and their bodies? Finally, we'll ask what it means that we ourselves are evolved animals. How does our own animality factor into the practice of human religion? Is our religious capacity part of what sets us apart from other animals or is religiosity a trait we might expect to find in other species? To what extent is religion a function of the animal?
Not Offered Every Year
Also Offered As: ANTH 2120, RELS 2120
1 Course Unit

ENVS 2430 Spirituality in the Age of Global Warming: Designing a Digital Mapping Project in Scalar
We are living in the midst of one of the most severe crises in the Earth's history. Science confirms the glaciers are melting, hurricanes are growing more intense, and the oceans are rising. But there is also a deeply spiritual dimension to global warming that does not factor into the scientific explanations of the Anthropocene. "Spirituality" will be defined not in terms of one particular religion, but in relationship to a passionate study of the environment and nature. Readings will include materials from both the sciences and the humanities such as Donella Meadows's Thinking in Systems, Elizabeth Kolbert's The Sixth Extinction, Barbara Kingsolver's Flight Behavior, and films such as Black Fish and Wale Rider. The theoretical focus of the course will be how "multispecies partnerships" can help us better understand and mitigate the effects of Climate Change. This class will work collaboratively on a digital archive with an interactive mapping interface designed in Scalar. This newly developed platform allows for the creation of multimedia exhibits that will document how Global Warming is affecting coral reefs in the tropics, glaciers in the Arctic and Antarctic, rainforests in the Amazon and rivers of Philadelphia. Students will also work individually to design interactive maps on the Scalar platform documenting their own more personal interactions with the environment.
Not Offered Every Year
Also Offered As: ENGL 1599, RELS 2460
1 Course Unit
ENVS 2440 Extreme Heat: White Nationalism in the Age of Climate Change
The Amazon is burning. The glaciers are melting. Heat waves, hurricanes, earthquakes, floods, wildfires, and droughts devastate ever larger swathes of the earth, producing crop failures, air pollution, soil erosion, famine and terrifying individual hardship. At the same, time the so-called Western World is literally walling itself off from the millions who are fleeing from disaster and war with what little they can carry. White militants chant “blood and soil” and “Jews will not replace us,” social media spreads memes and talking points about “white genocide” and “white replacement” and online ideologues fantasize about building white ethnostates. Are these developments connected? Is there a causal relationship? Or are these conditions purely coincidental? Increasingly, arguments about limits to growth, sustainability, development and climate change have come to stand in competitive tension with arguments for social and racial equality. Why is that case? What are the claims and underlying anxieties that polarize western societies? How do white nationalist movements relate to populist and fascist movements in the first half of the 20th century? What is new and different about them now? What is the relationship between environmentalism, rightwing populism and the climate crisis? And how have societies responded to the climate crisis, wealth inequality, finite resources and the threat posed by self-radicalizing white nationalist groups? Also Offered As: HIST 2707
1 Course Unit

ENVS 2984 Maritime Science and Technology: Woods Hole Sea Semester
A rigorous semester-length academic and practical experience leading to an understanding of the oceans. The Sea Semester is composed of two intensive six-week components taken off-campus. The Shore Component is six weeks at Woods Hole, Massachusetts, with formal study in: Oceanography, Maritime Studies, and Nautical Science. This is followed by six weeks aboard a sailing research vessel, during which students conduct oceanographic research projects as part of the courses, Practical Oceanography I and II. Maritime Studies. A multidisciplinary study of the history, literature, and art of our maritime heritage, and the political and economic problems of contemporary maritime affairs. Nautical Science. The technologies of operation at sea. Concepts of navigation, naval architecture, ship construction, marine engineering systems, and ship management are taught from their bases in physics, mathematics, and astronomy. Practical Oceanography I. Taken aboard SSV Westward or SSV Corwith Cramer. Theories and problems raised in the shore component are tested in the practice of oceanography at sea. Students are introduced to the tools and techniques of the practicing oceanographer. During two lectures daily and while standing watch, students learn the operation of basic oceanographic equipment, the methodologies involved in the collection, reduction, and analysis of oceanographic data, and the attendant operations of a sailing oceanographic research vessel. Practical Oceanography II. Taken aboard SSV Westward or SSV Corwith Cramer. Students assume increasing responsibility for conducting oceanographic research and the attendant operations of the vessel. The individual student is responsible directly to the chief scientist and the master of the vessel for the safe and orderly conduct of research activities and related operation of the vessel. Each student completes an individual oceanographic research project designed during the shore component.
Fall or Spring
1 Course Unit

ENVS 2999 Independent Study
Directed study for individuals or small groups under supervision of a faculty member.
Fall or Spring
1 Course Unit

ENVS 3053 Sustainable Development And Culture in Latin America
This interdisciplinary course exposes students to the three dimensions of sustainable development—environmental, economic, and social—through an examination of three products—peyote, coca, and coffee—that are crucial in shaping modern identity in areas of Latin America. The course integrates this analysis of sustainable development in relation to cultural sustainability and cultural practices associated with peyote, coca, and coffee and their rich, traditional heritage and place in literature, film, and the arts. This is an upper level seminar open to majors and minors of Spanish and those who have completed Pre-requisite SPAN 1800 or SPAN 1900 or permission of the Undergraduate Chair.
Fall, even numbered years only
Also Offered As: LALS 3910, SPAN 3910
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

ENVS 3100 Environmental Case Studies
This course, through the analysis of many different environmental cases studies, aims to introduce students to myriad earth and environmental issues—understanding how humans interact, affect and are influenced by our environment—as well as giving students an introduction to how complex cases are analyzed and what goes into decision-making at the individual, group, state, federal and global levels. The class analyzes 1-2 case studies each week, beginning with at-home preparatory assignments for each class, followed by in-class activities such as debates, drafting action plans, role-playing and group decision-making simulations. Each student will also research and develop a case study of their own, including a lesson plan for how the case study would be taught to a later college class.
Not Offered Every Year
Prerequisite: EESC 1000 OR ENVS 1000 OR permission of instructor
1 Course Unit

ENVS 3103 Penn Global Seminar: Case Studies in Environmental Sustainability
A detailed, comprehensive investigation of selected environmental sustainability problems specific to a selected region. This course aims to introduce students to myriad Earth and environmental issues (understanding how humans interact, affect and are influenced by our environment) through the analysis of several environmental case studies, as well as giving students an introduction to how complex cases are analyzed and what goes into decision-making at the individual, group, state, federal and global levels. The course includes an intensive international field trip - locations will vary by offering.
Spring, even numbered years only
Prerequisite: ENVS 1000 OR EASC 1000 OR EASC 1060 OR EASC 1050 OR EASC 1030
1 Course Unit
ENVS 3445 Latinx Environmental Justice
This course explores the involvement of the Latinx environmental justice movement since the 1960s. It addresses theories and concepts of environmental racism and environmental justice, underscoring how Latinx have challenged, expanded, and contributed to the environmental justice discourse. In this course, students will explore national case studies of environmental and racial injustice as they bear on Latinx communities both in rural areas and in urban barrios throughout the United States. The course will analyze these case studies through the lens of Latinx artistic and literary texts (essays, paintings, short stories, documentaries, and short films) as they provide a unique historic and multicultural perspective of the Latinx experience with environmental injustice and of how Latinxs imagine alternative transitions and responses to environmental marginalization. In addition, the works of Latinx artists and writers will serve as case studies to deconstruct racial stereotypes of Latinxs as uninterested about environmental issues, shedding light on how they share a broad engagement with environmental ideas. The case studies analyzed in this course emphasize race and class differences between farmworkers and urban barrio residents and how they affect their respective struggles. The unit on farmworkers will focus on workplace health issues such as toxic chemicals and collective bargaining contracts. The unit on urban barrios will focus on gentrification, affordable housing, and toxic substances in the home. We will also review current and past programs that have been organized to address the aforementioned problems. This is an Academically Based Community Service Course (ABCS course) through which students will learn from and provide support to a Latinx-serving organization in the City of Philadelphia on preventing exposure to hazardous substances, thus bridging the information gap on environmental justice issues in the Latinx community in Philadelphia. Information dissemination and education efforts will be conducted by collaborating with Esperanza Academy Charter School in Philadelphia to implement lessons on preventing exposure to hazardous substances. Studying environmental justice and pairing it with community service will heighten students' awareness of the complexities of culture, race, gender, and class while providing them with an invaluable experience of cross-cultural understanding.

ENVS 3500 Principles of Sustainability
What is sustainability? Can any fundamental concepts, principles or framework be constructed that adequately describes the search for sustainability? Is there a meaningful methodology? Sustainability science is a trans-disciplinary approach in which the quantitative and qualitative, natural and social, and theory and practice are reconciled and creatively combined. The objective of this course is to provide an in-depth analysis of the foundational concepts, principles, processes and practices of sustainability science. The course will explore three foundational laws governing sustainability: the law of limits to growth, the second law of thermodynamics, and the law of self-organization. Students will examine how these laws operate in biological, ecological, and physical systems, and then apply them to social, economic and political systems.

ENVS 3550 Sustainable Goods
The study of sustainability—the long-term viability of humans in harmony with the environment—has been identified as a critical issue for society and industry and is evolving to examine how society should conduct itself in order to survive. This issue impacts the consumer goods that we use in our lives, the processes that are designed to make these goods, and the raw materials that we obtain to create these goods. The questions that we will examine will be: can these goods be obtained, made, and consumed in a fashion that allows the current quality of life to be maintained (or enhanced) for future generations? Can these processes be sustainable? A review of consumer goods is necessary as the starting point in order to understand the basic needs of people in society and why people consume goods as they do. Subsequently, each student will choose a product to examine in detail and will research the product for its impact with respect to natural resource selection, production, use, and disposal/reuse.

ENVS 3700 GIS: Mapping Places & Analyzing Spaces
This course is a hands-on introduction to the concepts and capabilities of geographic information systems (GIS). Students will develop the skills necessary for carrying out basic GIS projects and for advanced GIS coursework. The class will focus on a broad range of functional and practical applications, ranging from environmental science and planning to land use history, social demography, and public health. By the end of the course, students will be able to find, organize, map, and analyze data using both vector (i.e. drawing-based) and raster (i.e. image-based) GIS tools, while developing an appreciation for basic cartographic principles relating to map presentation. This course fulfills the spatial analysis requirement for ENVS and EASC Majors. Previous experience in the use of GIS is not required.

ENVS 3997 Environmental Studies Research Seminar for Juniors
This seminar is designed to help Juniors prepare for the Senior Thesis research. Topic selection, advisor identification, funding options, and basic research methods will be discussed.

ENVS 4200 The Anthropocene: Human-dominated Earth
How much have humans altered the planet they live on? Beyond climate change, humans have altered the Earth's land, oceans and biosphere to such an extent that the concept of a new geologic epoch defined by the action of humans is seriously debated. This seminar will examine the origins of the Anthropocene, the ways in which humans have altered Earth systems, whether or not these alterations warrant a new geologic designation, and what the future potentially holds for both humans and the planet.

ENVS 3500 Principles of Sustainability
What is sustainability? Can any fundamental concepts, principles or framework be constructed that adequately describes the search for sustainability? Is there a meaningful methodology? Sustainability science is a trans-disciplinary approach in which the quantitative and qualitative, natural and social, and theory and practice are reconciled and creatively combined. The objective of this course is to provide an in-depth analysis of the foundational concepts, principles, processes and practices of sustainability science. The course will explore three foundational laws governing sustainability: the law of limits to growth, the second law of thermodynamics, and the law of self-organization. Students will examine how these laws operate in biological, ecological, and physical systems, and then apply them to social, economic and political systems.

ENVS 3550 Sustainable Goods
The study of sustainability—the long-term viability of humans in harmony with the environment—has been identified as a critical issue for society and industry and is evolving to examine how society should conduct itself in order to survive. This issue impacts the consumer goods that we use in our lives, the processes that are designed to make these goods, and the raw materials that we obtain to create these goods. The questions that we will examine will be: can these goods be obtained, made, and consumed in a fashion that allows the current quality of life to be maintained (or enhanced) for future generations? Can these processes be sustainable? A review of consumer goods is necessary as the starting point in order to understand the basic needs of people in society and why people consume goods as they do. Subsequently, each student will choose a product to examine in detail and will research the product for its impact with respect to natural resource selection, production, use, and disposal/reuse.

ENVS 3700 GIS: Mapping Places & Analyzing Spaces
This course is a hands-on introduction to the concepts and capabilities of geographic information systems (GIS). Students will develop the skills necessary for carrying out basic GIS projects and for advanced GIS coursework. The class will focus on a broad range of functional and practical applications, ranging from environmental science and planning to land use history, social demography, and public health. By the end of the course, students will be able to find, organize, map, and analyze data using both vector (i.e. drawing-based) and raster (i.e. image-based) GIS tools, while developing an appreciation for basic cartographic principles relating to map presentation. This course fulfills the spatial analysis requirement for ENVS and EASC Majors. Previous experience in the use of GIS is not required.

ENVS 3997 Environmental Studies Research Seminar for Juniors
This seminar is designed to help Juniors prepare for the Senior Thesis research. Topic selection, advisor identification, funding options, and basic research methods will be discussed.

ENVS 4200 The Anthropocene: Human-dominated Earth
How much have humans altered the planet they live on? Beyond climate change, humans have altered the Earth's land, oceans and biosphere to such an extent that the concept of a new geologic epoch defined by the action of humans is seriously debated. This seminar will examine the origins of the Anthropocene, the ways in which humans have altered Earth systems, whether or not these alterations warrant a new geologic designation, and what the future potentially holds for both humans and the planet.

ENVS 3500 Principles of Sustainability
What is sustainability? Can any fundamental concepts, principles or framework be constructed that adequately describes the search for sustainability? Is there a meaningful methodology? Sustainability science is a trans-disciplinary approach in which the quantitative and qualitative, natural and social, and theory and practice are reconciled and creatively combined. The objective of this course is to provide an in-depth analysis of the foundational concepts, principles, processes and practices of sustainability science. The course will explore three foundational laws governing sustainability: the law of limits to growth, the second law of thermodynamics, and the law of self-organization. Students will examine how these laws operate in biological, ecological, and physical systems, and then apply them to social, economic and political systems.

ENVS 3550 Sustainable Goods
The study of sustainability—the long-term viability of humans in harmony with the environment—has been identified as a critical issue for society and industry and is evolving to examine how society should conduct itself in order to survive. This issue impacts the consumer goods that we use in our lives, the processes that are designed to make these goods, and the raw materials that we obtain to create these goods. The questions that we will examine will be: can these goods be obtained, made, and consumed in a fashion that allows the current quality of life to be maintained (or enhanced) for future generations? Can these processes be sustainable? A review of consumer goods is necessary as the starting point in order to understand the basic needs of people in society and why people consume goods as they do. Subsequently, each student will choose a product to examine in detail and will research the product for its impact with respect to natural resource selection, production, use, and disposal/reuse.

ENVS 3700 GIS: Mapping Places & Analyzing Spaces
This course is a hands-on introduction to the concepts and capabilities of geographic information systems (GIS). Students will develop the skills necessary for carrying out basic GIS projects and for advanced GIS coursework. The class will focus on a broad range of functional and practical applications, ranging from environmental science and planning to land use history, social demography, and public health. By the end of the course, students will be able to find, organize, map, and analyze data using both vector (i.e. drawing-based) and raster (i.e. image-based) GIS tools, while developing an appreciation for basic cartographic principles relating to map presentation. This course fulfills the spatial analysis requirement for ENVS and EASC Majors. Previous experience in the use of GIS is not required.

ENVS 3997 Environmental Studies Research Seminar for Juniors
This seminar is designed to help Juniors prepare for the Senior Thesis research. Topic selection, advisor identification, funding options, and basic research methods will be discussed.

ENVS 4200 The Anthropocene: Human-dominated Earth
How much have humans altered the planet they live on? Beyond climate change, humans have altered the Earth's land, oceans and biosphere to such an extent that the concept of a new geologic epoch defined by the action of humans is seriously debated. This seminar will examine the origins of the Anthropocene, the ways in which humans have altered Earth systems, whether or not these alterations warrant a new geologic designation, and what the future potentially holds for both humans and the planet.

1 Course Unit
ENVS 4250 Our Water Planet

Water, the “universal solvent”, is a miraculous substance that makes Earth unique in the solar system and, possibly, the galaxy. This course will dive into the wondrous physical and chemical properties of water from the micro (water properties and composition) to macro (global water resources) scale and highlight its role in sculpting almost every facet of Earth’s environment. Water will be examined within a scientific framework, from wicked water problems to wondrous water bodies to the paradox of an abundant yet incredibly precious resource. We will study the vital role of water in life, its movement across our planet, its part in the growth (and downfall) of civilizations, and the ways in which humans are having profound impacts on all aspects of the water cycle. We will also look at how water interacts with other Earth systems, use topical case studies to examine water issues in the Anthropocene and examine what lies in store for water quality and availability in the twenty-first century during an era of rapid environmental change. Assignments will include class presentations, an opinion piece, and a review article for a leading journal. This course will include a local field trip.

Not Offered Every Year
1 Course Unit

ENVS 4520 Sustainable Landscapes
Sustainable Landscapes
Not Offered Every Year
1 Course Unit

ENVS 4600 Environmental Policy
Environmental policy
Fall
1 Course Unit

ENVS 4997 Senior Thesis
The culmination of the Environmental Studies major. Students, while working with an advisor in their concentration, conduct research and write a thesis.
Two Term Class, Student may enter either term; credit given after both terms are complete
1 Course Unit

ENVS 5100 Proseminar: Contemporary Issues in Environmental Studies
A detailed, comprehensive investigation of selected environmental problems. This is the first course taken by students entering the Master of Environmental Studies Program.
Fall or Spring
1 Course Unit

ENVS 5204 Regional Ecology: Restoration and Management to Build Resilience
Using the regional geology as a framework for comparison, this online course aims to 1) introduce the varied ecosystems of the region extending from the Atlantic Ocean to the Appalachian Mountains, 2) provide an approach to site analysis that examines connections between climate, geology, topography, hydrology, soils, vegetation, wildlife, and disturbance, both natural and anthropogenic, and 3) investigate restoration and management efforts to build resilience in a changing climate. We will study natural and modified areas representative of regional physiographic provinces (areas of similar geology and topography) to better understand landscape patterns and processes as well as case studies of restoration and management projects. Students will complete weekly assignments and a research project involving a presentation and paper on a topic of interest. *This is an online course*+
1 Course Unit

ENVS 5220 Sustainable Agriculture and Product Stewardship.
This course will focus on how food is produced around the globe and inputs required to ensure food security. Topics explored include: Integrated Pest Management, Precision Agriculture, Product Stewardship, Biodiversity, Botanicals, Organics and Synthetic Products, GMOS, Sustainable Development Goals, Regulations, Stakeholders (Growers, NGOs, consumers, etc.), and Food waste.
1 Course Unit

ENVS 5310 The History and Science of Climate Change
This course will provide an understanding of the Earth’s climate system and how and why this has changed through time. The emphasis will be placed on spatial and temporal scales in the modern system while exploring the evidence for past change, possible mechanisms to explain these changes and the implications of these changes to past, present and future global climate. Students will learn to reconstruct the history and scales of climate change through the use of proxies; understand the mechanisms that act to drive climate change; show and understanding of the long-term natural climate variability on a global and regional scale; understand the importance of natural environmental change, against which to assess human impacts, recent climate change and issues of future environmental change.
1 Course Unit

ENVS 5404 Wetlands
The course focuses on the natural history of different wetland types including climate, geology, and hydrology factors that influence wetland development Associated soil, vegetation, and wildlife characteristics and key ecological processes will be covered as well. Lectures will be supplemented with weekend wetland types, ranging from tidal salt marshes to non-tidal marshes, swamps, and glacial bogs in order to provide field experience in wetland identification, characterization, and functional assessment. Outside speakers will discuss issues in wetland seed bank ecology, federal regulation, and mitigation. Students will present a short paper on the ecology of a wetland animal and a longer term paper on a selected wetland topic. Readings from the text, assorted journal papers, government technical documents, and book excerpts will provide a broad overview of the multifaceted field of wetland study.
Fall
1 Course Unit

ENVS 5210 The History and Science of Climate Change
This course will provide an understanding of the Earth’s climate system and how and why this has changed through time. The emphasis will be placed on spatial and temporal scales in the modern system while exploring the evidence for past change, possible mechanisms to explain these changes and the implications of these changes to past, present and future global climate. Students will learn to reconstruct the history and scales of climate change through the use of proxies; understand the mechanisms that act to drive climate change; show and understanding of the long-term natural climate variability on a global and regional scale; understand the importance of natural environmental change, against which to assess human impacts, recent climate change and issues of future environmental change.

ENVS 5410 Environmental Humanities: Theory, Method, Practice
Environmental Humanities: Theory, Methods, Practice is a seminar-style course designed to introduce students to the trans- and interdisciplinary field of environmental humanities. Weekly readings and discussions will be complemented by guest speakers from a range of disciplines including ecology, atmospheric science, computing, history of science, medicine, anthropology, literature, and the visual arts. Participants will develop their own research questions and a final project, with special consideration given to building the multi-disciplinary collaborative teams research in the environmental humanities often requires.
Not Offered Every Year
Also Offered As: COML 5430, ENGL 5430, GRMN 5430, SPAN 5430
1 Course Unit
ENVS 5414 Conservation and Land Management
Using protected lands in the Delaware Valley, this field-based course will explore various strategies for open-space conservation and protection. In addition, students will be introduced to land management techniques used on such sites to restore or preserve land trust properties in accordance with goals set for their use or protection. Sustainable land uses such as community supported agriculture, ecovillages, and permaculture design will be covered. Emphasis will be placed on developing skills in "Reading the Landscape" to determine conservation and restoration priorities. Students will produce a site assessment report on sites that they visit. Summer Term
1 Course Unit

ENVS 5440 Public Environmental Humanities
This broadly interdisciplinary course is designed for Graduate and Undergraduate Fellows in the Penn Program in Environmental Humanities (PPEH) who hail from departments across Arts and Sciences as well as other schools at the university. The course is also open to others with permission of the instructors. Work in environmental humanities by necessity spans academic disciplines. By design, it can also address and engage publics beyond traditional academic settings. This seminar, with limited enrollment, explores best practices in public environmental humanities. Students receive close mentoring to develop and execute cross-disciplinary, public engagement projects on the environment. In spring 2018, participants have the opportunity to participate in PPEH's public engagement projects on urban waters and environmental data. These ongoing projects document the variety of uses that Philadelphians make of federal climate and environmental data, in and beyond city government; they also shine light on climate and environmental challenges our city faces and the kinds of data we need to address them. Working with five community partners across Philadelphia, including the City's Office of Sustainability, students in this course will develop data use stories and surface the specific environmental questions neighborhoods have and the kinds of data they find useful. The course hosts guest speakers and research partners from related public engagement projects across the planet; community, neighborhood, open data, and open science advocates; and project partners in government in the City of Philadelphia and Commonwealth of Pennsylvania. Course assignments include: * 2 short-form essays (course blog posts); * a 12-hour research stay (conducted over multiple visits) with a community course partner to canvas data uses and desires; * authorship of 3 multimedia data stories; * co-organization and participation in a city-wide data storytelling event on May 2, 2018.
Not Offered Every Year
Also Offered As: ANTH 5440, COML 5440, GRMN 5440, URBS 5440
1 Course Unit

ENVS 5440 Developing Environmental Policy
When we think of environmental policies in the USA, we may think of one or more laws geared to improve our nation's air, water, ecosystems, and biodiversity. However, environmental policies and policy-making comprise more than just specific laws and regulations. Making and implementing environmental policy is a process influenced by multiple political, cultural, and economic factors in addition to scientific factors, all of which impact the ability of policies to be effective, that is, to actually improve the environment. In this course, we develop a framework to analyze the effectiveness of the social actors, process and outcomes of environmental policy-making. We ask questions such as: How do policy makers define environmental problems and solutions? Who are the social actors involved in the process? How are policies created and negotiated? What underlying assumptions and realities about the roles of government and society shape policy instruments and design? Are science and risk accurate or distorted? How are social and environmental justice intertwined? To answer these complex questions, we contextualize and critically analyze policies to determine how both government and society impact on regulatory approaches. We study the institutions involved and examine social and ecological outcomes of environmental policies. We also discuss contemporary issues and policy situations that arise throughout the course of the semester, and comment on them in a class blog. Finally, students will select an environmental issue and formulate a policy proposal to recommend to decisionmakers.
Spring
1 Course Unit

ENVS 5706 Modeling Geographical Objects
This course offers a broad and practical introduction to the acquisition, storage, retrieval, maintenance, use, and presentation of digital cartographic data with both image and drawing based geographic information systems (GIS) for a variety of environmental science, planning, and management applications. Its major objectives are to provide the training necessary to make productive use of at least two well known software packages, and to establish the conceptual foundation on which to build further skills and knowledge in late practice.
Fall
1 Course Unit

ENVS 5716 Modeling Geographical Space
This course explores the nature and use of digital geographic information systems (GIS) for the analysis and synthesis of spatial patterns and processes through 'cartographic modeling'. Cartographic modeling is a general but well defined methodology that can be used to address a wide variety of analytical mapping applications in a clear and consistent manner. It does so by decomposing both data and data-processing tasks into elemental components that can then be recomposed with relative ease and with great flexibility.
Spring
1 Course Unit

ENVS 5744 Regional Field Ecology
Over the course of six Sunday field trips, we will travel from the barrier islands along the Atlantic Ocean in southern New Jersey to the Pocono Mountains in northeastern Pennsylvania, visiting representative sites of the diverse landscapes in the region along the way. At each site we will study and consider interactions between geology, topography, hydrology, soils, vegetation, wildlife, and disturbance. Students will summarize field trip data in a weekly site report. Evening class meetings will provide the opportunity to review field trips and reports and preview upcoming trips. Six all-day Sunday field trips are required.
Summer Term
1 Course Unit
ENVS 6220 Conservation Management in the Delaware Valley
Using protected lands in the Delaware Valley, this field-based course will explore various strategies for open space conservation and protection, along with cultural perspectives on land preservation. In addition, students will be introduced to land management techniques used on such sites to restore or preserve them in accordance with goals set for their use or protection. Emphasis will be placed on developing skills in "reading the landscape" to determine conservation and restoration priorities. Students will produce a paper based on notes from field trips, class, and readings.
Not Offered Every Year
1 Course Unit

ENVS 6221 Topics Course in Resource Management
This is a topics course exploring resource management issues.
1 Course Unit

ENVS 6224 Bioremediation
This course is an introduction to current and developing techniques for analyzing environmental contamination and for remediation of damaged environments. Knowledge of these options is important for students interested in public/law applications and environmental/landscape design and as a starting point for those pursuing a more science-oriented understanding. The first portion of this course will address bioindicators-the use of living systems to assess environmental contamination. These include systems ranging from biochemical assays to monitoring of whole organisms or ecosystems, as well as techniques ranging from laboratory to field and satellite surveys. The second portion of the course will introduce technologies for bioremediation-the use of living systems to restore contaminated environments. The technologies scale from single-species systems to complex ecosystems such as constructed wetlands; case studies will be examined. Students will be expected to participate in field trips, as well as prepare a final paper examining a particular technology in detail.
Not Offered Every Year
1 Course Unit

ENVS 6225 Charting a New Course for the Water Industry
We are entering an era of growing water infrastructure failures and remaining "legacy" water pollution challenges. Fortunately, a network of global water CEOs from water utilities, industry and engineering consulting are leading the water sector towards innovative change. They are finding solutions at the intersection of science, engineering/technology and policy and paving the path forward for our water industry and our global water resources. This short course is led by the former CEO of Philadelphia Water and the Chair of the Leading Utilities of the World Network. Professor of Practice Howard Neukrug will lead a series of discussions on: (1) a brief history of water infrastructure systems in the US and the paradox of how our water resources have been used, valued, and priced over time; (2) a specific focus on the past 50 years of Philadelphia’s efforts to meet the challenges of the Clean Water Act and Safe Drinking Water Act through leadership in the legislative, regulatory, management, and policy and research arenas of the water business; and (3) personal interviews with key water leaders on their greatest challenges past and future and how they are managing change and innovation towards more sustainable water systems in the 21st century.
Not Offered Every Year
0.5 Course Units

ENVS 6300 The Future of Water
From Wall Street to rural Sub-Saharan Africa, technology innovation to aging infrastructure-this course will explore the; impact of water and consider what future leaders need to know about the dynamics of the industry, investment and business opportunities, and water-related risk; Opportunities for water are booming around the world, in large part because of existing or looming shortages and decades of underinvestment, population growth, rapid industrialization and urbanization, pollution, and climate change. Water is the only irreplaceable natural resource on the planet. Its critical role in every aspect of the global economy, could, in fact, lead it to be the next gold or the next oil. This course will address the fundamentals of the water sector from an international perspective. The future of water will be critical to our global economic, social and political development and will likely become one of the most influential factors in business decisions for the future. Furthermore, it is essential for leaders across all sectors-from pharmaceuticals to financials, energy to agriculture—to understand how to sustainably manage and account for water resources, capitalize on new technologies, mitigate water-related risks and navigate through complex and dynamic policy and regulation. The course will engage students in high-level discussion and strategy formation, challenging them to develop creative and sustainable solutions to some of the greatest challenges facing environmental, business and water industry leaders today. Interactive sessions and projects will provide an introduction to appropriately managing, valuing and investing in water assets to create sustainable and compelling business opportunities.
Fall
1 Course Unit
ENVS 6302 Climate Technology: Finance and Policy
The growing field of climate technology requires a multifaceted skill set anchored in a sound understanding of finance and policy. This course is designed for students interested in the climate economy seeking to gain functional proficiency in climate finance and policy. The course will cover four key areas of the climate economy from a finance and policy angle: electrification, carbon management, critical minerals & materials, and breakthrough technologies. The finance portion of the course will deliver a basic understanding of the financial reporting of companies within the given subsector, functionality of the relevant technologies, capital structure of relevant companies, and general business model of relevant companies. The policy portion of the course will deliver a basic understanding of the salient policies and issues facing companies in the aforementioned subsectors as well as sector wide headwinds and tailwinds catalyzed by policy. Throughout the course, students will build a financial model, business plan, and present their end deliverable in a shark tank format at the end of the course with observers drawn from the field to provide networking opportunities.
Fall
1 Course Unit

ENVS 6434 Avifaunal Ecology: Studying ornithological principles & behaviors to indicate ecosystem health
This class will explore the foundations of avifaunal biology and ecology using a combination of hands-on classroom and in-the-field experiences. Classroom content includes physiology, anatomy, and morphology of birds. The fall migration of birds in North America is an epic and often tragic event. Sampling birds in migration has resulted in foundational understandings about stopover habitats, species-specific energy budgets and has helped realize the complete life cycle of hundreds of species. We will enter the field and participate in actual ornithological research, explore avifaunal ecology through birdwatching, and meet with regional leaders in the ornithological field.
Spring
1 Course Unit

ENVS 6440 Meaningful Participation: Race, Place and Environmental Justice
This course will focus on a critical exploration of the social movements and policies related to environmental injustices from a community development perspective. The course includes an overview of the Environmental Justice Movement as an evolution from the Civil Rights Movement as well as an exploration of the political economy of environmental inequalities and uneven development that contribute to urban land use patterns that catalyze a range of environmental injustices. This course will emphasize authentic engagement of frontline communities to address a range of environmental inequalities using urban planning and community based solutions. Exploring a Philadelphia-area organization is a key component in this course.
Not Offered Every Year
1 Course Unit

ENVS 6450 Environmental Activism: Actors, Approaches, and Outcomes
From Rachel Carlson to Greta Thunberg – and whether via public blockades or behind-the-scenes boardroom votes – activism has been a driving force of change on environmental issues. This course will offer an overview of environmental activism, including players, strategies and tactics, and impacts. Students will explore various types of activists (e.g., grassroots, NGO, employee, investor) and the relationships between activism aimed at businesses vs. governments. The course will help students understand the historical roots of environmental activism, and what influence current demographics, public opinion, and technology have had, including on recent climate activism. Through case studies, news stories, academic readings, and class discussion, students will learn the various roles activists play, how activism impacts business practices and laws, and many of the ways companies relate to activists. Quizzes, case analyses, and other methods will be used to demonstrate mastery of the material.
1 Course Unit

ENVS 6520 Sustainable Estuaries: An Investigation of Resources & Recovery
This course will evaluate the multiple factors that must function to ensure the sustainability of estuaries of national significance. Since the beginning of the environmental movement in the 1960s, we have attempted to protect and improve our watersheds and estuaries through a series of environmental laws, but we learned over the last three decades that regulatory-based “command & control” approaches may have achieved their limits of success, and we now need to think more holistically in order to achieve the Clean Water Act goal of “fishable and swimmable” waters. In this course we will explore the new collaborative strategies and partnerships, which are available, and how social, economic and cultural factors are equally important as regulation to achieve estuary restoration. The National Estuary Program (NEP) was established in 1987 by amendments to the Clean Water Act (Section 320) to identify, restore and protect estuaries along the coasts of the U.S. Unlike traditional regulatory approaches to environmental protection, the NEP targets a broad range of issues and engages local communities in the process. The program focuses not just on improving water quality in an estuary, but on maintaining the integrity of the whole system - its chemical, physical, and biological properties, as well as its economic, recreational, and aesthetic. This course will examine the twenty estuaries of national significance, including the Chesapeake and the Delaware Bays, in an effort to define the condition of estuaries in the US and what strategies can be utilized to attain water quality and habitat goals while achieving important socioeconomic needs of the estuary’s diverse stakeholders. You will examine the history of estuary management, the factors that stress water quality and habitat, and what strategies are commonly used to reduce risks while safeguarding the environment and public health.
Summer Term
1 Course Unit
ENVS 6530 Corporate Sustainability Strategies
Before the year 2000, "environmental management" for a business was typically driven by the need to respond to restrictions imposed by environmental regulation. But, at the dawn of the new millennium, leading businesses began to change their concept of environmental management to look beyond simply meeting governmental dictates. These organizations began to evolve and utilize "environmental strategy" to create new ways of growing their businesses by bringing sustainability to the core of their business strategies. This seismic shift in view was accompanied by a bottom line emphasis that, in some cases, turned sustainability efforts into profit centers. Sustainability increasingly is not hidden within the silo of environmental, health, and safety departments but has become much more seamlessly integrated into the operations of corporate functional disciplines. Today, to effectively work in senior management, an executive needs to be knowledgeable not only about his or her specific business function but also how his or her business will be impacted by governmental regulations, policies, corporate sustainability initiatives, green marketing regulations, industry guidelines or 'best practices,' new sustainable technologies, energy planning, environmental performance metrics, and required reporting on the environmental impact of their business unit.

Spring
1 Course Unit

ENVS 6550 Life Cycle Assessment
In order to make sensible decisions on products or projects, people need to understand the environmental impacts of these actions. Life cycle assessment (LCA) is a process to assess environmental impacts throughout the different stages of a product or project's life cycle. This seminar is intended to be comprehensive and covers material extraction, processing, manufacture, distribution, use and end of life reuse, recovery or disposal. The objective of conducting an LCA is to compare the full range of environmental impacts that emanate from the provision of these products or services and then use that information to improve the situation to minimize or eliminate harm. The focus of this class will be to understand the phases of an LCA as well as conduct LCAs that compare the impacts of two related options. This course will enable the student to conduct LCAs and examine the use of software that could be used in this regard. The classic examples are cloth vs. disposable diapers, paper vs. ceramic cups, and so on. This course will enable the student to conduct LCAs and examine the use of software that could be used in this regard.

Fall
Prerequisite: ENVS 6550
1 Course Unit

ENVS 6551 The Principles of Mapping for Environmental Justice
Environmental Justice (EJ) mapping examines the intersection of environmental burdens and the vulnerable communities disproportionately impacted by their harm. From redlining to the static maps that first showed the correlation between race and waste, and moving through to today's truly dynamic EJ mapping tools, The Principles of Mapping for Environmental Justice explores how mapping quite literally puts EJ on the environmental movement landscape. This is not a GIS course, nor a course on EJ generally, but an examination into the core components that are inherent to EJ mapping principles. Come explore the indicators and methodologies used by federal, state and local governments and the policy they influence, such as President Biden’s Justice40 Initiative. Not Offered Every Year
Prerequisite: ENVS 6550
1 Course Unit

ENVS 6555 Gender and Climate Crisis
The devastating impacts of climate change such as water scarcity, floods, migration, and sea level rise, are not gender neutral. Men and women, boys and girls are affected differently by these crises even though they live in the same household. Women and girls are more likely to face inequality in access to education and jobs, health, and safety with the current approaches to combating climate change. Climate action therefore must be investigated from a gender lens. Long-standing social norms around women providing food and water for their families have increasingly put them at risk of poor physical and mental health, sexual abuse, and lack of formal education. Further, the abuse of younger boys in water-scarce areas often goes undiscovered because of the cultural restrictions and taboos around homosexuality. In recent years, a small number of extraordinary women have emerged as global leaders in tackling the climate crisis. However, generally, women and the LGBTQIA+ community are greatly under-represented in high-level climate negotiations; tend to be disproportionately vulnerable to climate impacts, and climate solutions tend to ignore gender-specific issues perpetuating in a general bias of infrastructure and services not being gender-inclusive. This course will discuss such gender impacts of climate change, gender inclusion in climate-related workplaces, examples of gender empowerment, and ways by which gender-inclusive climate action can be designed.

ENVS 6557 Introduction to Superfund Sites and Health Effects of Hazardous Waste
Superfund hazardous waste sites are prevalent in our nation and the exposures to toxicants from these sites raise immediate health concerns. The aims of this course are to educate students about such sites and provide a scientific basis for hazard identification, hazard characterization, risk communication and risk management. The course will describe the effect of these hazardous chemicals on the ecosystem and vice-versa, and remediation and mitigation approaches. These environmental science issues will lead into the environmental health aspects of exposures including: biomonitoring (external and internal dose, biomarkers and the exposome), toxicological properties of contaminants and mode-of-action. The course will be complemented with visits to two Superfund sites in the region: Ambler (asbestos) and Palmerton (heavy metals). Prerequisite: 400 level course in Biology/Chemistry and Biochemistry
Also Offered As: PHRM 6570
1 Course Unit
ENVS 6611 Floodplain Management in a Changing Climate
According to a 2019 paper by Scott A. Kulp and Benjamin H. Strauss, published in Nature Communications, 230 million people worldwide occupy land that is less than 1 meter above current high tide. By 2100, land now home to 200 million people could sit permanently below the high tide line as a result of rising sea levels from heat-trapping pollution from human activities. Add to these coastal challenges the inherent flood risks in riverine and urban settings. How do we prepare and adapt? The class will explore the challenge of floodplain management in a changing climate through lectures, discussions, talks by guest experts, readings and multimedia. Our class will look at the United States National Flood Insurance Program, examine its goals, critique its 50-year plus history and debate reforms to the program at the same time the U.S. Congress is considering long over due reauthorization of the program. We will look at resiliency efforts that states and local governments are pursuing and the new and evolving city- and state-level position of Chief Resiliency Officer. In class we will cover hazard mitigation planning, land use, hard and natural infrastructure, regulations, the Community Rating System and other issues pertaining to flooding and climate change, including social justice and public health issues. The class will have a field trip to the New Jersey coast to explore high tide flooding and adaptation measures being taken. Throughout the course, material will be introduced to aid the student in taking the Certified Floodplain Manager exam administered by the Association of State Floodplain Managers. This optional test, should the student pass, will provide credentialing that is well recognized throughout the United States and sought by government and the private sectors. While the course is heavily weighted in the United States, students are encouraged to introduce case studies, experiences, comparisons and ultimately consider focusing on countries, regions and locales that are outside the United States for the students Course Project.

Fall
1 Course Unit

ENVS 6620 Global Water Conference in Stockholm, Sweden
The global water and sanitation crisis kills over 4,000 children each day and represents one of the biggest health problems in the world. At the University of Pennsylvania school year 2010-2011 was declared the “Year of Water” in recognition of the many challenges that lie ahead as global increases in population and affluence and the influences of climate change will stress limited water resources. Each year the Stockholm International Water Institute convenes a Conference with experts from around the globe to exchange the latest water research findings and develop new networks. Students will attend the Conference, present research by presentations/posters, document a key issue, interview experts, and meet colleagues with common interests. They will also help other organizations at the Conference.

Summer Term
1 Course Unit

ENVS 6641 Topics in Water Policy
This course will explore various themes such as the UN Millennium Development Goals, EPA regulatory practices, and global water policy and governance.

Spring
1 Course Unit

ENVS 6675 Global Supply Chain Decarbonization
After four generations of explosive global trade growth, a growing awareness of climate change and other environmental externalities has triggered a global movement toward decarbonization, localization and re-shoring. ESG pressure from investors as well as carbon-related taxes, incentives and reporting requirements are driving operations and supply management to go green. However, lowering the carbon profile of global supply chains is a massive undertaking. This class teaches a proven sequence of management decision-making frameworks and optimization tools for eliminating carbon throughout the supply chain. Students will apply logistical and supply management models that integrate carbon objectives with cost, service level, and other conventional supply chain management objectives, making the course valuable for supply chain professionals and students alike. The combination of academic constructs and real-life case studies is designed to equip students to successfully lead their companies’ decarbonization programs. It also prepares students to take the optional REVchain™ supply chain decarbonization certificate exam.

Spring
1 Course Unit

ENVS 6810 Environmental Enforcement
The goal of the course is to provide students with an introduction to the role of enforcement in federal, state and local environmental regulatory programs. Emphasis will be placed on federal enforcement actions initiated by the U.S. Environmental Protection Agency and U.S. Department of Justice. The course will provide students with an introduction to the American Legal System and legal concepts, like standing, jurisdiction, and burden of proof. A number of case studies and classroom exercises will be utilized as part of the discussion of civil and criminal enforcement actions. For example, a detailed case study will be presented concerning a successful prosecution by the federal government of a wastewater treatment plant operator (from the receipt of the initial tip through the sentencing of the defendant). A theme of all classes, presentations and assignments will be the role of the environmental professional in the enforcement context (e.g., the environmental professional who testifies as an expert in a judicial proceeding, or performs an audit that becomes the subject of a self-disclosure to EPA).

Fall
1 Course Unit

ENVS 6820 The US Water Industry in the 21st Century
This course is taught by the former Philadelphia Water Commissioner, the CEO of a $1 billion water, wastewater and stormwater utility. The objective of the course is to expose the student to the inner workings and management of the US water industry and the transformation of this industry to a 21st-century sustainable utility model. Influences from new technologies and aging infrastructure, acceptable levels of risk, public and private sector competition, climate change, the bottled water industry, resource recovery, rates and affordability and other issues will be investigated. The context of the class discussions will center on how politics, vision and leadership are used to create and implement change in a traditional utility structure. The role of environmentalism, infrastructure financing, water/wastewater treatment facility operations, public affairs and media, and designing a capital improvement program are examples of other topic areas.

Fall
1 Course Unit
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS 6830</td>
<td>Sustainable Resource Recovery from Wastes</td>
<td>This qualitative course will introduce students to sustainable waste management for resource recovery. We are a consumer-driven planet; the use of fossil fuels, mining for virgin materials, irresponsible water utilization, and relentless waste generation have only been degrading our planet at an alarming rate. Technology and policy innovations can help avoid extracting virgin materials and growing feedstock crops for industrial production and instead make use of waste feedstocks. Waste materials such as food waste, plastics, and electronic wastes are rich in energy and critical minerals which can be harnessed to achieve a lower environmental impact and greater socio-economic benefits. The goal of sustainable waste management for resource recovery is to keep materials in use as long as possible by taking a multiple ‘R’ approach: Reuse, Reduce, Recycle, Renew, Repair, Remanufacture, Recover, Repurpose, and Regulate. Not Offered Every Year 1 Course Unit</td>
</tr>
<tr>
<td>ENVS 6840</td>
<td>Energy, Waste and the Environment</td>
<td>The aim of this course is to provide an incentive to use geochemical and mineralogical principles to address and solve major environmental problems. The students identify the problems that are associated with different types of waste. This course covers a wide range of problems associated with the waste arising from the generation of electricity. The main topics will be the uranium cycle, characterization of nuclear waste, and the containment and disposal of nuclear waste. Based on insights from the nuclear fuel cycle, solutions are presented that diminish the environmental impacts of coal and biomass combustion products, incineration of municipal solid waste, toxic waste due to refuse incineration, and landfills and landfill gases. Spring 1 Course Unit</td>
</tr>
<tr>
<td>ENVS 6850</td>
<td>Resiliency, Health &amp; Built Environment</td>
<td>Overnight field trips required Aug 20-21, 2020 and Aug 24-25, 2020. Additional fees apply. Healthy resilient communities are successful outcomes of built places. This course is designed for MES students to build area expertise through lectures, on-site visits and real time simulations. Students will travel to New York City and Washington DC to learn about these topics and observe current practices first hand. Through the design and synthesis of place, including educational and health facilities, and the workplace, the class will investigate the impact of Social Determinants of Health and sustainability. They will also integrate resiliency planning to address impacts of sea level rise, severe heat and different climate and environmental conditions affecting the built environment. Course work covers design and planning theory that intersects with diseases, mental health, climate action and their inter- connectivity. Case studies, seminars and tours of projects and health departments will bring to focus how the built environment can be a culprit and a solution. 1 Course Unit</td>
</tr>
<tr>
<td>ENVS 6860</td>
<td>Risk Assessment: Science &amp; Policy Challenges</td>
<td>How do government policy-makers make decisions about potential threats to human health and the environment in the face of scientific uncertainty? The course develops the concept of Risk Assessment from the publication of the 1983 National Research Council (NRC) report commonly known as the &quot;Red Book&quot; which was used to rank the initial hazardous waste sites under the Superfund program. Using a variety of teaching tools, including lectures, panel discussions, and case studies, the course examines how public policy decisions regarding environmental risk are made and how effective those decisions are at reducing risks to affected populations. The course focuses on the complex interaction of science, economics, politics, laws, and regulations in dealing with environmental and public health risks. The course will begin with a review of the policy process and methods used in evaluating human health and environmental risks, including the traditional steps in the risk assessment process, including quantitative and qualitative aspects of hazard identification, dose-response assessment, exposure assessment, and risk characterization. The course will then focus on how scientific uncertainty, risk perceptions, socio-economic disparities, risk communication, and politics influence environmental risk-based decision-making. Issues such as special populations (e.g., children, elderly, immune-compromised, woman of pregnancy age, etc.) must be considered when developing risk reduction strategies. The use of the &quot;precautionary principle&quot; will be discussed in the context of different types of environmental stressors (e.g., pesticides, chemicals, climate change, air pollution, water quality, and land use) and how this important controversial principle is applied differently in contrasting national and European risk management policies. Summer Term 1 Course Unit</td>
</tr>
<tr>
<td>ENVS 6870</td>
<td>Topics Course in Resilience and Adaptation</td>
<td>This is a topics course exploring current issues in resilience and adaptation. Not Offered Every Year 1 Course Unit</td>
</tr>
<tr>
<td>ENVS 6880</td>
<td>Fundamentals of Climate Action Planning for Cities</td>
<td>Many cities around the world, both large and small, have created climate action plans over the past few years. This course will outline aspects of the planning process including: decision factors for creating a plan, resourcing, outreach, communications, data and tracking, and execution. Students will leave the course with a clear understanding of how city level climate plans come together and are executed. Fall 1 Course Unit</td>
</tr>
<tr>
<td>ENVS 6998</td>
<td>Masters of Environmental Studies Capstone Seminar</td>
<td>This course is designed to help students successfully complete their MES Capstone. A set of milestones will be set and regular meetings will be held in groups and individually to aid the student as they complete the research portion of their degree. We will be working together to complete a series of steps towards the final project. These steps fall into five major areas 1) Reviewing the literature; 2) Finding a model; 3) Framing your research; 4) managing data; and 5) Writing your results. Throughout the semester, we will also discuss career goals and the job search. Spring 1 Course Unit</td>
</tr>
<tr>
<td>ENVS 9999</td>
<td>Independent Study</td>
<td>Directed study for individuals or small groups under supervision of a faculty member. Fall or Spring 1-2 Course Units</td>
</tr>
</tbody>
</table>
Epidemiology (EPID)

EPID 5100 Introductory Epidemiology
This course provides an introduction to the fundamentals of research in clinical epidemiology. It covers definitions of epidemiology; measures of disease frequency, measures of effect and association; epidemiologic study designs, including randomized clinical trials, cohort and case-control studies, cross-sectional surveys, and meta-analysis; and an overview of the conduct and analysis of epidemiologic studies. The course is composed of a series of 2-hour lectures and in-class lab sessions, designed to reinforce concepts introduced in the lectures. Summer Term
1 Course Unit

EPID 5260 Biostatistics for Epidemiologic Methods I
The first half of this course will cover graphical methods, probability, discrete and continuous distributions, estimation, confidence intervals, and one-sample hypothesis testing. Emphasis is placed on understanding the proper application and interpretation of the methods. The second half of this course will cover two-sample hypothesis testing, nonparametric techniques, sample size determination, correlation, regression, analysis of variance, and analysis of covariance. Emphasis is placed on understanding the proper application and underlying assumptions of the methods presented. Laboratory sessions focus on the use of the STATA statistical package and applications to clinical data. Prerequisite: Permission of instructor. This course runs from mid summer to mid fall term. There is a corresponding lab. 1 Course Unit

EPID 5250A Biostatistics for Epidemiologic Methods I
The first half of this course will cover graphical methods, probability, discrete and continuous distributions, estimation, confidence intervals, and one-sample hypothesis testing. Emphasis is placed on understanding the proper application and interpretation of the methods. The second half of this course will cover two-sample hypothesis testing, nonparametric techniques, sample size determination, correlation, regression, analysis of variance, and analysis of covariance. Emphasis is placed on understanding the proper application and underlying assumptions of the methods presented. Laboratory sessions focus on the use of the STATA statistical package and applications to clinical data. Prerequisite: Permission of instructor. This course runs from mid summer to mid fall term. There is a corresponding lab. 1 Course Unit

EPID 5250B Biostatistics for Epidemiologic Methods I
The first half of this course will cover graphical methods, probability, discrete and continuous distributions, estimation, confidence intervals, and one-sample hypothesis testing. Emphasis is placed on understanding the proper application and interpretation of the methods. The second half of this course will cover two-sample hypothesis testing, nonparametric techniques, sample size determination, correlation, regression, analysis of variance, and analysis of covariance. Emphasis is placed on understanding the proper application and underlying assumptions of the methods presented. Laboratory sessions focus on the use of the STATA statistical package and applications to clinical data. Prerequisite: Permission of instructor. This course runs from mid summer to mid fall term. There is a corresponding lab. 0 Course Units

EPID 5270 Biostatistics for Epidemiologic Methods II
The first half of this course covers concepts in biostatistics as applied to epidemiology, primarily categorical data analysis, analysis of case-control, cross-sectional, cohort studies, and clinical trials. Topics include simple analysis of epidemiologic measures of effect; stratified analysis; confounding; interaction, the use of matching, and sample size determination. Emphasis is placed on understanding the proper application and underlying assumptions of the methods presented. Laboratory sessions focus on the use of the STATA and other statistical packages and applications to clinical data. The second half of this course covers concepts in biostatistics as applied to epidemiology, primarily multivariable models in epidemiology for analyzing case-control, cross-sectional, cohort studies, and clinical trials. Topics include logistic, conditional logistic, and Poisson regression methods; and simple survival analyses including Cox regression. Emphasis is placed on understanding the proper application and underlying assumptions of the methods presented. Laboratory sessions focus on the use of STATA and other statistical packages and applications to clinical data. Prerequisite: This course runs from mid fall to mid spring term. There is a corresponding lab. 1 Course Unit

EPID 5270A Biostatistics for Epidemiologic Methods II
The first half of this course covers concepts in biostatistics as applied to epidemiology, primarily categorical data analysis, analysis of case-control, cross-sectional, cohort studies, and clinical trials. Topics include simple analysis of epidemiologic measures of effect; stratified analysis; confounding; interaction, the use of matching, and sample size determination. The second half of this course covers concepts in biostatistics as applied to epidemiology, primarily multivariable models in epidemiology for analyzing case-control, cross-sectional, cohort studies, and clinical trials. Topics include logistic, conditional logistic, and Poisson regression methods; simple survival analyses including Cox regression. Emphasis is placed on understanding the proper application and underlying assumptions of the methods presented. Laboratory sessions focus on the use of STATA statistical package and applications to clinical data. Prerequisite: This course runs from mid fall to mid spring term. There is a corresponding lab. Prerequisite: EPID 5260 AND EPID 5260B 1 Course Unit

EPID 5270B Biostatistics for Epidemiologic Methods II
The first half of this course covers concepts in biostatistics as applied to epidemiology, primarily categorical data analysis, analysis of case-control, cross-sectional, cohort studies, and clinical trials. Topics include simple analysis of epidemiologic measures of effect; stratified analysis; confounding; interaction, the use of matching, and sample size determination. The second half of this course covers concepts in biostatistics as applied to epidemiology, primarily multivariable models in epidemiology for analyzing case-control, cross-sectional, cohort studies, and clinical trials. Topics include logistic, conditional logistic, and Poisson regression methods; simple survival analyses including Cox regression. Emphasis is placed on understanding the proper application and underlying assumptions of the methods presented. Laboratory sessions focus on the use of STATA statistical package and applications to clinical data. Prerequisite: This course runs from mid fall to mid spring term. There is a corresponding lab. Prerequisite: EPID 5260A AND EPID 5260B 0 Course Units
EPID 5340 Qualitative Methods in the Study of Health, Disease and Medical Systems
This course combines informal lecture and discussion with practical exercises to build specific skills for conducting qualitative research on healthcare, broadly defined. Readings include books and papers about research methodology and articles that provide exemplars and pitfalls of qualitative research. Specific topics covered include: the role of theory in qualitative research, method-research question fit, collecting different types of qualitative data (observation, interview, focus group, text, video), ethical issues in qualitative research, establishing rigor in qualitative research, introduction to qualitative data analysis using software, mixing methods, approaches for obtaining grant funding for qualitative research and writing up qualitative research studies for publication. Prerequisite: Previous course work in research methods or permission of course director.
Fall
1 Course Unit

EPID 5360 Data Management and Visualization I
The objective of this two-course series is to enhance MSCE students’ comfort and acumen in all aspects of clinical epidemiological data management and presentation, particularly graphical representation of results. The course progresses from best practices in data collection and database use to advanced data management, summarization of results, and data visualization, all of which are grounded in the prioritization of producing efficient and reproducible research processes. The course will cover and develop skills in: basic data collection, harmonization, and integration with Stata software; best practices for data variable derivation and creation; assessing and dealing with missing data; merging and appending datasets; management of dates and times; assessing free text data; dealing with specific data types such as ICD-9 and 10 codes, cost data, management of longitudinal and time-to-event data; production of descriptive and regression tables (for all regression types); descriptive and regression model visualization; and the use of Stata Markdown files such that research reports can be created directly from Stata. By the end of the two-course series, students will become fluent in the Stata statistical language and be uniquely positioned to advance their independent clinical epidemiological careers through best research and data presentation practices.
Spring
0.5 Course Units

EPID 5370 Data Management and Visualization II
The objective of this two-course series is to enhance MSCE students’ comfort and acumen in all aspects of clinical epidemiological data management and presentation, particularly graphical representation of results. The course progresses from best practices in data collection and database use to advanced data management, summarization of results, and data visualization, all of which are grounded in the prioritization of producing efficient and reproducible research processes. The course will cover and develop skills in: basic data collection, harmonization, and integration with Stata software; best practices for data variable derivation and creation; assessing and dealing with missing data; merging and appending datasets; management of dates and times; assessing free text data; dealing with specific data types such as ICD-9 and 10 codes, cost data, management of longitudinal and time-to-event data; production of descriptive and regression tables (for all regression types); descriptive and regression model visualization; and the use of Stata Markdown files such that research reports can be created directly from Stata. By the end of the two-course series, students will become fluent in the Stata statistical language and be uniquely positioned to advance their independent clinical epidemiological careers through best research and data presentation practices.
Summer Term
0.5 Course Units

EPID 5420 Measurement of Health in Epidemiology
This course addresses the measurement of epidemiological variables, which broadly encompasses the tasks involved in obtaining data, without which analyses cannot proceed. Course topics to be discussed include: defining the concepts of exposure, disease, and health; approaches to measuring exposures, which may be personal (i.e., psychological, behavioral, biological, or genetic) or environmental (i.e., physical, chemical, social, or organizational); approaches to measuring disease and health status; assessing the validity and reliability of measurement instruments; problems of misclassification of exposure status and disease status; missing data; instrument (e.g., questionnaire) development; and qualitative methods. Prerequisite: If course requirement not met, permission of course director.
Fall
Prerequisite: EPID 5100 AND EPID 5260
0.5 Course Units

EPID 5460 Clinical Database Research Methodology
This course will discuss appropriate selection of healthcare databases for research questions of interest; assessment of drug exposures; validation of health outcomes of interest; and addressing biases, confounding, and missing data in databases. We will also review key aspects of research protocol development for database studies and discuss research grant applications related to these studies. Prerequisite: If course requirement not met, permission of course director required.
Prerequisite: EPID 5100 AND EPID 5260
0.5 Course Units
EPID 5500 Clinical Economics and Decision Making
This course focuses on the application of decision analysis and economic analysis to clinical and policy research. It provides an introduction to the general tools for decision analysis, including decision trees and Markov models, assessment of costs and patient preferences, and assessment of cost-effectiveness. Special emphasis is placed on second-order Monte Carlo analysis and its use in the construction of measures of sampling uncertainty for cost-effectiveness analysis. Seminars will include didactic material, practical exercises that include problem solving, critically analyzing published articles and learning to use computer software that facilitates decision and economic analyses.
Spring
Also Offered As: HPR 5500
1 Course Unit

EPID 5600 Issues in Research Protocol Development
This seminar focuses on major issues in research protocol development, including methodologic issues regarding different research designs, development of research questions, and plans for analysis. Each student will present his or her research protocol for open discussion during one of the seminar sessions. Prerequisite: Restricted to MSCE degree students.
Spring
0.25 Course Units

EPID 5700 Critical Appraisal of the Medical Literature
This seminar focuses on techniques for critical appraisal of the medical literature. Each student will be responsible for at least one critical appraisal session covering different epidemiologic topics (including the evaluation of diagnostic tests, clinical course and prognosis of disease, disease etiology or causation, therapy, quality of clinical care, economic evaluation, and meta-analysis). Each week, a student will critically appraise a journal article and lead the discussion concerning that article. Prerequisite: Restricted to MSCE degree students.
Spring
0.25 Course Units

EPID 5750 Introduction to Genetic Epidemiology
There is an increasing need for researchers to understand the genetic basis of incorporating the collection and analysis of genetic information into studies of health. The objectives of this course are to provide students with an understanding of the uses of molecular and genetic epidemiologists. This course consists of a series of discussions focused on the critical appraisal of genetic/molecular epidemiology. After completing this course, students will be able to read and interpret the mendepidemiology literature, and understand data collection and analysis approachesmolecular and genetic epidemiological studies. Prerequisite: Permission of course director. Students enrolling in this class are expected to have a working knowledge of epidemiology, biostatistics, and human genetics. Students who do not meet these requirements may be allowed to enroll in the class, but may be required to undertake supplemental readings and/or tutorials to obtain the necessary background.
Spring
1 Course Unit

EPID 5800 Outcomes Research
This course is divided into two main parts. The first part addresses issues related to the measurement of quality in health care. Included is a review of the classical structure-process-outcome quality paradigm. The paradigm's strengths and limitations are addressed. This part especially focuses on outcome measures of quality, and examines the validity of alternative measures. The second part deals with observational, or quasi-experimental, research studies. It addresses the advantages and limitations of alternative designs, and covers the role of clinical risk adjustment in observational studies of medical interventions. It focuses on the problem of selection bias, and reviews recent methods for dealing with this bias, such as instrumental variables. Prerequisite: Introductory course in statistics including regression methods. Permission of instructor if prerequisite is not met.
Fall
Also Offered As: HPR 5800
1 Course Unit

EPID 5820 Systematic Review and Meta-Analysis
This course will provide an introduction to the fundamentals of systematic reviews and meta-analysis. It will cover introductory principles of meta-analysis; protocol development; search strategies; data abstraction methods; quality assessment; meta-analytic methods; and applications of meta-analysis.
Fall, odd numbered years only
Prerequisite: EPID 5100 AND EPID 5260
1 Course Unit

EPID 5840 Health Disparities Research
This course will provide an overview of research in health disparities. It will cover the historical aspects, concepts, policy, economic, genomic and social perspectives of health disparities. It will provide students with methodological tools for health disparities research and introduce students to ongoing health disparities research by current Penn and affiliated faculty members. The course is composed of a series of weekly small group lectures and discussion, including critical appraisal of published papers, guest faculty presentations, and student presentations. Students will be expected to attend weekly meetings and participate in class discussions, prepare and lead discussions of assigned papers, review assigned readings, and draft and present a scientific protocol of their choosing related to health disparities.
Spring
Prerequisite: EPID 5100 AND EPID 5260
1 Course Unit

EPID 6000 Data Science for Biomedical Informatics
In this course, we will use R and other freely available software to learn fundamental data science applied to a range of biomedical informatics topics, including those making use of health and genomic data. After completing this course, students will be able to retrieve and clean data, perform explanatory analyses, build models to answer scientific questions, and present visually appealing results to accompany data analyses; be familiar with various biomedical data types and resources related to them; and know how to create reproducible and easily sharable results with R and GitHub. Recommended prerequisite: Introductory-level statistics course. Familiarity with programming or a willingness to devote time to learn it. NOTE: Non-majors need permission from the department.
Fall
Also Offered As: BMIN 5030
1 Course Unit
EPID 6100 Tutorial in Epidemiologic Research
This is a tutorial given by each student's MSCE mentor. The mentor and student meet regularly, usually weekly. Topics include discussion and review of epidemiologic concepts and principles, guided readings in the epidemiology of a specific health area, and the development of the research protocol. Credit for this course is awarded upon completion of a research project protocol, the one to be used to fulfill the MSCE thesis requirement, which must be approved by the student's mentor. Evaluation is based on the grade received for the protocol.
Fall or Spring
0.5-1 Course Unit

EPID 6199 Testing Course
Testing Course Attributes
0.5-1 Course Unit

EPID 6210 Longitudinal and Clustered Data in Epidemiologic Research
An introduction to the principles of and methods for longitudinal and clustered data analysis with special emphasis on clinical, epidemiologic, and public health applications. Designed for advanced MS and PhD-level students in epidemiology and related fields. Marginal and conditional methods for continuous and binary outcomes. Mixed effects and hierarchical models. Simulations for power calculations. Software will include Stata and R. Prerequisite: Completion of EPID 5260 and 5270 or equivalent preparation in biostatistics, including generalized linear models. Completion of semester course in principles of epidemiology or equivalent. Good working knowledge of Stata and SAS and familiarity with principles of first-year calculus and matrix algebra. Permission of course director.
Fall
1 Course Unit

EPID 6220 Applied Regression Models for Categorical Data
This course will provide in-depth treatment of several topics in categorical data analysis. After a brief review of methods for contingency tables, we will introduce the idea of generalized linear models, and focus on two special cases – multiple logistic regression and log-linear models. Each topic will be presented in detail by stating the model and covering parameter estimation and interpretation, inference, model building, regression diagnostics, and assessment of model fit. Finally, we will cover extensions to both models, including models for multinomial data, analysis of matched-pair data, and random effects models. Topics will be illustrated in class with examples, and we will discuss the use of Stata to conduct the analyses. Offered first half of fall term.
Fall
Prerequisite: EPID 5100 AND EPID 5260 AND EPID 5270
0.5 Course Units

EPID 6230 Survival Data Analysis
This course will focus on the specialized issues related to the analysis of survival or time-to-event data. The course begins by closely examining the features unique to survival data that distinguish these data from other more familiar types. Topics include non-parametric survival analysis methods, common survival functions, parametric survival models, the proportional hazards model, and common model-checking methods. All methods will be illustrated by in-class examples and homework sets. Prerequisite: Students should be comfortable with basic calculus concepts (e.g., derivatives, integrals, etc).
Fall
Prerequisite: EPID 5100 AND EPID 5260 AND EPID 5270
0.5 Course Units

EPID 6240 Methods in Patient-Centered Outcomes and Effectiveness Research
The goal of this course is to provide a broad overview of methods used in patient centered outcomes and effectiveness research. Expert faculty will lecture on topics such as standards for research questions, systematic reviews, patient/stakeholder engagement, causal inference, heterogeneity of treatment effect, handling missing data, data registries, pragmatic trials, diagnostic tests, health care disparities, evaluating the impact of communication interventions, and testing innovations in health care systems. Grading will largely be based on participation in class discussions. Prerequisite: Permission of instructor
Spring
1 Course Unit

EPID 6250 Advanced Biostatistical Methods for Multivariable Prediction Models
This course is an introduction to statistical methods that can be used to evaluate biomarker prognostic studies and multivariate prediction models. Topics will include biostatistical evaluation of biomarkers, predictive models based on various regression modeling strategies and classification trees, assessing the predictive ability of a model; internal and external validation of models; and updating prognostic models with new variables or for use in different populations. Students will learn about the statistical methods that are required by current reporting guidelines for biomarker prognostic studies or the reporting guidelines for multivariable prediction models. Prerequisite: Working knowledge of either Stata, SAS or R to fit regression, logistic regression and/or Cox regression models. Permission of course director for students outside of School of Medicine graduate programs.
Fall
Prerequisite: EPID 5260 AND EPID 5270 AND (EPID 6220 OR EPID 6230)
0.5 Course Units

EPID 6300 Clinical Trials
This course is to serve as a general introduction to clinical trials and will emphasize trial design issues. This is not a course on the biostatistics of clinical trials. It is expected that at the conclusion of the course, a student will be able to plan a clinical trial. Each class will consist of a two-hour lecture followed by a one-hour discussion. The weekly session will focus on either a group discussion of the assigned reading or a practical application based on the material presented during the two-hour lecture. Students will be evaluated on their participation in class (20%); a clinical trial document (50%), which should include the rationale for the study, study design, objectives and endpoints, sample size and analysis sections, and consent form; and a class presentation of their trial or another topic (30%). Prerequisite: Permission of instructor.
Spring
Also Offered As: REG 6300
Prerequisite: EPID 5100 AND EPID 5260
1 Course Unit

EPID 6320 Introduction to Biomedical and Health Informatics
This course is designed to provide a survey of the major topic areas in medical informatics, especially as they apply to clinical research. Through a series of lectures and demonstrations, students will learn about topics such as databases, natural language, clinical information systems, networks, artificial intelligence and machine learning applications, decision support, imaging and graphics, and the use of computers in education.
Fall
1 Course Unit
**EPID 6340 Clinical Trial Outcomes: Measurement, Analysis and Interpretation**
This course is intended to teach students the skills necessary to select and/or design appropriate outcomes for a clinical trial. Students will focus on recent changes in our understanding of clinical trial outcome measurements, analyses, and interpretation for both subjective and objective phenomena, such as adherence, use of multiple outcomes, and clinical importance. While design issues for clinical trials are the main focus, other types of clinical studies will be considered as appropriate. Students will be expected to learn about the problems inherent in the design of outcome measures of health and how to apply different epidemiologic and biostatistical concepts toward a solution. It is expected that at the conclusion of the course, students will be able to plan a clinical trial with a valid, responsive and interpretable outcome. The class will meet once weekly for a 60-minute lecture on a topic, followed by a 60- to 90-minute discussion of how that topic applies to the specific issues of interest to the students or the instructor. Prerequisite: Permission of instructor.  
Fall  
Prerequisite: EPID 5100  
1 Course Unit

**EPID 6400 Advanced Topics in Epidemiology**
This course is designed to introduce students to advanced epidemiologic methods through a series of readings and discussions. The course aims to deepen the students’ understanding of important concepts and controversies in contemporary epidemiology and to enhance their ability to think critically about empirical epidemiologic research. The course is intended for students who are already familiar with the fundamentals of epidemiology and biostatistics, and who wish to gain an understanding of the complex issues underlying epidemiologic study design and interpretation. Each week, one student will be responsible for leading a portion of the discussion of the assigned readings, in conjunction with a faculty member. Topics include: causal inference; study designs; use of large databases for research; predicting outcomes; and complex sampling methods. Prerequisite: Permission of instructor.  
Spring  
Prerequisite: EPID 5100 AND EPID 5260 AND EPID 5270  
1 Course Unit

**EPID 6440 Cardiopulmonary Epidemiology**
This is an advanced course that addresses epidemiologic research issues as they apply to important clinical topics in cardiovascular and pulmonary medicine. Lectures and workshops are designed to acquaint students with the classic literature in the fields of cardiovascular and pulmonary epidemiology, to use a body of literature to demonstrate the strengths and weaknesses of epidemiologic research designs as they have been applied to cardiovascular and pulmonary medicine, to expose students to the range of topics studied, to teach advanced epidemiologic principles using a problem-based approach, and to stimulate students to develop independent research questions. Prerequisite: Permission of instructor.  
Summer Term  
Prerequisite: EPID 5100 AND EPID 5260 AND EPID 5270  
1 Course Unit

**EPID 6450 Research Methods in Cancer Epidemiology**
Research in cancer etiology, prevention, treatment, and control includes a wide range of subject matter science, from the initial molecular changes that precede the development of cancer to issues of primary care guidelines for cancer survivors. The course reviews the possible study designs applied to cancer etiology, prevention, treatment, and control. These include randomized controlled trials and multiple types of observational studies (cohort, case-control, cross-sectional). Other topics will include causal inference, bias, and effect modification. Prerequisite: Permission of instructor.  
Spring  
Prerequisite: EPID 5100 AND EPID 5260 AND EPID 5270  
1 Course Unit

**EPID 6460 Reproductive Epidemiology**
This is an advanced course that addresses epidemiologic research issues as they apply to important clinical topics in obstetrics and gynecology and related clinical disciplines. Lectures and workshops are designed to acquaint students with important issues in the field of reproductive epidemiology, to use a body of literature to demonstrate the strengths and weaknesses of epidemiologic research designs as they have been applied to obstetrics and gynecology and related clinical disciplines, to expose students to the range of topics studied, to teach advanced epidemiologic principles using a problem-based approach, and to stimulate students interested in reproductive epidemiology to develop independent research questions.  
Spring, odd numbered years only  
1 Course Unit

**EPID 6300 Clinical Trials: Design and Analysis**
This course is intended to follow and be complementary to EPID 6300: Clinical Trials. It will build on the basic principles of design, conduct, and analysis introduced in that course and will go into more detail on particular approaches. Topics covered will include noninferiority trials, phase 1 designs, multi-stage and other adaptive designs, graphical data presentations and current ethical controversies in clinical trials.  
Fall  
Prerequisite: EPID 6300  
1 Course Unit

**EPID 6360 Epidemiological Methods in Acute Care Research**
This is an advanced course addressing epidemiologic issues as they apply to important clinical topics in acute care, including emergency, hospital, and critical care medicine. Lectures and discussions will have two primary goals: 1) to explore epidemiologic methods specific to acute care settings (i.e., choice of outcomes, risk adjustment); and 2) to explore the epidemiology of particular diseases (e.g., sepsis, acute lung injury, hospital acquired infections) and research questions of current importance in these areas. This course will acquaint students with the classic literature in the field of adult and pediatric urgent care, emergency medicine, and critical care epidemiology, teach advanced epidemiologic principles using a problem-based approach, and demonstrate the strengths and weaknesses of epidemiologic research methodologies as they have been applied to acute care. Prerequisite: Permission of instructor.  
Not Offered Every Year  
Prerequisite: EPID 5100 AND EPID 5260  
1 Course Unit

**EPID 6380 Topics in Clinical Trial Design and Analysis**
This course is intended to follow and be complementary to EPID 6300: Clinical Trials. It will build on the basic principles of design, conduct, and analysis introduced in that course and will go into more detail on particular approaches. Topics covered will include noninferiority trials, phase 1 designs, multi-stage and other adaptive designs, graphical data presentations and current ethical controversies in clinical trials.  
Fall  
Prerequisite: EPID 6300  
1 Course Unit

**EPID 6460 Reproductive Epidemiology**
This is an advanced course that addresses epidemiologic research issues as they apply to important clinical topics in obstetrics and gynecology and related clinical disciplines. Lectures and workshops are designed to acquaint students with important issues in the field of reproductive epidemiology, to use a body of literature to demonstrate the strengths and weaknesses of epidemiologic research designs as they have been applied to obstetrics and gynecology and related clinical disciplines, to expose students to the range of topics studied, to teach advanced epidemiologic principles using a problem-based approach, and to stimulate students interested in reproductive epidemiology to develop independent research questions.  
Spring, odd numbered years only  
1 Course Unit
EPID 6520 Renal and Urologic Epidemiology
The objective of this course is to prepare students to function as effective, independent researchers in the fields of renal and urologic epidemiology by providing the students an understanding of how epidemiologic research can and has advanced the knowledge of diseases in treatments of renal and urologic medicine. The structure of the course consists of a lecture series, accompanying workshops, and student presentations. The goals of the course are to acquaint students with some of the classic literature in the fields of renal and urologic epidemiology; to use a body of literature to demonstrate the strengths and weaknesses of epidemiologic research designs as they have been applied to renal and urologic medicine; to teach advanced epidemiologic principles using a problem-based approach; to expose students to the rationale of topics studied by faculty in the CCEB and the adult and pediatric nephrology and urology divisions at Penn and CHOP; and to stimulate students interested in renal and urologic epidemiology so that they may develop independent research questions. Prerequisite: Permission of instructor.
Spring, even numbered years only
Prerequisite: EPID 5100 AND EPID 5260 AND EPID 5270
1 Course Unit

EPID 6560 Research Methods in Infectious Diseases Epidemiology
This will be an advanced course addressing epidemiologic issues as they apply to important clinical topics in infectious diseases. Lectures and discussions will serve two primary goals: 1) to explore epidemiologic methods specific to infectious diseases (e.g., adherence to therapy) or that have important applications to infectious diseases (e.g., molecular epidemiology); and 2) to explore the epidemiology of particular infectious diseases or syndromes (e.g., HIV). This course will acquaint students with the classic literature in the field of infectious diseases epidemiology, teach advanced epidemiologic principles using a problem-based approach, and demonstrate the strengths and weaknesses of research methodologies as they have been applied to infectious diseases. Prerequisite: Permission from instructor is needed.
Summer Term
Prerequisite: EPID 5100 AND EPID 5260 AND EPID 5270
1 Course Unit

EPID 6580 Gastroenterology Epidemiology
This course provides an in-depth presentation of advanced methodologic issues in conducting clinical epidemiologic research in the field of gastroenterology. Prerequisite: Permission of instructor.
Spring, even numbered years only
Prerequisite: EPID 5100 AND EPID 5260 AND EPID 5270
1 Course Unit

EPID 6640 Methods in Neurologic Clinical Epidemiology
This course will introduce students to methods and study design principles that are specific or unique to clinical research and trials in neurology, child neurology, neuro-ophthalmology, neurosurgery, and related fields. Prerequisite: Permission of instructor
Spring, odd numbered years only
0.5 Course Units

EPID 6660 Methods for Real-World Evidence on Therapeutics
The purpose of this course is to explore and integrate concepts and considerations that are key to the conduct of pharmacoepidemiologic research. The format will be a mixture of seminar, instructor-led discussion, student-led discussion, and student presentations. Papers from the applied and methods literature will be used to illustrate concepts and as springboards for discussion. Topics covered include use of automated databases/pharmacogenomics, and approaches to addressing confounding.
Spring
Prerequisite: EPID 5100 AND EPID 5260 AND EPID 5270
1 Course Unit

EPID 6720 Biostatistical Methods for Addressing Confounding
This course is designed to teach epidemiology students the statistical principles of analysis specific to pharmacoepidemiology study designs including the use of propensity scores, inverse probability weighting, instrumental variables and time varying covariates. Each of the twelve sessions includes both a lecture component and a laboratory component. Students will learn the statistical principles and then apply them to example study datasets. Students must participate in all sessions and must have previously completed biostatistics for epidemiologic methods I and II (EPID 5260 A/B and 5270 A/B). Laboratory sessions will be conducted on students’ laptops using STATA software. Prerequisite: Permission of the instructor(s).
Summer Term
Prerequisite: EPID 5260 AND EPID 5270
1 Course Unit

EPID 6740 Measuring the Microbiome: Methods and Tools
This is an advanced course addressing the methods and tools used to analyze microbiome data, as well as their implications for clinical study design. The course will include: (1) lectures focused on how the microbiome is measured, approaches to the analysis of highly multivariate microbiome data, and the bioinformatic tools used to execute these analyses; (2) hands-on R and command-line coding to build familiarity with commonly used tools and analytic methods; and (3) short, practical assignments to reinforce the lectures and classwork. The course will acquaint students with classic literature in the field of microbiome research and prepare students to integrate microbiome data collection and analysis with epidemiologic research methodologies. Prerequisite: Permission of instructor if course prerequisites not met
Not Offered Every Year
Prerequisite: EPID 5100 AND EPID 5260 AND EPID 5270
1 Course Unit
EPID 6750 Advanced Methods for Analysis of Complex Genetic Traits
The advent of high-throughput genotyping has created unprecedented opportunities to characterize in detail information related to genome, epigenome and transcriptome. Such technological advancements have offered exciting opportunities for biological discovery as well as translation of biological data for targeted therapies. However, investigation of genetic polymorphisms, epigenetic signatures, gene transcription, biomarkers and their relationship with environmental factors and disease outcomes requires a thorough understanding of a wide range of experimental methods and statistical approaches. Through critical review of the current literature, this course will provide understanding on various "-OMICS" approaches for the study of complex disorders and traits. Students will also understand and present advanced statistical methods and how such concepts can be applied. Prerequisite: Introduction to Genetic Epidemiology or equivalent; training in study design and statistical analysis related to statistical genetics and molecular epidemiology, and permission of course directors. Not Offered Every Year
1 Course Unit

EPID 6990 Lab Rotation
Student lab rotation.
0-1 Course Unit

EPID 7000 Doctoral Seminar in Epidemiology
The course is intended to meet the needs of PhD students over the entire program from the coursework phase through the dissertation defense, and is intended to optimize cross-fertilization between the students at all phases of their program. Restricted to Epidemiology Doctoral Students. Prerequisite: Permission of instructor.
1 Course Unit

EPID 7010 Introduction to Epidemiologic Research
This course is intended to provide in-depth, exposure to the theory and methods of epidemiologic research. Topics to be covered include causal inference, measures of disease frequency and association, study design, bias and confounding, validity, and epidemiologic analysis. Prerequisite: Quantitative proficiency. Knowledge and/or experience in working in biomedical research. Permission of instructor.
1 Course Unit

EPID 7012 Nutritional Epidemiology
This course introduces students to key concepts and methods in Nutritional Epidemiology to equip them with the tools needed to design, analyze, and critically evaluate population-based nutrition research. The course also reviews several specific diet/disease relationships, integrating information from secular trends, cohort studies, clinical trials, and animal experiments. Knowledge in nutrition is useful but not required. Prerequisites include introductory epidemiology.
Fall
Prerequisite: EPID 7010 AND EPID 5100 AND PUBH 5020
1 Course Unit

EPID 7020 Advanced topics in Epidemiologic Research
The overarching goal of this course is to expose doctoral students in epidemiology to advanced epidemiologic and statistical research methods and theories that are limitedly or not otherwise covered in courses available in the curriculum. Topics that will be covered include reporting guidelines and best practices for reporting statistical methods and results, handling missing data, purposeful selection and application of propensity scores, selected topics in longitudinal and clustered data analysis, contemporary topics in statistical inference and use of p-values and other Frequentist statistical methods, Bayesian theory and inference, and topics selected in collaboration with students and the Graduate Group in Epidemiology and Biostatistics (GGEB) each term. This course is intended for doctoral students in the PhD program in Epidemiology. However, students from other graduate groups are welcome, as long as they meet the pre-requisites; such students are welcome during any year of study. Three learning objectives have been developed for this course; (i) provide students with an understanding of modern and cutting-edge quantitative methods, advanced topics, and best practices in epidemiologic, statistical, and biomedical research; (ii) develop students competence and confidence in statistical programing to support accurate and reproducible epidemiologic and biostatistical analyses; (iii) improve the ability of students to make informed decisions regarding the selection of analytic methods in their individual and collaborative research projects. This course emphasizes the following core competencies: knowledge within program area (epidemiologic and biostatistical methods); research skills (study planning, critically appraising published research); quantitative and computational methodologies (data manipulation, data analysis, statistical coding and debugging, Bayesian inference, data visualization, purposeful statistical inference, and model selection). Through technical lectures, reading of carefully selected peer-reviewed tutorials, critical appraisal of published research studies, and in-class statistical coding laboratory sessions, this course will provide instruction on rigorous and informed statistical model selection, estimation, and interpretation.
Spring
Prerequisite: EPID 5260 AND EPID 5270 AND EPID 7010
1 Course Unit

EPID 7040 Methods for Social Epidemiologic Research
This course is intended to provide students in epidemiology, biostatistics, and other disciplines with an in-depth introduction to the principles and methods of social epidemiology.
Spring
Prerequisite: EPID 7010 AND EPID 7020
1 Course Unit

EPID 7050 Grantwriting and Scientific Writing
This course is a two-part training course providing students with (a) guidance and hands-on experience with grant writing; and (b) writing and reviewing scientific papers and abstracts as well as core skills in scientific presentation. The first part of the course will provide a comprehensive overview of and experience with the grant writing process. The second part of the course will expose students to the key elements of scientific writing in epidemiology, with an emphasis on constructing each component of a scientific paper (introduction, methods, results, discussion); adhering to widely-used reporting standards; elements of the peer review process; and selection of appropriate journals for reporting their work.
Fall
Prerequisite: EPID 7010 AND EPID 7020 AND EPID 6000 AND HPR 6080
1 Course Unit
EPID 7110 Environmental Epidemiology
Environmental Epidemiology is an advanced epidemiology course that addresses epidemiological research methods used to study environmental exposures from air pollution to heavy metals, and from industrial pollutants to consumer product chemicals. The course will provide an overview of major study designs in environmental epidemiology, including cohort studies, panel studies, natural experiments, randomized controlled trials, time-series, and case-crossover studies. The course will discuss disease outcomes related to environmental exposures, including cancer and diseases of cardiovascular, respiratory, urinary, reproductive, and nervous systems. Case studies in environmental epidemiology will be discussed to provide details of research methods and findings. Prerequisite: It is recommended, although not required, that students had an introductory epidemiology course and an introductory biostatistics course. Fall 1 Course Unit

EPID 7140 Grant Writing/Review
This course will assist students in the design of an NIH grant (F-32, K, R21 or R01) for submission by enhancing their appreciation of the specifics of the grant writing process and in understanding the grant review process. This course is designed to provide background, training, and practice with the writing and submitting of NIH style grants. As a minimum all students who enroll will be expected to write and submit a reasonable draft of a full NIH style grant proposal by the end of the term. During the process, the portions of each proposal will be reviewed as a group by the other students in the course. In response to each review, students are expected to revise their grant sections. Prerequisite: If course requirement not met, permission of instructor required. Summer Term Also Offered As: HPR 7140 1 Course Unit

Prerequisite: EPID 5100 AND EPID 5260 AND EPID 5600 AND EPID 5700 0.5 Course Units

EPID 8990 Pre-Dissertation Lab Rot
0.5-3 Course Units

EPID 9900 Master's Thesis
These are a series of tutorial sessions conducted by the student's mentor intended to support the student's efforts in developing a research protocol, designing a research project, and completing the study. Fall or Spring 0.5-5 Course Units

EPID 9950 Dissertation
0 Course Units

Ethics (ETHC)

The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).

ETHC 2000 Ethics & Society
Philosophy has aptly been described as "the attempt to tackle questions that come naturally to children, using methods that come naturally to lawyers". In this course, we investigate some of these questions and work on developing some of the tools used by those methods. Our topical focus is some of the main questions in moral philosophy, especially as they apply to certain pressing ethical problems. The course focuses extensively on ethical problems of great importance to our current situation, from climate change to abortion to donating to aid organizations. In addition, we use these debates to understand and test more general ethical theories. 1 Course Unit

Filipino (FILP)

FILP 0100 Beginning Filipino I
An introduction to the spoken and written Tagalog (Filipino) language. This will prepare and develop students' basic skills in speaking, listening, reading and writing Filipino at its beginning level. Two Term Class, Student must enter first term; credit given after both terms are complete 1 Course Unit

FILP 0200 Beginning Filipino II
A continuation of Beginning Filipino I, this class building on previous lessons on speaking, listening, reading and writing Filipino at its beginning level. 1 Course Unit

FILP 0300 Intermediate Filipino I
A continuation of Beginning Filipino II, the spoken and written Tagalog (Filipino) language. This course will develop the communicative competence of the students in handling limited communicative tasks, reading simple connected texts and writing short dialogues. Two Term Class, Student must enter first term; credit given even if second term not complete 1 Course Unit

FILP 0400 Intermediate Filipino II
A continuation of Intermediate Filipino I, the goal of this course is for students to be semi-fluent in handling everyday tasks like asking and giving directions, talking about vacation, and narrating news and events. Fall 1 Course Unit

FILP 0500 Filipino Language and Culture
The Filipino Language and Culture is an advanced language and culture course offered to students who are in the upper immediate level of Filipino Language or those who had been certified to be proficient in Filipino language. Two Term Class, Student must enter first term; credit given after both terms are complete 1 Course Unit
Finance (FNCE)

FNCE 0001 Introduction to Financial Markets and the Global Economy
This course aims to provide a timely framework to understand economic recessions and expansions and the financial markets' response to world events. The Covid recession reduced the size of the world's economies and output. What does this mean? How is output connected to employment? How are exchange rates determined in global capital markets? We will introduce the policy options of government spending. We will discuss, as data become available, the continuing impact of the coronavirus on the domestic and the global economy.
Fall or Spring
0.5 Course Units

FNCE 0002 Essentials of Personal Finance
This course introduces students to the key financial concepts through the lens of personal financial decisions, centering on financing one's education, culminating in a capstone project evaluating student loan offers.
Fall or Spring
0.5 Course Units

FNCE 1000 Corporate Finance
This course provides an introduction to the theory, the methods, and the concerns of corporate finance. The concepts developed in FNCE 1000 form the foundation for all elective finance courses. The main topics include: 1) the time value of money and capital budgeting techniques; 2) uncertainty and the trade-off between risk and return; 3) security market efficiency; 4) optimal capital structure, and 5) dividend policy decisions.
ACCT 1010 + STAT 1010 may be taken concurrently.
Fall or Spring
Mutually Exclusive: FNCE 1008, FNCE 6110
Prerequisite: (ECON 0100 AND ECON 0200) OR (ECON 0110 AND (MATH 1400 OR MATH 1070))
1 Course Unit

FNCE 1008 Corporate Finance (Honors)
This course provides an introduction to the theory, the methods, and the concerns of corporate finance. The concepts developed in FNCE 1000 form the foundation for all elective finance courses. The main topics include: 1) the time value of money and capital budgeting techniques; 2) uncertainty and the trade-off between risk and return; 3) security market efficiency; 4) optimal capital structure, and 5) dividend policy decisions.
ACCT 1010 + STAT 1010 may be taken concurrently. Honors sections require MATH 1400 or MATH 1070 as a prerequisite. Application process.
Mutually Exclusive: FNCE 1000, FNCE 6110
Prerequisite: (ECON 0100 AND ECON 0200) OR (ECON 0110 AND (MATH 1400 OR MATH 1070))
1 Course Unit

FNCE 1010 Monetary Economics and the Global Economy
This is an intermediate-level course in macroeconomics and the global economy, including topics in monetary and international economics. The goal is to provide a unified framework for understanding macroeconomic events and policy, which govern the global economic environment of business. The course analyzes the determinants and behavior of employment, production, demand and profits; inflation, interest rates, asset prices, and wages; exchange rates and international flows of goods and assets; including the interaction of the real economy with monetary policy and the financial system. The analysis is applied to current events, both in the US and abroad. Students cannot receive credit for taking both FNCE 1010 and ECON 2200. Wharton students are required to take FNCE 1010.
Fall or Spring
Mutually Exclusive: ECON 2200, FNCE 1018, FNCE 6130
Prerequisite: (ECON 0100 AND ECON 0200) OR (ECON 0110 AND (MATH 1400 OR MATH 1070))
1 Course Unit

FNCE 1018 Monetary Economics and the Global Economy (Honors)
This is an intermediate-level course in macroeconomics and the global economy, including topics in monetary and international economics. The goal is to provide a unified framework for understanding macroeconomic events and policy, which govern the global economic environment of business. The course analyzes the determinants and behavior of employment, production, demand and profits; inflation, interest rates, asset prices, and wages; exchange rates and international flows of goods and assets; including the interaction of the real economy with monetary policy and the financial system. The analysis is applied to current events, both in the US and abroad. Students cannot receive credit for taking both FNCE 1010 and ECON 2200. Wharton students are required to take FNCE 1010. Honors sections require MATH 1400 or MATH 1070 as a prerequisite. Application process.
Mutually Exclusive: ECON 2200, FNCE 1010, FNCE 6130
Prerequisite: (ECON 0100 AND ECON 0200) OR (ECON 0110 AND (MATH 1400 OR MATH 1070))
1 Course Unit

FNCE 2020 Consumer Financial Decision Making
Research shows that many individuals are profoundly underinformed about important financial facts and financial products, which frequently lead them to make mistakes and lose money. Moreover, consumer finance comprises an enormous sector of the economy, including products like credit cards, student loans, mortgages, retail banking, insurance, and a wide variety of retirement savings vehicles and investment alternatives. Additionally, recent breakthroughs in the FinTech arena are integrating innovative approaches to help consumers. Though virtually all people use these products, many find financial decisions to be confusing and complex, rendering them susceptible to fraud and deception. As a result, government regulation plays a major role in these markets. This course intended for Penn undergraduates considers economic models of household decisions and examines evidence on how consumers are managing (and mismanaging) their finances. Although academic research has historically placed more attention on corporate finance, household finance is receiving a brighter spotlight now-- partly due to its role in the recent financial crisis. Thus the course is geared toward those seeking to take charge of their own financial futures, anyone interested in policy debates over consumer financial decision making, and future FinTech entrepreneurs.
Fall
Also Offered As: BEPP 2020
1 Course Unit

2023-24 Catalog | Generated 08/02/23
FNCE 2030 Advanced Corporate Finance
This course discusses the theory and empirical evidence related to the various investment and financing policies of the firm and attempts to improve decision-making ability in these areas. This course covers aspects of financial management not covered in FNCE 1000, including mergers and acquisitions, corporate reorganizations, financial planning and working capital management. It also offers a more rigorous coverage of topics discussed in FNCE 1000, such as investment under uncertainty, cost of capital, capital structure, pricing of selected financial instruments and dividend policy.
Fall or Spring
Mutually Exclusive: FNCE 7030
Prerequisite: FNCE 1000
1 Course Unit

FNCE 2050 Investment Management
This course studies the concepts and evidence relevant to the management of investment portfolios. Topics include diversification, asset allocation, portfolio optimization, factor models, the relation between risk and return, trading, passive (e.g., index-fund) and active (e.g., hedge-fund, long-short) strategies, mutual funds, performance evaluation, long-horizon investing and simulation. The course deals very little with individual security valuation and discretionary investing (i.e., "equity research" or "stock picking"). In addition to course prerequisites, STAT 1020 may be taken concurrently.
Fall or Spring
Mutually Exclusive: FNCE 7050
Prerequisite: FNCE 1000 AND STAT 1010
1 Course Unit

FNCE 2070 Valuation
The focus of this course is on the valuation of companies. The course covers current conceptual and theoretical valuation frameworks and translates those frameworks into practical approaches for valuing companies. The relevant accounting topics and the appropriate finance theory are integrated to show how to implement the valuation frameworks discussed on a step-by-step basis. The course teaches how to develop the required information for valuing companies from financial statements and other information sources in a real-world setting. Topics covered in depth include discounted cash flow techniques and price multiples. In addition, the course covers other valuation techniques.
Fall or Spring
Mutually Exclusive: FNCE 7070
Prerequisite: FNCE 1000 AND ACCT 1010 AND STAT 1010
1 Course Unit

FNCE 2090 Real Estate Investment: Analysis and Financing
This course provides an introduction to real estate with a focus on investment and financing issues. Project evaluation, financing strategies, investment decision making and real estate capital markets are covered. No prior knowledge of the industry is required, but students are expected to rapidly acquire a working knowledge of real estate markets. Classes are conducted in a standard lecture format with discussion required. The course contains cases that help students evaluate the impact of more complex financing and capital markets tools used in real estate. There are case studies and two midterms, (depending on instructor).
Fall or Spring
Also Offered As: REAL 2090
Prerequisite: FNCE 1000
1 Course Unit

FNCE 2170 Financial Derivatives
(Formerly FNCE 206) This course covers one of the most exciting and fundamental areas in finance. Financial derivatives serve as building blocks to understand broad classes of financial problems, such as complex asset portfolios, strategic corporate decisions, and stages in venture capital investing. The main objective of this course is build intuition and skills on (1) pricing and hedging of derivative securities, and (2) using them for investment and risk management. In terms of methodologies, we apply the non-arbitrage principle and the law of one price to dynamic models through three different approaches: the binomial tree model, the Black-Scholes-Merton option pricing model, and the simulation-based risk neutral pricing approach. The course covers a wide range of applications, including the use of derivatives in asset management, the valuation of corporate securities such as stocks and corporate bonds with embedded options, interest rate and credit derivatives, as well as crude oil derivatives. We emphasize practical considerations of implementing strategies using derivatives as tools, especially when no-arbitrage conditions do not hold. STAT 1020 may be taken concurrently.
Fall or Spring
Mutually Exclusive: FNCE 7170
Prerequisite: FNCE 1000
1 Course Unit

FNCE 2190 International Financial Markets and Cryptocurrencies
Major topics include foreign exchange rates, international money markets, currency and interest rate derivatives, international stock and bond portfolios, and cryptocurrencies. Students learn about the features of financial instruments and the motivations of market participants. The class focuses on risk management, investing, and arbitrage in these markets. In addition to course prerequisites, FNCE 1010 is recommended but not required.
Fall or Spring
Mutually Exclusive: FNCE 7190
Prerequisite: FNCE 1000 AND STAT 1010
1 Course Unit

FNCE 2250 Fixed Income Securities
(Formerly FNCE 235) This course covers fixed income securities (including fixed income derivatives) and provides an introduction to the markets in which they are traded, as well as to the tools that are used to value these securities and to assess and manage their risk. Quantitative models play a key role in the valuation and risk management of these securities. As a result, although every effort will be made to introduce the various pricing models and techniques as intuitively as possible and the technical requirements are limited to basic calculus and statistics, the class is by its nature quantitative and will require a steady amount of work. In addition, some computer proficiency will be required for the assignments, although familiarity with a spreadsheet program (such as Microsoft Excel) will suffice. In addition to course prerequisites, FNCE 1010 is recommended.
Fall or Spring
Mutually Exclusive: FNCE 7250
Prerequisite: FNCE 1000
1 Course Unit
FNCE 2300 Urban Fiscal Policy
This course will examine the provision of public services for firms and people through cities. Why cities exist, when fiscal policy fails, investments in infrastructure, realities of local governments such as inequality, crime, corruption, high cost of living, congestion, and unfunded pensions and debt, will be covered. We will pay special attention to recent topics, such as partnerships with the private sector, enterprise zones, the role of technology, environmental challenges, and real estate policies that promote housing affordability, such as rent control and inclusionary zoning.

Fall
Also Offered As: BEPP 2300, REAL 2300
1 Course Unit

FNCE 2310 Global Valuation and Risk Analysis
(Formerly FNCE 208/International Corporate Finance) This course analyzes the financial management problems that result from operating in global environments. Key topics include managing currency risk through hedging and financing, calculating the cost of capital for foreign operations, assessing sovereign risks, capital budgeting from a project and parent perspective, and international taxation and financing, measuring exchange rate exposure, calculating the cost of capital for foreign operations, assessment of sovereign risks, capital budgeting from a project and parent perspective, and international taxation.

Spring
Mutually Exclusive: FNCE 7310
Prerequisite: FNCE 1000
1 Course Unit

FNCE 2320 International Banking
(Formerly FNCE 220) This course focuses on international financial institutions, especially the activities of global, systemically important banks. We will examine how current and historical events are reshaping the industry and highlight the basic analytics of managing a bank's exposure to liquidity, credit, market and reputational risk. Most classes will begin with discussion of a current event related to course topics. Three team projects will be assigned that will give you deeper exposure to analytic techniques related to the course. Throughout the semester, we will discuss public policy issues facing the international financial system. In addition to course prerequisites, FNCE 1010 is recommended.

Spring
Mutually Exclusive: FNCE 7320
Prerequisite: FNCE 1000
1 Course Unit

FNCE 2370 Data Science for Finance
This course will introduce students to data science for financial applications using the Python programming language and its ecosystem of packages (e.g., Dask, Matplotlib, Numpy, Numba, Pandas, SciPy, Scikit-Learn, StatsModels). To do so, students will investigate a variety of empirical questions from different areas within finance including: FinTech, investment management, corporate finance, corporate governance, venture capital, private equity, and entrepreneurial finance. The course will highlight how big data and data analytics shape the way finance is practiced. Some programming experience is helpful though knowledge of Python is not assumed.

Fall
Mutually Exclusive: FNCE 7370
Prerequisite: FNCE 1000 AND STAT 1020
1 Course Unit

FNCE 2380 Capital Markets
The objective of this course is to give you a broad understanding of the framework and evolution of U.S. capital markets, the instruments that are traded, the mechanisms that facilitate their trading and issuance, and the motivations of issuers and investors across different asset classes. The course will highlight the problems that capital market participants are seeking to solve, which you can use in your post-Wharton careers to evaluate future market innovations. We will consider design, issuance, and pricing of financial instruments, the arbitrage strategies which keep their prices in-line with one another and the associated economic and financial stability issues. We will draw from events in the aftermath of the recent financial crisis, which illustrate financing innovations and associated risks, as well as policy responses that can change the nature of these markets. In addition to course prerequisites, FNCE 1010 is recommended.

Fall or Spring
Mutually Exclusive: FNCE 7380
Prerequisite: FNCE 1000
1 Course Unit

FNCE 2390 Behavioral Finance
This course combines insights from behavioral economics and psychology to shed light on anomalous decisions by investors and possibly behavior of asset prices. Its content is designed to both complement and challenge the "rational" investment paradigms developed in the early finance classes. It introduces students to much modern theoretical and empirical research showing this paradigm to be insufficient to describe various features of actual financial markets. The course structure involves early lectures, several cases, and a final project involving "real life" examples and some modern research methods. In the capstone project students research and explore a specific behavioral bias or a profitable investment opportunity. Students will work in groups to simulate the behavior of, say, a portfolio management team looking for a new trading strategy; a consulting firm advising corporations on issues of financial management; or an entrepreneurial start-up developing a retail financial product. The main deliverable is in a form of a "pitch" to potential clients to be delivered both in the form of a group presentation in class and a formal write-up to be submitted by the due date.

Spring
Mutually Exclusive: FNCE 7390
Prerequisite: FNCE 1000
1 Course Unit

FNCE 2380 Capital Markets
The objective of this course is to give you a broad understanding of the framework and evolution of U.S. capital markets, the instruments that are traded, the mechanisms that facilitate their trading and issuance, and the motivations of issuers and investors across different asset classes. The course will highlight the problems that capital market participants are seeking to solve, which you can use in your post-Wharton careers to evaluate future market innovations. We will consider design, issuance, and pricing of financial instruments, the arbitrage strategies which keep their prices in-line with one another and the associated economic and financial stability issues. We will draw from events in the aftermath of the recent financial crisis, which illustrate financing innovations and associated risks, as well as policy responses that can change the nature of these markets. In addition to course prerequisites, FNCE 1010 is recommended.

Fall or Spring
Mutually Exclusive: FNCE 7380
Prerequisite: FNCE 1000
1 Course Unit

FNCE 2390 Behavioral Finance
This course combines insights from behavioral economics and psychology to shed light on anomalous decisions by investors and possibly behavior of asset prices. Its content is designed to both complement and challenge the "rational" investment paradigms developed in the early finance classes. It introduces students to much modern theoretical and empirical research showing this paradigm to be insufficient to describe various features of actual financial markets. The course structure involves early lectures, several cases, and a final project involving "real life" examples and some modern research methods. In the capstone project students research and explore a specific behavioral bias or a profitable investment opportunity. Students will work in groups to simulate the behavior of, say, a portfolio management team looking for a new trading strategy; a consulting firm advising corporations on issues of financial management; or an entrepreneurial start-up developing a retail financial product. The main deliverable is in a form of a "pitch" to potential clients to be delivered both in the form of a group presentation in class and a formal write-up to be submitted by the due date.

Spring
Mutually Exclusive: FNCE 7390
Prerequisite: FNCE 1000
1 Course Unit
FNCE 2400 Central Banks, Macroeconomic Policy and Financial Markets
(Formerly FNCE 393) Understanding and predicting central banking decision making and behavior is crucial for all market participants from asset managers and traders to private consumers. This course aims to provide the methods and knowledge on how central banks and governments think and implement policies to reach the goals of price and financial stability as well as support of growth and employment. The core of the course connects between the legal and actual goals that central banks follow and the related economic analysis on which these goals and policies are set. We explain the economic rationale for the policy prescriptions to reach the goals and how these policies are actually implemented by the Federal Reserve Bank (Fed) in the US, the European Central Bank (ECB), Bank of Israel (BOI) and some remarks on other countries. We use data, current events of the 2007-2018 period as the basis for discussion and assignments. All of these are aimed understanding how and why the Fed, the ECB and the BOI set their policies. For each we shall simulate in class current decisions based on assignment related to past policies and the theory presented in class.
Fall
Mutually Exclusive: FNCE 7400
Prerequisite: FNCE 1000 AND FNCE 1010 AND STAT 1020
1 Course Unit

FNCE 2500 Venture Capital and the Finance of Innovation
This course covers the finance of technological innovation, with a focus on the valuation tools useful in the venture capital industry. These tools include the "venture capital method," comparables analysis, discounted cash flow analysis, contingent-claims analysis. The primary audience for this course is finance majors interested in careers in venture capital or in R&D-intensive companies in health care or information technology.
Fall or Spring
Mutually Exclusive: FNCE 7500
Prerequisite: FNCE 1000
1 Course Unit

FNCE 2510 The Finance of Buyouts and Acquisitions
The course focuses on financial tools, techniques, and best practices used in buyouts (financial buyers) and acquisitions (strategic buyers). While it will touch upon various strategic, organizational, and general management issues, the main lens for studying these transactions will be a financial one. It will explore how different buyers approach the process of finding, evaluating, and analyzing opportunities in the corporate-control market; how they structure deals and how deal structure affects both value creation and value division; how they add value after transaction completion; and how they realize their ultimate objectives (such as enhanced market position or a profitable exit). The course is divided into two broad modules. The first module covers mergers and acquisitions, and the second one studies buyouts by private equity partnerships. FNCE 2030 or FNCE 2070 are recommended.
Fall or Spring
Mutually Exclusive: FNCE 7510
Prerequisite: FNCE 1000
1 Course Unit

FNCE 2530 Distressed Investing and Value Creation
(Formerly FNCE 341) This course familiarizes students with financial, strategic and legal issues associated with the restructuring of financially distressed firms and investment in distressed securities. The objective is to give students the concepts and tools necessary to assess the often-complex situation facing a firm in financial distress. The course covers the various options available for distressed firms, such as out-of-court workouts, exchange offers, prepackaged and pre-negotiated, bankruptcies, distressed asset sales, 363 auctions, and Chapter 11 reorganization. We consider distressed debt as an asset class, develop techniques for investing in distressed securities and assess investment opportunities using the concepts of value investing. Students will sharpen their conceptual knowledge of finance and valuation in order to properly estimate the value of a distressed firm, and its securities. We will also address the importance of value creation and how to manage for value creation to either resolve distress or avoid it in the first place. FNCE 2030 or FNCE 2070 are recommended.
Fall
Mutually Exclusive: FNCE 7530
Prerequisite: FNCE 1000
1 Course Unit

FNCE 2540 ESG and Impact Investing
This course explores Impact Investing, a discipline that seeks to generate social benefits as well as financial returns. From tiny beginnings, the impact investment space has expanded and now commands significant attention from policymakers, wealthy and public-spirited individuals, academia and, not least, the world’s largest asset managers and philanthropic foundations. Evangelists believe it may be the key to freeing the world from poverty. Skeptics think it will remain confined to the boutique. Regardless, Impact Investing is becoming a distinct career specialization for finance professionals despite the diverse skillset each must have and the uncertainty of the new field’s growth. In addition to prerequisites, FNCE 2050 is recommended but not required.
Fall
Mutually Exclusive: FNCE 7540
Prerequisite: FNCE 1000
1 Course Unit

FNCE 2550 Energy Finance
The objective of this course is to provide students with detailed knowledge of corporate structures, valuation methods, project finance, risk management practices, corporate governance issues, and geopolitical risks in the energy industry. In general, this course seeks to provide students with an overall context for understanding energy issues and risks, and how these might affect financing and investment decisions for both providers of energy and end-users of energy. FNCE 2030 or FNCE 2070 are recommended but not required.
Fall
Mutually Exclusive: FNCE 7560
Prerequisite: FNCE 1000
1 Course Unit
FNCE 2570 Foundations of Asset Pricing
This course will cover methods and topics that form the foundations of modern asset pricing. These include: investment decisions under uncertainty, mean-variance theory, capital market equilibrium, arbitrage pricing theory, state prices, dynamic programming, and risk-neutral valuation as applied to option prices and fixed-income securities. Upon completion of this course, students should acquire a clear understanding of the major principles concerning individuals' portfolio decisions under uncertainty and the valuations of financial securities. In addition to the prerequisites of one of the following courses is recommended FNCE 205; BEPP 250; MATH 360; STAT 433.
Spring
Mutually Exclusive: FNCE 7570
Prerequisite: FNCE 1000 AND FNCE 1010 AND MATH 1410 AND MATH 3120 AND STAT 4300
1 Course Unit

FNCE 2800 FinTech
(Formerly FNCE 385) The course exposes students to this fast-growing and exciting intersection between finance (Fin) and technology (Tech) while emphasizing the role data and analytics play. The course is structured around three main FinTech areas: (i) Lending/Banking services, (ii) Clearing (iii) Trading. It provides specific coverage and examples of developments from (1) market-place lending, (2) blockchain and distributed ledgers, (3) quantitative trading and its use of non-standard inputs. In each of these areas, we start by analyzing the marketplace, the incumbents, and then proceed to analyze the impact of the most relevant technologies have on the business. The course is built around data/code examples, cases, guest lectures, and group projects. Student are thus expected to work in teams and demonstrate a high level of independent learning and initiative.
Spring
Mutually Exclusive: FNCE 7800
Prerequisite: FNCE 1000
0.5 Course Units

FNCE 2830 Strategic Equity Finance
This course discusses actual situations where companies need to make strategic decisions on raising equity capital. We will address different phases of a company's life cycle. Through these cases, from the decision-makers perspective, we will explore the different paths that can be taken and consider issues This half-semester course combines lectures and cases, and will go through actual situation where companies need to make strategic decisions on raising equity capital. We will address different phases of a company's life cycle. Through these cases, from the decision-makers perspective, we will explore the different paths that can be taken and consider issues such as investor activism, governance and regulatory and valuation impact.
Spring
Mutually Exclusive: FNCE 7830
Prerequisite: FNCE 1000
0.5 Course Units

FNCE 2970 Taxes and Business Strategy
The objective of this course is to develop a framework for understanding how taxes affect business decisions. The key themes of the framework - all parties, all taxes and all costs - are applied to decision contexts such as investments, compensation, organizational form, and mergers and acquisitions. The ultimate goal is to provide a new approach to thinking about taxes that will be valuable even as laws and governments change. If ACCT 2970 is not offered in a given year, Undergraduate students interested in ACCT 2970 will need to submit a permission through Path@Penn.edu. All prerequisites need to be completed in order to receive a permit. Also this class will follow the MBA calendar.
Spring
Also Offered As: ACCT 2970
Prerequisite: ACCT 1010 AND FNCE 1010
1 Course Unit

FNCE 2970 Corporate Restructuring
This course explores the highly active and sophisticated deal making environment that is the hallmark of modern corporate restructuring. The course is primarily comprised of two key components. The first is groundwork-laying lectures that focus on fundamental rights and obligations of debtors, creditors, and other parties in interest in the various types of major chapter 11 cases, providing critical insight into understanding the motivations, strategies, and available tools for chapter 11 participants (which also serve as the foundation for out-of-court deals). The second element of the course is a series of case study panels based on market trends from the previous year that bring together key participants from recent deals, including the CEO or chairman of the company, the judge, the lead banker and lead lawyer, and the lead investors to give their insight and perspectives to the class.
Fall
Mutually Exclusive: FNCE 7910, LAW 9080
Prerequisite: FNCE 1000
1 Course Unit

FNCE 3110 Infrastructure Investing
Infrastructure covers roads and bridges (the original infrastructure), to railroads, airports (the more recent infrastructure), to telecommunications and solar and wind power installations (modern infrastructure). There is a vast amount of public (taxpayer) and private (typically private equity or banks) money directed into infrastructure investments. This course covers infrastructure financing and investing from various angles. We will provide descriptions of types of infrastructure, examine the financing needs of different infrastructure projects, consider the historic role of public and private funding, assess the changing needs of consumers, role of technology and the increasing demands posed by a globalizing economy. We will also examine infrastructure investing as a alternative asset class from the investors' perspective. FNCE 2030 or FNCE 2070 are recommended.
Mutually Exclusive: FNCE 8110
Prerequisite: FNCE 1000
0.5-1 Course Unit
FNCE 3510 ASP. Finance and Society
This interdisciplinary course delves into the history of different economic and financial systems around the world. Students will analyze the economic and financial interactions between individuals, financial and non-financial corporations, governments, and the media under various systems and through the pre-modern, modern and postmodern eras. After theoretically exploring each system and their underlying philosophy, students critically evaluate them through data-driven analysis. In the process, the course offers students a rigorous introduction to the scientific method and its enlightenment origins, as well as the resulting empirical tools used in the social sciences. The course will be intellectually rigorous but not overly mathematical.
Fall or Spring
Prerequisite: FNCE 1000 AND FNCE 1010
0.5 Course Units

FNCE 3860 ASP. Hedge Funds
This course will cover critical aspects and characteristics of hedge funds and the hedge fund industry. It will look at the legal foundations and structures of hedge funds including the primary regulations in the U.S. and abroad that are most relevant for hedge funds. It will also present the major hedge fund strategies, describe operation, control, administration, due diligence and valuation issues. Performance evaluation and investing in hedge funds from the investor’s perspective will be discussed as will be issues of potential changes in regulation, risk management, and the use of leverage. The format of the course will mix lectures with presentations from industry participants, hedge fund managers, those who invest in hedge funds, those who advise them and provide services to them, and those who regulate them. Those who want to launch a hedge fund, join an existing one, invest in one, or provide services to one will want to register for this course.
Fall
Prerequisite: FNCE 1000
0.5 Course Units

FNCE 3920 Financial Engineering
This course expands the key insights from the prior quantitative finance classes such as Derivatives and Fixed Income by using more advanced tools in statistics and applied mathematics. Its focus is on devising new and innovative financial products, often employing financial derivatives and related dynamic strategies, to address portfolio and risk-management problems. The course structure involves an introductory lectures and case discussions in the first half, and a capstone "real life" group project where students will seek to address specific problems in finance faced by sell-side banks, and buy-side corporate clients or investment funds. Each project will focus on practical economic needs and standard activities of a specific client and/or bank and the use of derivatives and dynamic strategies to solve them. Programming skills and an exposure to numerical methods are an important part of the project in this course.
Mutually Exclusive: FNCE 8920
Prerequisite: FNCE 1000
0.5-1 Course Unit

FNCE 3990 Supervised Study in Finance
Integrates the work of the various courses and familiarizes the student with the tools and techniques of research.
Prerequisite: FNCE 1000 AND FNCE 1010
0.5-1 Course Unit

FNCE 4010 Advanced Topics in PE
This course will cover a variety of applied topics in private equity (PE) with a focus on growth and later-stage buyout transactions. It will have a primarily U.S.-centric view that is largely applicable to other markets. Venture capital is not explicitly addressed in this course. Course topics will address the entirety of the deal process and value creation in the post-acquisition period, and will include the following: - LBO modeling - Commercial due diligence (principles and execution) - Debt financing - Sale & purchase agreements (SPA) - Accounting diligence - Deal structuring - Operations & Value creation Throughout the course, students will learn about each element of the deal process through in-class lectures, while concurrently applying those learnings to former transactions (these must be old enough that sharing material is no longer sensitive). The in-class lectures will cover conceptual frameworks, practical considerations and real-world case studies and examples. There will be four assignments in this course. The first three assignments will apply these learnings to the art of the deal through a real world lens. In the last assignment, students will develop a value creation plan for designated public companies "TargetCo1" and "TargetCo2". Students are expected to actively engage in classroom discussions, challenging one another and the instructors about how to think through these issues in an ever-evolving investment world. In addition, throughout the course, students are expected to work as a team on the assignments.
Fall or Spring
Mutually Exclusive: FNCE 8010
Prerequisite: (FNCE 1000 OR FNCE 1008) AND (FNCE 1010 OR FNCE 1018) AND WH 1010 AND WH 2010 AND MGMT 3010
1 Course Unit

FNCE 4020 Shareholder Activism
The aim of the course is to provide an introduction to shareholder activism. The course makes use of lectures and case studies. The lectures expose the students to the institutional and empirical facts as well as approaches followed by leading shareholder activists. The case studies are designed to provide students experience in formulating potential opportunities for value creation through active engagement.
Assignments require students to develop/practice skills on fundamental analysis. Completion of either FNCE 2030 or FNCE 2070 is recommended.
Fall
Mutually Exclusive: FNCE 8020
Prerequisite: (FNCE 1000 OR FNCE 1008) AND (FNCE 1010 OR FNCE 1018) AND WH 1010 AND WH 2010 AND MGMT 3010
1 Course Unit

FNCE 6110 Corporate Finance
This course serves as an introduction to business finance (corporate financial management and investments) for both non-majors and majors preparing for upper-level course work. The primary objective is to provide the framework, concepts, and tools for analyzing financial decisions based on fundamental principles of modern financial theory. The approach is rigorous and analytical. Topics covered include discounted cash flow techniques; corporate capital budgeting and valuation; investment decisions under uncertainty; capital asset pricing; options; and market efficiency. The course will also analyze corporate financial policy, including capital structure, cost of capital, dividend policy, and related issues. Additional topics will differ according to individual instructors.
Fall or Spring
Mutually Exclusive: FNCE 1000
1 Course Unit
FNCE 6130 Macroeconomics and the Global Economic Environment
This course is required for all students except those who, having prior training in macroeconomics, money and banking, and stabilization policy at an intermediate or advanced level, can obtain a waiver by passing an examination. The purpose of the course is to train students to think systematically about the current state of the economy and macroeconomic policy, and to be able to evaluate the economic environment within which business and financial decisions are made. The course emphasizes the use of economic theory to understand the workings of financial markets and the operation and impact of government policies. We will study the determinants of the level of national income, employment, investment, interest rates, the supply of money, inflation, exchange rates, and the formulation and operation of stabilization policies.
Fall or Spring
Mutually Exclusive: FNCE 1010
1 Course Unit

FNCE 6210 Corporate Finance (Half CU)
(Formerly FNCE 614) This half-semester course serves as an introduction to corporate investments for non-majors. The primary objective is to provide a framework, concepts, and tools for analyzing financial decisions based on fundamental principles of modern financial theory. Topics covered include discounted cash flow techniques, corporate capital budgeting and valuation, investment decisions under uncertainty, and capital asset pricing. The approach is rigorous and analytical but the course will not cover several topics included in the full semester Corporate Finance course, including: market efficiency, corporate financial policy (including capital structure, cost of capital, dividend policy, and related issues), and options.
Fall or Spring
0.5 Course Units

FNCE 6230 Macroeconomics and The Global Economic Environment (Half CU)
(Formerly FNCE 615) This half-semester course in Macroeconomics is intended for non-finance majors. The goal of this course is to provide the foundation needed to recognize and understand broad economic and financial movements in the global economy. Key topics include national income accounting, production and economic growth, employment, business cycles, monetary and fiscal policy, and international finance. By the end of this course, students will be able to evaluate and discuss the global economic environment in which business and financial decisions are made.
Fall or Spring
0.5 Course Units

FNCE 7030 Advanced Corporate Finance
(Formerly FNCE 726) The objective of this course is to study the major decision-making areas of managerial finance and some selected topics in financial theory. The course reviews the theory and empirical evidence related to the investment and financing policies of the firm and attempts to develop decision-making ability in these areas. This course serves as an extension of FNCE 6110. Some areas of financial management not covered in FNCE 6110 are covered in FNCE 7030. These may include leasing, mergers and acquisitions, corporate reorganizations, financial planning, and working capital management, and some other selected topics. Other areas that are covered in FNCE 6110 are covered more in depth and more rigorously in FNCE 7030. These include investment decision making under uncertainty, cost of capital, capital structure, pricing of selected financial instruments and corporate liabilities, and dividend policy.
Fall or Spring
Mutually Exclusive: FNCE 2030
Prerequisite: FNCE 6110
1 Course Unit

FNCE 7050 Investment Management
(Formerly FNCE 720) This course studies the concepts and evidence relevant to the management of investment portfolios. Topics include diversification, asset allocation, portfolio optimization, factor models, the relation between risk and return, trading, passive (e.g., index-fund) and active (e.g., hedge-fund, long-short) strategies, mutual funds, performance evaluation, long-horizon investing and simulation. The course deals very little with individual security valuation and discretionary investing (i.e., “equity research” or “stock picking”).
Fall or Spring
Mutually Exclusive: FNCE 2050
Prerequisite: FNCE 6110
1 Course Unit

FNCE 7070 Valuation
(Formerly FNCE 728) The focus of this course is on the valuation of companies. The course covers current conceptual and theoretical valuation frameworks and translates those frameworks into practical approaches for valuing companies. The relevant accounting topics and the appropriate finance theory are integrated to show how to implement the valuation frameworks discussed on a step-by-step basis. The course teaches how to develop the required information for valuing companies from financial statements and other information sources in a real-world setting. Topics covered in depth include discounted cash flow techniques and price multiples. In addition, the course covers other valuation techniques such as leveraged buyout analysis.
Fall or Spring
Mutually Exclusive: FNCE 2070
Prerequisite: FNCE 6110 AND (ACCT 6110 OR ACCT 6130) AND (STAT 6130 OR STAT 6210)
0.5-1 Course Unit
FNCE 7170 Financial Derivatives
This course covers one of the most exciting and fundamental areas in finance. Financial derivatives serve as building blocks to understand broad classes of financial problems, such as complex asset portfolios, strategic corporate decisions, and stages in venture capital investing. The main objective of this course is build intuition and skills on (1) pricing and hedging of derivative securities, and (2) using them for investment and risk management. In terms of methodologies, we apply the non-arbitrage principle and the law of one price to dynamic models through three different approaches: the binomial tree model, the Black-Scholes-Merton option pricing model, and the simulation-based risk neutral pricing approach. The course covers a wide range of applications, including the use of derivatives in asset management, the valuation of corporate securities such as stocks and corporate bonds with embedded options, interest rate and credit derivatives, as well as crude oil derivatives. We emphasize practical considerations of implementing strategies using derivatives as tools, especially when no-arbitrage conditions do not hold. Fall or Spring
Mutually Exclusive: FNCE 2170
Prerequisite: FNCE 6110
1 Course Unit

FNCE 7190 International Financial Markets and Cryptocurrencies
Major topics include foreign exchange rates, international money markets, currency and interest rate derivatives, international stock and bond portfolios, and cryptocurrencies. Students learn about the features of financial instruments and the motivations of market participants. The class focuses on risk management, investing, and arbitrage in these markets. In addition to course prerequisites, FNCE 6130 is recommended but not required. Fall or Spring
Mutually Exclusive: FNCE 2190
Prerequisite: FNCE 6110
1 Course Unit

FNCE 7210 Real Estate Investment: Analysis and Financing
This course provides an introduction to real estate with a focus on investment and financing issues. Project evaluation, financing strategies, investment decision making and capital markets are covered. No prior knowledge of the industry is required, but students are expected to rapidly acquire a working knowledge of real estate markets. Classes are conducted in a standard lecture format with discussion required. The course contains cases that help students evaluate the impact of more complex financing and capital markets tools used in real estate. Lecture with discussion required. Fall or Spring
Also Offered As: REAL 7210
Prerequisite: FNCE 6110
0.5-1 Course Unit

FNCE 7250 Fixed Income Securities
This course covers fixed income securities (including fixed income derivatives) and provides an introduction to the markets in which they are traded, as well as to the tools that are used to value these securities and to assess and manage their risk. Quantitative models play a key role in the valuation and risk management of these securities. In addition to course prerequisites, FNCE 6130 is recommended but not required. Fall
Mutually Exclusive: FNCE 2250
Prerequisite: FNCE 6110 AND (STAT 6130 OR STAT 6210)
1 Course Unit

FNCE 7300 Urban Fiscal Policy
This course will examine the provision of public services for firms and people through cities. Why cities exist, when fiscal policy fails, investments in infrastructure, realities of local governments such as inequality, crime, corruption, high cost of living, congestion, and unfunded pensions and debt, will be covered. We will pay special attention to recent topics, such as partnerships with the private sector, enterprise zones, the role of technology, environmental challenges, and real estate policies that promote housing affordability, such as rent control and inclusionary zoning. Fall
Also Offered As: BEPP 7730, REAL 7300
1 Course Unit

FNCE 7310 Global Valuation and Risk Analysis
(Formerly named International Corporate Finance) This course analyzes the financial management problems that result from operating in global environments. Key topics include managing currency risk through hedging and financing, calculating the cost of capital for foreign operations, assessing sovereign risks, capital budgeting from a project and parent perspective, and international taxation. Spring
Mutually Exclusive: FNCE 2310
Prerequisite: FNCE 6110
1 Course Unit

FNCE 7320 International Banking
This course focuses on international financial institutions, especially the activities of global, systemically important banks. We will examine how current and historical events are reshaping the industry and highlight the basic analytics of managing a bank’s exposure to liquidity, credit, market and reputational risk. Most classes will begin with discussion of a current event related to course topics. Three team projects will be assigned that will give you deeper exposure to analytic techniques related to the course. Throughout the semester, we will discuss public policy issues facing the international financial system. In addition to course prerequisites, FNCE 6130 is recommended. Spring
Mutually Exclusive: FNCE 2320
Prerequisite: FNCE 6110
1 Course Unit

FNCE 7370 Data Science for Finance
This course will introduce students to data science for financial applications using the Python programming language and its ecosystem of packages (e.g., Dask, Matplotlib, Numpy, Numba, Pandas, SciPy, Scikit-Learn, StatsModels). To do so, students will investigate a variety of empirical questions from different areas within finance by way of data labs, or case studies that rely on data and analytics. Some of the areas that may be covered in the course, subject to time constraints, include: FinTech, investment management, corporate finance, corporate governance, venture capital, private equity. The course will highlight how big data and data analytics shape the way finance is practiced. Some programming and experience is helpful though knowledge of Python is not assumed. Spring
Mutually Exclusive: FNCE 2370
Prerequisite: FNCE 6110
1 Course Unit
FNCE 7380 Capital Markets
The objective of this course is to give you a broad understanding of the instruments traded in modern financial markets, the mechanisms that facilitate their trading and issuance, as well as, the motivations of issuers and investors across different asset classes. The course will balance functional and institutional perspectives by highlighting the problems capital markets participants are seeking to solve, as well as, the existing assets and markets which have arisen to accomplish these goals. We will consider design, issuance, and pricing of financial instruments, the arbitrage strategies which keep their prices in-line with one another, and the associated economic and financial stability issues. The course is taught in lecture format, and illustrates key concepts by drawing on a collection of case studies and visits from industry experts. FNCE 6130 is recommended but not required.

Fall or Spring
Mutually Exclusive: FNCE 2380
Prerequisite: FNCE 6110
0.5-1 Course Unit

FNCE 7390 Behavioral Finance
There is an abundance of evidence suggesting that the standard economic paradigm - rational agents in an efficient market - does not adequately describe behavior in financial markets. In this course, we will survey the evidence and use psychology to guide alternative theories of financial markets. Along the way, we will address the standard argument that smart, profit-seeking agents can correct any distortions caused by irrational investors. Further, we will examine more closely the preferences and trading decisions of individual investors. We will argue that their systematic biases can aggregate into observed market inefficiencies, thus giving rise to apparently profitable trading strategies. The latter part of the course extends the analysis to corporate decision making. We then explore the evidence for both views in the context of capital structure, investment, dividend, and merger decisions. In addition to prerequisites, FNCE 7050 is highly recommended but not required.

Spring
Mutually Exclusive: FNCE 2390, FNCE 4030
Prerequisite: FNCE 6110
1 Course Unit

FNCE 7400 Central Banks, Macroeconomic Policy and Financial Markets
(Formerly FNCE 893) Understanding and predicting central banking decision making and behavior is crucial for all market participants from asset managers and traders to private consumers. This course aims to provide the methods and knowledge on how central banks and governments think and implement policies to reach the goals of price and financial stability as well as support of growth and employment. The core of the course connects between the legal and actual goals that central banks follow and the related economic analysis on which these goals and policies are set. We explain the economic rationale for the policy prescriptions to reach the goals and how these policies are actually implemented by the Federal Reserve Bank (Fed) in the US, the European Central Bank (ECB), Bank of Israel (BOI) and some remarks on other countries. We use data, current events of the 2007-2018 period as the basis for discussion and assignments. The second half of the class discusses the implications of these policies for equity and bond valuations. Students will be asked to forecast live policy decisions and implied market valuations.

Fall
Mutually Exclusive: FNCE 2400
Prerequisite: FNCE 6130 AND STAT 6130
1 Course Unit

FNCE 7500 Venture Capital and the Finance of Innovation
This course covers the finance of technological innovation, with a focus on the valuation tools useful in the venture capital industry. These tools include the "venture capital method," comparables analysis, discounted cash flow analysis, contingent-claims analysis. The primary audience for this course is finance majors interested in careers in venture capital or in R&D-intensive companies in health care or information technology.

Spring
Mutually Exclusive: FNCE 2500
Prerequisite: FNCE 6110
0.5-1 Course Unit

FNCE 7510 The Finance of Buyouts and Acquisitions
The course focuses on financial tools, techniques, and best practices used in buyouts (financial buyers) and acquisitions (strategic buyers). While it will touch upon various strategic, organizational, and general management issues, the main lens for studying these transactions will be a financial one. It will explore how different buyers approach the process of finding, evaluating, and analyzing opportunities in the corporate-control market; how they structure deals and how deal structure affects both value creation and value division; how they add value after transaction completion; and how they realize their ultimate objectives (such as enhanced market position or a profitable exit). The course is divided into two broad modules. The first module covers mergers and acquisitions, and the second one studies buyouts by private equity partnerships. FNCE 7030 or FNCE 7070 are recommended.

Fall
Mutually Exclusive: FNCE 2510
Prerequisite: FNCE 6110
0.5-1 Course Unit

FNCE 7530 Distressed Investing and Value Creation
(Formerly FNCE 841) This course familiarizes students with financial, strategic and legal issues associated with the restructuring of financially distressed firms and investment in distressed securities. The objective is to give students the concepts and tools necessary to assess the often-complex situation facing a firm in financial distress. The course covers the various options available for distressed firms, such as out-of-court workouts, exchange offers, prepackaged and pre-negotiated, bankruptcies, distressed asset sales, 363 auctions, and Chapter 11 reorganization. We consider distressed debt as an asset class, develop techniques for investing in distressed securities and assess investment opportunities using the concepts of value investing. Students will sharpen their conceptual knowledge of finance and valuation in order to properly estimate the value of a distressed firm, and its securities. We will also address the importance of value creation and how to manage for value creation to either resolve distress or avoid it in the first place. FNCE 7030 or FNCE 7070 are recommended.

Fall or Spring
Mutually Exclusive: FNCE 2530
Prerequisite: FNCE 6110
1 Course Unit
FNCE 7540 ESG and Impact Investing
This course explores Impact Investing, a discipline that seeks to generate social benefits as well as financial returns. From tiny beginnings, the Impact Investment space has expanded and now commands significant attention from policymakers, wealthy and public-spirited individuals, academia and, not least, the world’s largest asset managers and philanthropic foundations. Evangelists believe it may be the key to freeing the world from poverty. Skeptics think it will remain confined to the boutique. Regardless, Impact Investing is becoming a distinct career specialization for finance professionals despite the diverse skillset each must have and the uncertainty of the new field’s growth. In addition to prerequisites, FNCE 7050 is recommended but not required.
Spring
Mutually Exclusive: FNCE 2540
Prerequisite: FNCE 6110
0.5-1 Course Unit

FNCE 7560 Energy Finance
The objective of this course is to provide students with detailed knowledge of corporate structures, valuation methods, project finance, risk management practices, corporate governance issues, and geopolitical risks in the energy industry. In general, this course seeks to provide students with an overall context for understanding energy issues and risks, and how these might affect financing and investment decisions for both providers of energy and end-users of energy. FNCE 7030 and FNCE 7070 are recommended but not required.
Spring
Mutually Exclusive: FNCE 2560
Prerequisite: FNCE 6110
1 Course Unit

FNCE 7570 Foundations of Asset Pricing
This course will cover methods and topics that form the foundations of modern asset pricing. These include: investment decisions under uncertainty, mean-variance theory, capital market equilibrium, arbitrage pricing theory, state prices, dynamic programming, and risk-neutral valuation as applied to option prices and fixed-income securities. Upon completion of this course, students should acquire a clear understanding of the major principles concerning individuals’ portfolio decisions under uncertainty and the valuations of financial securities. FNCE 7050 is recommended but not required.
Spring
Mutually Exclusive: FNCE 2570
Prerequisite: FNCE 6110
1 Course Unit

FNCE 7800 FinTech
(Formerly FNCE 885) The course exposes students to this fast-growing and exciting intersection between finance (Fin) and technology (Tech) while emphasizing the role data and analytics play. The course is structured around three main FinTech areas: (i) Lending/Banking services, (ii) Clearing (iii) Trading. It provides specific coverage and examples of developments from (1) market-place lending, (2) blockchain and distributed ledgers, (3) quantitative trading and its use of non-standard inputs. In each of these areas, we start by analyzing the marketplace, the incumbents, and then proceed to analyze the impact of the most relevant technologies have on the business. The course is built around data/code examples, cases, guest lectures, and group projects. Student are thus expected to work in teams and demonstrate a high level of independent learning and initiative.
Spring
Mutually Exclusive: FNCE 2800
Prerequisite: FNCE 6110
0.5 Course Units

FNCE 7830 Strategic Equity Finance
This course discusses actual situations where companies need to make strategic decisions on raising equity capital. We will address different phases of a company’s life cycle. Through these cases, from the decision-makers perspective, we will explore the different paths that can be taken and consider issues. This half-semester course combines lectures and cases, and will go through actual situation where companies need to make strategic decisions on raising equity capital. We will address different phases of a company’s life cycle. Through these cases, from the decision-makers perspective, we will explore the different paths that can be taken and consider issues such as investor activism, governance and regulatory and valuation impact.
Spring
Mutually Exclusive: FNCE 2830
Prerequisite: FNCE 6110
0.5 Course Units

FNCE 7850 Business Strategy & Corp
This course explores strategic, business and legal decision making in a fluid real world corporate context. Classes will cover a series of timely financial and legal subjects as well as case studies that deal with topical problems in corporate governance, investment strategy, finance, private equity, executive compensation, and potential corporate and criminal behavior. Press, public market reaction, and governmental/political considerations will be integrated into the discussion. All students will be required to participate in one major and two minor team projects. An equal number of graduate law and business students will be enrolled in this class.
Also Offered As: LGST 7850
Prerequisite: FNCE 6110
1 Course Unit
FNCE 7910 Corporate Restructuring
This course explores the highly active and sophisticated deal making environment that is the hallmark of modern corporate restructuring. The course is primarily comprised of two key components. The first is groundwork-laying lectures that focus on fundamental rights and obligations of debtors, creditors, and other parties in interest in the various types of major chapter 11 cases, providing critical insight into understanding the motivations, strategies, and available tools for chapter 11 participants (which also serve as the foundation for out-of-court deals). The second element of the course is a series of case study panels based on market trends from the previous year that bring together key participants from recent deals, including the CEO or chairman of the company, the judge, the lead banker and lead lawyer, and the lead investors to give their insight and perspectives to the class.
Fall
Mutually Exclusive: FNCE 2910, LAW 9080
0.5-1 Course Unit

FNCE 7970 Taxes and Business Strategy
The objective of this course is to develop a framework for understanding how taxes affect business decisions. Traditional finance and strategy courses do not consider the role of taxes. Similarly, traditional tax courses often ignore the richness of the decision context in which tax factors operate. The key themes of the framework - all parties, all taxes and all costs - are applied to decision contexts such as investments, compensation, organizational form, regulated industries, financial instruments, tax-sheltered investments, mergers and acquisitions, multinational, and multistate. The ultimate goal is to provide a new approach to thinking about taxes (and all forms of government intervention) that will be valuable even as laws and governments change.
Fall or Spring
Also Offered As: ACCT 8970
Prerequisite: (ACCT 6110 OR ACCT 6130) AND FNCE 6110
0.5-1 Course Unit

FNCE 8010 Corporate Restructuring
This course explores the highly active and sophisticated deal making environment that is the hallmark of modern corporate restructuring. The course is primarily comprised of two key components. The first is groundwork-laying lectures that focus on fundamental rights and obligations of debtors, creditors, and other parties in interest in the various types of major chapter 11 cases, providing critical insight into understanding the motivations, strategies, and available tools for chapter 11 participants (which also serve as the foundation for out-of-court deals). The second element of the course is a series of case study panels based on market trends from the previous year that bring together key participants from recent deals, including the CEO or chairman of the company, the judge, the lead banker and lead lawyer, and the lead investors to give their insight and perspectives to the class.
Fall
Mutually Exclusive: FNCE 2910, LAW 9080
Prerequisite: FNCE 6110
0.5-1 Course Unit

FNCE 8020 Shareholder Activism
(Formerly FNCE 887) The aim of the course is to provide an introduction to shareholder activism. The course makes use of lectures and case studies. The lectures expose the students to the institutional and empirical facts as well as approaches followed by leading shareholder activists. The case studies are designed to provide students an experience on identifying potential opportunity for value creation through active engagement. Assignments require students to develop/practice skills on fundamental analysis.
Fall
Mutually Exclusive: FNCE 4020
Prerequisite: FNCE 6110
1 Course Unit

FNCE 8110 ASP: Infrastructure Investing
Infrastructure covers roads and bridges (the original infrastructure), to railroads, airports (the more recent infrastructure), to telecommunications and solar and wind power installations (modern infrastructure). There is a vast amount of public (taxpayer) and private (typically private equity or banks) money directed into infrastructure investments. This course covers infrastructure financing and investing from various angles. We will provide descriptions of types of infrastructure, examine the financing needs of different infrastructure projects, consider the historic role of public and private funding, assess the changing needs of consumers, role of technology and the increasing demands posed by a globalizing economy. We will also examine infrastructure investing as an alternative asset class from the investors’ perspective. FNCE 7030 or FNCE 7070 are recommended.
Mutually Exclusive: FNCE 3110
Prerequisite: FNCE 6110
0.5-1 Course Unit

FNCE 8120 The Finance, Economics and Law of Fiscal Crises
The focus will be on the causes of fiscal crises, a careful detailing of who wins and who loses, and then on how such crises might be resolved and, perhaps most importantly, how they might be prevented in the future. The course will draw upon the fiscal experiences of US local governments (New York, Philadelphia, Detroit, Orange County, Puerto Rico), utilities (WPPSS) and states (Illinois), and the international experience from such countries as Greece, Brazil, and Argentina. The cost of such crises for citizens, pensioners, and bond holders can be significant. We seek to understand the underlying economic, political, and legal/regulatory causes of such events so that they may be prevented in the future. The importance of private information and public regulation for disciplining the fiscal performance of democratically elected governments will be a central concern. We believe strongly that diagnosing and treating the “disease” of fiscal mismanagement is an interdisciplinary endeavor drawing on finance, economics, political science, and the law. Students with backgrounds in any of these disciplines are welcome.
Prerequisite: FNCE 6110
1 Course Unit
FNCE 8860 ASP: Hedge Funds
This course will cover critical aspects and characteristics of hedge funds and the hedge fund industry. It will look at the legal foundations and structures of hedge funds including the primary regulations in the U.S. and abroad that are most relevant for hedge funds. It will also present the major hedge fund strategies, describe operation, control, administration, due diligence and valuation issues. Performance evaluation and investing in hedge funds from the investor’s perspective will be discussed as will be issues of potential changes in regulation, risk management, and the use of leverage. The format of the course will mix lectures with presentations from industry participants, hedge fund managers, those who invest in hedge funds, those who advise them and provide services to them, and those who regulate them. Those who want to launch a hedge fund, join an existing one, invest in one, or provide services to one will want to register for this course.
Prerequisite: FNCE 6110
0.5 Course Units

FNCE 8920 Financial Engineering
This class covers advanced pricing models for equity, fixed income and credit derivatives. It aims at: 1) Introducing the main models used in practical applications to price and hedge derivatives; 2) Understanding their comparative advantages and limitations, as well as how they are calibrated and applied. As part of team assignments, students will be asked to calibrate and implement the models introduced in the class using software of their choice.
Mutually Exclusive: FNCE 3920
Prerequisite: FNCE 7170 OR FNCE 7250
1 Course Unit

FNCE 8950 Global Business Week (GBW)
The Global Business Week (GBW) is set of classes offered annually to WEMBA second years. They are often repeated, but try to accommodate student interest along with faculty expertise and willingness, so can change with some regularity.
0.5 Course Units

FNCE 8960 Global Modular Course
Open to MBA, Executive MBA and Undergraduate students, these modular courses are intended to provide unique educational experiences to students in a regional context that has particular resonance with the topic. Taught around the globe, the modular courses help us enrich the curriculum and research on our own campuses in Philadelphia and San Francisco.
Not Offered Every Year
Mutually Exclusive: WH 2150
0.5 Course Units

FNCE 8970 Finance in Emerging Markets (GMC)
This is a Wharton Global Modular Course on Finance in the Middle East and North Africa. Its objective is to bring students, academics and industry experts together to study financial markets, practice, and institutions in this region.
Not Offered Every Year
Mutually Exclusive: WH 2140
0.5 Course Units

FNCE 8990 Independent Study Project in Finance
Independent Study Projects require extensive independent work and a considerable amount of writing. ISP in Finance are intended to give students the opportunity to study a particular topic in Finance in greater depth than is covered in the curriculum. The application for ISP's should outline a plan of study that requires at least as much work as a typical course in the Finance Department that meets twice a week. Applications for FNCE 8990 ISP's will not be accepted after the THIRD WEEK OF THE SEMESTER. ISP's must be supervised by a Standing Faculty member of the Finance Department.
Prerequisite: FNCE 6110 AND FNCE 6130
0.5-1 Course Unit

FNCE 9110 Financial Economics
The objective of this course is to undertake a rigorous study of the theoretical foundations of modern financial economics. The course will cover the central themes of modern finance including individual investment decisions under uncertainty, stochastic dominance, mean variance theory, capital market equilibrium and asset valuation, arbitrage pricing theory, option pricing, and incomplete markets, and the potential application of these themes. Upon completion of this course, students should acquire a clear understanding of the major theoretical results concerning individuals' consumption and portfolio decisions under uncertainty and their implications for the valuation of securities.
Fall
Prerequisite: ECON 6100 OR ECON 7100
1 Course Unit

FNCE 9120 Corporate Finance and Financial Institutions
This course provides students with an overview of the basic contributions in the modern theory of corporate finance and financial institutions. The course is methodology oriented in that students are required to master necessary technical tools for each topic. The topics covered may include capital structure, distribution policy, financial intermediation, incomplete financial contracting, initial and seasoned public offerings, market for corporate control, product market corporate finance interactions, corporate reorganization and bankruptcy, financing in imperfect markets, security design under adverse selection and moral hazard, and some selected topics.
Spring
Prerequisite: ECON 6100 OR ECON 7100
1 Course Unit

FNCE 9210 Introduction to Empirical Methods in Finance
This course is an introduction to empirical methods commonly employed in finance. It provides the background for FNCE 934, Empirical Research in Finance. The course is organized around empirical papers with an emphasis on econometric methods. A heavy reliance will be placed on analysis of financial data.
Spring
Prerequisite: FNCE 9110 AND STAT 5100 AND STAT 5110
1 Course Unit

FNCE 9220 Continuous-Time Financial Economics
This course covers some advanced material on the theory of financial markets developed over the last two decades. The emphasis is on dynamic asset pricing and consumption choices in a continuous time setting. The articles discussed include many classical papers in the field as well as some of the most recent developments. The lectures will emphasize the concepts and technical tools needed to understand the articles.
Fall
Prerequisite: FNCE 9110 AND ECON 7100 AND 7110
1 Course Unit
FNCE 9230 Financial Economics Under Imperfect Information
This course covers general equilibrium and rational expectations, foundations of the theory of information; learning from prices in rational expectations equilibrium models, moral hazard, adverse selection, and signaling bidding theories.
Not Offered Every Year
Prerequisite: FNCE 9220
1 Course Unit

FNCE 9240 Intertemporal Macroeconomics and Finance
This is a doctoral level course on macroeconomics, with special emphasis on intertemporal choice under uncertainty and topics related to finance. Topics include: optimal consumption and saving, the stochastic growth model, q-theory of investment, (incomplete) risk sharing and asset pricing. The course will cover and apply techniques, including dynamic programming, to solve dynamic optimization problems under uncertainty. Numerical solution methods are also discussed.
Spring
1 Course Unit

FNCE 9250 Topics in Asset Pricing
This course exposes student to recent development in the asset pricing literature. The starting point for the course is the standard neo-classical rational expectations framework. We will then investigate where this framework has succeeded and where it has not. Recently documented deviations from the framework in the literature are discussed and placed in context. The course will also focus on hypothesis development, recent research methods, and research writing. The ultimate objective is for students to develop their own hypotheses and research ideas, resulting in a paper.
Not Offered Every Year
Prerequisite: ECON 6100 OR ECON 7100
1 Course Unit

FNCE 9260 Empirical Methods in Corporate Finance
The course will cover a variety of micro-econometric models and methods including panel data models, program evaluation methods e.g. difference in differences, matching techniques, regression discontinuity design, instrumental variables, duration models, structural estimation, simulated methods of moments. The structure of the course consists of lectures, student presentations, and empirical exercises. Published studies will be utilized in a variety of fields such as corporate finance, labor economics, and industrial organization to illustrate the various techniques. The goal of the course is to provide students with a working knowledge of various econometric techniques that they can apply in their own research. As such, the emphasis of the course is on applications, not theory. Students are required to have taken a graduate sequence in Econometrics, you should be comfortable with econometrics at the level of William Green's "Econometric Analysis of Cross-Section and Panel Data".
Fall
Prerequisite: STAT 5210
1 Course Unit

FNCE 9270 Topics in Corporate Finance
This course covers advanced theory and empirical investigations; financial decisions of the firm, dividends, capital structure, mergers, and takeovers.
Not Offered Every Year
Prerequisite: FNCE 9220
1 Course Unit

FNCE 9330 International Finance
To provide an understanding of selected topics of current academic research in the areas of international finance and its intersection with international macroeconomics; to teach interested students the tools for conducting research in this field. Each topic will be developed beginning with early classic papers and then updated through the current status of the profession. The typical target audience comprises students in their second year or later. Prerequisite: Completion of first year course requirements
Fall
1 Course Unit

FNCE 9340 Empirical Methods In Asset Pricing
This course has three main objectives: The first object is to introduce students to the fundamental works and the frontier of research in dynamic asset pricing. We will cover recent models that have been proposed to shed light on intriguing and important empirical patterns in the cross section and in the time series. Topics include non-separable utilities, market incompleteness, learning, uncertainty, differences of opinions, ex-ante and ex-post asymmetric information, ambiguity and Knightian uncertainty. The second objective is to teach students how to think of asset pricing research under a bigger or richer framework. We shall focus on the interactions between asset pricing and other fields such as macroeconomics, corporate finance, financial institutions, and international finance. The goal of investigating the joint dynamics is not only to better understand how asset prices are determined, but also (maybe more importantly) how would asset pricing dynamics affect other important economic variables such as investment, corporate payout and financing, unemployment, risk sharing, and international capital flows. Students will learn production-based asset pricing models, particularly the asset pricing models with investment-specific technology shocks, risk shocks, financial friction, searching frictions and information frictions. Of course, the advanced solution methods will focus too. The third objective is to introduce advanced empirical methods to analyze the data and the quantitative dynamic models. It includes how to estimate structural dynamic models, how evaluate structural models beyond goodness-of-fit tests, how confront the models predictions with empirical data by simulation and re-sampling techniques, and how to efficiently test models and explore new patterns using asset pricing and macro data.
Fall
Prerequisite: FNCE 9110 AND FNCE 9210
1 Course Unit

FNCE 9370 Topics in Macro Finance
This is an advanced course in quantitative theory applied to macro and finance models. It is intended for doctoral students in finance, economics and related fields. The course focuses on four broad theoretical literatures: (i) firm investment and growth; (ii) corporate, household and sovereign debt; (iii) asset pricing in general equilibrium; and (iv) equilibrium macro models with a financial sector. My approach is to develop and discuss in detail a unified framework that is suited to address most topics, usually covering a few central topics and the core papers. We then discuss the more recent literature, highlighting how authors combine and expand upon the core ideas. This part of the course usually relies on regular student presentations.
Fall
Prerequisite: FNCE 9110
1 Course Unit
FNCE 9500 Research Seminar in Finance
This course may be offered (and taken by a student) several times a year with varying topics.
Fall or Spring
1 Course Unit

Fine Arts (FNAR)

FNAR 0010 Drawing I
This course is designed to develop visual awareness and perceptual acuity through the process of drawing. Students learn to sharpen perceptual skills through observational drawing, and to explore the expressive potential of drawing. A variety of problems and media will be presented in order to familiarize students with various methods of working and ways of communicating ideas visually. Subject matter will include object study, still life, interior and exterior space, self-portrait and the figure. Different techniques and materials (charcoal, graphite, ink, collage) are explored in order to understand the relationship between means, material and concept. Critical thinking skills are developed through frequent class critiques and through the presentation of and research into historical and contemporary precedent in drawing.
Fall or Spring
Also Offered As: VLST 2530
1 Course Unit

FNAR 0020 Contemporary Art Studio
This course offers an introduction to studio-based practices aimed at synthesizing the expansive potentialities of art through exposure to a diverse set of approaches, their histories, and contemporary applications. A wide range of multi-disciplinary projects will provide students with skills to conceptualize and visualize material investigations. Lectures, readings, films, visiting lectures, field trips, and critiques, will provide a historic and theoretical foundation for critical inquiry.
Fall or Spring
Also Offered As: VLST 2510
1 Course Unit

FNAR 0030 Space/Form
In this studio-based course, students are introduced to a wide range of approaches and techniques explore surface, space, and time (2D, 3D, 4D). Traditional sculptural materials and techniques will be investigated along with more ephemeral interventions in space such as sound, light, and projection. Through lectures, readings, and critiques, students will explore the history of installation and interactive sculptural work, discover new directions in contemporary art, and develop self-directed projects that interrogate historical, social, and psychological conditions of the built environment.
Mutually Exclusive: FNAR 5002
1 Course Unit

FNAR 1010 Video I
In this studio based course, students are introduced to video production and postproduction as well as to selected historical and theoretical texts addressing the medium of video. Students will be taught basic camera operation, sound recording and lighting, as well as basic video and sound editing and exporting using various screening and installation formats. In addition to a range of short assignment-based exercises, students will be expected to complete three short projects over the course of the semester. Critiques of these projects are crucial to the course as students are expected to speak at length about the formal, technical, critical and historical dimensions of their works. Weekly readings in philosophy, critical theory, artist statements and literature are assigned. The course will also include weekly screenings of films and videos, introducing students to the history of video art as well as to other contemporary practices.
Fall or Spring
Also Offered As: CIMS 0610, VLST 2610
1 Course Unit

FNAR 1020 Photography Practices
This course is an introduction to the basic principles, strategies and processes of photographic practice. It is designed to broaden the student's aesthetic explorations and to help the student develop a visual language based on cross-disciplinary artistic practice. Through a series of projects and exercises students will be exposed to a range of camera formats, techniques and encouraged to experiment with the multiple modes and roles of photography - both analogue and digital. Attention will also be given to developing an understanding of critical aesthetic and historical issues in photography. Students will examine a range of historical and contemporary photowork as an essential part of understanding the possibilities of image making. This course is primarily for first-years and sophomores. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu
Fall or Spring
Also Offered As: VLST 2600
1 Course Unit

FNAR 1030 Introduction to Photography
This course is an introduction to the basic processes and techniques of black & white photography. Students will learn how to expose and process 35mm film, SLR camera operation, darkroom procedures & printing, basic lighting and controlled applications. It begins with an emphasis on understanding and mastering technical procedures and evolves into an investigation of the creative and expressive possibilities of making images. This is a project-based course, where students will begin to develop their personal vision, their understanding of aesthetic issues and photographic history. Assignments, ideas and important examples of contemporary art will be presented via a series of slide lectures, critiques and discussion. No previous experience necessary. 35mm SLR cameras will be available throughout the semester for reservation and checkout from the photography equipment room.
Fall or Spring
Also Offered As: VLST 2510
1 Course Unit
FNAR 1040 Digital Photography
This class offers an in-depth technical and conceptual foundation in digital imagery and the opportunity to explore the creative, expressive possibilities of photography. Students will become proficient with the basic use of the camera, techniques of digital capture, color management and color correction. They will also develop competency in scanning, retouching, printing and a variety of manipulation techniques in Photoshop. Through weekly lectures and critiques, students will become familiar with some of the most critical issues of representation, consider examples from photo history, analyze the impact of new technologies and social media. With an emphasis on structured shooting assignments, students are encouraged to experiment, expand their visual vocabulary while refining their technical skills. No previous experience is necessary. Although it is beneficial for students to have their own Digital SLR camera, registered students may reserve and checkout Digital SLR cameras and other high-end equipment from the department.
Fall or Spring
Also Offered As: VLST 2650
1 Course Unit

FNAR 1050 Mixed Media Animation
Mixed Media Animation is a contemporary survey of stop-motion animation concepts and techniques. Students use digital SLR cameras, scanners and digital compositing software to produce works in hand-drawn animation, puppet and clay animation, sand animation, and multiplane collage animation. Screenings and discussions in the course introduce key historical examples of animation demonstrating how these techniques have been used in meaningful ways. Students then learn how to compose two or more of these methods with matte painting, computer animation or video.
Fall or Spring
Also Offered As: CIMS 2890
1 Course Unit

FNAR 1060 Sculpture I
As an introduction to traditional and contemporary three-dimensional practice, this course is concerned with the concepts and methodologies surrounding three-dimensional art making in our time. Students experiment with a variety of modes of production, and develop some of the fundamental techniques used in sculpture. In addition to these investigations, assignments relative to the history and social impact of these practices are reinforced through readings and group discussion. Processes covered include use of the Fab Lab, wood construction, clay, paper, mixed media, and more.
Fall or Spring
Also Offered As: VLST 2520
1 Course Unit

FNAR 1070 Intro to Clay
This course introduces clay as a sculptural medium through fundamental clay-building techniques, mold making, model making, and casting. Through experimentation with these methods, this course promotes an understanding of materials, processes, visual concepts and techniques for creating three-dimensional forms in space. In addition to using different water-based clays and plaster, other materials such as wax, plastilint, paper pulp, and cardboard will be explored. Students will explore the full range of clay’s capabilities and its role in contemporary art through lectures, readings, demonstrations, and assignments that incorporate conceptual and technical issues.
1 Course Unit

FNAR 1080 Figure Drawing I
Students work directly from the nude model and focus on its articulation through an understanding of anatomical structure and function. Students will investigate a broad variety of drawing techniques and materials. The model will be used as the sole element in a composition and as a contextualized element.
Fall or Spring
Prerequisite: FNAR 0010
1 Course Unit

FNAR 1090 Painting I
Painting I is an introduction to the methods and materials of oil painting. This course begins with an investigation of color and color relationships. The beginning of the semester will cover technical issues and develop the student’s ability to create a convincing sense of form in space using mass, color, light and composition. The majority of work is from direct observation including object study, still life, landscape, interior and exterior space and the self portrait. Class problems advance sequentially with attention paid to perceptual clarity, the selection and development of imagery, the process of synthesis and translation, color, structure and composition, content and personal expression. Students will become familiar with contemporary and art historical precedent in order to familiarize them with the history of visual ideas and find appropriate solutions to their painting problems.
Fall or Spring

FNAR 1100 Introduction to Printmaking
The course offers an introduction to several forms of printmaking including: intaglio, screen printing, relief, and monoprinting. Through in-class demonstrations students are introduced to various approaches to making and printing in each medium. The course enhances a student’s capacity for developing images through two-dimensional design and conceptual processes. Technical and conceptual skills are developed through discussions and critiques.
Spring
Also Offered As: VLST 2500
1 Course Unit

FNAR 1110 The Big Picture: Mural Arts in Philadelphia
The history and practice of the contemporary mural movement couples step by step analysis of the process of designing with painting a mural. In addition students will learn to see mural art as a tool for social change. This course combines theory with practice. Students will design and paint a large outdoor mural in West Philadelphia in collaboration with Philadelphia high school students and community groups. The class is co-taught by Jane Golden, director of the Mural Arts Program in Philadelphia, and Shirle Walinsky, a mural arts painter and founder of Southeast by Southeast project, a community center for Burmese refugees in South Philadelphia.
Fall or Spring
Also Offered As: URBS 1110, VLST 3220
1 Course Unit
FNAR 1120 Bodies Bodies Bodies: An Introduction to Performance Art
Theater, Dance, Music, Opera, Film, Reality Television, Installation, Intervention, Social Encounters, Protests, Lectures, Seminars...what are the edges and borders of what we call “performance”? What, exactly, makes something “performance art” a “performance” or “performative”? How does an artist employ time, space, and audience to create a performance work? What do we mean when we talk about “the body”? In this course, we’ll delve into a survey and practice of making performance. This course is intended to introduce students of various disciplines to the central components of Performance art. Following a hybridized module, the class will present students with a cursory introduction to a history of performance art; its theoretical framings and critical inquiries and various approaches to making, through lecture, seminar, and in-class performance workshops. This introduction will invite students to make their own performance work using a variety of techniques and frameworks discovered through workshops, readings, and viewings of work by feminist, queer, anti-capitalist, and anti-colonial artists and theorists. Through solo and collective exercises in movement, installation, speech, sound, drama, and choreography, we will learn the basic tools of making a performance composition that challenges the boundaries of traditional dance and theater (while also welcoming any traditional training at one’s disposal.) Throughout the semester, students will attend performances and screenings, guest artist lectures, performance workshops, and present a final performance project utilizing personal research, skills, and interests discovered through our weekly sessions.
Mutually Exclusive: FNAR 5120
1 Course Unit

FNAR 1490 Performing Parables: Ragas and Sagas of the Sundarban
In this course writer Amitav Ghosh invites Penn students to engage his ongoing collaboration with the musician/performer Ali Sethi to stage his newest book Jungle Nama. Ghosh’s book Jungle Nama employs dwipdipoyar verse form and the popular folk tale of Bon Bibi the guardian spirit of the Sundarban to address the eroding ecosystem of the Sundarban. In this course students will work in a short intensive collaborative process with the artists to realize a lyric and musical performance of Jungle Nama. The class employs both academic research and performance methodologies to guide students through histories of traditional Indian performance and folk takes and a thorough examination of Ghosh’s source materials and influences (including studies of the Sundarban and its ecosystem). The course is co-taught with Director Brooke O’Harra. O’Harra, Ghosh and Sethi will lead students in a rigorous process of research, development and rehearsal, culminating in a public performance of a musical version of Jungle Nama. All levels and experience are welcome. Performance roles will be cast based on individual interests. In addition to performance roles, students will assume responsibility for other aspects of the process and production. In advance of registration, students are asked to audition and/or interview for the course depending upon initial interest. Actors, singers, dancers, musicians, artists and scholars are all encouraged to apply. Course specifics: The course will run until March 3 with an intensive 4-week rehearsal and development period that culminates in a live performance. Space is limited. Permission required.
1 Course Unit

FNAR 2020 Documentary Video
Documentary Video is an intensive production course involving the exploration of concepts, techniques, concerns, and aesthetics of the short form documentary. Building on camera, sound, and editing skills acquired in Video I, students will produce a portfolio of short videos and one longer project over the course of the semester using advanced level camera and sound equipment. One short presentation on a genre, technique, maker, or contemporary concern selected by the student is required.
Fall
Also Offered As: CIMS 0630
Prerequisite: FNAR 1010
1 Course Unit

FNAR 2020 Video II
Video II offers opportunities to further explore the role of cinematic narrative technique, non-narrative forms, digital video cinematography, editing, and screen aesthetics. Through a series of several video projects and a variety of technical exercises, students will refine their ability to articulate technically and conceptually complex creative projects in digital cinema. In addition, one presentation on a contemporary issue related to the application of cinematic storytelling and/or the cultural context of digital video is required.
Fall or Spring
Also Offered As: CIMS 0620
Prerequisite: FNAR 1010
1 Course Unit

FNAR 2030 Cinema Production
This course focuses on the practices and theory of producing narrative based cinema. Members of the course will become the film crew and produce a short digital film. Workshops on producing, directing, lighting, camera, sound and editing will build skills necessary for the hands-on production shoots. Visiting lecturers will critically discuss the individual roles of production in the context of the history of film.
Fall
Also Offered As: CIMS 0650
Prerequisite: FNAR 1010
1 Course Unit

FNAR 2040 Advanced Video Projects
This course is structured to create a focused environment and support for individual inquiries and projects. Students will present and discuss their work in one to one meetings with the instructor and in group critiques. Readings, screenings, and technical demonstrations will vary depending on students’ past history as well as technical, theoretical, and aesthetic interests.
Not Offered Every Year
Prerequisite: FNAR 1010
1 Course Unit
FNAR 2050 Image and Sound Editing
This course presents an in-depth look at the storytelling power of image and sound in both narrative and documentary motion pictures. Students apply a theoretical framework in ongoing workshops, exploring practical approaches to picture editing and sound design. Students edit scenes with a variety of aesthetic approaches, and create story-driven soundtracks with the use of sound FX, dialogue replacement, Foley's, music and mixing. Students not only learn critical skills that expand creative possibilities, but also broaden their understanding of the critical relationship between image and sound.

Fall or Spring
Prerequisite: FNAR 1010 OR FNAR 1060 OR FNAR 1020 OR FNAR 1010
1 Course Unit

FNAR 2060 Advanced Lens Based Projects
Advanced Lens Based Projects (ALBP) is structured to create an open environment for students to develop a series of self-determined projects using any variety of image capture technologies. Mobile devices and DSLRs have blended the function of moving and still image capture while computers have become ubiquitous as instruments of display and dissemination. This has consequently led to the increasingly collapsed boundaries of artistic mediums. ALBP is a studio class where students will explore different modes of production and address the expanding field of exhibition strategies. Additionally the class will foster a transdisciplinary approach to critiquing work and emphasize the shared context of the works reception. Readings, screenings, discussions and critiques make up the curriculum along with dedicated studio time. Each student is required to complete 3 self-determined projects using still or moving image capture technologies. Grades will be determined through participation, completion of assignments and the students' formal and critical engagement with the technology. While the focus of this course is not technical, prior knowledge of camera functions and post-production techniques is expected.

Prerequisite: FNAR 1010 OR FNAR 1020 OR FNAR 1030 OR FNAR 1040
1 Course Unit

FNAR 2070 Performance/Camera: Performance and-with-through-for Cameras
This intermediate course will explore the wide and expansive territories of art-making that exist between live performance and mediated image making-both still and moving. For much of the 21st century, the mediums of performance, video and photography have been weaving in and out of contact. Performance is known and understood largely through its documentation: sometimes voluminous and sometimes little more than a single photograph. On the other side, video, film and photography each developed through widespread explorations that were deeply entwined with the "capturing" of bodies on film. Using photography, video and performance in equal parts, the course is a hands-on exploration of this capacious terrain. The course will be structured by a series of bi-weekly assignments that allow for individual and collective production. The course will also include a regular schedule of short readings and presentations/screenings of existing works.

Prerequisite: FNAR 1010 AND FNAR 1040
1 Course Unit

FNAR 2080 Performance Studio
This course supports the individual and collaborative production of performance works. As the medium of performance consists of diverse forms, actions, activities, practices and methodologies, the course allows for an open exploration in terms of material and form. Students are invited to utilize technologies, materials and methodologies from other mediums and/or disciplines such as video, photography, writing and sound. In addition to the production component, the course will examine multiple histories of performance through readings, screenings and directed research.

Prerequisite: FNAR 0010 OR FNAR 1060 OR FNAR 1020 OR FNAR 1010
1 Course Unit

FNAR 2090 Hand-Drawn Computer Animation
Using software tools designed for hand-drawn animation, students will develop animation skills applicable to all forms of animation. In this course students will learn to draw with a sense of urgency and purpose as they represent motion and drama in a series of frames. Through careful study of natural movements, precedents in the history of animation, and through the completion of a series of animation projects students will develop strategies for representing naturalistic movement, inventing meaningful transformations of form, and storytelling.

Not Offered Every Year
Prerequisite: DSGN 0010
1 Course Unit

FNAR 2100 Computer Animation
Through a series of studio projects this course introduces techniques of 2D and 3D computer animation. Emphasis is placed on time-based design and storytelling through animation performance and montage. Students will develop new sensitivities to movement, composition, cinematography, editing, sound, color and lighting.

Fall or Spring
Prerequisite: FNAR 1010 OR FNAR 1020 OR FNAR 1030 OR FNAR 1040
1 Course Unit

FNAR 2110 Digital Photography II
In this course students will continue to develop conceptual, technical, aesthetic and formal strategies in digital photography, expanding their artistic process while refining their critical approach to researched subject matter. The class will be driven initially by a series of assignments formulated to further expose students to broad possibilities related to the medium and then they will be guided towards the evolution of a personalized body of work that is culturally, theoretically and historically informed. We will be examining key issues surrounding the digital image in contemporary society, led through a combination of class lectures, readings, group discussions, and critiques. Students will further their knowledge of image control and manipulation, retouching and collage, advanced color management; become familiar with high-end equipment and lighting, and develop professional printing skills. In addition to learning these advanced imaging practices, this course will also emphasize an investigation of critical thought surrounding contemporary visual culture and the role of digital media in the creation of art.

Prerequisite: FNAR 1040
1 Course Unit
FNAR 2120 Reconfiguring Portraiture
As methods of representation are constantly shifting, one thing is clear - the photographic portrait is not what is used to be. Exploring both traditional and contemporary methods of portraiture, this class will uncover and discuss the ways in which we perceive each other in imagery, both as individuals and as groups. Throughout the semester, we will consider how portraits deal with truth, physical absence, the gaze, cultural embodiment, voyeurism and the digital persona. This course will build on the combination of perception, technology, and practice. Throughout the semester, students will advance by learning lighting techniques and strategies of presentation - as these core skills will become tools in the execution of project concepts. In tandem with each project, students will encounter and discuss a wide array of photography and writings from the past to the present, in an effort to understand the meanings and psychological effects of freezing the human image in time. Spring
Prerequisite: FNAR 1030 OR FNAR 1040
1 Course Unit

FNAR 2140 Photography and Fashion
Since the invention of photography, the fashion industry has been one of the cornerstones of creative expression, innovation and visionary provocations. Contemporary fashion photography has continued to attract a leading group of image-makers that continue the tradition of creating artwork that not only is being published in cutting edge magazines such as V, Another Magazine and Citizen K, but also are exhibiting their work in various galleries and museums around the world. This course is designed for students who are interested in creating contemporary fashion images through specific assignments that define the process: lighting in studio or location, working with fashion designers, stylists, models, hair/ makeup artists, and the application of a variety of post production techniques, via Photoshop. The class will explore modern constructs that define the importance of branding, marketing, advertising and the relationship of fashion photography in contemporary art and culture today. Fall
Prerequisite: FNAR 1030 OR FNAR 1040
1 Course Unit

FNAR 2150 Photography and Fiction
Photography has historically been a medium of fact, but with the ubiquity of digital technology and the ever-increasing ease with which images can be manipulated, it is becoming more difficult to distinguish the authentic from the artificial. The conversation surrounding truth is pervasive in today's contemporary culture. With the weaponization of fake news and propaganda, subliminal advertising, deep fake videos, and constructed identities on social media, we are living in a critical time. This course will encompass a broad range of meanings when it comes to fiction, from elaborately staging for the camera in the form of re-enactment and role-play to using digital technology to construct new meanings & realities. This class will examine and trace the history of photographic fiction, paying special attention to the complex negotiations between the decisive moment, the constructed tableau, and the digitally altered image. There will be a combination of class lectures, studio projects, assigned readings, visiting artists, film screenings, field trips, and class critiques. Spring
Prerequisite: FNAR 1030 OR FNAR 1040
1 Course Unit

FNAR 2160 Counter the Land: Photography and the Landscape
Starting with the representation of landscape in painting in the early 1800s, this course will then move through Pictorialism and the Modernist movement in photography. Revisiting the later half of the 20th century, we will begin to consider the shifting practices of landscape and the ways it has been photographically depicted up to the present. Collaborating with the Brandywine River Museum of Art in Chadds Ford, students will begin their photographic exploration with the work of Andrea Wyeth and the landscape of the Brandywine Valley. As we consider Wyeth, the images of James Welling will also be introduced. Credited for pioneering new forms of representation in photography in the 1970s, Welling also revisited the work of Wyeth from 2010-2015, and committed to a fresh (and challenging) look at tradition. Working with imagery and text, this class will also touch on conceptual art, the New Topographics, and postmodernism. Through these various concentrations, students will consider and counter the traditions that they are already familiar with, while creating work based on issues of the landscape today. Questions about meaning, politics, social critique, land rights, technology and methods of presentation will be encouraged and explored throughout the course. Spring
Prerequisite: FNAR 1030 OR FNAR 1040
1 Course Unit

FNAR 2170 Dispersive Lenses
This studio course will explore the nexus between photography, sculpture, installation, drawing, painting, and the moving image. The course is informed by the printed image, as students will explore how photography can encourage thinking in other mediums, in addition to how other mediums can influence the making of photography. When does an abstract painting appear more like a photograph? How can a photograph suggest ways to make a video? Can a sculpture exist as a photograph? A variety of assignments will expose students to interdisciplinary approaches addressing these questions and more. Class projects will be supported by regular slide lectures, group critiques, and readings examining modern and contemporary artists and practices. Spring
Prerequisite: FNAR 1030 OR FNAR 1040 OR FNAR 1010
1 Course Unit

FNAR 2180 Photography Studio Abroad
This Traveling Studio is offered every other spring term to upper level photography & related media students. It is a cross-cultural visual investigation, exploring the contradictions and significance of the chosen city. This course incorporates multi-disciplinary research in preparation for the trip; exploring various fields of knowledge production such as art, history, social sciences, markets and governance. Class discussion, readings and individual research will be focused towards the development of each student's photo/media project, which will be realized while abroad. After returning to Philadelphia, students will develop and refine their work; the remaining classes will emphasize critique, editing, printing and presentation options. The final projects will be included in a group exhibition at the end of the semester. Admission to the course is on a competitive basis. Spring
Mutually Exclusive: FNAR 5034
1 Course Unit
**FNAR 2200 Drawing Investigations**
Drawing is a fundamental means of visualization and a hub for thinking, constructing, and engaging in a wide variety of creative activities and problem solving. This studio class explores drawing in both its traditional and contemporary forms. The projects are designed to help students in all disciplines find ways express and clarify their ideas through the process of drawing. The semester begins with the refinement of perceptual skills acquired in Drawing I, while encouraging experimentation through the introduction of color, abstract agendas, conceptual problem solving, and collaborative exercises, as well as new materials, techniques and large format drawings. Particular attention is given to ways to conduct visual research in the development of personal imagery. Assignments are thematic or conceptually based with ample opportunity for individual approaches to media, subject, scale and process. The goal is to strengthen facility, develop clarity in intent and expand expression. Attention is paid to the development of perceptual sensitivity, methods of image construction, and the processes of synthesis and transformation in order to communicate ideas through visual means. Recommended for students in all areas.
Fall or Spring
Prerequisite: FNAR 0010
1 Course Unit

**FNAR 2220 Painting II**
Painting II presents an ongoing exploration of the techniques, problems and poetics of painting, the nuances of the painting language, and the development of a personal direction. A wide variety of problems will address such issues as color, composition, and the development of imagery, process, and content. Students are expected to improve in technical handling of paints and move towards developing personal modes of seeing, interpreting, and thinking for themselves. This course introduces different topics, strategies and individual challenges each semester, so it may be repeated with advanced course numbers.
Fall or Spring
Prerequisite: FNAR 1090
1 Course Unit

**FNAR 2240 Painting Studio**
Painting Studio IV focuses on continuing the student's exploration of techniques, problems, and poetics of painting, the nuances of the painting language, and the development of a personal direction. While students may choose to work on assigned projects (either in consultation with the instructor or following the projects that the Painting II/III students may be involved in), the emphasis is on the investigation of the student's own sensibility. Students will be expected to engage in ongoing critical analysis of their own practices and assumptions.
Fall or Spring
Prerequisite: FNAR 0010 AND FNAR 2230
1 Course Unit

---

**FNAR 2250 Interdisciplinary Studio: Sites of Convergence and Hybridity**
This course takes an experimental multimedia approach to investigating some of the boundaries in contemporary art making practices. Painting, photography, video, design and sculpture intersect, overlap, and converge in complicated ways. Projects will be designed to explore hybrid forms, collage, space/ installation, and color through a variety of strategic and conceptual proposals as students work towards unique ways of expanding their own work. Weekly readings, critiques, and presentations will be integrated with studio projects. This studio/seminar is appropriate for students at all levels and from all areas of Fine Arts and Design.
Spring
Prerequisite: FNAR 0010 OR FNAR 1060 OR FNAR 1020 OR FNAR 231 OR DSGN 0010
1 Course Unit

**FNAR 2270 Printmaking: Etching**
The class will challenge the possibilities of experimental drawing and ways of creating incisions and textures using copper plates as the matrix, which then will be printed on paper and other materials. The class offers full technical and historical description of each individual process: Dry Point, Etching, Hard ground, Soft Ground, Aquatint, Shine Cole', Spit-Biting, Sugar Lift, Color Printing and Viscosity printing.
Fall or Spring
1 Course Unit

**FNAR 2280 Printmaking: Screen Printing**
This course is an introduction to technical skills and investigative processes in screen printing and relief and examines methods for combining digital technology with traditional print media. The course introduces students to several contemporary applications of silkscreen and relief printmaking including techniques in multi-color printing, photo-based silkscreening, digital printing, woodcut, linocut, and letterpress. Demonstrations include photo and image manipulation, color separating and output techniques, hand carving and printing, as well as drawing and collage. Both traditional and experimental approaches are explored and encouraged and technical and conceptual skills are developed through discussions and critiques.
Fall
1 Course Unit

**FNAR 2290 Printmaking & Publications: Intro to Independent Publishing and Artists' Publications**
This course introduces students to independent publishing and artists' publications through print methods in letterpress, Risograph, and Xerox. The class will focus on the self-published artists’ zine/book as an affordable, accessible, and easily reproducible format for exploring ideas, disseminating artists’ work, and collaborating across disciplines. Students will learn a range of skills, including techniques in both mechanized and hand-pulled forms of printed media (Risograph, copy machine, Vandercook letterpress); short-run editions and binding; design and layout; pre-press and print production; and the web as it relates to and supports independent and democratic modes of distribution. Students will learn about and become acquainted with some of the most significant independent publishers working today and throughout history. Students will leave class having completed three individual projects: a 16-page booklet/zine; a carefully considered online publication, and a final collaborative book designed, developed and published as a class. The course commences with a field trip to New York City's Printed Matter, one of the oldest and most important nonprofit facilities dedicated to the promotion of artists’ books, where students will be encouraged to submit a publication by semester's end.
Spring
1 Course Unit
**FNAR 2310 Advanced Sculpture: Installation & Interventions**

In this course students will create sculptural installations and spatial interventions that explore site specificity and architectural environments. A range of traditional sculptural materials and techniques will be investigated along with more ephemeral interventions in space such as sound, light, and projection. Through lectures, readings, and critiques, students will explore the history of installation and interactive sculptural work and develop self-directed projects that interrogate historical, social, and psychological conditions of the built environment.

Mutually Exclusive: FNAR 5410
Prerequisite: FNAR 1060
1 Course Unit

**FNAR 2320 Queer Imaginings**

Queer is a fluid, unfixed and undefinable space offering endless utopian possibilities & potentials concerning gender, sexuality, personal autonomy and agency. Queer Imaginings is a forum for the reimagining of Queer representation/s. This course provides a safe space to mine, critique and analyze Queer imagery, both historical & contemporary. We will explore the ways in which Queerness is approached, represented & manipulated in pop culture, politics, society and the media. Students enrolled in this studio/seminar course will partake in discussions and research pertaining to Queer images and their intersections with race, trans/nonbinary-equality, feminism, disability & class structure. These complex subjects will inspire respectful debate throughout the course, and most importantly, generate robust discussion about the work students create. Prompted through select readings and visual presentations, students will be guided to research, analyze and create artworks, which are inspired by various topics related to Queerness. A special emphasis will be placed upon issues arising around visibility, erasure & inclusivity. This forum offers a space to reexamine, research and propose new representations of Queerness. This is primarily a lens-based course with expansive possibilities (interdisciplinary, transdisciplinary, multidisciplinary).

1 Course Unit

**FNAR 2330 Experimental Clay**

In this course students will examine and explore the sculptural foundations of clay in the world of contemporary art and design, by experimenting with its sculptural materiality, as a means to develop ideas in large-scale and unconventional ways. Through investigative and conceptually driven projects, students will use clay and other non-traditional materials to make modular structures that incorporate advanced mold-making, casting, and advanced building techniques to develop their own artistic voice through the expansive medium of clay.

1 Course Unit

**FNAR 2410 If night is a weed and day grows less**

If Night Is A Weed And Day Grows Less The title of this class posits a shift in balance: of the natural order, of the built environment, of the body politic, of perception. The result is a creeping entropy that can either be embraced or redirected. Taking a morphological approach to image making students can use any variety of televsual image capture technologies. From analog to digital, satellite imagery to scanner. Time arrested or accelerated. Night for day and weeds for gardens, the work produced should ask us to slow down and reassess the objectives of form, language, image and place, to create new prototypes for engagement and new modes of understanding our environment and perhaps even to reinvent the conventions of landscape as a genre.

Readings, screenings, discussions and critiques make up the curriculum along with studio time. Each student is required to complete a visual essay that addresses these themes using image capture technologies.

Mutually Exclusive: FNAR 5410

1 Course Unit
FNAR 3030 A Virus in the Culture: Social Critique in Media Arts
In order to change the world, we must first learn how to infect it. A Virus in the Culture is a studio class that examines and generates various forms of media resistance to dominant hegemonic systems of power and control. Using filmmaking, publication design and interactive media we'll think through and develop responses to some of the most pressing issues facing us today. We'll look at historical models from the agitprop design work of Gee Vaucher for Anarcho-punk band Crass to Chris Marker's film Le Fond de L'Air Est Rouge, a radical analysis of global social and political turmoil in the late 60s and early 70s. We'll also look at experimental contemporary design firms like Metahaven who question the role of designers and filmmakers today - Bypassing the power dynamics of clients and briefs they took it upon themselves to create a graphic identity for WikiLeaks. Each example broadens the definition and possibilities of practice to create a more porous engagement with audiences and users while informing the practice of social critique today. Considering a diverse range of topics from education policy, to the rights of environmental refugees, we'll use the class to workshop a singular comprehensive project that targets researches and responds to a specific contested position. The outcome of which will be a class produced short film, publication and website that unpacks the social, cultural, and economic complexities of our subject. This class is co-taught by David Hartt, an artist and filmmaker along with graphic designer, Mark Owens. Reading, screenings, discussions and critiques make up the curriculum along with studio time. While the focus of this course is not technical, prior knowledge of design programs, camera functions, and post-production techniques is expected.
Fall
Prerequisite: FNAR 1010
1 Course Unit

FNAR 3040 On Thoughts Occasioned By
The Essay Film is an important tradition within the various genres that constitute the field of Film and Video Art. Through the element of time it differentiates itself from its literary and photographic antecedents. It borrows selectively from both narrative fiction and documentary - highly subjective and occasionally poetic but without perhaps the burden of truth. The Essay Film is an attempt to dimensionalize our experience of the world and our place in it. It represents an argument, a meditation, a critical engagement with a place, a time or a subject. This is a combination seminar/studio course. Through readings, screenings and discussion students will gain an historical perspective on the genre. The core assignment is for each student to complete a short film (20 minutes max.) in the tradition of the Essay Film.
Also Offered As: ENGL 2570
1 Course Unit

FNAR 3050 Critical Issues in Art
Perspectives on Critical Issues aims to engage students in an ongoing and informed study of both historical and contemporary issues in a spirit of curiosity and critique. We will investigate how these concepts can clarify and complicate our creative practice and our understanding of the contemporary art world. This seminar will explore the shifts in artistic production, theory and criticism and topics will range from traditional investigations of aesthetics, Modernism, Post-Modernism and contemporary themes. Through discussions of assigned readings, class presentations, films, lectures, and field trips, this seminar will help establish a critical and theoretical foundation where your own beliefs and doubts about art and culture will be called into question and will provoke an ongoing inquiry into how you understand art, you own creative process, and the relationship of art and artists to society and creative culture.
Spring
1 Course Unit
FNAR 3060 The Chinese Body and Spatial Consumption in Chinatown
This is a primarily an art and planning course that centers on the representation of the oriental, specifically the Chinese, in both its historical and present contexts. The localization of the Chinese throughout the Americas within Chinatown precincts were also subject to representational imaginings that were negotiated through the lens of civic planning. This course will study the often fraught negotiation between representation and planning. The hyper-urbanization of China over the past several decades has radically altered traditional conceptions of public space in China. Mass migration from rural to urban areas has meant very high population densities in Chinese cities. Traditional courtyards surrounded by housing and other modestly scaled buildings are rapidly disappearing, incongruent with the demands of heated property development Moreover, Chinese cities have comparatively little public green space per resident compared to equivalents in the West. Zoning in Chinese cities is also much more varied for any given area than what one would find in cities such as New York, Paris, and London. Intensifying density of urban areas precludes the construction of large public squares. Furthermore, large public squares tend to be either intensively congested and overcrowded or underused due to their oversight by government that render such spaces somewhat oppressive in terms of use. Historically, the urban courtyards of temples, native place associations, and provincial guilds served as public spaces of gathering. They were also sites of festivals and the conducting of neighborhood and civic business. These spaces have become increasingly privatized or commodified with entrance fees. The air-conditioned concourses of enclosed shopping malls or busy outdoor market streets have become de facto public spaces in China where collective window shopping or promenading is the primary activity rather than bodily repose as one might find in a public space in a large Western city. The seminar/studio will investigate the meaning of the term public in the constitution of Chinese space, audience and critical voice through firstly the enclave of Chinatown and secondly through examples from China. The course will look into the changing conceptualization of public space in Chinatown as it has declined in its traditional form and become reinvented in the form of high-end shopping centered districts. This flux has its roots in post 1979 China as well as the post 1997 reversion of Hong Kong to China. As such, the course will examine the situation of rapid urbanization in China and the concomitant relationship to new Chinese (and Asian) districts in the North American urban and suburban landscape ie Vancouver, Toronto, Arlington (Virginia), Oakland, Los Angeles valley and Queens (Flushing), New York. In what ways can artists and designers respond to and challenge these conceptualizations of the old and the new within the context of urban change? What of the changing formations of the Chinese subject through the experiences of embodiment? How is public space produced through an ethnically bracketed bodily presence. Findings will be translated by the student as tools for design and public art imaginings This course will include a week s trip to San Francisco to study how intense growth in the city has all but usurped old Chinatown while new and more vibrant Chinese centers have emerged in multiple other districts within the city and the suburbs. Also Offered As: ASAM 3130, ENGL 2275
1 Course Unit

FNAR 3070 Tiananmen Square: A Case Study for Fine Arts and Landscape Architecture
This course takes as its subject the systems of representation and design that have historically and presently operate in Tiananmen Square in Beijing. There have been several incarnations of Tiananmen Square since its original form in 1651. During Imperial times and through the period of foreign legations, the square was once surrounded by walls and gates, creating a city within a city. With the advent of the Republic of China established on January 1, 1912, much of the enclosures were removed, opening up for public use previously restricted imperial areas. After the Communist Revolution in 1949, planning was afoot to enlarge the square. With its enlargement completed in 1958, the square expanded its footprint by four-fold, making it one of the largest public squares in the world. The enlarged and remodeled square coincided with the completion of the massive Monument to the People's Heroes. In 1976, a large mausoleum containing the preserved body of Mao Zedong was built near the site of the former Gate of China, further increasing the size of the square. In the 1990s, the building of the National Grand Theatre and expansion of the National Museum on grounds contiguous to the square necessitated further alterations to both the Eastern and Western skirts of the square. In recent years, there have been a widening debate regarding the transformation of the concrete heavy and by and large featureless square into a green space. Today, Tiananmen Square holds sacrosanct status to the Communist revolution of 1949, designed more for military parades and massive public rallies than public space repose. In a city that has few green spaces, such a verdant transformation in the heart of the Chinese capital would signal a radical symbolic deviation to China’s development-first guiding principles. The square fronts Tiananmen Gate and the Forbidden City and is situated at the intersection of the historical east-west and north- south axes. Chang’An Avenue, important for military processions, separates the square from Tiananmen Gate and is considered the most important thoroughfare in the Capital and the path of the east west number one subway line. The entirety of the Tiananmen Square area is marked by ideology and political prominence, often confusingly. Tiananmen Tower, functions as a conflation of monumental facade with political embodiment. This course will focus on imagined interventions through public art and landscape design within Tiananmen Square and its contiguous areas. It is a studio practice course with a significant seminar component that will include lectures and readings relating to issues of public space and urban design in contemporary China. The course will also study the development of contemporary art in China. The tragic events of Tiananmen Square in 1989 represented a turning point in terms of a generation of Western exiled Chinese artists and curators including Hou Hanru, Chen Zhen, Xu Min, Huang Yong Ping and Yan Pei Ming among many others. The class will study the strategies deployed by these so-called First Generation of Chinese artists. Making use of their double identity as traditionally taught Chinese artist residing in the West, their art offered a pointed critique of both China and the West. The course will include a trip to Beijing.
Spring
1 Course Unit
FNAR 3080 Across Forms: Art and Writing
What if a poem spoke from inside a photograph? What if a sculpture unfurled a political manifesto? What if a story wasn’t just like a dance, but was a dance— or a key component of a video, drawing, performance, or painting? In this course, artists and writers will develop new works that integrate the forms, materials, and concerns of both art and writing. Many artists employ writing in their practices, but may not look at the texts they create as writing. And many writers have practices that go beyond the page and deserve attention as art. This course will employ critique and workshop, pedagogic methodologies from art and writing respectively, to support and interrogate cross-pollination between writing and art practices. Additionally, the course will will examine a field of artists and writers who are working with intersections between art and writing to create dynamic new ways of seeing, reading, and experiencing.

Fall
Also Offered As: ENGL 3504
Mutually Exclusive: FNAR 5056
1 Course Unit

FNAR 3090 Art and Social Work: Art and the Ecology of Justice
How can the arts help us build a more just society? How can the arts transform social structures and systems? Public health crises involving clean water (Flint), police violence (Baltimore), and a lack of economic and educational opportunity following reentry (Philadelphia) make legible the need for a new visual language that critiques these conditions and challenges entrenched structural inequalities. We will engage the work of creative practitioners who are mapping new relationships between art and social justice and directly impacting individual and communal well-being. In so doing, the course seeks to challenge traditional constructions of public health, which often isolate individual histories from their social life and their relation to families, communities, and geographies. Readings will build upon disciplinary perspectives in the arts, humanities, and social policy. Requirements include weekly readings, class participation, and a collaborative final project. The course will meet in the Health Ecologies Lab at Slought Foundation, an arts organization on campus.

Spring
1 Course Unit

FNAR 3100 Paris Modern: Spiral City
Paris has been shaped by a mixture of organic development, which is still today perceptible in the “snail” pattern of its arrondissements whose numbers, from 1 to 20, coil around a central island several times so as to exemplify a “spiral city,” and of the violent cuts, interruptions and sudden transformations that again and again forced it to catch up with modern times, the most visible of which was Baron Haussmann’s destruction of medieval sections of the city to make room for huge boulevards. Thus Parisian modernism has always consisted in a negotiation between the old and the new, and a specific meaning of modernity allegorized for Louis Aragon, the Surrealists and Walter Benjamin consisted in old-fashioned arcades built in the middle of the 19th century and obsolete by the time they turned into icons of Paris. The aim of the class will be to provide conceptual and pragmatic (visual, experiential) links between a number of texts, theories and films deploying various concepts of the modern in Paris, with a guided tour of the main places discussed.

The course that Professors Jean Michel Rabate (English) and Ken Lum (Fine Arts) will lead studies Paris as a work of science-fiction where its many futures are embedded in its many pasts, where discontinuity is a continuous process and where the curving line of the snail’s shell is a line of ceaseless curling resulting in a perennial oscillation where an outside converts into an inside and an inside then converts to an outside. The course will travel to Paris over spring break to get an in-depth look at the topics discussed in class.

Fall or Spring
Also Offered As: ENGL 2110
1 Course Unit

FNAR 3110 Public Art and Issues of Spatial Production
The French social philosopher Michel de Certeau upset the common understanding of the relationship between space and place by elevating space as practice place. By this, he meant that place is but a set of geographical particularities that has no dynamic meaning unless activated through social engagement so that space is produced. Spatial practice is a key concept in the modern understanding of the city as a society of abstract space, one in which the problem of human alienation is riven with the logic of spatial spectacularization. Public Art is often employed to address or mollify such urban problems through concepts of historical reconstruction or institutional critique, including possibly testing the limits of public expression. Historical markers play a somewhat different role by calling attention to lost or negative histories, albeit most often vetted through the language of tourism factoids. This course will examine the discursive issues at play in respect to art and markers, particularly for Philadelphia. Additionally, important public art works from around the world will be examined. The course will also include the occasional visit of several key works downtown in which the question of what can and cannot said will be pondered.

Spring
1 Course Unit
FNAR 3120 Photographic Thinking
This course will explore the vitality and range of photography as a discursive practice by analyzing the way images are structured and deployed in contemporary art and wider media culture. Students will be introduced to the key issues surrounding photography now-led through these questions by lectures, readings, group discussion and project-based work. A series of photo-assignments challenge the students to integrate critical thought with practice, exploring a range of formal strategies and thematic frameworks that affect the meaning of their images. Students should have a strong interest in philosophy and art histories (especially the history of photography.) They should be motivated to work independently and experiment creatively. There are no prerequisites for this course. It is intended for all different levels of technical experience, but the minimum requirements are a digital camera, a basic familiarity with Photoshop and access to a computer with imaging software.
1 Course Unit

FNAR 3130 Mystics & Visionaries: Arts and Other Ways of Knowing
As a pioneer of abstraction in the early 1900’s, Hilma Af Klint channeled a complex and highly original body of abstract symbolic work in secrecy. Using the upcoming Hilma Af Klint exhibition at the Guggenheim as a focus and departure point, this course will explore the ways in which artists have accessed alternative ways of seeing, knowing, and embodying non-visible realities as a source for their work. Accessing spiritual realms has been the subject of early European Modernisms investigations into Theosophy and Anthroposophy, as well as the primary intention of Tibetan Thangkas and Indian Tantra paintings. Postmodernism’s crisis of belief and skepticism generated a cultural situation wherein the subject of spirituality was marginalized, ridiculed as anti-intellectual, and in disgrace. The Hilma Af Klint exhibition and surge of interest in her work signifies a new moment, where questions about consciousness and the nature of reality are being addressed with renewed vigor. How do we create space in a technology driven world for experiences that attempt to align the viewer/maker with the contemplative realm, heightened states of consciousness, or transcendence? We will examine a wide field of artists in an attempt to understand the possibilities of the “spiritual” in art and contemporary culture. This seminar will engage in readings, lectures, discussions, projects, and field trips. This course is appropriate for both grad and undergrad, art majors and non-majors alike.
1 Course Unit

FNAR 3140 Civic Studio
Civic Studio is an engaged research praxis that delves in the significant theories, methodologies, and practices of public and socially-engaged artwork. Students draw from arts- and place-based modes of inquiry toward collaborative projects with fellow classmates, artists, and organizations in Philadelphia and beyond, while pursuing semester-long individual research. Each semester, students work with and as embedded practitioners in exhibitions, installations, and other artistic platforms throughout the city. In turn, through readings, site visits, and site-specific work, students gain creative and critical capacity for producing their own final projects about a particular street, intersection, or site in the city. Through Civic Studio students are able to reflect upon and practice public work with artistic, scholarly, and civic aims.
1 Course Unit

FNAR 3150 Monument Lab: Praxis Approaches to Socially-Engaged Public Art
What makes an exceptional socially-engaged public artwork or project? For those who practice in the field, the question invites careful consideration of aesthetics, process, participation, staging, and interpretation. Across the better part of the last decade, this line of inquiry has fueled the work of Monument Lab, a public art and history studio based in Philadelphia. With deep roots and close ties to the Department of Fine Arts’s Center for Public Art and Space, and methods interanimating contemporary art and pedagogy, Monument Lab works with artists, students, activists, municipal agencies, and cultural institutions on exploratory approaches to public engagement and collective memory. The Monument Lab course in Fine Arts explores the theoretical study and practical applications of public art. The course operates as a socially-engaged “civic studio” to engage case studies, debate key issues in the field, meet with artists and practitioners, conduct site and studio visits, and practice direct methods for producing individual and collaborative public projects. Focusing on the intersection of theory and practice, the praxis course highlights engaged methods piloted by Monument Lab in citywide exhibitions and special projects, especially to focus on themes and models for participation, public engagement, co-creation, curation, temporary installation, and socially engaged art-making. Each student will embark on a semester-long independent project, as well as participate in a group initiative centered on a current Monument Lab project in Philadelphia to gain experience in the field of socially-engaged public art.
1 Course Unit

FNAR 3160 Is This Really Happening? Performance and Contemporary Political Horizons
This class addresses the meeting points inside of and between a range of resistant performance practices with a focus on artists using performance to address political and social encounters in the contemporary moment. Performance, a chaotic and unruly category that slides across music, dance, theater and visual art, has long been a container for resistant actions/activities that bring aesthetics and politics into dynamic dialogue. Embracing works, gestures, movements, sounds and embodiments that push against and beyond the conventions of a given genre, performance can’t help but rub uncomfortably against the status quo. Scholars working across Performance Studies and Black Studies importantly expanded critical discourse around performance to address the entanglement of the medium with physical, psychic, spatial and temporal inhabitations of violence and power. Generating copious genealogies of embodied resistance, this scholarship instigates a complex, interdisciplinary and multidimensional perspective on intersections between art and life, performance and politics. The class hosts a series of public lectures, presentations and performances by visual artists, choreographers, theater artists, composers/musicans, performers, curators and activists engaged with the social and political moment. Presentations will be open to the public with students in the course developing in-depth research into the work of each visiting artist/performer/presenter to engage the larger context of each visitor’s scholarship and/or practice through readings, discussion and in-class presentations. This course is open to all interested students. No prior requisites or experience with performance or the performing arts is necessary.
Also Offered As: ENGL 3652, GSWS 0860
1 Course Unit
FNAR 3180 Advanced Projects in Animation
This course will focus on developing and producing projects that utilize advanced approaches to 2D and 3D computer animation. We will engage emerging techniques of visualization such as data-driven animation, algorithmic animation, working in hybrid forms of stop-motion, hand-drawn and 3D computer animation, working with dynamic physical simulations, rigging animated characters, or structures. The meeting pattern of the course will enable members to complete ambitious independent or group based animation projects and to share the methods that they develop along the way.
Not Offered Every Year
1 Course Unit

FNAR 3181 The History of American Animation
This course will look at American animation as an art form, a technology and an industry. We will explore the ways in which artistic, technical, historical, and cultural conditions shape the development of animation and in turn, how animation impacts viewers. Topics will include trends in animation and their relation to contemporary popular culture, issues of art versus commerce in the creation of cartoons, the intersection of animation and politics, and shifts in style and technique throughout the years. We will look at the personalities in animation who have shaped the art form and continue to influence it, the rise in animation's popularity, and current-day applications of animated imagery. Case studies will include Pixar, Walt Disney, UPA, television cartoons, stop motion animation, and the movie, Who Framed Roger Rabbit.
Not Offered Every Year
Also Offered As: ARTH 3870, CIMS 3200
1 Course Unit

FNAR 3182 The History Computer Animation
This course will look at computer animation as an art form, a series of technological innovations and an industry. We will explore the way in which artistic, technical, historical, and cultural conditions have shaped the development of computer animation. Topics will include the impact of early motion graphics experiments in the sixties, the contributions of university- and corporation-funded research, commercial production, and the rise of Pixar. We will consider the companies and personalities in computer animation who have shaped the art form and continue to influence it, the contributions to computer animation from visionaries around the world, and current day applications of animated imagery. Throughout the course, we will screen important works from the canon of computer animation, including the earliest computer-animated shorts, scenes from Beauty and the Beast, the first Pixar shorts, Toy Story, Final Fantasy and works done internationally to forward the art and the industry.
Not Offered Every Year
Also Offered As: ARTH 3871, CIMS 3201, ENGL 0591
1 Course Unit

FNAR 3184 The Animation Of Disney
No organization has exerted as much influence on popular culture and the art form of animation as The Walt Disney Company. For decades, Disney films were the standard by which all other animated films were measured. This course will examine the biography and philosophy of founder Walt Disney, as well as The Walt Disney Company's impact on animation art, storytelling and technology, the entertainment industry, and American popular culture. We will consider Disney's most influential early films, look at the 1960s when Disney's importance in popular culture began to erode, and analyze the films that led to the Disney renaissance of the late 1980s/early 1990s. We will also assess the subsequent purchase of Pixar Animation Studios and the overall impact Pixar has had on Disney. The class will also look at recent trends and innovations, including live-action remakes and Disney+.
Not Offered Every Year
Also Offered As: ARTH 3873, CIMS 3203, ENGL 0593
1 Course Unit

FNAR 3185 History Children's TV
This course will survey the history of children's television from the invention of television through the present, with an emphasis on series development and production, artistry, and the colorful personalities who built this industry. We'll consider important figures including Fred Rogers, Bill Hanna and Joe Barbera, Joan Ganz Cooney, Jim Henson and Walt Disney. We will discuss the history of animated cartoons that were made specifically for television, Saturday morning production, the rise of Japanese cartoons from the 1960s through Pokemon, and the growth of children's cable channels in the 90s, as well as other landmark moments. We'll also assess the impact of streaming platforms on television and the future of children's media.
Not Offered Every Year
Also Offered As: ARTH 3874, CIMS 3204, ENGL 0594
1 Course Unit

FNAR 3250 MATTERS: Connecting Arts + Design to Materials, and Materials to Labor + Land
How does matter transform into material, and back again? What hidden labor, sites, social and ecological costs and processes go into the production of a “blank” canvas and other “raw” materials? And why--for artists, designers, architects, preservationists, creative educators, builders, and anyone working with materials--do these realities matter? This course connects arts and design learners to considerations, sites, and cycles around production and disposal of the defining materials of their creative fields (ex. paper, wood, glass, pigment, "the internet"), laying groundwork for creative practice rooted in social and ecological awareness, repair and care. A hybrid research seminar, field exploration, and studio investigation, the structure of this course alternates between reading/response/research, field trips and guest visitors (including a partnership affiliation with RAIR Philly), and time for responsive “making” and material experimentation/synthesis. In this course, students will collaboratively define key terms and concerns around material sustainability, discard studies, land and labor relations vis-a-vis creative work. Students will experience local sites of material extraction, production and disposal (through approx 5 field trips taking place during class time). Students will formulate individual or group questions around a specific material, leading to a final independent project, and class exhibition. This course will engage students in forming a material ethics to guide future creative work.
Also Offered As: DSGN 3250
1 Course Unit
FNAR 3300 Public Art and Issues of Spatial Production
The French social philosopher Michel de Certeau upset the common understanding of the relationship between space and place by elevating space as practice place. By this, he meant that place is but a set of geo-physical particularities that has no dynamic meaning unless activated through social engagement so that space is produced. Spatial practice is a key concept in the modern understanding of the city as a society of abstract space, one in which the problem of human alienation is riven with the logic of spatial spectacularization. Public Art is often employed to address or mollify such urban problems through concepts of historical reconstruction or institutional critique, including possibly testing the limits of public expression. Historical markers play a somewhat different role by calling attention to lost or negative histories, albeit most often vetted through the language of tourism factoids. This course will examine the discursive issues at play in respect to art and markers, particularly for Philadelphia. Additionally, important public art works from around the world will be examined. The course will also include the occasional visit of several key works downtown in which the question of what can and cannot said will be pondered.
Fall
1 Course Unit

FNAR 3517 Plague Lab: Writing through Infection and Affliction
How do we write through a plague? In this creative writing class we will begin with the question of how plagues make and disrupt meaning. In addition to canonical examples, we'll explore off-center, anti-colonial, and non-Western literary and popular culture works. Students will then produce across a number of genres including poetry, fiction, memoir, zines, double-blind studies, sculpture, installation, performance, or found object scavenging. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
Also Offered As: ENGL 3517, THAR 1117
1 Course Unit

FNAR 3664 Documentary Ethnography for Museum of Exhibition practices
This course will investigate research modalities that center around documentary storytelling in the museum context. During the semester, we will examine research strategies that collaborate with curatorial experts. The class will utilize cinematic techniques that investigate cultural narratives revolving around cultural heritage sites, rituals and ceremonies, artifacts, materials and living traditions. Students will engage Solomon's process of her creation of the new digital and in-gallery content that will reframe the Metropolitan Museum's African art galleries. The semester will culminate in students creating their own short film content that will screen publicly in the gallery at the end of the semester.
Not Offered Every Year
Also Offered As: ANTH 3664, CIMS 3664
1 Course Unit

FNAR 3770 Black Speculative Futures
Why do black cultural producers turn to the speculative? What, in turn, is speculative about blackness? These questions frame this seminar's exploration of how black artists, theorists, and activists imagine different futures, often in the service of critiquing power asymmetries and creating radical transformation in the present. We will explore how the speculative works differently across black literature, visual culture and performance. Additionally, inspired by the multi-disciplinary work that we encounter in the course, we will experiment with crafting our own embodied speculative art in order to better understand its function as both art practice and politics. The course will be divided between discussions centered on close reading of primary and secondary material and creative writing/movement exploration (no previous movement experience necessary). Occasional guest lectures with visiting artists will provide additional fodder for our critical and creative work.
Not Offered Every Year
Also Offered As: AFRC 3770, ANTH 3770
1 Course Unit

FNAR 4020 Fine Arts Senior Seminar Project (Fall)
This rigorous pair of courses, one offered in the Fall and one offered in the Spring semester, are designed as the capstone of the Fine Arts major and are required for all graduating fine arts seniors. They can only be taken in the senior year. Students work in individual studio spaces provided by the department and then meet with faculty for seminar, critique, and professional practice exercises. Through individual and group critiques, students begin to conceptualize their final thesis exhibition or project. The senior seminar allows students to create lasting professional relationships with the fine arts faculty and visiting lecturers. The fall semester culminates in a group exhibition of senior student work paired with final semester critiques.
Fall
1 Course Unit

FNAR 4030 Fine Arts Senior Seminar Project (Spring)
The Spring semester seminar culminates in a senior thesis exhibition for each graduating student. These exhibitions have traditionally been held as a small group exhibition featuring a few students in one group, or as a larger end of semester exhibition with each student installing a series of works. The format of the exhibition will be determined during the fall semester by the senior faculty. The process of preparing, installing, and promoting the thesis exhibition is covered in detail throughout the semester. Students will work in their on-campus studio spaces to produce dynamic, thoughtful and well-crafted work that will serve as their final portfolio. They will present their portfolio of work during a final critique before graduation.
Spring
1 Course Unit
FNAR 4100 Urban Communities and the Arts
Urban Communities and the Arts concerns itself with Arts, Music and Activism in Philadelphia. We investigate the social, economic and cultural fabric from which activism in the arts arises. To do so, we will investigate the histories and artistic reactions to oppression in Philadelphia by drawing on specific examples from various sections of the city and through the media of music, visual art, theater, and dance. The long history of systemic and individual oppression in the US manifests itself in different ways in various urban neighborhoods in Philly and artists of various genres and inclinations participate in activism in many different ways. Examples of artistic and musical responses to the various forms of oppression will be offered and class participants will be asked to bring their own examples to share and analyze. By visiting significant arts practitioners and organizations that provide access to arts education and justice work, participants will have a hands-on experience to unpack the dynamics of artistic production in city life. In addition to art as an outlet for exposing oppression, we will also consider the ways that art and music become markers of the uniqueness of a neighborhood or city, which further complicates the idea of art as a tool for activism. Participants in Urban Communities and the Arts will unpack the role of music and art in defining city or neighborhood cultures by considering a few key sectors that reveal the ways in which cities fail to provide equal access to resources or participate in outright discrimination. At the same time, cities continue to cultivate creative spaces and socio-economic opportunities for economic gain and social understanding through art and music. It is the contradictions that this course will concern itself with and out of our study we will invite course participants to respond creatively. Participants will create either an original work of art, music or intellectual response like a visually interesting research poster as part of a final art/music show. Ultimately students will be asked to reflect back on the role of art in social and political activism to better understand the successes and failures of such movements as they come to define the ethos of city life and its limits.
Not Offered Every Year
Also Offered As: URBS 4100
1 Course Unit

FNAR 5003 Contemporary Art Studio
This course offers an introduction to studio-based practices aimed at synthesizing the expansive potentialities of art through exposure to a diverse set of approaches, their histories, and contemporary applications. A wide range of multi-disciplinary projects will provide students with skills to conceptualize and visualize material investigations. Lectures, readings, films, visiting lectures, field trips, and critiques, will provide a historic and theoretical foundation for critical inquiry.
1 Course Unit

FNAR 5004 Video I
In this studio based course, students are introduced to video production and postproduction as well as to selected historical and theoretical texts addressing the medium of video. Students will be taught basic camera operation, sound recording and lighting, as well as basic video and sound editing and exporting using various screening and installation formats. In addition to a range of short assignment-based exercises, students will be expected to complete three short projects over the course of the semester. Critiques of these projects are crucial to the course as students are expected to speak at length about the formal, technical, critical and historical dimensions of their works. Weekly readings in philosophy, critical theory, artist statements and literature are assinged. The course will also include weekly screenings of films and videos, introducing students to the history of video art as well as to other contemporary practices.
Fall or Spring
1 Course Unit

FNAR 5007 Digital Photography
This class offers an in-depth technical and conceptual foundation in digital imagery and the opportunity to explore the creative, expressive possibilities of photography. Students will become proficient with the basic use of the camera, techniques of digital capture, color management and color correction. They will also develop competency in scanning, retouching, printing and a variety of manipulation techniques in Photoshop. Through weekly lectures and critiques, students will become familiar with some of the most critical issues of representation, consider examples from photo history, analyze the impact of new technologies and social media. With an emphasis on structured shooting assignments, students are encouraged to experiment, expand their visual vocabulary while refining their technical skills. No previous experience is necessary. Although it is beneficial for students to have their own Digital SLR camera, registered students may reserve and checkout Digital SLR cameras and other high-end equipment from the department.
Fall or Spring
1 Course Unit

FNAR 5008 Mixed Media Animation
Mixed Media Animation is a contemporary survey of stop-motion animation concepts and techniques. Students use digital SLR cameras, scanners and digital compositing software to produce works in hand-drawn animation, puppet and clay animation, sand animation, and multiplane collage animation. Screenings and discussions in the course introduce key historical examples of animation demonstrating how these techniques have been used in meaningful ways. Students then learn how to composite two or more of these methods with matte painting, computer animation or video.
1 Course Unit

FNAR 5010 Graduate Studio I
First year studio for MFA students’ core pursuit of self-directed interdisciplinary problems that contribute to one or more of the visual arts disciplines.
Fall
1-2 Course Units
FNAR 5011 Intro to Clay
This course introduces clay as a sculptural medium through fundamental clay-building techniques, mold making, model making, and casting. Through experimentation with these methods, this course promotes an understanding of materials, processes, visual concepts and techniques for creating three-dimensional forms in space. In addition to using different water-based clays and plaster, other materials such as wax, plastilene, paper pulp, and cardboard will be explored. Students will explore the full range of clay capabilities and its role in contemporary art through lectures, readings, demonstrations, and assignments that incorporate conceptual and technical issues.
1 Course Unit

FNAR 5012 Figure Drawing I
Students work directly from the nude model and focus on its articulation through an understanding of anatomical structure and function. Students will investigate a broad variety of drawing techniques and materials. The model will be used as the sole element in a composition and as a contextualized element.
Fall or Spring
Prerequisite: FNAR 5230
1 Course Unit

FNAR 5013 Painting I
Painting I is an introduction to the methods and materials of oil painting. This course begins with an investigation of color and color relationships. The beginning of the semester will cover technical issues and develop the student’s ability to create a convincing sense of form in space using mass, color, light and composition. The majority of work is from direct observation including object study, still life, landscape, interior and exterior space and the self portrait. Class problems advance sequentially with attention paid to perceptual clarity, the selection and development of imagery, the process of synthesis and translation, color, structure and composition, content and personal expression. Students will become familiar with contemporary and art historical precedent in order to familiarize them with the history of visual ideas and find appropriate solutions to their painting problems.
Fall or Spring
Prerequisite: FNAR 5230
1 Course Unit

FNAR 5014 Introduction to Printmaking
The course offers an introduction to several forms of printmaking including: intaglio, screen printing, relief, and monoprinting. Through in-class demonstrations students are introduced to various approaches to making and printing in each medium. The course enhances a student’s capacity for developing images through two-dimensional design and conceptual processes. Technical and conceptual skills are developed through discussions and critiques.
Spring
1 Course Unit

FNAR 5015 Documentary Video
Documentary Video is an intensive production course involving the exploration of concepts, techniques, concerns, and aesthetics of the short form documentary. Building on camera, sound, and editing skills acquired in Video I, students will produce a portfolio of short videos and one longer project over the course of the semester using advanced level camera and sound equipment. One short presentation on a genre, technique, maker, or contemporary concern selected by the student is required.
Fall
1 Course Unit

FNAR 5016 Video II
Video II offers opportunities to further explore the role of cinematic narrative technique, non-narrative forms, digital video cinematography, editing, and screen aesthetics. Through a series of several video projects and a variety of technical exercises, students will refine their ability to articulate technically and conceptually complex creative projects in digital cinema. In addition, one presentation on a contemporary issue related to the application of cinematic storytelling and/or the cultural context of digital video is required.
Fall or Spring
1 Course Unit

FNAR 5017 Cinema Production
This course focuses on the practices and theory of producing narrative based cinema. Members of the course will become the film crew and produce a short digital film. Workshops on producing, directing, lighting, camera, sound and editing will build skills necessary for the hands-on production shoots. Visiting lecturers will critically discuss the individual roles of production in the context of the history of film.
Fall
1 Course Unit

FNAR 5018 Advanced Video Projects
This course is structured to create a focused environment and support for individual inquiries and projects. Students will present and discuss their work in one on one meetings with the instructor and in group critiques. Readings, screenings, and technical demonstrations will vary depending on students’ past history as well as technical, theoretical, and aesthetic interests.
Not Offered Every Year
Prerequisite: FNAR 5004
1 Course Unit

FNAR 5020 Graduate Studio II
Second year studio for MFA students’ core pursuit of self-directed interdisciplinary problems that contribute to one or more of the visual art disciplines.
Spring
1-2 Course Units

FNAR 5021 Advanced Lens Based Projects
Advanced Lens Based Projects (ALBP) is structured to create an open environment for students to develop a series of self-determined projects using any variety of image capture technologies. Mobile devices and DSLRs have blended the function of moving and still image capture while computers have become ubiquitous as instruments of display and dissemination. This has consequently led to the increasingly collapsed boundaries of artistic mediums. ALBP is a studio class where students will explore different modes of production and address the expanding field of exhibition strategies. Additionally, the class will foster a transdisciplinary approach to critiquing work and emphasize the shared context of the works reception. Readings, screenings, discussions, and critiques make up the curriculum along with dedicated studio time. Each student is required to complete three self-determined projects using still or moving image capture technologies. Grades will be determined through participation, completion of assignments, and the students’ formal and critical engagement with the technology. While the focus of this course is not technical, prior knowledge of camera functions and post-production techniques is expected.
Fall or Spring
Prerequisite: FNAR 1010 OR FNAR 1020 OR FNAR 1030 OR FNAR 1040
1 Course Unit
FNAR 5022 Performance/Camera: Performance and-with-through-for Cameras
This intermediate course will explore the wide and expansive territories of art-making that exist between live performance and mediated image making-both still and moving. For much of the 21st century, the mediums of performance, video and photography have been weaving in and out of contact. Performance is known and understood largely through its documentation: sometimes voluminous and sometimes little more than a single photograph. On the other side, video, film and photography each developed through widespread explorations that were deeply entwined with the "capturing" of bodies on film. Using photography, video and performance in equal parts, the course is a hands-on exploration of this capacious terrain. The course will be structured by a series of bi-weekly assignments that allow for individual and collective production. The course will also include a regular schedule of short readings and presentations/screenings of existing works.
Fall
Prerequisite: FNAR 6610 OR FNAR 6400
1 Course Unit

FNAR 5023 Performance Studio
This course supports the individual and collaborative production of performance works. As the medium of performance consists of diverse forms, actions, activities, practices and methodologies, the course allows for an open exploration in terms of material and form. Students are invited to utilize technologies, materials and methodologies from other mediums and/or disciplines such as video, photography, writing and sound. In addition to the production component, the course will examine multiple histories of performance through readings, screenings and directed research.
Spring
Prerequisite: FNAR 5230 OR FNAR 5450 OR FNAR 6400 OR FNAR 6610
1 Course Unit

FNAR 5024 Hand-Drawn Computer Animation
Using software tools designed for hand-drawn animation, students will develop animation skills applicable to all forms of animation. In this course students will learn to draw with a sense of urgency and purpose as they represent motion and drama in a series of frames. Through careful study of natural movements, precedents in the history of animation, and through the completion of a series of animation projects students will develop strategies for representing naturalistic movement, inventing meaningful transformations of form, and storytelling.
Not Offered Every Year
1 Course Unit

FNAR 5025 Computer Animation
Through a series of studio projects this course introduces techniques of 2D and 3D computer animation. Emphasis is placed on time-based design and storytelling through animation performance and montage. Students will develop new sensitivities to movement, composition, cinematography, editing, sound, color and lighting.
Fall or Spring
1 Course Unit

FNAR 5026 Digital Photography II
In this course students will continue to develop conceptual, technical, aesthetic and formal strategies in digital photography, expanding their artistic process while refining their critical approach to researched subject matter. The class will be driven initially by a series of assignments formulated to further expose students to broad possibilities related to the medium and then they will be guided towards the evolution of a personalized body of work that is culturally, theoretically and historically informed. We will be examining key issues surrounding the digital image in contemporary society, led through a combination of class lectures, readings, group discussions, film screenings, gallery visits and class critiquess. Students will further their knowledge of image control and manipulation, retouching and collage, advanced color management; become familiar with high-end camera and lighting equipment and develop professional printing skills. In addition to learning these advanced imaging practices, this course will also emphasize an investigation of critical thought surrounding contemporary visual culture and the role of digital media in the creation of art.
Fall
Prerequisite: FNAR 6400
1 Course Unit

FNAR 5027 Reconfiguring Portraiture
As methods of representation are constantly shifting, one thing is clear - the photographic portrait is not what is used to be. Exploring both traditional and contemporary methods of portraiture, this class will uncover and discuss the ways in which we perceive each other in imagery, both as individuals and as groups. Throughout the semester, we will consider how portraits deal with truth, physical absence, the gaze, cultural embodiment, voyeurism and the digital persona. This course will build on the combination of perception, technology, and practice. Throughout the semester, students will advance by learning lighting techniques and strategies of presentation - as these core skills will become tools in the execution of project concepts. In tandem with each project, students will encounter and discuss a wide array of photography and writings from the past to the present, in an effort to understand the meanings and psychological effects of freezing the human image in time.
Spring
Prerequisite: FNAR 5710 OR FNAR 6400
1 Course Unit

FNAR 5029 Photography & Fashion
Since the invention of photography, the fashion industry has been one of the cornerstones of creative expression, innovation and visionary provocation. Contemporary fashion photography has continued to attract a leading group of image-makers that continue the tradition of creating artwork that not only is being published in cutting edge magazines such as V, Another Magazine and Citizen K, but also are exhibiting their work in various galleries and museums around the world. This course is designed for students who are interested in creating contemporary fashion images through specific assignments that define the process: lighting in studio or location, working with fashion designers, stylists, models, hair/ make up artists, and the application of a variety of post production techniques, via Photoshop. The class will explore modern constructs that define the importance of branding, marketing, advertising and the relationship of fashion photography in contemporary art and culture today.
Prerequisite: FNAR 5710 OR FNAR 6400
1 Course Unit
FNAR 5030 Sachs Research: Imaginary Modernisms
Over the course of the 2017-2018 school year, but officially as Spring 2018, credited course, I am inviting a group of 6-8 MFA students to participate as a group in a project focused on research, dialogue and the essential "possibilities" available to any artist to participate in the constant rewriting and redefining of art history. Students will participate in a body of research and readings leading to my upcoming participation in Rice University’s Campbell Lecture Series in March 2018 and an associated publication with the University of Chicago Press. The lectures are divided into three distinct parts over three nights, all of which focus on alternate approaches to modernism. Part I investigates the "Literary" theory of architecture by Bruno Taut and Paul Scheerbart. Part II is concerned with the painting practices of Hilma af Klint and Blinky Palermo. And Part III discusses the music of Sun Ra and Pauline Oliveros. Students participating in Imaginary Modernisms will meet and work with me in a series of scheduled and structured activities. beginning with a visit to Philadelphia in November for personal studio visits with each of the 6-8 students, not as a critique but to get to know you and your work a bit. Participation includes three trips to New York, each for two days. These 2-day trips will each involve one day at my studio in Brooklyn, to discuss the readings and research, as well as to observe the development of ongoing sculptural artworks being created in my studio, and a second day of self-guided visits to exhibitions and performances that I will suggest, with an optional meeting together for lunch or dinner. Readings for these meetings will be sent to you in advance of trip. Participating students should be prepared to read various texts along with me for the 5 month project duration. This is an essential part of the project and this should be a pleasurable process, so those who do not have time to add a medium amount of reading to their schedules, followed by group discussion, should probably not apply. The only other requirement will be preparing for an exchange with undergraduate students at Rice University in March. For our trip to Houston in March, there will be three nights of lectures, one participatory performance, one exhibition opening reception, plus visits and interaction with curators at the Menil Collection, the Museum of Fine Arts Houston, the Contemporary Arts Museum Houston and the Core Program (an important option for MFA students post graduation.)

Spring
1 Course Unit

FNAR 5031 Photogaphy and Fiction
In spite of photography's traditional relationship with fact, the medium has been a vehicle for fiction since the very beginning. Fiction and photography encompass a broad range of meanings, from elaborately staging and performing for the camera, to manipulations using digital technology such as Photoshop to construct the work. This class will examine and trace the history of manipulated photography while paying special attention to the complex negotiations between the decisive moment, the constructed tableau, and the digitally manipulated image. There will be a combination of class lectures, studio projects, assigned readings, visiting artists, film screenings, field trips, and class critiques.

Spring
Prerequisite: FNAR 1030 OR FNAR 6400
1 Course Unit

FNAR 5032 Counter the Land: Photography and the Landscape
Starting with the representation of landscape in painting in the early 1800s, the course will then move through Pictorialism and the Modernist movement in photography. Revisiting the later half of the 20th century, we will begin to consider the shifting practices of landscape and the ways it has been photographically depicted up to the present. Collaborating with the Brandywine River Museum of Art in Chadds Ford, students will begin their photographic exploration with the work of Andrea Wyeth and the landscape of the Brandywine Valley. As we consider Wyeth, the images of James Welling will also be introduced. Credited for pioneering new forms of representation in photography in the 1970s, Welling also revisited the work of Wyeth from 2010-2015, and committed to a fresh (and challenging) look at tradition. Working with imagery and text, this class will also touch on conceptual art, the New Topographics, and postmodernism. Through these various concentrations, students will consider and counter the traditions that they are already familiar with, while creating work based on issues of the landscape today. Questions about meaning, politics, social critique, land rights, technology and methods of presentation will be encouraged and explored throughout the course.

Fall
Prerequisite: FNAR 5710 OR FNAR 6400
1 Course Unit

FNAR 5033 Dispersive Lens
This studio course will explore the nexus between photography, sculpture, installation, drawing, painting, and the moving image. The course is informed by the printed image, as students will explore how photography can encourage thinking in other mediums, in addition to how other mediums can influence the making of photography. When does an abstract painting appear more like a photograph? How can a photograph suggest ways to make a video? Can a sculpture exist as a photograph? A variety of assignments will expose students to interdisciplinary approaches addressing these questions and more. Class projects will be supported by regular slide lectures, group critiques, and readings examining modern and contemporary artists and practices.

Spring
Prerequisite: FNAR 5710 OR FNAR 6400 OR FNAR 6610
1 Course Unit

FNAR 5034 Photography Studio Abroad
This Traveling Studio is offered every other spring term to upper level photography & related media students. It is a cross-cultural visual investigation, exploring the contradicitions and significance of the chosen city. This course incorporates multi-disciplinary research in preparation for the trip; exploring various fields of knowledge production such as art, history, social sciences, markets and governance. Class discussion, readings and individual research will be focused towards the development of each student's photo/media project, which will be realized while abroad. After returning to Philadelphia, students will develop and refine their work; the remaining classes will emphasize critique, editing, printing and presentation options. The final projects will be included in a group exhibition at the end of the semester. Admission to the course is on a competitive basis.

Spring, even numbered years only
Mutually Exclusive: FNAR 2180
1 Course Unit
FNAR 5035 The Body and Photography
The last few decades have introduced dramatic changes in the way we interact with each other, the way we communicate, the way we date, watch porn, etc. Ethical concerns have arisen with scientific advances such as stem cell research, fertility drugs, Botox, cloning and erectile dysfunction. This studio course will investigate the myriad ways in which the corporeal is addressed and manipulated in contemporary art, science, religion, pop culture and media. Students will develop photographic projects related to updated questions concerning gender, sexuality and social issues. Lectures, readings and class discussion will focus and inform their individual work.
Spring
1 Course Unit

FNAR 5036 Drawing Investigations
Drawing is a fundamental means of visualization and a hub for thinking, constructing, and engaging in a wide variety of creative activities and problemsolving. This studio class explores drawing in both its traditional and contemporary forms. The projects are designed to help students in all disciplines find ways express and clarify their ideas through the process of drawing. The semester begins with the refinement of perceptual skills acquired in Drawing I, while encouraging experimentation through the introduction of color, abstract agendas, conceptual problem solving, and collaborative exercises, as well as new materials, techniques and large format drawings. Particular attention is given to ways to conduct visual research in the development of personal imagery. Assignments are thematic or conceptually based with ample opportunity for individual approaches to media, subject, scale and process. The goal is to strengthen facility, develop clarity in intent and expand expression. Attention is paid to the development of perceptual sensitivity, methods of image construction, and the processes of synthesis and transformation in order to communicate ideas through visual means. Recommended for students in all areas.
Fall or Spring
Prerequisite: FNAR 5230
1 Course Unit

FNAR 5038 Painting II
Painting II presents an ongoing exploration of the techniques, problems and poetics of painting, the nuances of the painting language, and the development of a personal direction. A wide variety of problems will address such issues as color, composition, and the development of imagery, process, and content. Students are expected to improve in technical handling of paints and move towards developing personal modes of seeing, interpreting, and thinking for themselves. This course introduces different topics, strategies and individual challenges each semester, so it may be repeated with advanced course numbers.
Fall or Spring
Prerequisite: FNAR 5310
1 Course Unit

FNAR 5040 Painting Studio
Painting Studio IV focuses on continuing the student’s exploration of techniques, problems, and poetics of painting, the nuances of the painting language, and the development of a personal direction. While students may choose to work on assigned projects (either in consultation with the instructor or following the projects that the Painting II/III students may be involved in), the emphasis is on the investigation of the student’s own sensibility. Students will be expected to engage in ongoing critical analysis of their own practices and assumptions.
Fall or Spring
Prerequisite: FNAR 5230 AND FNAR 5330
1 Course Unit

FNAR 5041 Interdisciplinary Studio: Sites of Convergence and Hybridity
This course takes an experimental multimedia approach to investigating some of the boundaries in contemporary art making practices. Painting, photography, video, design and sculpture intersect, overlap, and converge in complicated ways. Projects will be designed to explore hybrid forms, collage, space/ installation, and color through a variety of strategic and conceptual proposals as students work towards unique ways of expanding their own work. Weekly readings, critiques, and presentations will be integrated with studio projects. This studio/seminar is appropriate for students at all levels and from all areas of Fine Arts and Design.
Spring
Prerequisite: FNAR 5230 OR FNAR 5450 OR FNAR 6400 OR FNAR 5310 OR FNAR 6360
1 Course Unit

FNAR 5043 Printmaking: Etching
The class will challenge the possibilities of experimental drawing and ways of creating incisions and textures using copper plates as the matrix, which then will be printed on paper and other materials. The class offers full technical and historical description of each individual process: Dry Point, Etching, Hard ground, Soft Ground, Aquatint, Shine Cole’, Spitz-Biting, Sugar Lift, Color Printing and Viscosity printing.
Fall or Spring
1 Course Unit

FNAR 5044 Printmaking: Screen Printing
This course is an introduction to technical skills and investigative processes in screen printing and relief and examines methods for combining digital technology with traditional print media. The course introduces students to several contemporary applications of silkscreen and relief printmaking including techniques in multi-color printing, photo-based silkscreening, digital printing, woodcut, linocut, and letterpress. Demonstrations include photo and image manipulation, color separating and output techniques, hand carving and printing, as well as drawing and collage. Both traditional and experimental approaches are explored and encouraged and technical and conceptual skills are developed through discussions and critiques.
Fall
1 Course Unit

FNAR 5045 Printmaking & Publications: Intro to Independent Publishing and Artists' Publications
This course introduces students to independent publishing and artists’ publications through print methods in letterpress, Risograph, and Xerox. The class will focus on the self-published artists’ zine/book as an affordable, accessible, and easily reproducible format for exploring ideas, disseminating artists’ work, and collaborating across disciplines. Students will learn a range of skills, including techniques in both mechanized and hand-pulled forms of printed media (Risograph, copy machine, Vandercook letterpress); short-run editions and binding; design and layout; pre-press and print production; and the web as it relates to and supports independent and democratic modes of distribution. Students will learn about and become acquainted with some of the most significant independent publishers working today and throughout history. Students will leave class having completed three individual projects: a 16-page booklet/zine; a carefully considered online publication, and a final collaborative book designed, developed and published as a class. The course commences with a field trip to New York City’s Printed Matter, one of the oldest and most important nonprofit facilities dedicated to the promotion of artists’ books, where students will be encouraged to submit a publication by semester’s end.
Fall
1 Course Unit
FNAR 5047 Advanced Sculpture: Installation & Intervention
In this course students will create sculptural installations and spatial interventions that explore site specificity and architectural environments. A range of traditional sculptural materials and techniques will be investigated along with more ephemeral interventions in space such as sound, light, and projection. Through lectures, readings, and critiques, students will explore the history of installation and interactive sculptural work and develop self-directed projects that interrogate historical, social, and psychological conditions of the built environment.
Mutually Exclusive: FNAR 2310
1 Course Unit

FNAR 5048 Nonhuman Photography
Our culture is increasingly made up of nonhuman actors. Facial recognition algorithms spend more hours "seeing" in a day than humans; drones equipped with visual sensors conduct our warfare; voice chat bots call businesses and make appointments for us. Meanwhile, humans conduct labor that we view as the work of bots: posting disinformation for political gain, or mass-producing children's YouTube videos for ad revenue. As objects begin to see and think, how can we understand the role of human agency and the possibilities (or lack thereof) for artistic expression in this space? What does the future of art look like when more photographs are taken as surveillance than by individuals, or when important cultural producers are nonhuman intelligences? In Nonhuman Photography, we will attempt to interrogate these ideas from an artist's perspective, approaching nonhuman agents and the various components that comprise them both as tools for studio work and as generative entities in their own right. Over the course of the semester we will read and discuss these issues extensively, while engaging in studio projects in a variety of media. While the course bears the title "photography", we will find that many of these tools will be non-photographic or para-photographic, and as a result many of our studio projects will be interdisciplinary. This course takes its name from Joanna Zylińska’s Nonhuman Photography, parts of which we will examine over the course of the semester.
Spring
Prerequisite: FNAR 6610 OR FNAR 5710 OR FNAR 6400
1 Course Unit

FNAR 5049 Machine for Seeing: Architecture and the Moving Image
Architecture's relationship with cinema was established with the very first motion picture. In Sortie de l'usine Lumiere de Lyon by Auguste and Louis Lumiere we see a didactic presentation of film titles as workers from the Lumiere brother's factory stream forth from its interior at days end. In many ways the context of the film is its subject as well. The title of the class plays on Le Corbusier's maxim that architecture is machine for living and perhaps cinema is simply a machine for helping us understand the vast construct of our built environment. A device, which allows us to imagine even greater follies or more importantly to think critically about architecture's relationship with and impact on society. Readings, screenings, discussions and critiques make up the curriculum along with studio time. Students will produce their own film and we will look at films produced by a range of practitioners: From architects speculating on the nature of and use of public space and urban development to documentarians researching the pathologies of neo-liberalism and its effect on the privatization of space. We will also look at the work of artists who engage with the poetics of space and who unpack the conflicted legacies of the built environment.
Spring
Prerequisite: FNAR 5004
1 Course Unit

FNAR 5050 A Virus in the Culture: Social Critique in Media Arts
In order to change the world, we must first learn how to infect it. A Virus in the Culture is a studio class that examines and generates various forms of media resistance to dominant hegemonic systems of power and control. Using filmmaking, publication design and interactive media we'll think through and develop responses to some of the most pressing issues facing us today. We'll look at historical models from the agitprop design work of Gee Vaucher for Anarcho-punk band Crass to Chris Marker's film Le Fond de L'Air Est Rouge, a radical analysis of global social and political turmoil in the late 60s and early 70s. We'll also look at experimental contemporary design firms like Metahaven who question the role of designers and filmmakers today - Bypassing the power dynamics of clients and briefs they took it upon themselves to create a graphic identity for WikiLeaks. Each example broadens the definition and possibilities of practice to create a more porous engagement with audiences and users while informing the practice of social critique today. Considering a diverse range of topics from education policy, to the rights of environmental refugees, we'll use the class to workshop a singular comprehensive project that targets researches and responds to a specific contested position. The outcome of which will be a class produced short film, publication and website that unpacks the social, cultural, and economic complexities of our subject. This class is co-taught by David Hartt, an artist and filmmaker along with graphic designer, Mark Owens. Reading, screenings, discussions and critiques make up the curriculum along with studio time. While the focus of this course is not technical, prior knowledge of design programs, camera functions, and post-production techniques is expected.
Fall
Prerequisite: FNAR 6610
1 Course Unit

FNAR 5054 The Chinese Body and Spatial Consumption in Chinatown
This course looks at representations of the Chinese (and Asian body) since the Limehouse district in East London and the advent of Chinese contract laborers to the Americas in the 19th century. The localization of the Chinese throughout the Americas within Chinatown precincts were also subject to representational imaginings that were negotiated through the lens of civic planning, literature and later in cinema. Chinatowns are ultimately a product of racism. They were created as a political and social support system for newly arrived Chinese immigrants. While Chinese laborers arrived into the United States in 1840 and in significant numbers into Canada about 1860, Chinese contract workers were encouraged to immigrate to the Americas as an inexpensive source of labor, especially after the end of the American Civil War. Industrial leaders in America, Canada and elsewhere in the Americas (Mexico, Cuba, Peru, etc) saw the arrival of Chinese workers as a victory for commercial interests. However, the celebration was short-lived, as anti-Chinese sentiment quickly transformed into anti-Chinese hysteria. Rather than attacking the vested interests that exploit foreign labor as embodied by the Chinese worker, racist unions with the cooperation of civic leaders and the police deemed it safer to burn Chinatowns than capitalist property. Deeply under-studied to this day is the number of mass murders of Chinese workers in the 19th century by anti-Chinese thugs. This seminar will focus in on how the body of the Chinese (and Asian) was imagined and reimagined multiple times from the middle of the 19th century to today.
1 Course Unit
FNAR 5055 Tiananmen Square: A Case Study for Fine Arts and Landscape Architecture

This course takes as its subject the systems of representation and design that have historically and presently operate in Tiananmen Square in Beijing. There have been several incarnations of Tiananmen Square since its original form in 1651. During Imperial times and through the period of foreign legations, the square was once surrounded by walls and gates, creating a city within a city. With the advent of the Republic of China established on January 1, 1912, much of the enclosures were removed, opening up for public use previously restricted imperial areas. After the Communist Revolution in 1949, planning was afoot to enlarge the square. With its enlargement completed in 1958, the square expanded its footprint by four-fold, making it one of the largest public squares in the world. The enlarged and remodeled square coincided with the completion of the massive Monument to the People’s Heroes. In 1976, a large mausoleum containing the preserved body of Mao Zedong was built near the site of the former Gate of China, further increasing the size of the square. In the 1990s, the building of the National Grand Theatre and expansion of the National Museum on grounds contiguous to the square necessitated further alterations to both the Eastern and Western skirts of the square. In recent years, there have been a widening debate regarding the transformation of the concrete heavy and by and large featureless square into a green space. Today, Tiananmen Square holds sacrosanct status to the Communist revolution of 1949, designed more for military parades and massive public rallies than public space repose. In a city that has few green spaces, such a verdant transformation in the heart of the Chinese capital would signal a radical symbolic deviation to China’s development-first guiding principles. The square fronts Tiananmen Gate and the Forbidden City and is situated at the intersection of the historical east-west and north-south axes. Chang’An Avenue, important for military processions, separates the square from Tiananmen Gate and is considered the most important thoroughfare in the Capital and the path of the east west number one subway line. The entirety of the Tiananmen Square area is marked by ideology and political prominence, often confusingly. Tiananmen Tower, functions as a conflation of monumental facade with political embodiment. This course will focus on imagined interventions through public art and landscape design within Tiananmen Square and its contiguous areas. It is a studio practice course with a significant seminar component that will include lectures and readings relating to issues of public space and urban design in contemporary China. The course will also study the development of contemporary art in China. The tragic events of Tiananmen Square in 1989 represented a turning point in terms of a generation of Western exiled Chinese artists and curators including Hou Hanru, Chen Zhen, Xu Min, Huang Yong Ping and Yan Pei Ming among many others. The class will study the strategies deployed by these so-called First Generation of Chinese artists. Making use of their double identity as traditionally taught Chinese artist residing in the West, their art offered a pointed critique of both China and the West. The course will include a trip to Beijing.

Spring
1 Course Unit

FNAR 5056 Across Forms: Art and Writing

What if a poem spoke from inside a photograph? What if a sculpture unfurled a political manifesto? What if a story wasn’t just like a dance, but was a dance—or a key component of a video, drawing, performance, or painting? In this course, artists and writers will develop new works that integrate the forms, materials, and concerns of both art and writing. Many artists employ writing in their practices, but may not look at the texts they create as writing. And many writers have practices that go beyond the page and deserve attention as art. This course will employ critique and workshop, pedagogic methodologies from art and writing respectively, to support and interrogate cross-pollination between writing and art practices. Additionally, the course will will examine a field of artists and writers who are working with intersections between art and writing to create dynamic new ways of seeing, reading, and experiencing.

Fall
Mutually Exclusive: FNAR 3080
1 Course Unit

FNAR 5057 Art and Social Work: Art and the Ecology of Justice

How can the arts help us build a more just society? How can the arts transform social structures and systems? Public health crises involving clean water (Flint), police violence (Baltimore), and a lack of economic and educational opportunity following reentry (Philadelphia) make legible the need for a new visual language that critiques these conditions and challenges entrenched structural inequalities. We will engage the work of creative practitioners who are mapping new relationships between art and social justice and directly impacting individual and communal well-being. In so doing, the course seeks to challenge traditional constructions of public health, which often isolate individual histories from their social life and their relation to families, communities, and geographies. Readings will build upon disciplinary perspectives in the arts, humanities, and social policy. Requirements include weekly readings, class participation, and a collaborative final project. The course will meet in the Health Ecologies Lab at Slought Foundation, an arts organization on campus.

Spring
Also Offered As: SWRK 7170
Mutually Exclusive: FNAR 3090
1 Course Unit
FNAR 5058 Paris Modern: Spiral City
Paris has been shaped by a mixture of organic development, which is still today perceptible in the "snail" pattern of its arrondissements whose numbers, from 1 to 20, coil around a central island several times so as to exemplify a "spiral city," and of the violent cuts, interruptions and sudden transformations that again and again forced it to catch up with modern times, the most visible of which was Baron Haussmann's destruction of medieval sections of the city to make room for huge boulevards. Thus Parisian modernism has always consisted in a negotiation between the old and the new, and a specific meaning of modernity allegorized for Louis Aragon, the Surrealists and Walter Benjamin consisted in old-fashioned arcades built in the middle of the 19th century and obsolete by the time they turned into icons of Paris. The aim of the class will be to provide conceptual and pragmatic (visual, experiential) links between a number of texts, theories and films deploying various concepts of the modern in Paris, with a guided tour of the main places discussed. The course that Professors Jean Michel Rabate (English) and Ken Lum (Fine Arts) will lead studies Paris as a work of science-fiction where its many futures are embedded in its many pasts, where discontinuity is a continuous process and where the curving line of the snail's shell is a line of ceaseless curling resulting in a perennial oscillation where an outside converts into an inside and an inside then converts to an outside. The course will travel to Paris over spring break to get an in-depth look at the topics discussed in class.
1 Course Unit

FNAR 5059 Public Art and Issues of Spatial Production
The French social philosopher Michel de Certeau upset the common understanding of the relationship between space and place by elevating space as practice place. By this, he meant that place is but a set of geo-physical particularities that has no dynamic meaning unless activated through social engagement so that space is produced. Spatial practice is a key concept in the modern understanding of the city as a society of abstract space, one in which the problem of human alienation is riven with the logic of spatial spectacularization. Public Art is often employed to address or mollify such urban problems through concepts of historical reconstruction or institutional critique, including possibly testing the limits of public expression. Historical markers play a somewhat different role by calling attention to lost or negative histories, albeit most often vetted through the language of tourism factoids. This course will examine the discursive issues at play in respect to art and markers, particularly for Philadelphia. Additionally, important public art works from around the world will be examined. The course will also include the occasional visit of several key works downtown in which the question of what can and cannot said will be pondered.
Fall
1 Course Unit

FNAR 5061 Mystics & Visionaries: Arts and Other Ways of Knowing
As a pioneer of abstraction in the early 1900’s, Hilma Af Klint channeled a complex and highly original body of abstract symbolic work in secrecy. Using the upcoming Hilma Af Klint exhibition at the Guggenheim as a focus and departure point, this course will explore the ways in which artists have accessed alternative ways of seeing, knowing, and embodying non-visible realities as a source for their work. Accessing spiritual realms has been the subject of early European Modernisms investigations into Theosophy and Anthroposophy, as well as the primary intention of Tibetan Thangkas and Indian Tantra paintings. Postmodernism's crisis of belief and skepticism generated a cultural situation wherein the subject of spirituality was marginalized, ridiculed as anti-intellectual, and in disgrace. The Hilma Af Klint exhibition and surge of interest in her work signifies a new moment, where questions about consciousness and the nature of reality are being addressed with renewed vigor. How do we create space in a technology driven world for experiences that attempt to align the viewer/maker with the contemplative realm, heightened states of consciousness, or transcendence? We will examine a wide field of artists in an attempt to understand the possibilities of the "spiritual" in art and contemporary culture. This seminar will engage in readings, lectures, discussions, projects, and field trips. This course is appropriate for both grad and undergrad, art majors and non-majors alike.
Fall
1 Course Unit

FNAR 5062 Civic Studio
Civic Studio is an engaged research course that explores significant theories, methods, and practices of public and socially-engaged artwork. Students draw from arts- and place-based modes of inquiry toward collaborative projects with fellow classmates, artists, and organizations in Philadelphia and beyond, while pursuing semester-long individual projects that build on their own independent interests and pursuits. Each semester, students work with and as embedded practitioners in exhibitions, installations, research projects, and other artistic platforms throughout the city. In turn, through readings, site visits, and site-specific work, students gain creative and critical capacty for producing their own final projects. Through Civic Studio students are able to reflect upon and practice public work with artistic, scholarly, and civic aims.
Spring
1 Course Unit
FNAR 5063 Monument Lab: Praxis Approaches to Socially-Engaged Public Art
What makes an exceptional socially-engaged public artwork or project? For those who practice in the field, the question invites careful consideration of aesthetics, process, participation, staging, and interpretation. Across the better part of the last decade, this line of inquiry has fueled the work of Monument Lab, a public art and history studio based in Philadelphia. With deep roots and close ties to the Department of Fine Arts’s Center for Public Art and Space, and methods interanimating contemporary art and pedagogy, Monument Lab works with artists, students, activists, municipal agencies, and cultural institutions on exploratory approaches to public engagement and collective memory. The Monument Lab course in Fine Arts explores the theoretical study and practical applications of public art. The course operates as a socially-engaged “civic studio” to engage case studies, debate key issues in the field, meet with artists and practitioners, conduct site and studio visits, and practice direct methods for producing individual and collaborative public projects. Focusing on the intersection of theory and practice, the praxis course highlights engaged methods piloted by Monument Lab in citywide exhibitions and special projects, especially to focus on themes and models for participation, public engagement, co-creation, curation, temporary installation, and socially engaged art-making. Each student will embark on a semester-long independent project, as well as participate in a group initiative centered on a current Monument Lab project in Philadelphia to gain experience in the field of socially-engaged public art.
1 Course Unit

FNAR 5064 Is This Really Happening? Performance and Contemporary Political Horizons
This class addresses the meeting points inside of and between a range of resistant performance practices with a focus on artists using performance to address political and social encounters in the contemporary moment. Performance, a chaotic and unruly category that slides across music, dance, theater and visual art, has long been a container for resistant actions/activities that bring aesthetics and politics into dynamic dialogue. Embracing works, gestures, movements, sounds and embodiments that push against and beyond the conventions of a given genre, performance can’t help but rub uncomfortably against the status quo. Scholars working across Performance Studies and Black Studies importantly expanded critical discourse around performance to address the entanglement of the medium with physical, psychic, spatial and temporal inhabitations of violence and power. Generating copious genealogies of embodied resistance, this scholarship instigates a complex, interdisciplinary and multidimensional perspective on intersections between art and life, performance and politics. The class hosts a series of public lectures, presentations and performances by visual artists, choreographers, theater artists, composers/musicians, performers, curators and activists engaged with the social and political moment. Presentations will be open to the public with students in the course developing in-depth research into the work of each visiting artist/performer/presenter to engage the larger context of each visitor’s scholarship and/or practice through readings, discussion and in-class presentations. This course is open to all interested students. No prior prerequisites or experience with performance or the performing arts is necessary.
1 Course Unit

FNAR 5065 Queer Imaginings
Queer is a fluid, unfixed and undefinable space offering endless utopian possibilities & potentials concerning gender, sexuality, personal autonomy and agency. Queer Imaginings is a forum for the reimagining of Queer representation/s. This course provides a safe space to mine, critique and analyze Queer imagery, both historical & contemporary. We will explore the ways in which Queerness is approached, represented & manipulated in pop culture, politics, society and the media. Students enrolled in this studio/seminar course will partake in discussions and research pertaining to Queer images and their intersections with race, trans/non-binary-equity, feminism, disability & class structure. These complex subjects will inspire respectful debate throughout the course, and most importantly, generate robust discussion about the work students create. Prompted through select readings and visual presentations, students will be guided to research, analyze and create artworks, which are inspired by various topics related to Queerness. A special emphasis will be placed upon issues arising around visibility, erasure & inclusivity. This forum offers a space to reexamine, research and propose new representations of Queerness. This is primarily a lens-based course with expansive possibilities (interdisciplinary, transdisciplinary, multidisciplinary)
1 Course Unit

FNAR 5066 Advanced Projects in Animation
This course will focus on developing and producing projects that utilize advanced approaches to 2D and 3D computer animation. We will engage emerging techniques of visualization such as data-driven animation, algorithmic animation, working in hybrid forms of stop-motion, hand-drawn and 3D computer animation, working with dynamic physical simulations, rigging animated characters, or structures. The meeting pattern of the course will enable members to complete ambitious independent or group based animation projects and share the methods that they develop along the way.
Not Offered Every Year
1 Course Unit

FNAR 5067 Experimental Clay
In this course students will examine and explore the sculptural foundations of clay in the world of contemporary art and design, by experimenting with its sculptural materiality, as a means to develop ideas in large-scale and unconventional ways. Through investigative and conceptually driven projects, students will use clay and other non-traditional materials to make modular structures that incorporate advanced mold-making, casting, and advanced building techniques to develop their own artistic voice through the expansive medium of clay.
1 Course Unit

FNAR 5068 Film Sound: History, Aesthetics and Subversion
Sound and Image as experienced in the cinema, are not divisible. One perception influences the other, and transforms it. While a preexisting harmony between these two senses may exist, its conventions are subject to manipulation and the whims of subversion. Film Sound tracks the technological and aesthetic history of sound for film including psychoacoustics, dialogue, music, sound fx and audio's gradual and triumphant march towards fidelity, stereo and surround sound. This lecture course, through an historical and pedagogical romp loaded with examples throughout film history and visits by lauded audio professionals from the film world, seeks to instruct students to engage in the process of sound perception, gaining an appreciation for the art of sound as it relates to the varied phenomenological dimensions of that unique audio-visual encounter we call movies.
Fall
1 Course Unit
FNAR 5120 Bodies Bodies Bodies: An Introduction to Performance Art
Theater, Dance, Music, Opera, Film, Reality Television, Installation, Intervention, Social Encounters, Protests, Lectures, Seminars...what are the edges and borders of what we call “performance”? What, exactly, makes something “performance art” a “performance” or “performative”? How does an artist employ time, space, site, and audience to create a performance work? What do we mean when we talk about “the body”? In this course, we’ll delve into a survey and practice of making performance. This course is intended to introduce students of various disciplines to the central components of performance art. Following a hybridized module, the class will present students with a cursory introduction to a history of performance art; its theoretical framings and critical inquiries and various approaches to making, through lecture, seminar, and in-class performance workshops. This introduction will invite students to make their own performance work using a variety of techniques and frameworks discovered through workshops, readings, and viewings of work by feminist, queer, anti-capitalist, and anti-colonial artists and theorists. Through solo and collective exercises in movement, installation, speech, sound, drama, and choreography, we will learn the basic tools of making a performance composition that challenges the boundaries of traditional dance and theater (while also welcoming any traditional training at one’s disposal.) Throughout the semester, students will attend performances and screenings, guest artist lectures, performance workshops, and present a final performance project utilizing personal research, skills, and interests discovered through our weekly sessions.
Mutually Exclusive: FNAR 1120
1 Course Unit

FNAR 5180 Paris Modern: Spiral City
Paris has been shaped by a mixture of organic development, which is still today perceptible in the “snail” pattern of its arrondissements whose numbers, from 1 to 20, coil around a central island several times so as to exemplify a “spiral city,” and of the violent cuts, interruptions and sudden transformations that again and again forced it to catch up with modern times, the most visible of which was Baron Haussmann’s destruction of medieval sections of the city to make room for huge boulevards. Thus Parisian modernism has always consisted in a negotiation between the old and the new, and a specific meaning of modernity allegorized for Louis Aragon, the Surrealists and Walter Benjamin consisted in old-fashioned arcades built in the middle of the 19th century and obsolete by the time they turned into icons of Paris. The aim of the class will be to provide conceptual and pragmatic (visual, experiential) links between a number of texts, theories and films deploying various concepts of the modern in Paris, with a guided tour of the main places discussed. The course that Professors Jean Michel Rabate (English) and Ken Lum (Fine Arts) will lead studies Paris as a work of science-fiction where its futures are embedded in its many pasts, where discontinuity is a continuous process and where the curving line of the snail’s shell is a line of ceaseless curling resulting in a perennial oscillation where an outside converts into an inside and an inside then converts to an outside. The course will travel to Paris over spring break to get an in-depth look at the topics discussed in class.
1 Course Unit

FNAR 5410 if night is a weed and day grows less
If Night Is A Weed And Day Grows Less The title of this class posits a shift in balance: of the natural order, of the built environment, of the body politic, of perception. The result is a creeping entropy that can either be embraced or redirected. Taking a morphological approach to image making students can use any variety of televisual image capture technologies. From analog to digital, satellite imagery to scanner. Time arrested or accelerated. Night for day and weeds for gardens, the work produced should ask us to slow down and reassess the objectives of form, language, image and place, to create new prototypes for engagement and new modes of understanding our environment and perhaps even to reinvent the conventions of landscape as a genre. Readings, screenings, discussions and critiques make up the curriculum along with studio time. Each student is required to complete a visual essay that addresses these themes using image capture technologies. Mutually Exclusive: FNAR 2410
1 Course Unit

FNAR 5750 Graduate Drawing Seminar
This seminar examines the essential nature of drawing has in an artist’s process. Direct visual perception, self-referential mark making, the viability of space and understanding it, and drawing from one’s own work are some of the drawing experiences encountered in the course. There are regular critiques and discussions based on the work and readings. Spring
1 Course Unit

FNAR 5760 Critical Issues Seminar
This seminar investigates issues concerning visual artists. Part one begins with Plato and Kant and progresses through a history of ideas in art, exploring the questions which concern artists today, including Modernism, post-modernism, abstraction and representation, appropriation, context, art and politics, identity, and the artist’s relationship to these subjects. Part two of the course will focus on current texts in contemporary art, the current dialogue(s), and issues specific to our time and place as artists. The seminar engages contemporary issues in a spirit of curiosity and critique, and relates them to our studio practice. Fall or Spring
1 Course Unit

FNAR 5940 Graduate Photography Seminar
This seminar will examine contemporary issues in photography from the point of view of the practicing artist. Students will meet with visiting critics during the semester, the course will also include student presentations, weekly discussions and group critiques, visits to artists’ studios and gallery and museum exhibitions. Texts for the seminar will be drawn from contemporary critical theory in art, philosophy, history and popular culture. Required for all graduate photographers.
1 Course Unit

FNAR 5980 Grad Sculpture Seminar
Sculpture instructor (to be announced) will lead this studio course based on improvisational approaches to developing individually made sculptural works, as well as works that are made in collaboration with others. As in Music or Theater, these works involve the collaboration of others, yet they are equally initiated by small thoughts, and carry those thoughts into a more public and interactive format of installation.
Spring
1 Course Unit
FNAR 6010 Graduate Studio III
Second year studio for MFA students’ core pursuit of self-directed interdisciplinary problems that contribute to one or more of the visual arts disciplines.
Fall
1-2 Course Units

FNAR 6020 Graduate Studio IV
Second year studio for MFA students’ core pursuit of self-directed interdisciplinary problems that contribute to one or more of the visual art disciplines.
Spring
1-2 Course Units

FNAR 6050 Contemporary Art Seminar
This course focuses on contemporary art. Open to graduate students and undergraduates with permission of the instructor.
Not Offered Every Year
Also Offered As: ARTH 5960
1 Course Unit

FNAR 6110 Don’t Forget: Inclusion, Exclusion, and Memory in the Contemporary City
What role do history and memory play in processes of community building? Do they promote solidarity, inflame division, or both? What are the relationships between a city’s built environment, commemorative landscape, and the circumstances that stimulate, or hinder, the growth of community? In this seminar students will tackle these questions in an effort to uncover some of the ways in which public space, memory, and community intersect. Through a series of case studies and texts we will examine the controversies, challenges, and community impact of commemorative projects in cities both in the U.S. and abroad. Each week we will focus on one city/region, theme, or commemorative project, and students will study design strategies, processes of development and construction, and theoretical concerns surrounding the role of memory and history in the public space. Drawing on discourse from art, architecture, urbanism, history, and preservation studies, this course brings these fields together in an effort to understand how communities can be strengthened through an engagement with, and examination of the past. For the final project, students will research a commemorative dilemma in a city of their choice, engaging with real-life debates and procedural processes to develop a more inclusive alternative to the status quo.
1 Course Unit

FNAR 6400 Teaching Artist Practicum
Teaching Artist Practicum supports artists engaging in education work, through the development of liberatory, expansive and justice-oriented teaching outlooks and approaches. Students in this course will gain context around forms of arts education through the lens of critical pedagogy. This course supports current/upcoming classroom experiences of participants (TA-ships and teaching appointments), and helps students prepare for teaching opportunities. This course will include readings/responses, creative and practical exercises, collaborative experiences, presentations, and a final project. This course is geared towards graduate students who are artists/cultural producers looking to teach in higher education, adult, community and young-adult (teen) learning, and alternative venues. Undergraduates may enroll with permission of the instructor.
1 Course Unit

FNAR 6664 Documentary Ethnography for Museum of Exhibition practices
This course will investigate research modalities that center around documentary storytelling in the museum context. During the semester, we will examine research strategies that collaborate with curatorial experts. The class will utilize cinematic techniques that investigate cultural narratives revolving around cultural heritage sites, rituals and ceremonies, artifacts, materials and living traditions. Students will engage Solomon’s process of her creation of the new digital and in-gallery content that will reframe the Metropolitan Museum’s African art galleries. 1 semester will culminate in students creating their own short film content that will screen publicly in the gallery at the end of the semester.
Not Offered Every Year
Also Offered As: ANTH 6664, CIMS 6664
Mutually Exclusive: ANTH 3664
1 Course Unit

FNAR 6690 Graduate Video Studio
Through a series of studio projects, this course focuses on the conceptualization and production of time-based works of art. A seminar component of the course reviews contemporary examples of media based art and film. A studio component of the course introduces production techniques including lighting, cinematography, audio, editing, mastering projects, and installing audio-visual works in site-specific locations or gallery spaces.
Fall
1 Course Unit

FNAR 7010 Graduate Critique I
This course is designed to introduce students to different pedagogical methodologies relating to the critical examination of works of art as well as to assist students in terms of speaking about their own work. Graduate critique provides a democratic and interactive forum for the voicing of opinion in an informed context. 1st year MFA students only.
Fall
1 Course Unit

FNAR 7020 Graduate Critique II
Graduate Critique is designed to introduce students to different pedagogical methodologies relating to the critical examination of works of art as well as to assist students in terms of speaking about their own work. This course provides a democratic and interactive forum for the voicing of opinion in an informed context. This course is required for MFA students in the 2nd semester of the program.
Spring
1 Course Unit

FNAR 7030 Graduate Critique III
This course is designed to introduce students to different pedagogical methodologies relating to the critical examination of works of art as well as to assist students in terms of speaking about their own work. Graduate critique provides a democratic and interactive forum for the voicing of opinion in an informed context. 2nd year MFA students only.
Fall
1 Course Unit

FNAR 7040 Graduate Critique IV
Graduate Critique is designed to introduce students to different pedagogical methodologies relating to the critical examination of works of art as well as to assist students in terms of speaking about their own work. This course provides a democratic and interactive forum for the voicing of opinion in an informed context. This course is required for MFA students in the fourth semester of the program.
Spring
1 Course Unit
FNAR 7120 Visual Epistemologies for Creative Practices
In this joint seminar between Architecture and Fine Arts, we investigate the alternative modes of diagrammatic thinking that are influencing art and design disciplines. The course provides a historical perspective on the evolution of visual epistemologies from late 1950s and reviews its current state from the lens of contemporary representation theory, computation, fabrication and information technologies. The goal is to gain both theoretical and hands-on experience with the contemporary diagramming techniques in order to advance both designs and the thinking behind them.
Spring
1 Course Unit

FNAR 7200 Topics in Representation
In these advanced representation courses the work extends to new ways of documenting and seeing landscape. These courses are open to all interested School of Design students who have previous drawing experience or have taken foundation studios. Recent topics have been: Traces and Inscriptions (spring 2013), instructors: Anuradha Mathur, Matthew Neff; Landscape Representation (fall annually), instructors: Valerio Morabito; Landscape Drawing (spring annually), instructor: Laurie Olin; Landscape Drawing (spring 2008), instructors: David Gouverneur, Trevor Lee; Shifting Landscapes: A Workshop in Representation (spring 2005, 2004), instructor: Anuradha Mathur; and The Agile Pencil and Its Constructs (spring 2004) instructor: Mei Wu.
Fall or Spring
1 Course Unit

FNAR 8010 Critical Issues in Contemporary Art
Critical Issues in Contemporary Arts is a graduate level seminar course for fine arts majors and graduate students. Offering two to three sections each semester, standing faculty will rotate topics based around critical issues in contemporary art including Defense Against the Dark Arts and Perspectives in Art: A Nomadic Approach. Please see the PennMFA website for specific section descriptions. Enrollment may be granted to undergraduate fine art students with the permission of the professor.
Fall
1 Course Unit

FNAR 8020 Critical Issues in Contemporary Art
Critical Issues in Contemporary Arts II is a graduate level seminar course for fine arts graduate students in their second semester. Offering two to three topic based sections each semester, standing faculty will rotate topics based around critical issues in contemporary art. Previously offered sections include Defense Against the Dark Ages and Perspectives in Art: A Nomadic Approach. Please see the PennMFA website for specific descriptions each semester. Enrollment may be granted to undergraduate fine arts students with permission of the professor.
Spring
1 Course Unit

FNAR 8030 Critical Issues in Contemporary Art
Critical Issues in Contemporary Arts is a graduate level seminar course for fine arts majors and graduate students. Offering two to three sections each semester, standing faculty will rotate topics based around critical issues in contemporary art including Defense Against the Dark Arts and Perspectives in Art: A Nomadic Approach. Please see the PennMFA website for specific section descriptions. Enrollment may be granted to undergraduate fine art students with the permission of the professor.
Fall
1 Course Unit

FNAR 8040 Critical Issues in Contemporary Art
Critical Issues in Contemporary Arts IV is a graduate level seminar for fine arts graduate students in their fourth semester. Offering two to three topic based sections each semester, standing faculty will rotate topics based around critical issues in contemporary art. Previously offered sections include Defense Against the Dark Ages and Perspectives in Art: A Nomadic Approach. Please see the PennMFA website for specific section descriptions each semester. Enrollment may be granted to undergraduate fine art students with permission of the professor.
Spring
1 Course Unit

FNAR 9999 Independent Study
Graduate Fine Arts independent study course for students pursuing advanced, specialized, indecently-driven course work. This course must be taught by a full-time faculty member.
0.5-2 Course Units

Francophone, Italian, and Germanic Studies (FIGS)

FIGS 5000 M.A. Exam Preparation
This course will provide a forum for collective preparation for the Master’s exam across the three section in FIGS. Faculty will guide students in their work with their M.A. reading list(s)
Spring
1 Course Unit

FIGS 7770 Francophone, Italian and Germanic Proseminar
This proseminar will introduce first-year FIGS graduate students to doctoral studies in the humanities. It is organized into four parts. Part I, “Scholarly Habits and Resources,” introduces students to a variety of resources at Penn, discusses the scholarly habits that graduate students should develop, and covers strategies for promoting mental and physical well-being as a graduate student. Part II, “Intervening in the Field,” introduces students to the processes of conference participation and article publication. Part III, “The Dissertation,” covers the ins-and-outs of writing the dissertation. Part IV, “Awards, Networking, and Jobs,” addresses the importance of awards and networking as well as the academic and non-academic job markets. While DEI issues are constantly addresses throughout the course, also in the form of assignments, there are also bridge sessions to other courses, especially on pedagogy and recent research trends. In addition to weekly discussions and activities, this course will include a number of guest speakers who will share their expertise and give guidance on the how-tos of the field. Students will be given pre- as well as post-class activities to reflect on each week’s topic and begin to prepare a dossier for later use in their graduate studies. Much of the information in this proseminar becomes particularly relevant during the final years of coursework and your dissertation writing years, but it is important to be introduced to these topics and to begin to think about them now. This course is designed for PhD students in Francophone, Italian, and Germanic Studies. Many of the topics apply to all three fields; however, students will also have the opportunity to work on areas that are specific to their language for certain topics. They will also be able to add to the course materials for future graduate students in FIGS.
Fall
1 Course Unit
French (FREN)

FREN 0080 Laughter and Tricky Topics
This course takes a comparative approach to studying the philosophy and praxis of laughter in a variety of artistic media — texts, films, performances and memes. We will seek to develop a critical apparatus to answer the following questions: How does laughter unite us? How does it divide us? How does it contribute to identity and community formation? We will focus on humoristic expression produced in contexts considered too serious for lightheartedness, such as death, race and gender-related oppression, and disenfranchisement. Together, we will wonder whether everything can be a laughing matter, if irony is even funny (and what does it mean anyway?), and whether humor has the potential to effect meaningful sociopolitical change. Our theoretical corpus will include works by Bakhtin, Baudelaire, Bergson, and Freud, who conceptualized laughter in wildly different ways—respectively as carnivalesque, satanic, social, and as a coping mechanism. In the 1940s, René Ménil, a Franco-Caribbean philosopher, synthesized these early theories and further developed them into a means of resistance for colonial subjects. To see these concepts in action, we will engage with materials spanning three centuries, from a short story written by Jonathan Swift to contemporary French comedies (subtitled in English). Should laughter occur throughout the semester, its causes will be dutifully analyzed and presented in diverse oral and written assignments.
Not Offered Every Year
Also Offered As: CIMS 0080, COML 0080
1 Course Unit

FREN 0081 Decolonizing French Food
Wine and cheese, baguettes and croissants, multiple courses and fresh ingredients straight from the market—these are the internationally recognized hallmarks of French food. Yet, even as the practices surrounding the mythical French table have been deemed worthy of a place on UNESCO’s World Heritage List since 2010, culinary traditions in France remain persistently rooted in legacies of colonialism that are invisible to many. In order to “decolonize” French food, this seminar turns to art, literature, and film, as well as archival documents such as advertisements, maps, and cookbooks. In what ways do writers and filmmakers use food to interrogate the human, environmental, and cultural toll that French colonialism has taken on the world? How do their references to food demonstrate the complex cultural creations, exchanges, and asymmetries that have arisen from legacies of colonialism? We will interpret artworks, read literature (in English or in translation), and watch films (subtitled in English) that span the twentieth and twenty-first centuries by authors and directors from across the Francosphere—from Haiti, Guadeloupe, and Martinique in the Caribbean; to Mauritius in the Indian Ocean; from the Vietnamese diaspora in France, Canada, and the United States; to North, Central, and West Africa. Just as food can be examined from many angles, our discussions will focus on art, literature, and film, but also take into account perspectives from the fields of history, anthropology, and environmental studies. Moreover, we will employ the theoretical tools supplied by food studies, feminist and gender studies, critical race studies, and postcolonial studies.
Not Offered Every Year
Also Offered As: AFRC 0081, COML 0081
1 Course Unit

FREN 0100 Elementary French I
This course is the first semester of the elementary-level sequence designed to develop functional proficiency in the four skills and gain familiarity with French and Francophone culture. The primary emphasis is on the development of the oral-aural skills, speaking and listening. Readings on topics in French culture as well as frequent writing practice are also included in the course. As in other French courses, class will be conducted entirely in French. You will be guided through a variety of communicative activities in class which will expose you to a rich input of spoken French and lead you from structured practice to free expression. You will be given frequent opportunity to practice your newly acquired vocabulary and grammatical structures in small group and pair work which simulate real-life situations. The course will introduce you to French and Francophone culture through authentic materials including written documents, simple articles, songs, films, videos and taped conversations between native speakers. Out-of-class homework will require practice with the online component of the textbook (MyFrenchLab) as well as regular writing practice. The course will also invite you to explore the Francophone world on the Internet.
Fall or Spring
1 Course Unit

FREN 0120 Intensive Elementary French for Beginners
This course is an intensive elementary language course for students who have not studied French, but who have met the language requirement in another foreign language. This course will provide an introduction of the basic structures of French, with intensive work on speaking and listening designed to prepare students to take Intermediate French. Due to the nature of the course, the first half will progress rapidly with the more difficult material presented after the midterm period. As in other French courses, class will be conducted entirely in French. You will be guided through a variety of communicative activities in class that will expose you to a rich input of spoken French and lead you from structured practice to free expression. You will have frequent opportunities to practice your newly acquired vocabulary and grammatical structures in small group and pair work that simulate real-life situations, so please prepare each day’s lesson attentively. The course will introduce you to French and Francophone culture through authentic materials including written documents, simple articles, songs, films, videos, and conversations between native speakers. Homework will consist of aural comprehension exercises in the online workbook as well as regular writing practice. The course will also invite you to explore the Francophone world by completing an engaging, interactive project in the final stage of the semester. By the end of this course, you should be able to meet a variety of day-to-day needs in a French-speaking setting and to handle a range of basic travel transactions. You will be able to engage in simple conversations on familiar topics such as family, lodging, daily routines, leisure activities, etc. You will begin to be able to speak and write in the past, present and the future, make comparisons, and describe people and things in increasing detail. You will develop reading skills that should allow you to get the gist of simple articles and you will more readily discern information when you hear native speakers talking in a simple fashion about topics familiar to you. Permit required.
Fall
2 Course Units
FREN 0200 Elementary French II
This course is the second semester continuation of the elementary-level sequence designed to develop functional proficiency in the four skills and gain familiarity with French and Francophone culture. The primary emphasis is on the development of the oral-aural skills, speaking and listening. Readings on topics in French culture as well as frequent writing practice are also included in the course. As in other French courses, class will be conducted entirely in French. You will be guided through a variety of communicative activities in class which will expose you to rich input of spoken French and lead you from structured practice to free expression. You will be given frequent opportunity to practice your newly acquired vocabulary and grammatical structures in small group and pair work which simulate real-life situations. The course will introduce you to French and Francophone culture through authentic materials including written documents, simple articles, songs, films, videos, and taped conversations between native speakers. Out-of-class homework will require practice with the online component of the textbook, as well as regular writing practice. The course will also invite you to explore the Francophone world on the Internet.
Fall or Spring
Prerequisite: FREN 0100
1 Course Unit

FREN 0210 Accelerated Elementary French for False Beginners
This course is an intensive one-semester language course for students who have had some French before but who can benefit from a complete review of elementary French. This course will provide a re-introduction of the basic structures of French, with intensive work on speaking and listening designed to prepare students to take Intermediate French. Due to the nature of the course, the first half of the semester will progress rapidly, with much more difficult material being presented after the midterm period. As in other French courses, class will be conducted entirely in French. You will be guided through a variety of communicative activities in class that will expose you to a rich input of spoken French and lead you from structured practice to free expression. You will be given frequent opportunity to practice your newly acquired vocabulary and grammatical structures in small-group and pair work activities that simulate real-life situations, so please prepare each day's lesson attentively. The course will introduce you to French and Francophone culture through authentic materials including written documents, simple articles, songs, films, videos, and conversations between native speakers. Out-of-class homework will consist of aural comprehension exercises in the online workbook as well as regular writing practice. The course will also invite you to explore the Francophone world by completing an engaging, interactive project in the final stage of the semester. By the end of this course, you should be able to meet a variety of day-to-day needs in a French-speaking setting and to handle a range of basic travel transactions. You will be able to engage in simple conversations on familiar topics such as family, lodging, daily routines, leisure activities, etc. You will begin to be able to speak and write in the past, present, and the future, make comparisons, and describe people and things in increasing detail. You will develop reading skills that should allow you to get the gist of simple articles and you will more readily discern information when you hear native speakers talking in a simple fashion about topics familiar to you.
Fall
1 Course Unit

FREN 0300 Intermediate French I
In French 0300, you will be "parachuted" to Paris where you will choose where you want to live and explore your chosen neighborhood in depth. Every week we will discuss a different theme of Parisian life and French culture. As you discover your arrondissement, you will share information about it with your classmates and develop a collective knowledge of the French capital. You will tell your imagined experiences through your journal and therefore as a class, we will "raconter Paris". French 130 is the first half of the intermediate sequence designed to help you attain a level of proficiency that should allow you to function comfortably in a French-speaking environment. This course will build on your existing skills in French, increase your confidence and ability to read, write, speak, and understand French, and introduce you to more refined lexical items, more complex grammatical structures, and more challenging cultural material. As in other French courses at Penn, class will be conducted entirely in French. In addition to structured oral practice, work in class will include frequent communicative activities such as role-plays, problem-solving tasks, discussions, and debates, often carried out in pairs or small groups. Through the study of authentic materials such as articles, literary texts, songs, films, videos, you will deepen your knowledge of the French language and culture.
Fall or Spring
Prerequisite: FREN 0200 OR FREN 0210
1 Course Unit

FREN 0340 Accelerated Intermediate French
An intensive two-credit course covering the first and second semester of the intermediate year. See descriptions of French 0300 and 0400. Students must have a departmental permit to register. Also offered in the summer Penn-in-Tours program in France.

Spring
2 Course Units

FREN 0400 Intermediate French II
French 0400 is the second half of a two-semester intermediate sequence designed to help you attain a level of proficiency that should allow you to function comfortably in a French-speaking environment. You are expected to have already learned the most basic grammatical structures in elementary French and you will review these on your own in the course workbook. This course will build on your existing skills in French, increase your confidence and ability to read, write, speak and understand French, and introduce you to more refined lexical items, more complex grammatical structures, and more challenging cultural material. This course focuses on the culture of French-speaking countries beyond the borders of France. Along with your classmates, you will explore the cities of Dakar, Fort-de-France and Marrakesh, investigating the diversity of the Francophone world through film, literature and music. As in other French courses at Penn, class is conducted entirely in French. In addition to structured oral practice, work in class will include frequent communicative activities such as problem-solving tasks, discussions, and debates, often carried out in pairs or small groups. Daily homework will require researching in the library and on the Internet, listening practice with video clips, in addition to regular written exercises in the workbook.
Fall or Spring
Prerequisite: FREN 0300
1 Course Unit

FREN 0800 Advanced French in Residence
Open only to residents in La Maison Francaise. Participants earn 1/2 c.u. per semester. Course can be taken twice for credit.
Two Term Class, Student may enter either term; credit given for either 0.5 Course Units
FREN 1000 Advanced French
French 1000 is a third-year level course aimed at better understanding contemporary French society, language and culture, with a special focus on today's young generation. What defines a generation in the first place, and how do the lives of young people in France compare to those of their American counterparts? To answer these questions, students in this course will delve into numerous aspects of French youth experience from the school system to family life, and from the workplace to the political arena, with the aid of resources including contemporary films, news articles, songs, literary texts, and the recent sociological project "Generation Quoi." In addition, they will forge connections with the French community on Penn's campus, as they embark on a journey of cultural exploration and reflexive self-discovery. While this course is not a grammar-focused course, particular attention will be given to recognizing and employing the different registers of spoken and written French. The course constitutes excellent preparation for study abroad in a French-speaking region. Prerequisite: Open to students who have completed the language requirement. Students who are continuing from French 0340 or 0400 should take French 1000 before moving on to more advanced French courses.
Fall or Spring
1 Course Unit

FREN 1071 Fashion and Modernity
In this class we will study the emergence of the Modernist concept of the "new" as a term also understood as "new fashion." We will move back and forth in time so as to analyze today's changing scene with a view to identify contemporary accounts of the "new" in the context of the fashion industry. Our texts will include poetry, novels, and films. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ARTH 2889, COML 1072, ENGL 1071, GRMN 1065
1 Course Unit

FREN 1214 Advanced French Conversation and Composition
This course is intended to improve communicative skills through extensive practice in a variety of styles and forms. It aims to enhance student understanding of contemporary French culture, thought and modes of expression by promoting both cross-cultural understanding and critical thinking and developing students' communicative abilities (in the presentational, interpretive, and interpersonal modes). The specific language functions we will focus on are: narration; description; offering and soliciting advice and opinions; expressing feelings; critique and analysis; argumentation. It is organized around the themes of current events, identity and art. Activities include the study, analysis and emulation of model texts as well as discussion and debates about events and social issues as covered by the French news media (television, print, Internet sources). The oral work include video blogs and group presentations on selected topics and current events. Written practice will comprise reflective journals, essays and collaborative work on Web projects. On completing this course, students will feel more confident and be able to speak and write effectively on a range of contemporary issues. Recommended for students who are planning to study abroad in France.
Fall or Spring
Prerequisite: FREN 1000

FREN 1226 French History and Culture to 1774
This civilization course presents the fabric/fabrication of the so-called national memory through its places of memory (lieux de memoire), as well as its places of non-memory (lieux de non-memoire), going from the Gauls to the Enlightenment. As the course tells the story of the rise and fall of the French monarchy, one is encouraged to envision it as a palimpsest and to become aware of the roles played by myths and legends. It helps see how French history has been manipulated by the collective memory, how retrospection often redefines, fabricates events and people depending on the needs of the moment. This course is taught in French.
Fall
Prerequisite: FREN 1212 OR FREN 1214 OR DWTEST=5
1 Course Unit

FREN 1227 French History and Culture 1789-1945
This civilization course presents the creation of modern France from 1789 to 1945 through the omnipresence of the myth of Perseus and Medusa in the historical narrative. The objective of the course is to introduce students to a period in France's history that begins with the French Revolution and ends with Maréchal Pétain's National Revolution. It also helps them discover the intricacies of the slow construction of modern France. In this course, students are led to reflect on contemporary French culture and society that are the result and the remnants of the Revolution, and to make connections with American history. This course is taught in French.
Spring
1 Course Unit
FREN 1230 Masterpieces of French Cinema
This course will introduce students to key films of the French film canon, selected over a period ranging from the origins of French cinema to the present. Students will also be introduced to the key critical concepts (such as the notion of the “auteur” film genre) informing the discussion of films in France. The films will be studied in both a historical and theoretical context, related to their period styles (e.g. “le réalisme poétique,” “la Nouvelle Vague,” etc.), their “auteurs,” the nature of the French star system, the role of the other arts, as well to the critical debates they have sparked among critics and historians. Students will acquire the analytical tools in French to discuss films as artistic and as cultural texts. Please note: This course follows a Lecture/Recitation format. The Lecture (FREN 1230-401/CIMS 1230-401) is taught in English. For French credit: please register for both FREN 1230-401 (lecture) and FREN 1230-402 (recitation); the FREN 1230-402 recitation is conducted in French. For Cinema Studies credit: please register for CIMS 1230-401 (lecture) and CIMS 1230-403 (recitation); both are taught in English. Prerequisite: Two 200-level courses taken at Penn or equivalent.
Fall
Also Offered As: CIMS 1230
1 Course Unit

FREN 1231 Perspectives in French Literature: Love and Passion
This basic course in literature provides an overview of French literature and acquaints students with major literary trends through the study of representative works from each period. Students are expected to take an active part in class discussion in French. French 1231 has as its theme the presentation of love and passion in French literature.
Fall
Also Offered As: COML 1231
1 Course Unit

FREN 1232 Perspectives in French Literature: The Individual and Society
This basic course in literature provides an overview of French literature and acquaints students with major literary trends through the study of representative works from each period. Special emphasis is placed on close reading of texts in order to familiarize students with major authors and their characteristics and with methods of interpretation. Students are expected to take an active part in class discussion in French. French 1232 has as its theme the Individual and Society.
Spring
Also Offered As: COML 1232
1 Course Unit

FREN 1233 Francophone Literature and Film
This course is designed to give students a basic historical and theoretical groundwork in Francophone and postcolonial studies, and to help them develop their skills in literary and filmic analysis. It will provide an introductory survey of the richly diverse literature and film of the French-speaking world, from the 1950s through to the 21st century. Beginning with the gradual breakup of the French colonial empire, we will investigate the construction of individual and collective Francophone identities in such regions as the Caribbean, Africa, and the Maghreb, while exploring an equally wide range of literary and cinematic genres. Other histories and regions such as Quebec and Lebanon will also be discussed. Throughout the course we will remain especially attentive to questions of space–public and private spheres, urban and rural topographies, borders and migrations, as well as the complex dynamics between the Francophone regions and France itself—and to the ways in which these tensions are mapped onto the textual and visual surfaces of the works studied.
Spring
1 Course Unit

FREN 2130 French for Business I
This content-based language course, taught in French, introduces economic, business and professional terminology through the study of the following topics: financial institutions (banking, stock market and insurance); business practices (business letters and resumes); trade and advertising; the internal structure and legal forms of French companies. The course also emphasizes verbal communication through three components: 1) In-class activities such as problem-solving tasks, discussions and debates. 2) The study of authentic materials such as newspapers and magazines’ articles, video clips, and radio shows. 3) A series of students’ presentations. Finally, in order to use and practice the new economic and business terminology studied in this course, and to also further explore the structure, the management, and the operations of the French companies, students will work in pairs on a research project about a major French company of their choice. One of the other goals of this course is to also prepare the students to take one of the exams offered by the Paris Chamber of Commerce and Industry: the Diplome de Francais Professionnel, Affaires, C1. This exam will be held on campus in April.
Fall or Spring
Prerequisite: FREN 1000
1 Course Unit

FREN 2170 French Phonetics
This course is designed to provide students with a solid foundation in French phonetics and phonology. Part of the course will be devoted to learning how to produce discourse with native-like pronunciation and intonation. The course will also focus on improving aural comprehension by examining stylistic and regional differences in spoken French.
Fall or Spring
Prerequisite: FREN 1000
1 Course Unit
FREN 2180 From West Africa to West Philadelphia: Creating Community in the Francophone Diaspora
This course explores the immigrant experience with a focus on migration from Francophone West Africa to this country, particularly the impact it has on children and young people. Through a close partnership with young Francophone immigrants at the Lea School, we will focus on the challenges they face adapting to a new cultural and linguistic environment. We will review the Francophone context in order to understand the place of the French language in Africa; look at the immigrant and refugee experience through a variety of texts in French; examine the issues of mono-, bi- and multilingualism both on an individual and a societal basis; look at the competing meanings the French language holds for Black Americans; and study the role of foreign languages in American schools. Students will participate in the weekly Francophone Community Partnership, an after-school program with 8 children at the Lea School which seeks to enhance the children's self-esteem and pride in their linguistic and cultural heritage.

Fall
1 Course Unit

FREN 2230 Advanced French Composition and Conversation
Summer in Tours course: Intensive language course complemented by various workshops to consolidate and deepen written and oral skills, do more targeted phonetic correction work (on expressive intonation, fluency and fluency) in a language lab or in class, discover different aspects of life in France, and to be open to the plurality of cultures. At the end of the program, students will be able to take the DELF.

Summer Term
2 Course Units

FREN 2250 Paris during the German Occupation and its Places of [Non-]memory
In this course, we will explore the dark years that characterized the Occupation of France by Nazi Germany and the Collaboration between the two countries supported by the Vichy Regime. A course to explore a past that none of us has directly lived. And not just any past. A repressed, masked, disguised past. A past inhabited by shadows. A past that is whispered. A holed memory. The myth of Marianne Resistance fascinates only for a while before the reality of the camps and the Collaboration looms up with a grimace and provokes fright in us. How to talk about what happened? With what words to recount the story of the disappeared? This was the challenge for the post-Auschwitz society. This is the challenge of this course. Paris will be our anchor point. Capital witness, capital executioner, capital victim. Its streets and walls will whisper to us the stories of that period as turbulent as it is rich in cultural production, and as complex as it is fascinating. Throughout the semester we will be especially attentive to images, in every sense of the word: the images of national identity that France projects to the world and to itself, but also pictorial representations of the country, its people and its territory. These images, and the stories they tell, will help us envision the kaleidoscopic portrait of a nation. The course will be conducted entirely in French.

Fall
1 Course Unit

FREN 2280 Contemporary France
In this course we will be exploring the transformations of French society since the Second World War and into the Millennium. From the legacy of decolonization to the multicultural fervor of the 1998 Soccer World Cup, from the May 1968 civil protests to the Republican marches of 2015, we'll be delving into the major historical and cultural movements that have marked the contemporary period. How did France recover from German occupation and cope with further wars in its colonial territories? How did unprecedented rates of urbanization and immigration change the face of the country over the ensuing decades? Who have been the major players on the historical stage? And what are the political, cultural, and socioeconomic challenges facing France at the outset of the 21st century? These are some of the questions that will guide our investigation into the past 70 years of French history, a period as turbulent as it is rich in cultural production, and as complex as it is fascinating. Throughout the semester we will be especially attentive to images, in every sense of the word: the images of national identity that France projects to the world and to itself, but also pictorial representations of the country, its people and its territory. These images, and the stories they tell, will help us envision the kaleidoscopic portrait of a nation. The course will be conducted entirely in French.

Fall
1 Course Unit

FREN 2500 The Novel and Marriage
This course will cover the novel and marriage from the turn of the 20th century to the present. We will study how authors have used the novel as a means to express their views on society, politics, and literature. The course will be conducted entirely in French.

1 Course Unit

FREN 3010 French Identity in the Twentieth Century
This course explores the immigrant experience with a focus on migration from Francophone West Africa to this country, particularly the impact it has on children and young people. Through a close partnership with young Francophone immigrants at the Lea School, we will focus on the challenges they face adapting to a new cultural and linguistic environment. We will review the Francophone context in order to understand the place of the French language in Africa; look at the immigrant and refugee experience through a variety of texts in French; examine the issues of mono-, bi- and multilingualism both on an individual and a societal basis; look at the competing meanings the French language holds for Black Americans; and study the role of foreign languages in American schools. Students will participate in the weekly Francophone Community Partnership, an after-school program with 8 children at the Lea School which seeks to enhance the children's self-esteem and pride in their linguistic and cultural heritage.

Spring
1 Course Unit

FREN 3080 Topics in French Culture
Please see the department's website for the course description. https://www.sas.upenn.edu/french/pc

Not Offered Every Year

FREN 3100 Literary History
Please see the department's website for the course description. https://www.sas.upenn.edu/french/pc

Not Offered Every Year
1 Course Unit
FREN 3110 French Thought After 1968
In American academia, French thought after May ’68 is often referred to as “French Theory,” a heterogeneous corpus of philosophical and critical texts compacted into a set of poststructuralist premises, first introduced by and grew within humanities departments, then identified as a luxury by-product of the “literary” people. This course proposes to unpack the notion of “French Theory” and re-anchor it into its original social/historical background. We will read some of the most influential texts of its key figures, study how a post May 68 revolutionary energy is transformed into various innovative but also destabilizing ways of rethinking power relations, gender, language and subjectivity, and finally, consider in what capacities and limits these diverse critical approaches go beyond the simple label of “post-structuralism” and relate to our own epoch and personal experiences. The readings and discussions will be divided into four axes: 1. Philosophy of Desire (Lacan, Deleuze/Guattari); 2. Sexual Revolt and Body Politics (Foucault, Hocquenghem, Barthes); 3. Deconstruction and Its Impact on Feminism (Derrida, Cixous, Irigaray); 4. Consumer Society and Society of the Spectacle (Lipovetsky, Baudrillard, Debrord). Several documentaries and feature films will be shown outside class time. Taught in English. Reading knowledge of French is welcome but not required.
Fall or Spring
Also Offered As: COML 3110
1 Course Unit

FREN 3130 French for Business II
The course, conducted entirely in French, emphasizes verbal communication in business professional situations through three components. First, a series of student’s presentations, in-class activities (using newspapers’ articles, technical readings, radio shows and films), and debates on the following topics (list not exhaustive) related to France’s economy and society: The role of the State in France’s economy; the French fiscal system; Labor (impact of the 35-hour work week, “conges,” women in the workplace, etc.); Regions of France (production); major French industries/companies/brands; France’s major imports/exports; “Green business”; Business of pop culture. Second, as effective communication is based not only on linguistic proficiency but also on cultural proficiency, cultural differences mostly between Americans and French will be explored. Finally, throughout the semester, students will work in groups on the creation of their own business, association, or other organization and will be invited to present their project to the class at the end of the semester. On completion of the course, students will also have the opportunity to take the Diplome de Francais Professionnel-DFP Affaires (C1) administered by the Paris Chamber of Commerce and Industry.
Spring
Prerequisite: FREN 2130
1 Course Unit

FREN 3220 France and the European Union
This course aims to provide an understanding of the European Union as a complex entity: its history, institutions, challenges and future. After reviewing the history of European integration and learning about the Community’s institutions, common programs and market, we will consider a wide variety of themes important to Europe: economics, education, immigration, the environment, social issues, national and European identities, the debate over a Federal Europe vs. a Europe of nations, European social/cultural models vs. American liberalism, relations between the EU and the rest of the world. Considering the acute and ongoing challenges facing the European community, we will focus on current events and discuss issues that are critical to the EU in general and to France in particular. Students will be responsible for pursuing substantive research on these and other topics and participating actively in debates. This class will be conducted entirely in French and is designed to improve cross-cultural understanding and communicative skills in the presentational, interpretive and interpersonal modes.
Fall
1 Course Unit

FREN 3250 Advanced French: Translation
This course provides an introduction to the theory and practice of translation and is designed to help foster a critical understanding of differences between French and English syntactical and lexical patterns. It will introduce students to theoretical concepts and problems of translation, with the ultimate goal being to improve their ability to communicate in more authentic-sounding French. Students will have the opportunity to practice translation individually and to work with their peers on a variety of projects (advertising, journalistic and literary texts, movie and broadcast news subtitling) and to engage in critique and discussion of others’ translations. This course will help students refine their language skills and navigate more proficiently between these cultures and language systems. (Designed for students who already have a solid foundation in French and English grammar)
Spring
1 Course Unit

FREN 3290 Le français dans le monde/French in the World
Where and how is French spoken in the world? Which variety (or varieties) of French represents "good" or standard language use? What does it mean to have an accent or to experience linguistic insecurity? To what extent have political forces and movements historically affected the evolution of French? How do language attitudes differ among French- and English-speaking regions of the world and what is the status of French in an era of globalization? In what ways does language shape our identities? Le Francais dans le monde/French in the World examines these questions by providing a survey of the sociolinguistics of the French language in the contemporary world. We will explore how societal changes influence the manner and the contexts in which the French language is spoken. Case studies focus on various parts of the Francophone world, including Europe (Belgium, Switzerland), New World (Quebec, Caribbean, Louisiana), Africa (North Africa, Sub-Saharan Africa), etc. Readings and class discussions are in French.
Spring
1 Course Unit
FREN 3300 Medieval Literature
An introductory course to the literature of the French Middle Ages. French literature began in the 11th and 12th centuries. This course examines the extraordinary period during which the French literary tradition was first established by looking at a number of key generative themes: Identity, Heroism, Love, Gender. All readings and discussions in French.
Not Offered Every Year
1 Course Unit

FREN 3600 The Enlightenment
Topics vary. For current course description, please see the department's webpage: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: HIST 0723
1 Course Unit

FREN 3700 French Literature of the 19th Century
Topics vary. For current course description, please see the department's webpage: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit

FREN 3710 Poe's French Legacies
Edgar Allan Poe was considered a vulgar hack by many of his fellow Americans, but in 19th-century France, he was touted as a misunderstood poetic genius, the original poete maudit. Through the translations of Charles Baudelaire, who found in Poe a kindred spirit in the "gout de l'infini," French intellectuals came to know the American writer as a fount of aesthetic wisdom, diabolical sensibility, and mystic mastery. In this course, we will study Baudelaire's poetry as well as the many literary and artistic movements in France that were directly inspired by Poe's uncanny mix of the macabre and the methodical: Symbolist poetry (Valery, Mallarme), the Scientific Fantastic (Maupassant, Villiers de l'Isle-Adam), fin-de-siecle Decadence (Huysmanns, Odilon Redon), Science Fiction (Verne), the detective novel (Gaboriau), and 20th-century Surrealism (Breton, Max Ernst).
Not Offered Every Year
1 Course Unit

FREN 3720 Crime and Punishment: Hugo's Les Misérables in Context
Long before the revolutionary ardor of Marius and the innocent longing of Cosette graced Broadway stages and Hollywood screens, the characters of Victor Hugo's Les Misérables (1862) tugged at the heartstrings of readers all over the world. Through this blockbuster novel, Hugo combined his Romantic aesthetics with political critique by exposing the ways in which French society oppressed its downtrodden members, the "misérables" of the title; he also called for a recognition that a noble spirit could inhabit unlikely figures like the prostitute and the ex-convict. In this class, we will read Les Misérables in its entirety, along with a few related texts on crime and punishment. We will ask questions such as these: how can literature contribute to debates about penal reform and the death penalty? What is divine justice? How does crime connect (or not) to political, collective forms of violence? How can we map the urban topographies of hygiene and violence in post-Revolutionary Paris? How does Hugo's novel relate to the sordid faits divers, gazette entries, and criminal memoirs whose lurid illustrations and sensationalism fascinated the nation's "respectable" citizens? Students will also be given the opportunity for guided original research on criminality and the popular press of 19th-century France, using online resources and the holdings of Penn's Rare Books and Manuscript library. [All readings, course discussion, and assignments in French]
Fall or Spring
1 Course Unit

FREN 3800 Literature of the Twentieth Century
This course, the theme of which changes from semester to semester, provides an introduction to important trends in twentieth-century literature. Please check the department's website for the course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit

FREN 3810 Animal Words, Animal Worlds: Introduction to Zoopoetics
We are surrounded by other living creatures, both in our daily lives and on the page, and yet that otherness has endless potential for surprise and wonder. The intensity of our encounters with animals generates a corresponding intensity in the language that tries to capture them. Even if language is unique to humans - a claim that is often disputed - what are we to make of animals' vital, vibrant place in the words we use and the texts we read? How do nonhuman forms of life help give shape to different forms, styles, even species of artistic expression? And what are the practical and ethical implications of focusing on animals' place in literature at a time when they are vanishing from the world around us at an ever-increasing rate? This course sets out on the trail of the animals that populate modern and contemporary French and Francophone writing. Taking as our starting point la zoopoétique, a term coined by French thinkers at the turn of this century to designate literature's many ways of relating to nonhuman life, we will discover a range of recent works whose diversity rivals that of the various species inhabiting them. From Henri Michaux's teeming assortment of nocturnal beasts to Marie Darrieussecq's (pig) tale of metamorphosis, and from Jean Echenoz's vivid portrayal of WWI trenches to Scholastique Mukasongola's rural Rwanda, each of these texts forms an ecosystem in which language itself behaves differently according to the life it encounters and embodies. We will adopt an interdisciplinary approach to these animal words and worlds, for zoopoetics is not confined to literary studies: it is inseparable from a host, not just of forms of life, but also of questions stemming from the fields of anthropology, ethology, history, natural science, and philosophy. As we investigate how our own reading practices are informed by human-animal relations going back to the earliest days of hunting and tracking, the trail through these texts will lead us to interrogate our very understanding of what it is to be human. The pre-requisite for this course is 3 French courses at the 200 level; any exceptions must be approved by the instructor.
Not Offered Every Year
1 Course Unit

FREN 3820 Horror Cinema
The purpose of this course is to provide an introduction to the history and main themes of the supernatural/horror film from a comparative perspective. Films considered will include: the German expressionists' masterworks of the silent era, the Universal classics of the 30's and the low-budget horror films produced by Val Lewton in the 40's for RKO in the US, the 1950's color films of sex and violence by Hammer studios in England, Italian Gothic horror or giallo (Mario Brava) and French lyrical macabre (Georges Franju) in the 60's, and on to contemporary gore. In an effort to better understand how the horror film makes us confront our worst fears and our most secret desires alike, we will look at the genre's main iconic figures (Frankenstein, Dracula, Dr. Jekyll and Mr. Hyde, etc.) as well as issues of ethics, gender, sexuality, violence, spectatorship through a variety of critical lenses (psychoanalysis, socio-historical and cultural context, aesthetics...).
Not Offered Every Year
Also Offered As: CIMS 3820
1 Course Unit
FREN 3830 French & Italian Modern Horror
This course will consider the horror genre within the specific context of two national cinemas: France and Italy. For France, the focus will be almost exclusively on the contemporary period which has been witnessing an unprecedented revival in horror. For Italy, there will be a marked emphasis on the 1960s-1970s, i.e. the Golden Age of Gothic horror and the giallo craze initiated by the likes of Mario Bava and Dario Argento. Various subgenres will be examined: supernatural horror, ghost story, slasher, zombie film, body horror, cannibalism, etc. Issues of ethics, gender, sexuality, violence, spectatorship will be examined through a variety of critical lenses (psychoanalysis, socio-historical and cultural context, aesthetics, politics, gender, etc.).
Fall or Spring
Also Offered As: CIMS 3830, COML 3830, ITAL 3830
1 Course Unit

FREN 3840 The French Novel of the Twentieth Century
Topics vary. Please check the department's website for the course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit

FREN 3850 Modern French Theater
A study of major movements and major dramatists from Giraudoux and Sartre to the theater of the absurd and its aftermath.
Not Offered Every Year
1 Course Unit

FREN 3860 Paris in Film
Latter-day examples like Christophe Honore's Dans Paris, Cedric Klapisch's Paris or the international omnibus Paris, je t'aime (with each director paying homage to a distinctive "arrondissement" of the capital), not to mention American blockbusters like The Da Vinci Code and Inception or Woody Allen's Midnight in Paris, are there to remind us that there is something special — indeed, a special kind of magic — about Paris in and on film. Despite the extreme polarization between Paris and provincial France in both cultural and socio-economic terms, cultural historians have argued that Paris is a symbol of France (as a centralized nation), more than Rome is of Italy and much more than Madrid is of Spain or Berlin of Germany, for example. The prevalence of the City of Lights on our screens, Gallic and otherwise, should therefore come as no surprise, be it as a mere backdrop or as a character in its own right. But how exactly are the French capital and its variegated people captured on celluloid? Can we find significant differences between French and non-French approaches, or between films shot on location that have the ring of "authenticity" and studio-bound productions using reconstructed sets? Do these representations vary through time and perhaps reflect specific historical periods or zeitgeists? Do they conform to genre-based formulas and perpetuate age-old stereotypes, or do they provide new, original insights while revisiting cinematic conventions? Do some (sub)urban areas and/or segments of the Parisian population (in terms of gender, race, or class, for example) receive special attention or treatment? These are some of the many questions that we will seek to address...with a view to offering the next best thing to catching the next non-stop flight to Paris! For French credit: Please register for both FREN 3860-401 (lecture) and FREN 3860-402 (recitation). The FREN 3860-402 recitation is conducted in French. For Cinema and Media Studies credit: Please register for CIMS 3860-401 (lecture) and CIMS 3860-403 (recitation). Both lecture and recitation are taught in English.
Spring
Also Offered As: CIMS 3860
1 Course Unit

FREN 3890 France and Its Others
A historical appreciation of the impact of the exploration, colonization, and immigration of other peoples on French national consciousness, from the 16th century to the present. Emphasis is on the role of the Other in fostering critiques of French culture and society. Readings include travel literature, anthropological treatises, novels, and historical documents. Oral presentations and several short papers are included in the course.
Not Offered Every Year
1 Course Unit

FREN 3900 Francophone Postcolonial Cultures
A brief introduction about the stages of French colonialism and its continuing political and cultural consequences, and then reading in various major works – novels, plays, poems – in French by authors from Quebec, the Caribbean, Africa (including the Maghreb), etc. Of interest to majors in International Relations, Anthropology and African Studies, as well as majors in French. Taught in French.
Not Offered Every Year
1 Course Unit

FREN 3905 French Caribbean Thought & Literature
This course will examine how the French Antilles, with their discrete set of sociohistorical coordinates, came to constitute an ideal laboratory for the elaboration of the concept of "Tout-Monde" — a way of thinking of the world as a productive, though necessarily chaotic, maelstrom of cultural changes and exchanges. How did this cluster of small islands birth a term that offers a radically different understanding of globalization? We will first survey early ethnographies and imagery documenting the multiple immigration waves of Guadeloupe and Martinique to understand how diverse ethnicities coalesced under the banner of the Republique francaise universelle. We will then explore how this sociohistorical landscape shaped and was in turn shaped by poetry, fiction, and political and theoretical texts. We will examine images, political speeches, ethnographic texts, essays, poetry, films, and novels to open up discussions on notions of Negritude/Antillanite/Creolite/ Litterature Monde, the particular and the universal; on the relationship between politics, identity politics and literary form; and on the role of the engaged author in producing and transmitting a multicultural Antillean ethos.
Fall or Spring
1 Course Unit

FREN 3910 Global France
Please check the department's website for the course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit

FREN 39300 Francophone Postcolonial Cultures
A brief introduction about the stages of French colonialism and its continuing political and cultural consequences, and then reading in various major works – novels, plays, poems – in French by authors from Quebec, the Caribbean, Africa (including the Maghreb), etc. Of interest to majors in International Relations, Anthropology and African Studies, as well as majors in French. Taught in French.
Not Offered Every Year
1 Course Unit

FREN 3920 Queering North African Subjectivities
This seminar will explore the ways in which literary and visual representations of sexual difference and gender roles disrupt the cultural imagination of everyday life in North Africa and its Diasporas. Special attention will be given to representations of Arab women and queer subjectivities as sites of resistance against dominant masculinity. We will analyze the ways in which representations of gender have allowed for a redeployment of power, a reconfiguration of politics of resistance, and the redrawing of longstanding images of Islam in France. Finally, we will question how creations that straddle competing cultural traditions, memories and material conditions can queer citizenship. Course taught in English.
Fall or Spring
1 Course Unit
FREN 3999 Independent Study
See instructor for permission.
Fall or Spring
1 Course Unit

FREN 4000 Honors Thesis
Honors thesis in French Studies. This course is open to undergraduate
Fall or Spring
1 Course Unit

FREN 5000 Proseminar
This course will provide a forum for collective preparation for the Master's exam.
Not Offered Every Year
1 Course Unit

FREN 5110 Topics in Cinema Studies
Please see the department's website for current course description:
https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: CIMS 5110
1 Course Unit

FREN 5120 Film Noir
Topics vary. Please see the department's website for the current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: CIMS 5120, COML 5120
1 Course Unit

FREN 5410 Transalpine Tensions: Franco-Italian Rivalries in the Renaissance
In the Middle Ages and Early Modern period, France and the Italian States were bound together by linguistic, economic, political, and religious ties, and intellectual developments never flowed unilaterally from one country to the other. On the contrary, they were transnational phenomena, and French and Italian thinkers and writers conceived of themselves and their work both in relation to and in opposition to one another. This course will consider the most fundamental aspects of Franco-Italian cultural exchange in the medieval and early modern period, with an emphasis on humanism, philosophical and religious debates, political struggles, and the rise of vernacular languages in literary and learned discourse. Authors to be studied include Dante, Petrarch, Boccaccio, Ficino, Pico della Mirandola, Castiglione, Bembo, Rabelais, Marguerite de Navarre, Du Bellay, Machiavelli, and Montaigne. In addition to learning the material covered in the course, students will gain expertise in producing professional presentations and research papers, and will also have the opportunity to consult original material from the Kislak Center. This course is open to undergraduates with permission of the instructor. It counts toward the undergraduate minor in Global Medieval Studies and the graduate certificate in Global and Medieval Renaissance Studies.
Not Offered Every Year
Also Offered As: COML 5411, ITAL 5410
1 Course Unit

FREN 5460 Women's Writing in French, 1160–1823
In this course, we will examine a representative sample of premodern women's writing in French, beginning in the Middle Ages and concluding in the Revolutionary Era. The authors studied come from differing walks of life, social classes, and religious and political identifications, and they express themselves in a wide variety of genres, including short stories, fairy tales, lyric poetry, letters, plays, and novels. Despite their many differences, these authors are united by a common tendency to question a centuries-old tradition of misogynistic discourse, patriarchal social order, and gender normativity. Authors to be studied include: - Marie de France (ca. 1160), a brilliant storyteller and poet attached to the court of Henry II of England whose fabulous tales, arguably an early form of speculative fiction, imagine alternatives to the rigidity of arranged marriages and the heterosexual couple. - Christine de Pizan (1364—ca. 1430), a court writer for Charles VI of France and several other powerful patrons who is often considered France's first professional female writer. Her Livre de la Cité des Dames (Book of the City of Ladies) systematically refutes the misogynistic pronouncements of learned male authors and holds up devotion and religious life as alternatives to accepting the assigned role of wife and mother. - Marguerite de Navarre (1492–1549), the sister of Francis I of France and a prolific author of devotional poetry, plays, and the Heptameron, a collection of tales modeled on Boccaccio's Decameron and known for its often shocking subject matter. Throughout her oeuvre, she calls into question the social perception of women rooted in misogynistic discourse, as well as the tendency to blame sexual violence on women, while at the same time revealing the potential danger of masculinility for men and women alike and envisioning Pauline Christianity as a means of radical equality. - Perronneau Guillet (1520–1545), Louise Labé (c. 1524–1566), and Anne de Marquets (1533–1588), three poets who respond to and write against the male-centered tradition of Petrarchan love poetry. Guillet and Labé stand out for their frank and often sensual depictions of female desire and sexuality in spite of taboos against their public expression, while Marquets, a Dominican nun at the convent of Poissy, combines Petrarchan, devotional, and mystic tropes to envision religious life as an alternative to the heteronormativity of lay French society and the Protestant Reformation. - Madame de Lafayette (1634–1693) and Madame de Sévigné (1626–1696), whose writings are of monumental importance in the history of literature in French as well as invaluable testimonies to the role played by women in the intellectual developments of the early modern period, including salons, Jansenism, and free-thinking (libertinism). - Gabrielle-Suzanne de Villeneuve (1685–1755), author of the first known version of La belle et la bête (Beauty and the Beast), who, along with other female authors of fairy tales, used the conventions of the genre to challenge social conventions and criticize the treatment of women. - Claire de Duras (1777–1828), whose novel Ourika, much like Villeneuve's La belle et la bête, shows how feminist concerns might intersect with colonialism and race; a bestseller in its day, it is one of the first works in French to feature a complex and articulate black narrator and what many scholars consider to be a modern outlook on race and identity. To provide historical and theoretical context, these readings will be supplemented with relevant primary and secondary sources, as well as with modern and contemporary adaptations, such as illustrations and films. The course is open to graduate students and to advanced undergraduates with permission of the instructor. Discussions will be in English. Readings will be made available both in the original French and in English translation, and final papers may be written in English or in French.
Also Offered As: COML 5460, GSWS 5460
1 Course Unit
FREN 5490 Black France: History/Representation
Please check the department’s website for the course description: https://www.sas.upenn.edu/french/pc
Fall or Spring
Also Offered As: AFRC 5490
1 Course Unit

FREN 5500 Etudes sur le XVII siecle
The specific topics of the seminar vary from semester to semester, depending on the instructor and his/her choice. Among the topics previously covered, and likely to be offered again, are the following: The Theatre of Jean Racine, Fiction of Mme de Lafayette, The Moralists (La Bruyere, La Rochefoucauld, Perrault ), Realistic Novels (Sorel’s Francion, Scarron’s Le Roman Comique, Furetiere’s Le Roman Bourgeois). Students give oral and written reports, and write a term paper.
Not Offered Every Year
Also Offered As: COML 5500, GSWS 5500
1 Course Unit

FREN 5600 Eighteenth-Century Novel
Please check the department’s website for the course description: https://www.sas.upenn.edu/french/pc
Fall or Spring
Also Offered As: COML 5600
1 Course Unit

FREN 5710 Literature and Multilingualism
Since several years, the societal and cultural reality of multilingualism has become an important research field in linguistics and literary studies, as in cultural studies more generally. This graduate course will investigate how multilingual poetics challenge and resist paradigms and ideologies of innate monolingualism, linguistic mastery, absolute translatability and monocultural nationalism. To begin with, the course will introduce central aspects of scholarship on literature and multilingualism, covering concepts such as heteroglossia, code switching, translanguaging and macaronic language, and debates such as those on world literature, global English, foreignization, (un)translatability and non-translation, including their political and ethical importance. After a brief historical overview, glancing at western literary multilingualism in the Middle Ages, Romanticism and the avantgarde, the course will mainly focus on literature of the late 20th and 21st centuries taken from Germanic and Romance linguistic contexts. Using an exemplary selection, the course will cover prose, poetry and drama, and include excerpts of texts by authors such as Andrea Camilleri, Gino Chiellino, Fikry El Azzouzi, Ernst Jandl, Jackie Kay, Çağlar Köseoğlu, Monique Mojica, Melinda Nadj Abonji, Emine Sevgi Özdamar, Olivier Rolin, Yoko Tawada, Nicoline van Harsskamp, and others. Reading these texts, we will try to determine how multilingualism manifests itself (linguistically, discursively, rhetorically, thematically, contextually etc.) and how the texts engage with linguistic, cultural and social pluralities. The course will conclude with a focus on the translator as a central character in fictional prose and movies. Classes will take place in an interactive format that stimulates discussion and exchange. Students will get the respective excerpts – both in the original version and in English translation – one week at a time so that they can prepare themselves each week for the discussion. Theoretical and contextual information will be provided via Power Point presentations.
Not Offered Every Year
Also Offered As: COML 5710, DTCH 5710, GRMN 5710, ITAL 5710
1 Course Unit

FREN 5800 Studies in 20th-Century French Literature
Topics vary. For current course description, please see the department’s webpage: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit

FREN 5820 Fantastic Literature 19th/20th Centuries
This course will explore fantasy and the fantastic in short tales of 19th- and 20th-century French literature. A variety of approaches – thematic, psychoanalytic, cultural, narratological – will be used in an attempt to test their viability and define the subversive force of a literary mode that contributes to shedding light on the dark side of the human psyche by interrogating the "real," making visible the unseen and articulating the unsaid. Such broad categories as distortions of space and time, reason and madness, order and disorder, sexual transgressions, self and other will be considered. Readings will include "recits fantastiques" by Merimee, Gautier, Nerval, Maupassant, Breton, Pieyre de Mandiargues, Jean Ray and others.
Not Offered Every Year
Also Offered As: CIMS 5821, COML 5840
1 Course Unit

FREN 5900 Introduction to Francophone Studies
An introduction to major literary movements and authors from five areas of Francophonie: the Maghreb, West Africa, Central Africa, the Caribbean and Quebec.
Not Offered Every Year
Also Offered As: AFRC 5900, COML 5900
1 Course Unit

FREN 5910 Francophone Postcolonial Studies
Please see the department's website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: AFRC 5910, COML 5910
1 Course Unit

FREN 5920 Life, Death, and Revolution in Haiti
In the last few decades, Haiti has been known on the global stage for its repeated calamities: earthquakes, hurricanes, droughts followed by floods and vice versa, dictatorships, cholera, civil unrest, etc. These media representations, which foreground trauma and failure, tend to overshadow a momentous revolutionary past as well as a long tradition of thriving avant-garde literary and artistic movements. These negative representations are part and parcel of a centuries-long practice of epistemic violence against Haiti that began well before it declared its independence from France in 1804, at the end of a bloody revolution. In this course, we will seek a more nuanced understanding of Haiti by exploring the concepts of life, death, and revolution in a selection of literary texts, essays, articles, documents, and films. Our interdisciplinary approach will allow us to discuss voodoo, the figure of the zombi, gender, the environment, modernity, and the relationship between politics and poetics. This course is taught in French and is open to advanced undergraduates and graduate students.
Not Offered Every Year
Also Offered As: COML 5920
1 Course Unit
FREN 5950 Travel Literature
Within the context of the ill-defined, heterogeneous genre of the travelogue and of today's age of globalization, CNN and the Internet, this seminar will examine the poetics of travel writing based largely albeit not exclusively on travel notebooks, or journaux/carnets de voyage, spanning the 20th century from beginning to end. One of the principal specificities of the texts studied is that they all evince to a lesser or greater degree a paradoxical resistance both to the very idea of travel(ing) as such and to the mimetic rhetoric of traditional travel narratives. We will therefore look at how modern or postmodern texts question, revisit, subvert or reject such key notions of travel literature as exoticism, nostalgia, exile, nomadism, otherness or foreignness vs. selfhood, ethology and autobiography, etc. Authors considered will include Segalen, Morand, Michaux, Leiris, Levi-Strauss, Butor, Le Clezio, Baudrillard, Bouvier, Jouanard, Leuwers.
Not Offered Every Year
Also Offered As: COML 5950
1 Course Unit

FREN 6010 Language Teaching and Learning
The course focuses on diverse areas of Foreign Language and Second Language Acquisition research and theories and how they apply to foreign language teaching. Students will familiarize themselves with the major foreign language methodologies and approaches, as well as the ACTFL standards and proficiency guidelines for foreign language learning. Similarly, students will analyze the resources and tools for planning instruction in a second language based on Backward Design and the Universal Design for Learning. Furthermore, students will research and discuss the most effective ways to promote diversity, inclusivity, and equity; enhance learning experiences and outcomes through technology; foster engagement and active learning; and build a sense of community in the foreign language classroom.
Fall
Also Offered As: GRMN 5990, ITAL 5990
1 Course Unit

FREN 6020 Theory and Criticism
Please see the department's website for the course description:
https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit

FREN 6030 Poetics of Narrative
Please see the department's website for current course description:
https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: COML 6030
1 Course Unit

FREN 5990 Teaching and Learning
The course focuses on diverse areas of Foreign Language and Second Language Acquisition research and theories and how they apply to foreign language teaching. Students will familiarize themselves with the major foreign language methodologies and approaches, as well as the ACTFL standards and proficiency guidelines for foreign language learning. Similarly, students will analyze the resources and tools for planning instruction in a second language based on Backward Design and the Universal Design for Learning. Furthermore, students will research and discuss the most effective ways to promote diversity, inclusivity, and equity; enhance learning experiences and outcomes through technology; foster engagement and active learning; and build a sense of community in the foreign language classroom.
Fall
Also Offered As: COML 5990
1 Course Unit

FREN 6050 Modern Literary Theory and Criticism
This course will provide an overview of major European thinkers in critical theory of the 20th and 21st centuries. We will pay particular attention to critical currents that originated in Eastern European avant-garde and early socialist contexts and their legacies and successors. Topics covered will include: Russian Formalism and its successors in Structuralism and Deconstruction (Shklovsky, Levi-Strauss, Jakobson, Derrida); Bakhtin and his circle, dialogism and its later western reception; debates over aesthetics and politics of the 1930s (Lukacs, Brecht, Adorno, Benjamin, Radek, Clement Greenberg); the October group; Marxism, new Left criticism, and later lefts (Althusser, Williams, Eagleton, Jameson, Zizek).
Fall or Spring
Also Offered As: COML 6050, ENGL 6050, ENGL 7905, GRMN 6050, ITAL 6050, REES 6435
1 Course Unit

FREN 6090 Global France
The purpose of this course is to examine the various modalities of interaction between anthropology and literature in modern French culture. Our guiding thesis is that the turn toward other cultures has functioned as a revitalizing element in the production of cultural artifacts while providing an alternative vantage point from which to examine the development of French culture and society in the contemporary period. The extraordinary innovations of "ethnosurrealism" in the twenties and thirties by such key figures of the avant-garde as Breton, Artaud, Bataille, Caillois, and Leiris, have become acknowledged models for the postwar critical thought of Barthes, Derrida, and Foucault, as well as inspiring a renewal of "anthropology as cultural critique in the United States." Besides the authors just indicated, key texts by Durkheim, Mauss and Levi-Strauss will be considered both on their own terms and in relation to their obvious influence. The institutional fate of these intellectual crossovers and their correlative disciplinary conflicts will provide the overarching historical frame for the course, from the turn of the century to the most recent debates.
Not Offered Every Year
Also Offered As: COML 6090
1 Course Unit

FREN 6200 Paris and Philadelphia: Landscapes and Literature of the 19th Century
This course explores the literal and literary landscapes of 19th-century Paris and Philadelphia, paying particular attention to the ways in which the built environment is shaped by and shapes shifting ideologies in the modern age. Although today the luxury and excesses of the "City of Light" may seem worlds apart from the Quaker simplicity of the "City of Brotherly Love," Paris and Philadelphia saw themselves as partners and mutual referents during the 1800s in many areas, from urban planning to politics, prisons to paleontology. This interdisciplinary seminar will include readings from the realms of literature, historical geography, architectural history, and cultural studies as well as site visits to Philadelphia landmarks, with a view to uncovering overlaps and resonances among different ways of reading the City. We will facilitate in-depth research by students on topics relating to both French and American architectural history, literature, and cultural thought.
Fall
Also Offered As: COML 6200
1 Course Unit
FREN 6300 Introduction to Medieval French Literature
Topics vary. Previous topics include The Grail and the Rose, Literary Genres and Transformations, and Readings in Old French Texts. Please see the department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: COML 6300
1 Course Unit

FREN 6380 Topics: Medieval Culture
Topics will vary. Please see department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit

FREN 6381 Troubadours at the Center
‘Troubadour’ is a term whose meaning has evolved from the eleventh century to our day. In the Middle Ages, a troubadour was a singer-songwriter (male or female) who composed in a language called Occitan, the language spoken in northern Italy, across southern France, and into today’s Catalonia. Medieval works in this language include epic poetry, didactic texts, lengthy romances, and love poetry. Renowned and imitated throughout medieval Europe — by authors from today’s Italy, Austria, Germany, France, Spain, and Portugal — the Occitan literary heritage cannot be ignored. Though sometimes presented as a dead language, Occitan is very much alive, and one purpose of this course is to introduce students to it and to its broad importance in European literary history. This course will present the literary and cultural history of the Occitan region, writ large, from the Middle Ages to the modern day. By the end of the course, students will be able to read Occitan with the aid of a dictionary; they will understand the culture of the French Midi as distinct from that of France; they will know something of the distinctive cultural elements of Occitania. They will also have a profound knowledge of at least one Occitan author, medieval, modern, or contemporary. The course will be taught in English. In addition to learning the material covered in the course, students will gain expertise in producing professional presentations and research papers.
Also Offered As: COML 6381, GRMN 6381, ITAL 6381
1 Course Unit

FREN 6400 Studies in the Renaissance
Topics vary. Previous topics have included Rabelais and M. de Navarre, Montaigne, and Renaissance and Counter-Renaissance. Please see the department’s website for the current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: COML 6400, GSWS 6400
1 Course Unit

FREN 6500 Studies in the 17th Century
Topics of discussion will vary from semester to semester. One possible topic is “The Royal Machine: Louis XIV and the Versailles Era.” We will examine certain key texts of what is known as the Golden Age of French literature in tandem with a number of recent theoretical texts that could be described as historical. Our goal will be to explore the basis of “the new historicism,” a term that is designed to cover a variety of critical systems that try to account for the historical specificity and referentiality of literary texts. Please see department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit

FREN 6600 Studies in the Eighteenth Century
Topics of discussion will vary from semester to semester. One possible topic is “Masterpieces of the Enlightenment.” We will read the most influential texts of the Enlightenment, texts that shaped the social and political consciousness characteristic of the Enlightenment— for example, the meditations on freedom of religious expression that Voltaire contributed to “affaires” such as the “affaire Calas.” We will also discuss different monuments of the spirit of the age—its corruption (Les Liaisons dangereuses), its libertine excesses and philosophy (La Philosophie deidee); we will define the specificity of 18th-century prose (fiction), guided by a central question: What was the Enlightenment? Please see department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: COML 6600
1 Course Unit

FREN 6700 19th-Century Studies
Topics will vary. Please see department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit

FREN 6750 Topics in 19th Century Literature
Topics will vary. Please see department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: COML 6750
1 Course Unit

FREN 6800 Studies in the 20th Century
Topics will vary. Please see the French department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: ENGL 6800
1 Course Unit

FREN 6810 Studies in Modern French Poetry
How does one approach the modern poetic text which ever since the Mallarmean “crise du vers” appears to have cut loose from all referential anchoring and traditional markers (prosody, versification, etc.)? This course will present an array of possible methodological answers to this question, focusing on poetic forms and manifestations of brevity and fragmentation. In addition to being submitted to precise formal and textual inquiries, each text or work will be the point of departure for the analysis of a specific theoretical issue and/or an original practice — e.g., genetic criticism, translation theory, the poetic “diary”, aphoristic modes of writing, quoting and rewriting practices, etc. Texts by key modern poets (Ponge, Chazal, Du Bouchet, Jourdan, Jabes, Michaux).
Not Offered Every Year
1 Course Unit

FREN 6840 The French Novel of the 20th Century
Topics vary. Please check the French department’s website for the course description. https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: ENGL 6840
1 Course Unit

FREN 6860 Major Authors 20th/21st Century
Topics vary. For current course description, please see French Department’s webpage: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit
FREN 6900 Francophone Studies
Topics will vary. Please see department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit

FREN 6910 Transatlantic Black Feminisms in Francophone Literatures
This course explores the evolution of representations of the Black femme body in French and francophone imaginaries, tracing a chronological arc that begins with early colonial imagery and ends with the rise of a 2018 movement spearheaded by a collective of Black comediennes, denouncing exclusionary practices in the French entertainment industry. We will first focus on the male gaze — European, Caribbean and African — and the way it constructed the Black femme body, to better understand how Black female authors undermine, resist, parody, or continue to bear the weight of these early images when they take control of their own representation. While our primary readings will be authored by French-writing women, including Mayotte Capecia (Martinique), Marie Vieux-Chauvet (Haiti), Maryse Condé (Guadeloupe), Mariama Bâ (Senegal) and Marie Ndiaye (France), our theoretical foundation will include anglophone thinkers, such as bell hooks, Audre Lorde, Saidiya Hartman, and others. Readings and discussions will be in English.
Also Offered As: AFRC 6910, COML 6910, GSWS 6910
1 Course Unit

FREN 6920 Caribbean Studies
Topics vary. For current course description, please see French Department’s webpage: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit

FREN 6960 Postcolonial Theory Francophone
Topics vary. For current course description, please see French Department’s webpage: https://www.sas.upenn.edu/french/pc
Fall or Spring
Also Offered As: COML 6960
1 Course Unit

FREN 7010 Topics in Cultural Studies
Topics will vary. Please see French department’s website for current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
1 Course Unit

FREN 7770 Francophone, Italian and Germanic Proseminar
This proseminar will introduce first-year FIGS graduate students to doctoral studies in the humanities. It is organized into four parts. Part I, “Scholarly Habits and Resources,” introduces students to a variety of resources at Penn, discusses the scholarly habits that graduate students should develop, and covers strategies for promoting mental and physical well-being as a graduate student. Part II, “Intervening in the Field,” introduces students to the processes of conference participation and article publication. Part III, “The Dissertation,” covers the ins-and-outs of writing the dissertation. Part IV, “Awards, Networking, and Jobs,” addresses the importance of awards and networking as well as the academic and non-academic job markets. While DEI issues are constantly addressed throughout the course, also in the form of assignments, there are also bridge sessions to other courses, especially on pedagogy and recent research trends. In addition to weekly discussions and activities, this course will include a number of guest speakers who will share their expertise and give guidance on the how-tos of the field. Students will be given pre- as well as post-class activities to reflect on each week’s topic and begin to prepare a dossier for later use in their graduate studies. Much of the information in this proseminar becomes particularly relevant during the final years of coursework and your dissertation writing years, but it is important to be introduced to these topics and to begin to think about them now. This course is designed for PhD students in Francophone, Italian, and Germanic Studies. Many of the topics apply to all three fields; however, students will also have the opportunity to work on areas that are specific to their language for certain topics. They will also be able to add to the course materials for future graduate students in FIGS.
Fall
Also Offered As: GRMN 7770, ITAL 7770
1 Course Unit

FREN 8500 Field Statement
PhD Exam Preparation
Not Offered Every Year
1 Course Unit

FREN 8510 Dissertation Proposal
The student will work with his or her advisor to prepare a proposal of at least 10-15 pages. The proposal should set forth the following as clearly as possible: 1) the dissertation topic and its presumed value within the field of study, 2) the critical instrument(s) chosen to approach the topic, 3) existing scholarship on the topic as well as scholarship relevant to it, and 4) some indication of how the dissertation arguments will be structured, along with a tentative table of contents.
Not Offered Every Year
1 Course Unit

FREN 9999 Independent Study
Designed to allow students to pursue a particular research topic under the close supervision of an instructor.
Fall or Spring
1 Course Unit
First-Year Seminar (FRSM)

FRSM 0007 Research: From Curiosity to Knowledge
How does one act on curiosity about the physical and living world and the human cultures in it? This seminar will use case-study and brainstorming approaches to explore how people generate and define good questions, pitting curiosity against ignorance, and practice research to answer these questions in a wide range of disciplines, from the humanities and social sciences to natural sciences and engineering. We identify common components (e.g., evidence, method) and how they differ among a broad spectrum of phenomena and human behavior, and how might we observe and trace patterns in them to find new ideas and answers. We will also highlight field-specific approaches for translating evidence into knowledge. The seminar will be structured around readings, discussions, active learning activities and field trips to active research sites on campus (e.g., labs, archives and museums). Our goal is to enable students to participate in and appreciate how research is performed in a range of areas, as a stimulus to using the arts of observation and questioning for whatever might be their own objects of curiosity.
Fall
1 Course Unit

Gender, Sexuality & Women's Studies (GSWS)

GSWS 0002 Gender and Society
This course will introduce students to the ways in which sex, gender, and sexuality mark our bodies, influence our perceptions of self and others, organize families and work like, delimit opportunities for individuals and groups of people, as well as impact the terms of local and transnational economic exchange. We will explore the ways in which sex, gender, and sexuality work with other markers of difference and social status such as race, age, nationality, and ability to further demarcate possibilities, freedoms, choices, and opportunities available to people.
Fall or Spring
Also Offered As: ENGL 0159
1 Course Unit

GSWS 0003 Introduction to Sexuality Studies and Queer Theory
This course will introduce students to the historical and intellectual forces that led to the emergence of queer theory as a distinct field, as well as to recent and ongoing debates about gender, sexuality, embodiment, race, privacy, global power, and social norms. We will begin by tracing queer theory's conceptual heritage and prehistory in psychoanalysis, deconstruction and poststructuralism, the history of sexuality, gay and lesbian studies, woman-of-color feminism, the feminist sex wars, and the AIDS crisis. We will then study the key terms and concepts of the foundational queer work of the 1990s and early 2000s. Finally, we will turn to the new questions and issues that queer theory has addressed in roughly the past decade. Students will write several short papers.
Fall
Also Offered As: COML 0030, ENGL 0160, ENGL 2303
1 Course Unit

GSWS 0011 Study of a Woman Writer
This course introduces students to literary study through the works of a major woman writer Reading an individual author across an entire career offers students the rare opportunity to examine works from several critical perspectives in a single course. How do our author's works help us to understand literary and cultural history? And how might we understand our author's legacy through performance, tributes, adaptations, or sequels? Exposing students to a range of approaches and assignments, this course is an ideal introduction to literary study. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: ENGL 0011
1 Course Unit

GSWS 0023 Study of a Theme Related to Gender & Sexuality
This introduction to literary study examines a compelling literary theme related to questions of gender and sexuality. The theme's function within specific historical contexts, within literary history generally, and within contemporary culture, will all be emphasized. In presenting a range of materials and perspectives, this course is an ideal introduction to literary study. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: ENGL 0023
1 Course Unit

GSWS 0031 Gender, Sexuality, and Social Change in the Middle East
This first year seminar introduces basic concepts, debates, and narratives pertaining to the histories of gender and sexuality in the Middle East by covering the period from the late eighteenth century until the present day. In an engagement with global historical contexts, the course aims to engage students with the history of women, gender, and sexuality as they informed and shaped political and social change in the Middle East and vice versa. This course will concentrate on selected themes such as modernity, nationalism, and colonization to encourage students to challenge preconceived assumptions about Middle Eastern women, discuss some of the many roles they have played in social change, and think comparatively and transnationally about gender, history, and social life. In doing so, the class provides a historical context pertaining to the region's history by presenting a chronologically and thematically organized analysis to scrutinize the decline of the Ottomans, the rise of nationalisms, the implications of Islamist reformism, colonial rules before and after World War I and their impact on shaping women's lives, gender dynamics and sexual politics, the age of decolonization and rise of state feminisms under colonial and authoritarian regimes, an historical inquiry of same-sex desire and the political activism organized around LGBTQI+ movements, and finally contemporary political movements such as the Iranian Revolution and Arab Uprisings in shaping present discourses and practices informing individual and collective social and political status along with gendered and sexual politics in contemporary Middle Eastern societies.
Also Offered As: HIST 0031
1 Course Unit
GSWS 0050 Gender, Sexuality, and Religion
What does it mean to be a gendered individual in a Muslim, Hindu, Jewish, Christian, Buddhist, or Sikh religious tradition? How important are gender differences in deciding social roles, ritual activities, and spiritual vocations? This course tackles these questions, showing how gender - how it is taught, performed, and regulated - is central to understanding religion. In this course we will learn about gendered rituals, social roles, and mythologies in a range of religious traditions. We will also look at the central significance of gender to the field of religious studies generally. The first part of the course will be focused on building a foundation of knowledge about a range of religious traditions and the role of gender in those traditions. This course emphasizes religious traditions outside the West. Although it is beyond the scope of this class to offer comprehensive discussions of any one religious tradition, the aim is to provide entry points into the study of religious traditions through the lens of gender. This course will emphasize both historical perspectives and contemporary contexts. We will also read religion through feminist and queer lenses - we will explore the key characteristics of diverse feminist and queer studies approaches to religion, as well as limits of those approaches.
Fall
Also Offered As: RELS 0050
1 Course Unit

GSWS 0051 Writing the Self: Life-Writing, Fiction, Representation
This course investigates how people try to understand who they are by writing about their lives. It will cover a broad range of forms, including memoirs, novels, essay films, and even celebrity autobiographies. The course will be international and in focus and will ask how the notion of self may shift, not only according to the demands of different genres, but in different literary, linguistic, and social contexts. Questions probed will include the following: How does a writer’s language—or languages—shape how they think of themselves? To what extent is a sense of self and identity shaped by exclusion and othering? Is self-writing a form of translation and performance, especially in multilingual contexts? What can memoir teach us about the ways writers navigate global literary institutions that shape our knowledge of World Literature? How do various forms of life-writing enable people on the margins, whether sexual, gendered, or racial, to craft narratives that encapsulate their experience? Can telling one’s own story bring joy, affirmation, and greater transcultural or even global understanding? In sum, this course proposes to illuminate the many ways in which writing becomes meaningful for those who take it up. The format of the seminar will require students to offer oral presentations on the readings and invite them to craft their own experiences and memories in inventive narrative forms.
Spring, even numbered years only
Also Offered As: COML 0015, ENGL 1745
1 Course Unit

GSWS 0087 Desire and Deception in Medieval Erotic Literature
In this course, we will investigate the ideology, content, and material forms of love literature from Dante Alighieri to Francesco Petrarch. Through close readings of such texts as Dante’s Vita nova (ca. 1295), Giovanni Boccaccio’s Decameron (ca. 1353), and Petrarch’s Rerum vulgarium fragmenta (often referred to as the poetry book par excellence: il canzoniere, ca. 1374), we will unveil the literary and fictitious nature of medieval erotic literature. We will explore the origins of love poetry in medieval France and its subsequent interpretation and rewriting in Italian courts and comuni. We will inquire into the cultural constructions of the medieval notion of lyrical self and how it still has an impact on our own notion of consciousness. We will study the forms, themes, and characters that populate ‘love stories’ in the Middle Ages. We will analyze the dynamics of composition, circulation, and reception in manuscript culture. Our close analysis of the texts as they have been preserved in manuscript form will help us gauge the differences between medieval and contemporary ways of writing, reading, and loving.
Not Offered Every Year
Also Offered As: COML 0087, ITAL 0087
1 Course Unit

GSWS 0090 First-Year Seminar: Italian American Studies
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0090, ENGL 1299, ITAL 0090
1 Course Unit

GSWS 0092 First-Year Seminar: Italian Film and Media Studies
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0092, ITAL 0092
1 Course Unit

GSWS 0093 First-Year Seminar: Race and Ethnicity in Italy
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0093, ITAL 0093
1 Course Unit

GSWS 0094 First-Year Seminar: Italian Gender Studies
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0094, ITAL 0094
1 Course Unit

GSWS 0095 First-Year Seminar: Italian Fashion
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0095, ITAL 0095
1 Course Unit
GSWS 0096 First-Year Seminar: Italian Visual Studies
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0096, ITAL 0096
1 Course Unit

GSWS 0097 First-Year Seminar: Italian Foods and Cultures
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0097, ITAL 0097
1 Course Unit

GSWS 0098 First-Year Seminar: Italian Literature
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0098, ITAL 0098
1 Course Unit

GSWS 0099 First-Year Seminar: Italian Innovations
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0099, ITAL 0099
1 Course Unit

GSWS 0228 Studying Sex
The concept of "sex" has meant multiple things to science and medicine over the last few hundred years: a way of sorting bodies, a behavior to observe, a driving force behind reproduction and evolution, and a yardstick by which to measure normality. It has been both a binary of male and female, and a spectrum; both separate from gender, and inseparably entwined with it. It has been defined at different moments by anatomy, hormones, chromosomes, and even metabolism. In this course, we will explore how scientists have studied—and perhaps produced—the many-faceted thing called sex, and how historians have come to understand that past. This first-year seminar introduces students to primary source research, historical writing, and methods from both Science and Technology Studies (STS), and queer, trans, and feminist studies. Course materials will focus mainly on the United States in the 19th and 20th centuries.
Fall
Also Offered As: HSOC 0228, STSC 0228
1 Course Unit

GSWS 0320 First Year Seminar: Black Queer Traditions
This first-year seminar provides a critical introduction to Black Queer literature, art, and politics. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: AFRC 0320, ENGL 0320
1 Course Unit

GSWS 0333 First Year Seminar: Queer History and Theory
This course takes a historical approach to the study of queer theory. It considers how shifting definitions of queerness, under different guises and different terms, have shaped our understanding of sexual and gender identity today. See the English Department's website at www.english.upenn.edu for a description of the current offerings
Also Offered As: ENGL 0333
1 Course Unit

GSWS 0400 Womanism and Identity Politics in the Realm of Hip-Hop
This course centers on the intersections of womanism, woman of color identity development, and agency within hip-hop culture. We will touch on several topics that uncover the condition of minoritized women in hip-hop media, including creating/owning space, lyrical assault, defining womanhood, sexuality, and fetishes. In exploring music, literature, advertisements, film, and television, we will discuss the ways women of color construct understandings of self, while navigating and reimagining reality within hip-hop contexts.
1 Course Unit

GSWS 0513 Benjamin Franklin Seminar: 19th-Century American Literature
This course explores an aspect of 19th-Century American literature intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 0513
1 Course Unit

GSWS 0531 Benjamin Franklin Seminar: Gender, Sexuality, and Literature
This seminar focuses on literary, cultural, and political expressions of gender and sexuality. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 0531
1 Course Unit

GSWS 0572 Benjamin Franklin Seminar: 18th-Century Novel
This course explores an aspect of 18th-Century novel intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 0572
1 Course Unit

GSWS 0680 Feminist Political Thought
This course is designed to provide an overview of the variety of ideas, approaches, and subfields within feminist political thought. Readings and divided into three sections: contemporary theorizing about the meaning of "feminism"; women in the history of Western political thought; and feminist theoretical approaches to practical political problems and issues, such as abortion and sexual assault.
Not Offered Every Year
Also Offered As: PSCI 0680
1 Course Unit
GSWS 0700 Iranian Cinema: Gender, Politics and Religion
This seminar explores Iranian culture, society, history and politics through the medium of film. We will examine a variety of cinematic works that represent the social, political, economic and cultural circumstances of contemporary Iran, as well as the diaspora. Along the way, we will discuss issues pertaining to gender, religion, nationalism, ethnicity, and the role of cinema in Iranian society and beyond. Discussions topics will also include the place of the Iranian diaspora in cinema, as well as the transnational production, distribution, and consumption of Iranian cinema. Films will include those by internationally acclaimed filmmakers, such as Rakhshan Bani-Etemad, Asghar Farhadi, Bahman Ghobadi, Abbas Kiarostami, Mohsen Makhmalbaf, Dariush Mehrjui, Tahmineh Milani, Jafar Panahi, Marjane Satrapi and others. All films will be subtitled in English. No prior knowledge is required.
Fall
Also Offered As: CIMS 0700, COML 0700, NELC 0700
1 Course Unit

GSWS 0776 Young Adult Literature
In this course, we will explore Young Adult Literature in depth to trace where adolescence and society cross, clash, mesh. We will read (and watch) across era and genre, exploring literature of the long adolescence through two-and-a-half centuries, prose narrative to graphic novel to forays into Instagram and TikTok. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 0776
1 Course Unit

GSWS 0860 Is This Really Happening? Performance and Contemporary Political Horizons
This class addresses the meeting points inside of and between a range of resistant performance practices with a focus on artists using performance to address political and social encounters in the contemporary moment. Performance, a chaotic and unruly category that slides across music, dance, theater and visual art, has long been a container for resistant actions/activities that bring aesthetics and politics into dynamic dialogue. Embracing works, gestures, movements, sounds and embodied gestures that push against and beyond the conventions of a given genre, performance can't help but rub uncomfortably against the status quo. Scholars working across Performance Studies and Black Studies importantly expanded critical discourse around performance to address the entanglement of the medium with physical, psychic, spatial and temporal inhabitations of violence and power. Generating copious genealogies of embodied resistance, this scholarship instigates how economic inequality shapes family life. Students will have the opportunity to apply key concepts to daily life.
Fall or Spring
Also Offered As: SOCI 1010
1 Course Unit

GSWS 0982 Non-Major Elective Credit Abroad
This course is for non-majors and minors who wish to receive study abroad credit through GSWS on a topic not taught at Penn but which deserves departmentally and level appropriate credit.
1 Course Unit

GSWS 0993 Non-Major Transfer Credit
This course is a transfer credit for a course that we do not have a direct equivalent in our published curriculum but which meets the spirit of the major. This level is intended for non-majors.
1 Course Unit

GSWS 1010 Freud: The Invention of Psychoanalysis
No other person of the twentieth century has probably influenced scientific thought, humanistic scholarship, medical therapy, and popular culture as much as Sigmund Freud. This course will study his work, its cultural background, and its impact on us today. In the first part of the course, we will learn about Freud's life and the Viennese culture of his time. We will then move to a discussion of seminal texts, such as excerpts from his Interpretation of Dreams, case studies, as well as essays on psychoanalytic practice, human development, definitions of gender and sex, neuroses, and culture in general. In the final part of the course, we will discuss the impact of Freud's work. Guest lecturers from the medical field, history of science, psychology, and the humanities will offer insights into the reception of Freud's work, and its consequences for various fields of study and therapy.
Not Offered Every Year
Also Offered As: COML 1010, GRMN 1010, HIST 0820
1 Course Unit

GSWS 1011 The Family
Family life is deeply personal but at the same time is dramatically impacted by social forces outside of the family. In this course we will examine how families are organized along the lines of gender, sexuality, social class, and race and how these affect family life. We will consider how family life is continually changing while at the same time traditional gender roles persist. For example, how "greedy" workplaces, which require long work hours, create work-family conflicts for mothers and fathers. We will also examine diverse family forms including single-parent families, blended families, families headed by same-gender parents, and families headed by gender non-conforming parents. The lectures will also examine how economic inequality shapes family life. Students will have the opportunity to apply key concepts to daily life.
Fall or Spring
Also Offered As: SOCI 1010
1 Course Unit

GSWS 1027 Sex and Representation
This course explores literature that resists normative categories of gender and sexuality. By focusing on figures writing from the margins, we will explore how radical approaches to narrative form and subject-matter invite us to think in new ways about desire and identity. We will read texts that blur the boundaries between fact and fiction, hybridizing the genres of poetry, drama, and autobiography to produce new forms of expression, such as the graphic novel, auto-fiction, and prose poetry. From Virginia Woolf's gender-bending epic, Orlando, to Tony Kushner's Angels in America, this course traces how non-normative desire is produced and policed by social and literary contexts - and how those contexts can be re-imagined and transformed.
Fall or Spring
Also Offered As: CIMS 1027, COML 1027, REES 1481
1 Course Unit
GSWS 1041 The Romantic Period
This course offers an introduction to the literature of the Romantic period (ca. 1770-1830). Some versions of this course will incorporate European romantic writers, while others will focus exclusively on Anglo-American romanticism, and survey authors such as Austen, Blake, Brockden Brown, Byron, Coleridge, Emerson, Irving, Keats, Radcliffe, Scott, Shelley, and Wordsworth. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 1040
1 Course Unit

GSWS 1042 Population and Society
The course serves as an introduction to the study of population and demography, including issues pertaining to fertility, mortality, migration, and family formation and structure. Within these broad areas we consider the social, economic, and political implications of current trends, including: population explosion, baby bust, the impact of international migration on receiving societies, population aging, racial classification, growing diversity in household composition and family structure, population and environmental degradation, and the link between population and development/poverty.
Fall or Spring
Also Offered As: SOCI 1040
1 Course Unit

GSWS 1043 Literature Before 1660
This course will introduce students to key works of English literature written before 1660. It will explore the major literary genres of this period, as well as the social and cultural contexts in which they were produced. The course will examine how literature texts articulate changes in language and form, as well as in concepts of family, nation, and community during the medieval and early modern periods. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: ENGL 1020
1 Course Unit

GSWS 1040 The Fantastic and Uncanny in Literature: Ghosts, Spirits & Machines
Do we still believe in spirits and ghosts? Do they have any place in an age of science of technology? Can they perhaps help us to define what a human being is and what it can do? We will venture on a journey through literary texts from the late eighteenth century to the present to explore the uncanny and fantastic in literature and life. Our discussions will be based on a reading of Sigmund Freud’s essay on the uncanny, and extraordinary Romantic narratives by Ludwig Tieck, E.T.A. Hoffmann, Edgar Allan Poe, Nathaniel Hawthorne, Prosper Mérimée, Villiers de l’Isle-Adam, and others.
Not Offered Every Year
Also Offered As: COML 1060, GRMN 1060
1 Course Unit

GSWS 1100 Women in Jewish Literature
"Jewish woman, who knows your life? In darkness you have come, in darkness do you go." J. L. Gordon (1890). This course will bring into the light the long tradition of women as readers, writers, and subjects in Jewish literature. All texts will be in translation from Yiddish and Hebrew, or in English. Through a variety of genres – devotional literature, memoir, fiction, and poetry – we will study women’s roles and selves, the relations of women and men, and the interaction between Jewish texts and women’s lives. The legacy of women in Yiddish devotional literature will serve as background for our reading of modern Jewish fiction and poetry from the past century. The course is divided into five segments. The first presents a case study of the Matriarchs Rachel and Leah, as they are portrayed in the Hebrew Bible, in rabbinc commentary, in pre-modern prayers, and in modern poems. We then examine a modern novel that recasts the story of Dinah, Leah’s daughter. Next we turn to the seventeenth century Glikl of Hamel, the first Jewish woman memoirist. The third segment focuses on devotional literature for and by women. In the fourth segment, we read modern women poets in Yiddish, Hebrew, and English. The course concludes with a fifth segment on fiction written by women in Yiddish, Hebrew, and English.
Not Offered Every Year
Also Offered As: GRMN 1100, JWST 1100, NELC 0375
1 Course Unit

GSWS 1101 Sociology of Gender
Gender is an organizing principle of society, shaping social structures, cultural understandings, processes of interaction, and identities in ways that have profound consequences. It affects every aspect of people’s lives, from their intimate relationships to their participation in work, family, government, and other social institutions and their place in the stratification system. Yet gender is such a taken for granted basis for differences among people that it can be hard to see the underlying social structures and cultural forces that reinforce or weaken the social boundaries that define gender. Differences in behavior, power, and experience are often seen as the result of biological imperatives or of individual choice. A sociological view of gender, in contrast, emphasizes how gender is socially constructed and how structural constraints limit choice. This course examines how differences based on gender are created and sustained, with particular attention to how other important bases of personal identity and social inequality—race and class-interact with patterns of gender relations. We will also seek to understand how social change happens and how gender inequality might be reduced.
Fall or Spring
Also Offered As: SOCI 1100
1 Course Unit

GSWS 1122 Witches, Rebels, and Prophets: People on the Margins in Early America
This course explores the lost worlds of witches, sexual offenders, rebellious enslaved people, rebellious colonists, and Native American leaders from the seventeenth to the nineteenth centuries. Using the life stories of unusual individuals from the past, we try to make sense of their contentious relationships with their societies. By following the careers of the troublemakers, the criminals, the rebels, and other non-conformists, we also learn about the foundations of social order and the impulse to reform that rocked American society during the nineteenth century. The lives of these unique “movers and shakers” help us to understand the issues that Americans debated in the years leading up to the Civil War.
Fall
Also Offered As: AFRC 1122, HIST 1122
1 Course Unit
GSWS 1130 Discrimination: Sexual and Racial Conflict
This course is concerned with the structure, the causes and correlates, and the government policies to alleviate discrimination by race and gender in the United States. The central focus of the course is on employment differences by race and gender and the extent to which they arise from labor market discrimination versus other causes, although racial discrimination in housing is also considered. After a comprehensive overview of the structures of labor and housing markets and of nondiscriminatory reasons (that is, the cumulative effects of past discrimination and/or experiences) for the existence of group differentials in employment, wages and residential locations, various theories of the sources of current discrimination are reviewed and evaluated. Actual government policies and alternatives policies are evaluated in light of both the empirical evidence on group differences and the alternative theories of discrimination.
Not Offered Every Year
Also Offered As: AFRC 1131, SOCI 1130
1 Course Unit

GSWS 1131 Crime and Criminality in Early America
This seminar examines the complex cultural history of crime and criminality in early America. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 1131, ENGL 1131
1 Course Unit

GSWS 1146 Queer German Cinema
Taught in English. This course offers an introduction into the history of German-language cinema with an emphasis on depictions of lesbian, gay, bisexual, trans and queer themes. The course provides a chronological survey of Queer German Cinema from its beginnings in the Weimar Republic to its most recent and current representatives, accompanied throughout by a discussion of the cultural-political history of gay rights in the German-speaking world. Over the course of the semester, students will learn not only cinematic history but how to write about and close-read film. No knowledge of German or previous knowledge required.
Not Offered Every Year
Also Offered As: CIMS 1146, GRMN 1146
1 Course Unit

GSWS 1172 Bodies, Race and Rights: Sex and Citizenship in Modern American History
What did it mean to be a man or woman in the post-Civil War United States? Was being a man the same as being a citizen? If African-American men were to be fully embraced as both men and citizens in the aftermath of slavery, where did that leave women, white and black? Why did a nation born on immigration become so hostile to certain groups of immigrants during this period? In this course, we consider how the meanings and experiences of womanhood, manhood, citizenship, and equality before the law changed from the period immediately after the Civil War until the present day. We look at political battles over the meaning of citizenship, the use of terror to subdue African Americans politically and economically, and the fears of white Americans that they would lose their political and economic dominance to immigrant groups they deemed irreconcilably different from themselves. We also consider the repercussions of these conflicts for medical, legal, and economic efforts to regulate the bodies of women, children, poor people, immigrants, working class laborers, military men, and African Americans. Throughout the course, we will follow the state’s changing use of racial, sexual, and economic categories to assess the bodily and intellectual capacities of different groups of citizens. We will also note some of the popular cultural expressions of manhood, womanhood, and citizenship. The lectures and reading assignments are organized around a series of historical problems, dynamic leaders, and controversies that illuminate these issues.
Spring
Also Offered As: AFRC 1172, HIST 1172
1 Course Unit

GSWS 1173 History of Sexuality in the U.S.
This course introduces students to a relatively new field of inquiry, the history of sexuality in the U.S. It explores the past to consider why sexuality has been so central to American identities, culture, and politics. Primary documents and other readings focus on the history of sexual ideology and regulation; popular culture and changing sexual practices; the emergence of distinct sexual identities and communities; the politics of sexuality; and the relationship between sexual and other forms of social difference, such as gender, race, ethnicity, age, and class. Topics include many with continuing relevance to contemporary public debate: among them, sexual representation and censorship, sexual violence, adolescent sexuality, the politics of reproduction, gay and lesbian sexualities and sexually transmitted diseases.
Fall or Spring
Also Offered As: HIST 1173
1 Course Unit

GSWS 1181 Gender and Elections in America and Beyond
This course tackles four theoretical and empirical challenges related to gender and political equality: the extension of citizenship rights and voting rights to women; the problem of women’s persistent under-representation in politics; the nature of the gender gap in preferences across time and space; and the possibilities for substantive representation. We will focus about half the class on the US (contrasting the experiences of white and black women and men in politics) and the other half on other countries, detailing how different party systems, variation in electoral rules (like proportional representation), and institutional innovations such as gender quotas, enable or constrain gender equality in politics.
Fall or Spring
Also Offered As: PSCI 1181
1 Course Unit
GSWS 1200 Sex and Gender in Ancient Greece and Rome
What is being a man, being a woman, being masculine, being feminine, being neither, being both? Is sex about pleasure, domination, identity, reproduction, or something else? Are sexual orientation and gender identity innate? How can words, myths and stories inform cultural assumptions about sex and gender? Did people in ancient times have a concept of sexuality? How do gendered English terms (like "girly", "effeminate", or "feisty") compare to gendered ancient Greek and Latin terms, like virtues, which connotes both "virtue" and "masculinity"? Why did the Roman and English speaking worlds have to borrow the word "clitoris" from the ancient Greeks? How did people in antiquity understand consent? Can we ever get access to the perspectives of ancient women? In this introductory undergraduate course, we will learn about sex and gender in ancient Greece and Rome. We will discuss similarities and differences between ancient and modern attitudes, and we will consider how ancient texts, ancient art, ancient ideas and ancient history have informed modern western discussions, assumptions and legislation. Our main readings will be of ancient texts, all in English translation; authors studied will include Ovid, Aristophanes, Plato, Euripides, and Sappho. Class requirements will include participation in discussion as well as quizzes, reading responses, and a final exam.
Also Offered As: CLST 1200, COML 1200
1 Course Unit

GSWS 1201 African-American Literature
An introduction to African-American literature, ranging across a wide spectrum of moments, methodologies, and ideological postures, from Reconstruction and the Harlem Renaissance to the Civil Rights Movement. See the English Department's website at www/english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: AFRC 1200, ENGL 1200
1 Course Unit

GSWS 1202 Divinities, Diviners and Divinations: Religions of the African Diaspora
This undergraduate course is designed to provide students with a broad introduction to major themes within African Diasporic Religions. This is an interdisciplinary course. We will be drawing upon various theoretical methods, i.e. historical, ethnographical, and autobiographical. Additionally, we will be examining visual media to understand the presence and value of African Diasporic Religions in the 20th/21st century. Special attention will be given to Vodou, Santeria, and Candomble in the Americas. Thematically, we will work through concepts of the diaspora; memory, myth and authenticity; ritual and material practices; borders, migration, gender and sexuality, religious commodities and exchange. As we traverse through these various religious traditions, it is through the readings, lectures, invited speakers, films and class discussions that we will develop a complex understanding of integrative religious worldviews that impacts every aspect of life: family structure, gender relations, education, healing, economics, politics, arts, and so on. It is with the hopes that we can apprehend how these traditions are indeed an American Religion.
Fall or Spring
Also Offered As: AFRC 1201, HIST 0867
1 Course Unit

GSWS 1215 Love, Lust and Violence in the Middle Ages
Medieval Europe was undoubtedly gruff and violent but it also gave birth to courtly culture - raw worries transformed into knights who performed heroic deeds, troubadours wrote epics in their honor and love songs about their ladies, women of the elite carved out a place in public discourse as patrons of the arts, and princely courts were increasingly defined by pageantry from jousting tournaments to royal coronations. This course will trace the development of this courtly culture from the eleventh to the sixteenth century, from its roots in Southern France to its spread to Northern France and then to various kingdoms in Europe. Central themes will include the transformation of the warrior into the knight, the relationship between violence and courtliness, courtly love, cultural production and the patronage, and the development of court pageantry and ceremony. This is a class cultural history and, as such, will rely on the interpretation of objects of art and material culture, literature as well as historical accounts.
Fall or Spring
Also Offered As: COML 1215, HIST 1215
1 Course Unit

GSWS 1242 Love and Loss in Japanese Literary Traditions: In Translation
How do people make sense of the multiple experiences that the simple words "love" and "loss" imply? How do they express their thoughts and feelings to one another? In this course, we will explore some means Japanese culture has found to grapple with these events and sensations. We will also see how these culturally sanctioned frameworks have shaped the ways Japanese view love and loss. Our materials will sample the literary tradition of Japan from earliest times to the early modern and even modern periods. Close readings of a diverse group of texts, including poetry, narrative, theater, and the related arts of calligraphy, painting, and music will structure our inquiry. The class will take an expedition to nearby Woodlands Cemetery to experience poetry in nature. By the end of the course, you should be able to appreciate texts that differ slightly in their value systems, linguistic expressions, and aesthetic sensibilities from those that you may already know. Among the available project work that you may select, if you have basic Japanese, is learning to read a literary manga. All shared class material is in English translation.
Fall
Also Offered As: EALC 1242
1 Course Unit

GSWS 1260 Latinx Literature and Culture
This course offers a broad introduction to the study of Latinx culture. We will examine literature, theater, visual art, and popular cultural forms, including murals, poster art, graffiti, guerrilla urban interventions, novels, poetry, short stories, and film. In each instance, we will study this work within its historical context and with close attention to the ways it illuminates class formation, racialization, and ideologies of gender and sexuality as they shape Latinx experience in the U.S. Topics addressed in the course will include immigration and border policy, revolutionary nationalism and its critique, anti-imperialist thought, Latinx feminisms, queer latinidades, ideology, identity formation, and social movements. While we will address key texts, historical events, and intellectual currents from the late 19th century and early 20th century, the course will focus primarily on literature and art from the 1960s to the present. All texts will be in English.
Not Offered Every Year
Also Offered As: ARTH 2679, COML 1260, ENGL 1260, LALS 1260
1 Course Unit
GSWS 1279 Women in Theatre and Performance
What is feminist theatre? How do artists use live performance to provoke not only thought and feeling, but also social, personal, and political change? This course will examine a wide array of plays and performances by and about women; these pieces are, in turn, serious, hilarious, outrageous, poignant—and always provocative. Our focus will be on English-language works from the late 20th century to the present (#metoo) moment. We will read these performance texts and/or view them on stage/screen; we will also read essays that provide contextual background on feminist theatre theory and history. Throughout the semester, we will engage diverse perspectives on women and race, ethnicity, class, sexuality, and gender identity; the issues we encounter will also include marriage and motherhood, career and community, feminism and friendship, and patriarchy and power. The class will take full advantage of any related events occurring on campus or in the city, and will feature visits with guest speakers. Students will have the opportunity to pursue research on their own areas of interest (some recent examples are "women in comedy," trans performance, drag kings, feminist directing, etc.).
Not Offered Every Year
Also Offered As: ENGL 1279, THAR 1279
1 Course Unit

GSWS 1300 Theories of Gender and Sexuality
What makes men and women different? What is the nature of desire? This course introduces students to a long history of speculation about the meaning and nature of gender and sexuality – a history fundamental to literary representation and the business of making meaning. We will consider theories from Aristophane’s speech in Plato’s Symposium to recent feminist and queer theory. Authors treated might include: Plato, Shakespeare, J. S. Mill, Mary Wollstonecraft, Sigmund Freud, Virginia Woolf, Simone de Beauvoir, Adrienne Rich, Audre Lorde, Michel Foucault, Gayle Rubin, Catherine MacKinnon, Eve Kosofsky Sedgwick, Judith Butler, bell hooks, Leo Bersani, Gloria Anzaldúa, David Halperin, Cherrie Moraga, Donna Haraway, Gayatri Spivak, Diana Fuss, Rosemary Hennesy, Chandra Tadpole Mohanty, and Susan Stryker. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 1279, THAR 1279
1 Course Unit

GSWS 1301 Writing Women, Part 1
This is a sophomore-level course designed for students who are curious about the literary and social history of women’s writing between 1660 and 1700. We’ll survey the work of influential writers of the time period who identified as female, and add a few texts by men writing about women. We’ll consider how women’s writing participated in the many worlds from which women were excluded — the worlds of inherited literary tradition, formal education, commerce, religious debate, and contemporary politics, to name a few. The course focuses on authors resident in “Great Britain” (a national entity still under development during this time, as we shall see) between the Restoration of Charles II in 1660 and the turn of the eighteenth century. Another course, ENGL 1331, focuses on 1700-1790. Students may take one or both of these stand-alone courses.
No prerequisites required. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 1330
1 Course Unit

GSWS 1301 Writing Women, Part 2: Sexuality and Power, 1700-1799
“Sexuality and Power” is an intermediate-level course organized as a collaborative seminar. The eighteenth century (1700-1799) in Britain was an exciting time. Literacy’s long-policed borders were being relaxed, and publication was allowed to flourish largely free of censorship. As the set of those allowed to participate in public discourse slowly expanded, new opportunities arose for literate women. We will focus on the work of important female-identified writers from the period. Students from all disciplines are welcome. There are no prerequisites. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 1331
1 Course Unit

GSWS 1351 Contemporary Fiction & Film in Japan
This course will explore fiction and film in contemporary Japan, from 1945 to the present. Topics will include literary and cinematic representation of Japan’s war experience and post-war reconstruction, negotiation with Japanese classics, confrontation with the state, and changing ideas of gender and sexuality. We will explore these and other questions by analyzing texts of various genres, including film and film scripts, novels, short stories, manga, and academic essays. Class sessions will combine lectures, discussion, audio-visual materials, and creative as well as analytical writing exercises. The course is taught in English, although Japanese materials will be made available upon request. No prior coursework in Japanese literature, culture, or film is required or expected; additional secondary materials will be available for students taking the course at the 600 level. Writers and film directors examined may include: Kawabata Yasunari, Hayashi Fumiko, Abe Kobo, Mishima Yukio, Oe Kenzaburo, Yoshimoto Banana, Ozu Yasujirō, Naruse Mikio, Kurosawa Akira, Imamura Shohei, Koreeda Hirokazu, and Beat Takeshi.
Not Offered Every Year
Also Offered As: CIMS 1351, COML 1351, EALC 1351
1 Course Unit
GSWS 1361 Sex Matters: Politics of Sex in the Modern Middle East
The course concentrates on the history of sexuality as it informed and shaped political and social change in the Middle East, and vice versa, in an engagement with global historical contexts. What does sexuality have to do with power, political rule, and mass movements in the modern Middle East? What can the study of sexuality and body politics teach us about colonialism and state formation over centuries of imperial rules and colonial regimes, as well as in the contemporary context of neoliberal capitalism? What is the relationship between studying LGBTQIA+ movements alongside with feminism and the use of sex and sexuality as an analytical category? This course will investigate selected themes such as modernity, nationalism, and colonization and connect them to harem lives, politics of veiling/unveiling, reproductive rights, race, polygamy, masculinity, and early modern concepts of same-sex desire in connection with modern queer thought and activism to ask questions about the preconceived notions about “Middle Eastern sexualities.” The course focuses on discussing on some of the many roles that sex and gender politics have played in social and political change in the Middle East, while thinking about gender, history, and society comparatively and transnationally.
Not Offered Every Year
Also Offered As: HIST 1361
1 Course Unit

GSWS 1400 Asian American Gender and Sexualities
This course explores the intersection of gender, sexuality, and race in Asian America. Through interdisciplinary and cultural texts, students will consider how Asian American gender and sexualities are constructed in relation to racism while learning theories on and methods to study gender, sex, and race. We will discuss masculinities, femininities, race-conscious feminisms, LGBTQ+ identities, interracial and intraracial relationships, and kinship structures.
Spring
Also Offered As: ASAM 1400, SAST 1400
1 Course Unit

GSWS 1410 Asian American Women: Nation, Self and Identity
This course examines the literary constructions of Asian American Women’s identity in relation to the U.S. nation state. How have the figures of the tiger mother, the Asian nerd, the rice queen, the trafficked woman, the geisha, the war bride, emerged to represent Asian American women, and how have Asian American feminists responded to these problematic racial stereotypes? How does the scholarship on such racialized representations illuminate historical and contemporary configurations of gender, sexuality, race, class, nation, citizenship, migration, empire, war, neoliberalism and globalization as they relate to the lives of Asian American women? In exploring these questions, this course examines Asian American histories, bodies, identities, diasporic communities, representations, and politics through multi- and interdisciplinary approaches, including social science research, literature, popular representations, film, poetry and art.
Spring
Also Offered As: ASAM 1410, SAST 1410
1 Course Unit

GSWS 1411 Queer Chinas: Sexuality and Politics in the Sinophone World
This class examines queer phenomena in and around China, including Taiwan, Hong Kong, Singapore, and the queer Sinophone world more generally. Beyond seeking to understand sexual subcultures and sites of queer intimacies on their own terms, the course examines their relationship to political economy and geopolitics. In addition to filmic and literary texts, the course includes readings that are theoretical, anthropological, sociological, and comparative. While the focus is largely on modern China, the class also attends to historical reference points both inside and outside the Sinophone world. From a macro perspective, this course examines China’s place in discourses of development, focusing on the role of desire in constituting the sexual and political subject of modernity. The overall goal of this class is to develop alternative frameworks for understanding the relationship between sexuality and politics. The course does not require specialized knowledge of China.
Also Offered As: EALC 1411
1 Course Unit

GSWS 1427 Wild Things: Children’s Literature and the Psychoanalytic Study of the Child
This course, framed as a psychoanalytic study of the child, focuses on English-language children’s literature from the 19th Century to the present. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 1427, ENGL 1427
1 Course Unit

GSWS 1490 Law and Social Policy on Sexuality and Reproduction
This course will examine how statutory law, court decisions and other forms of social policy encourage or discourage various forms of sexuality, reproduction and parenting. Such issues as contraception, abortion, gay and lesbian rights, reproductive technology, family violence, and welfare and family policies will be covered.
Fall or Spring
1 Course Unit

GSWS 1500 Introduction to Disability Studies: Form, Text, and Practices
Introduction to Disability Studies: Form, Text, and Practices is a class that fuses disability studies, queer theory, Black feminist theory, visuality studies, film theory, and disabled artistic practices. Centering the praxis of disability justice, this class asks students to think about practice and theory as an intertwined discipline. Students will study, write, and create works that looking towards models of production that center community-based and interdependent relationality. Some areas that this course covers includes but is not limited to disability studies vs. crip theory, the history and legacy of AIDS epidemic, disability justice and mutual aid organizing, multi sensorial artistic practice, as well as tending to questions of labor, pain, excess, and debilitation. Disability studies has a long and complicated history of centering whiteness, domesticity, and the West in its models of rights-based advocacy. This class turns away from the white independent disabled superstar and towards the teachings of crip of color critique and disability justice to think beyond the terms and conditions that have been rectified as productive models in uplifting the “good disabled person.” We will use texts and teachings from Sins Invalid, Leah Lakshmi Piepzna-Samarasinha, Octavia Butler, Audre Lorde, Park McArthur, Constantina Zavitsanos, Lochlann Jain, LaMarr Jurelle Bruce, Mel Chen, Kai Cheng Thom, and Sami Schalk to guide us in our efforts. Students will also engage with transformative justice and anticanonars of thought through Mia Mingus’s Care Pods Activity and a training from Health Justice Commons.
1 Course Unit
GSWS 1630 Witchcraft and Possession
This course explores world witchcraft and possession from the persecutions of the early seventeenth century through the rise of Wicca in the twentieth century. The mere mention of these terms, or of such close cousins as demonology, sorcery, exorcism, magic, and the witches Sabbath, raises clear ethnographic and historical challenges. How can the analysis of witchcraft— including beliefs, patterns of accusation, the general social position of victims, the intensity and timing of witch hunts, and its relation to religious practice, law, language, gender, social marginalization, and property—lead us to a more humane understanding of belief and action? Films such as The Exorcist, The Blair Witch Project, The Crucible, and Three Sovereigns for Sarah will focus discussion. Fall or Spring
Also Offered As: ANTH 1630, HIST 1630, RELS 1630
1 Course Unit

GSWS 1680 Sex and Socialism
This seminar examines classic and current scholarship and literature on gender and sexuality in contemporary Eastern Europe, and examines the dialogue and interchange of ideas between East and West. Although the scholarly and creative works will primarily investigate the changing status of women during the last three decades, the course will also look at changing constructions of masculinity and LGBT movements and communities in the former communist bloc. Topics will include: the woman question before 1989; gender and emerging nationalisms; visual representations in television and film; social movements; work; romance and intimacy; spirituality; and investigations into the constructed concepts of "freedom" and "human rights."
Also Offered As: ANTH 1688, REES 1680, SOCI 2972
1 Course Unit

GSWS 1800 Introduction to Queer Art
It’s no exaggeration to note that queers have long been at the forefront of innovation in the arts, and that the arts, generally, have been a comfortable home for queers, even at moments when society at large was distinctly hostile. In fact the concepts of modern art and homosexuality that we use today are twins, for they were both founded in the third quarter of the 19th century and grew up together. Introduction to Queer Art thus begins with the coinage of the word "homosexual" in 1869, and surveys how a range of mediums including painting, sculpture, poetry, music, and film shifted in response to new definitions of sexuality. Along the way, we will work towards answering two related questions: 1) Why were queer creators largely responsible for the introduction of modernity in the arts, and 2) why do we find so often that queer social and political dissent found form in, and as, aesthetic dissent as well? In creating new forms for art that often seem far removed from any traditional definition of sexuality, including non-objective and abstract art, queer artists pushed the boundaries of normativity, leading to new ways of seeing, hearing, feeling and thinking that often dared to encode queer meanings as part of their formal innovation. We will look into the politics of queer art, and how and why in the US, even amidst often dangerous homophobia, it was queer artists who represented America to itself. Thus, we will cover such key cultural figures such as Walt Whitman, Gertrude Stein, Georgia O’Keeffe, Frank O’Hara, Jasper Johns, Andy Warhol, and Agnes Martin. Throughout, new methods informed by queer, gender, and critical race theory will be utilized.
Fall
Also Offered As: ARTH 1800
1 Course Unit

GSWS 2000 Topics In Classicism and Literature: Epic Tradition
This advanced seminar will examine the classical backgrounds of western medieval literature, in particular the reception of classical myth and epic in the literature of the Middle Ages. Different versions of the course will have different emphases on Greek or Latin backgrounds and on medieval literary genres. Major authors to be covered include Virgil, Ovid, Chaucer, and the Gawain-poet.
Not Offered Every Year
Also Offered As: CLST 3708, COML 2000, ENGL 2000
1 Course Unit

GSWS 2021 Topics in Renaissance Literature
This course explores an aspect of renaissance literature intensively; specific topics will vary from year to year. See the English Department’s website at www.english.upenn.edu for a description of the current offerings. See our ENGL catalog, go to ENGL 2310: https://catalog.upenn.edu/courses/engl/
Also Offered As: ENGL 2021
1 Course Unit

GSWS 2072 Modernism Seminar on Gender & Sexuality
This course explores literary modernism through questions of gender and sexuality. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2072
1 Course Unit

GSWS 2092 Kelly Writers House Fellows Seminar
This seminar features visits by eminent writers as "Fellows" of the Kelly Writers House, the student-conceived writing arts collaborative at 3805 Locust Walk. Throughout the semester we will study the work of these writers—and some of the materials "around" them that make the particular contemporary context in which each operates so compelling. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2092
1 Course Unit

GSWS 2100 Trauma Porn to Title IX: Gender Based Violence at Penn
What does it mean to center survivors? Do safe spaces exist? How do institutions like Penn perpetuate gender based violence? How do we encounter and *counter* violence inside and outside the academic space? This course will explore these questions through the various lenses of academic research, literature, art, popular culture, and media, allowing for a nuanced and historically contextualized understanding of the challenging and enduring issue of gender based violence on college campuses, its prevalence, its causes, and its potential solutions. Students will participate in weekly guided discussions and the course will feature regular guest speakers who are involved in anti-violence work at Penn and in the broader community. Creative practices will be encouraged and centered each week, and course assignments will reflect this priority. Previous experience with Gender Studies is welcome but not required.
1 Course Unit
GSWS 2120 American Literature Seminar
This course explores an aspect of American literature intensively; specific course topics will vary, and have included "American Authors and the Imagined Past" and "American Gothic." See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2120
1 Course Unit

GSWS 2155 Gender History and American Film
More than any other medium, the motion pictures fostered new ideals and images of modern womanhood and manhood in the United States. Throughout the twentieth century, gender representations on the screen bore a complex relationship to the social, economic, and political transformations marking the lives and consciousness of American men and women. This course explores the history of American gender through film. It treats the motion pictures as a primary source that, juxtaposed with other kinds of historical evidence, opens a window onto gendered work, leisure, sexuality, family life, and politics. We will view a wide range of Hollywood motion pictures since 1900, as well as films by blacklisted artists, feminists, and independent producers.
Spring
Also Offered As: CIMS 2155, HIST 2155
1 Course Unit

GSWS 2159 The History of Family Separation
This course examines the socio-legal history of family separation in the United States. From the period of slavery to the present-day, the United States has a long history of separating and remaking families. Black, Indigenous, poor, disabled, and immigrant communities have navigated the precarious nature of family separation and the legal regime of local, state, and federal law that substantiated it. In this course, we will trace how families have navigated domains of family separation and the reasoning that compelled such separation in the first place. Through an intersectional focus that embraces race, class, disability, and gender, we will underline who has endured family separation and how such separation has remade the very definition of family in the United States.
Also Offered As: ASAM 2159, HIST 2159
1 Course Unit

GSWS 2217 CU in India - Topics Course
C.U. in India is a hybrid, domestic/overseas course series which provides students with the opportunity to have an applied learning and cultural experience in India or South East Asia where students participate in 1) 28 classroom hours in the Fall term 2) a 12-day trip to India or South East Asia with the instructor during the winter break visiting key sites and conducting original research (sites vary) 3) 28 classroom hours at Penn in the Spring term and 4) a research paper, due at the end of the Spring term. Course enrollment is limited to students admitted to the program. For more information and the program application go to http://sites.sas.upenn.edu/cuinindia This is a 2-CU yearlong course DEADLINE TO REGISTER IS MARCH 31st
Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: ARTH 3170, COML 2217, SAST 2217
1 Course Unit

GSWS 2219 Social Inequalities: Caste and Race
This course introduces students to two systems of inequity, caste in South Asia, particularly in India, and race in the United States. It’s main objective is to demonstrate how these modes of inequity, sometimes dismissed as outdated or irrelevant, continue to shape social and state institutions like family, law, and bureaucracy. The course will explore sociological literature on caste and race and examine how these systems existed in a range of historical contexts. It will examine how certain groups were recipients of economic, political, and social privilege, and how these groups othered communities such as Afro-Americans in the United States and Dalits in India. We will consider how privileged groups continue to represent modern institutions like state and law that fail to protect disadvantaged communities in both India and the United States. The course will also explore how privileged communities employ the tool of gendered violence of different kinds like physical violence against men and sexual violence against women of Afro-American communities and Dalit communities to maintain forms of social power and control. The final unit of the course will deal with the emerging and imagined solidarities between Afro-American social and political movements in the United States and Dalit movements in India.
Also Offered As: AFRC 2219, SAST 2219, SOCI 2970
1 Course Unit

GSWS 2220 African Women's Lives: Past and Present
Restoring women to African history is a worthy goal, but easier said than done. The course examines scholarship over the past forty years that brings to light previously overlooked contributions African women have made to political struggle, religious change, culture preservation, and economic development from pre-colonial times to present. The course addresses basic questions about changing women's roles and human rights controversies associated with African women within the wider cultural and historical contexts in which their lives are lived. It also raises fundamental questions about sources, methodology, and representation, including the value of African women's oral and written narrative and cinema production as avenues to insider perspectives on African women's lives.
Not Offered Every Year
Also Offered As: AFRC 2220
1 Course Unit

GSWS 2272 In/Visible: Asian American Cultural Critique
This interdisciplinary seminar examines how popular cultural representations frame Asian Americans as either invisible or hypervisible—our explorations will move across race and national origin, language and class, gender and sexuality. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ARTH 3749, ASAM 2272, ENGL 2272
1 Course Unit

GSWS 2310 Gender, Sexuality, and Literature Seminar
This advanced seminar focuses on literary, cultural, and political expressions of gender and sexuality. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: AFRC 2310, COML 2310, ENGL 2310
1 Course Unit
GSWS 2315 Gender and Sexuality in the Medieval Imaginary
This course will explore some of the most fascinating uses of gender and sexuality in medieval English literature, from Old English epic poetry to Arthurian romance. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2315
1 Course Unit

GSWS 2320 Queer Life in U.S. History
Queerness has held a variety of meanings and queer life has looked different over the past several centuries of United States history, but it certainly isn’t new. This course traces queer existence—in terms of both gender and sexuality—from the seventeenth century through the present, and foregrounds lived experience, identity formation, community development, and political consciousness. We will attend closely to how race, class, immigration status, and ability shape and are shaped by queer life, and engage with current topics of concern in the field of queer history, like the rural/urban divide, capitalism and neoliberalism, and queer memory.
Also Offered As: HIST 0819
1 Course Unit

GSWS 2321 Criminality and Gender Deviance in Early America
This advanced seminar explores literary, cultural, and political expressions of gender and sexuality, with special foci on criminality and deviance. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2321
1 Course Unit

GSWS 2353 Sex and Power in the Middle East: Unveiling Women's Lives
How did Islamic women really live? What were their attitudes toward veiling and politics? To what extent did family dynamics and sexuality inform social interactions? This course strives to answer these questions by offering a comparative perspective on the lives of women primarily in the Middle East and North Africa. It combines historical accounts with select fictional works to study women's social and cultural milieux under colonialism, as well as the evolution of women's roles in politics and society with the emergence of independent nation-states in the Middle East and North Africa. By crossing national boundaries, this course highlights the diversity of women's experiences. Active participation is critical to the success of this seminar. Every student is required to prepare a Powerpoint presentation on one week's readings. The presentation must be completed before the start of each class meeting and subsequently distributed to the members of the class. The PPT presentation should offer critical reflections on the topics discussed in the text. Rather than providing summaries, or personal commentary, students should attempt to raise questions and explain the arguments presented in the readings. In addition to the PPT presentation, students must complete a term paper (approx. 20-25 pages) by the end of the semester on a subject approved by the instructor. Students may select a primary text and discuss its relevance by drawing on the readings from the seminar. The text MUST be different from the text chosen for the PPT presentation. Required books are available for purchase at the Penn Book Center at 34th and Sansom Streets.
Fall or Spring
Also Offered As: HIST 2353, NELC 2567
1 Course Unit

GSWS 2354 The Body in Middle Eastern History
The body has long been the focus of social and scientific inquiry, as well as the foundation of religious, philosophical, and artistic thought. This seminar examines premodern and modern notions of the body in the Middle East as they intersect with colonialism, nationalism, religion, labor, law, military, gender, race, medicine, and art. Students use the notion of the body as a "useful" historical category to investigate the broader social, cultural, and political transformations occurring in the Ottoman Empire and Qajar Iran, followed by post-empire and colonial modern Middle Eastern contexts. The course addresses diverse views and theories as manifested in the constructions and practices over the body by using literary texts, primary sources, medical recipes, religious orders, and even public monuments to unearth the role of the body in the making of Middle Eastern history.
Also Offered As: HIST 2354, NELC 2354
1 Course Unit

GSWS 2390 Clarice Lispector
This seminar focuses on the work of Clarice Lispector, the Ukrainian-born Brazilian novelist and short story writer (1920-1977). See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 2390, ENGL 2390, LALS 2390, PRTG 0090
1 Course Unit

GSWS 2400 Gender and Popular Culture
This course examines the representation of gender in American popular culture from the twentieth and twenty-first centuries. We will examine texts across television and film, pop music, popular print media, social media, advertising, and fashion, and we will engage the historic relationship between these pop texts and sociopolitical movements. We will also read critical texts from the feminist and queer tradition on desire and sexuality, race, religion, and political power. And we will consider how the methods and modalities of gender studies can inform our understanding of pop culture. Students are responsible for three short papers of 3-5 pages and a final paper of 10-15 pages that showcase their original research around the themes of the class.
Also Offered As: ENGL 1395
1 Course Unit

GSWS 2401 Indians, Pirates, Rebels and Runaways: Unofficial Histories of the Colonial Caribbean
This seminar considers the early history of the colonial Caribbean, not from the perspective of European colonizing powers but rather from “below.” Beginning with European-indigenous contact in the fifteenth century, and ending with the massive slave revolt that became the Haitian Revolution (1791-1804), we will focus on the different ways in which indigenous, African, European and creole men and women experienced European colonization in the Caribbean, as agents, victims and resisters of imperial projects. Each week or so, we will examine the experiences of a different social group and their treatment by historians, as well as anthropologists, archaeologists, sociologists, and novelists. Along the way, we will pay special attention to the question of primary sources: how can we recover the perspectives of people who rarely left their own accounts? How can we use documents and material objects—many of which were produced by colonial officials and elites—to access the experiences of the indigenous, the enslaved, and the poor? We will have some help approaching these questions from the knowledgeable staff at the Penn Museum, the Kislak Center for Special Collections, Rare Books and Manuscripts, and the Van Pelt Library.
Fall or Spring
Also Offered As: AFRC 2401, HIST 2401, LALS 2401
1 Course Unit
**GSWS 2402 Faces of Love: Gender, Sexuality and the Erotic in Persian Literature**

Beloved, Lover and Love are three concepts that dominate the semantic field of eroticism in Persian literature and mysticism. The interrelation among these concepts makes it almost impossible to treat any one of the concepts separately. Moreover, there exists various faces and shades of love in the works of classical and modern Persian literature that challenges the conventional heteronormative assumptions about the sexual and romantic relationships between the lover and the beloved. A sharp contrast exists between the treatment of homosexuality and ‘queerness’ in Islamic law, on the one hand and its reflection in Persian literature, particularly poetry (the chief vehicle of Persian literary expression), on the other. This course introduces and explores different faces of love, eroticism and homoeroticism in the Persian literary tradition from the dawn of dawn of the Persian poetry in the ninth century all through to the twenty-first century. It offers a comprehensive study of representations and productions of heteronormativity, sexual orientation and gender roles with particular reference to the notion of love, lover and beloved in Persian literature.

*Fall*

Also Offered As: COML 2400, NELC 2400

1 Course Unit

**GSWS 2405 Global Feminisms**

Feminism has both united women and also generated debates between women of different races, locations and sexual orientations, across the world, and also within the US. Feminism means both understanding the construction of gender and sexuality in society, and challenging the oppressive structures that constrain people of all genders. As such, there can be no single feminism that is globally relevant. How should we, located in a prestigious US university, locate our own ideas about gender and sexuality in a global framework? Each week we will engage with a piece of work—fiction, autobiography, film, historical or activist writing—from a different part of the world. Through them we will explore how histories of colonialism, slavery and race, nation-making and war have led to very different conceptions of the family, sexuality, gender identities the body, labor, and agency around the world. Texts and films will likely include: Domitila Barrios de Chúngara, Let Me Speak; Angela Davis, Women, Race and Class; Urvashi Butalia, The Other Side of Silence; Veronique Tadjo, Queen Pokou; Saidiya Hartmann, Lose Your Mother; Joan Scott, The Politics of the Veil; Gaiutra Bahadur, Coolie Woman, The Odyssey of Indenture; Marjane Satrapi Persepolis; Marijie Meerman, Chain of Love; Ousmane Sembene Moolade; A. Revathi, The Truth About Me: A Hijra Life Story; Ama Ata Aidoo, Our Sister Killjoy. Satisfies the Cross-Cultural Requirement of the College's General Education Curriculum; Fulfills Sectors 1 and 2 of the English major.

Also Offered As: ENGL 2405

1 Course Unit

**GSWS 2410 What is Capitalism? Theories of Marx and Marxism**

At their root, Marx and Marxisms try to examine the problems with both capitalism and the political and economic discourses that justify or ignore those problems. Today, many around the globe are also reflecting on capitalism’s problems, in the hope of imagining and realizing a better future. This course will trace some of the origins of that renewed inquiry, and examine its limits and possibilities in today's world. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.

Also Offered As: COML 2402, ENGL 2402

1 Course Unit

**GSWS 2420 Science of Sex & Sexuality**

While sexual and gender diversity have been consistent features in most cultures throughout history, how such gender and sexual based discussion have been articulated, understood, condoned or condemned has varied. If medical historians and queer theorists have paid most obsessive attention to these subjects, bioethicists have intervened to a lesser degree and on only a handful of relevant subjects. Bearing in mind the social and medical legacies related to sexual and gender identities, this course will consider a range of historical and contemporary topics which speak to the intersection of bioethical dilemmas on medicine, sexuality and gender identity, including: the gay adolescent, the intersex person, gay-conversion therapies, the prospect of gay gene studies, sex addiction, queer blood/organ donation policies, and the wake of the global HIV/AIDS pandemic. Specifically, we will focus on literary sources (memoirs, diaries, and films) as well as non-literary accounts (medical texts, bioethical scholarship, and historical records) that explore the emotional and somatic aspects of matters related to sexuality, gender identity, and bioethics.

Not Offered Every Year

1 Course Unit

**GSWS 2490 Philosophy of Education**

The philosophy of education asks questions about the foundational assumptions of our formal institutions for the reproduction of culture. It ranges therefore, from epistemology and philosophy of mind to ethics and political philosophy. For instance: What is the nature of learning and teaching? How is it possible to come to know something we did not know already—and how can we aid others in doing that? How, if at all, should formal institutions of education be concerned with shaping students’ moral and civic character? What is the proper relation between educational institutions and the state? We also ask questions more specific to our own time and context. For example: how, in a multicultural state, should we educate students of varied social identities, like race, gender, and religion? What is the relationship between education and justice.

Not Offered Every Year

Also Offered As: PHIL 2560

1 Course Unit
GSWS 2500 History of Private Life in China
Underneath the grandeur of empires, war, revolutions, history eventually is about people's life. This seminar explores how the boundaries of private life in China intersect with the public arena and how such an intersection has significantly re-shaped Chinese private life between the 16th century and the present. The first half of the seminar will explore how the private realm in late imperial China was defined and construed by Confucian discourses, architectural design, moral regulation, cultural consumption, and social network. Moving into the twentieth century, the remaining part of the seminar will examine how the advent of novel concepts such as modernity and revolution restructured the private realm, particularly in regard to the subtopics outlined above. Organizing questions include: How did female chastity become the center of a public cult which then changed the life paths of countless families? How did the practice of female foot-binding intersect with marriage choices, household economy, and social status? How did print culture create a new space for gentry women to negotiate the boundaries between their inner quarters and the outside world? What was the ideal and reality of married life in late imperial China? How did people's life change when the collective pursuit for Chinese modernity placed romantic love, freedom to marry and divorce at the center of public debates? How was "Shanghai modern" related to the emerging middle class life style as evidenced in advertisement posters? How has the ideal of gender equality been re-interpreted and realized under the Communist regime? How have the current market reforms reformulated the contours of private life in China? Fall or Spring
Also Offered As: EALC 2721, HIST 2500
1 Course Unit

GSWS 2512 Introduction to Italian Cinema
Topics vary. Please check the department's website for a current course description at: http://www.sas.upenn.edu/italians/courses
Fall or Spring
Also Offered As: CIMS 2512, ITAL 2512
1 Course Unit

GSWS 2522 Modern Italian Culture
Please check the website for a current course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 2522, ITAL 2522
1 Course Unit

GSWS 2537 Gender and Health
Women's health is a constant refrain of modern life, prompting impassioned debates that speak to the fundamental nature of our society. Women's bodies are the tableaux across which politicians, physicians, healthcare professional, activists, and women themselves dispute issues as wide-ranging as individual versus collective rights, the legitimacy of scientific and medical knowledge, the role of the government in healthcare, inequalities of care, and the value of experiential knowledge, among many others. Understanding the history of these questions is crucial for informed engagement with contemporary issues.
Not Offered Every Year
Also Offered As: HSOC 2537
1 Course Unit

GSWS 2545 Sex, Love, and Race in African American Life and History
This course discusses the political and social implications of sex, race and personal relationships in U.S. political and social history. In this class, we examine how so-called 'emotional,' human experiences such as falling in love, engaging in a sexual relationship, marriage, coming out of the closet, and other deeply personal events over the course of a lifetime are shaped by political, legal and historical forces. This course will examine the history of marriage rights, claims to ethnic and racial identity, activism among multiracial people in the United States, sex education in public schools, and debates about marriage and family rights in the 20th and 21st centuries.
Fall
Also Offered As: AFRC 2545, HIST 0818
1 Course Unit

GSWS 2600 Witches, Whores and Rogues
What should we make of the disorderly people of the past? Were they acting out their dissent against powerful customs and institutions in their lives? Or were they the victims of those customs and institutions? In this course, we consider the lives of these disorderly people: the witches, prostitutes, criminals, escaped servants and slaves, criminals, cross dressers, and rowdies of early modern Europe and the Americas. The course will focus on several case studies featuring people considered to be troublemakers, or at the very least, non-conformist, by their contemporaries. We will use films, primary sources, book-length studies, and works of theory to develop our analyses of the problem of dissent, disorder, and resistance in the early modern past.
Fall or Spring
Also Offered As: HIST 2600
1 Course Unit

GSWS 2601 Women and the Making of Modern South Asia
This course on women in South Asian history has four objectives - 1. To acquaint ourselves with the historiography on South Asian women. 2. To gain an understanding of evolving institutions and practices shaping women's lives, such as the family, law and religious traditions. 3. To understand the impact of historical processes - the formation and breakdown of empire, colonialism, nationalism and decolonization - upon South Asian women between the sixteenth and twentieth centuries. 4. To become familiar with some of the significant texts written about and by women in this period. We will read a wide variety of primary sources including a Mughal princess' account, devotional verse authored by women, conduct books, tracts, autobiographies and novels.
Spring
Also Offered As: HIST 3500, SAST 2260
1 Course Unit
GSWS 2610 The Asian Caribbean
Although Asians have lived in the Americas for centuries, the Asian American community and experience tends to be defined by the post-1965 wave of immigration to the United States. In an effort to correct this narrative this course will explore the histories, experiences, and contributions of some of the forgotten Asians of the Americas. In particular, we will focus on the earlier labor migrations of Chinese and South Asian individuals to the Caribbean and the United States. The experiences of these individuals, who built railroad, cut sugarcane, and replaced African slave labor, complicate our understandings of race today. By examining the legal and social debates surrounding their labor in the 19th century and exploring how their experiences are forgotten and their descendants are rendered invisible today, we will complicate what is Asian America and consider how this history shapes immigration policies today.
Spring
Also Offered As: ASAM 2610, LALS 2601, SAST 2610
1 Course Unit

GSWS 2700 Folklore and Sexuality
Sexuality is usually thought of as being biological or social, divided into categories of natural and unnatural. Often missed are its creative and communicative aspects. Examining the constructed social elements of sexuality requires attention be paid to folklore in groups, between individuals and on the larger platform of popular technological media. The most interesting locations for exploration are those places where borderlands or margins, occur between genders, orientations and other cultural categories. A field-based paper will be required that must include documentary research.
Not Offered Every Year
1 Course Unit

GSWS 2705 Media and Culture in Contemporary Iran
This course offers a comprehensive introduction to the culture and media of modern Iran, with a critical perspective on issues such as identity, formation, ethnicity, race, and nation-building. It focuses on how these issues relate to various aspects of modern Iranian culture—such as religion, gender, sexuality, war, and migration—through the lens of media, cinema, and literature.
Not Offered Every Year
Also Offered As: CIMS 2705, NELC 2705, RELS 2180
1 Course Unit

GSWS 2720 18th-Century Novel Seminar
This course explores an aspect of 18th-century novel intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2720
1 Course Unit

GSWS 2770 Gender, Sex & Urban Life
Is urban space gendered? Do we change how it is gendered as we move through it? Does it change us? This course explores gender and sexuality in the contemporary global city through the study of urban spaces. We will consider feminist, queer, and transgender theories of the city, as we investigate how practices of using and making space are gendered and sexualized. Each week of the course will be organized around a type of space, including subway, school, and birthing center, nightclub, suburb, and park. Assignments will include an auto-ethnography, a short critical essay, and a final assignment that asks you to propose an additional type of space in which to study the intersections of sex, gender, and the urban built environment. In each space, we will conduct an interdisciplinary exploration, drawing from sociology, anthropology, geography, city planning history, feminist and queer theory, as well as from fiction, poetry, music videos, photography, and documentary film.
Spring
Also Offered As: URBS 2770
1 Course Unit

GSWS 2841 Mourning and Sexuality in the English Elegy
From antiquity to the present, poets have written elegies to express their diverse experiences of the mingling of love and loss. In this advanced seminar on poetic history, genre, and form, we’ll explore a major poetic genre—the elegy—in relation to its two, intertwined themes: death and sex. All of the elegies we’ll read raise challenging questions about desire, identification, reproduction, gender, and sexuality. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2841
1 Course Unit

GSWS 2860 Drama to 1660 Seminar
This course explores an aspect of drama before 1660 intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2860
1 Course Unit

GSWS 2870 Postwar Art
At a time of seismic shifts in the American polity, postwar art has too often seemed above the fray. Even as New York came to replace Paris as the epicenter of art world in the post war period, the rapid succession of styles and movements from Abstract Expressionism to Neo-Dada, Pop Art, Minimalism, Conceptual Art and Happenings can seem to have their own internal logic, severed from the historical backdrop of the time. Some of the artists we’ll consider include Pollock, Krasner, Rauschenberg, Johns, Warhol, Kusama, Martin, Lichtenstein, Bearden, Oldenburg, LeWitt, Chicago and Judd. In this course, we’ll reexamine American art and art criticism in the postwar period alive to everything from the Cold War’s virulent anti-communism to the rise of progressive liberation movements around race, ethnicity, sexuality, and gender. In the process, we will repeatedly underscore how art both served, and bit, the hand that fed it.
Also Offered As: ARTH 2870
1 Course Unit
GSWS 2879 Global Queer History
Sexuality has a history that is both geographically and culturally specific. For this reason, this course aims to destabilize familiar sexual categories and identities by exploring how it was (and is) to be queer in different parts of the world. We will historicize sexual orientation as a category anchored in Western medical and legal discourses; we will link the history of sexuality with that of capitalism, colonialism, and racism; and we will evaluate the idea of “Gay Imperialism” and how it is resisted around the world. The course is not comprehensive either chronologically or geographically. Instead, it considers some key topics in the history of queer sexualities; it provides a general historiographical background; and it introduces a toolbox for doing critical queer history with a global perspective. Finally, we will address how contemporary LBGTQ+ issues around the world can be put into historical perspective, and why queer history is essential for achieving the goals of social justice.
Also Offered As: HIST 0879
1 Course Unit

GSWS 2892 Major Elective Credit Abroad
This course is for GSWS majors who wish to receive study abroad credit through GSWS on a topic not taught at Penn but which deserves departmentally and level appropriate credit.
1 Course Unit

GSWS 2940 Art Now
One of the most striking features of today's art world is the conspicuous place occupied in it by the photographic image. Large-scale color photographs and time-based installations in projections are everywhere. Looking back, we can see that much of the art making of the past 60 years has also been defined by this medium, regardless of the form it takes. Photographic images have inspired countless paintings, appeared in combines and installations, morphed into sculptures, drawings and performances, and served both as the object and the vehicle of institutional critique. They are also an increasingly important exhibition site: where most of us go to see earthworks, happenings and body-art. This course is a three-part exploration of our photographic present.
Spring
Also Offered As: ARTH 2940, ENGL 2639, VLST 2360
1 Course Unit

GSWS 2950 Global Film Theory
This course will provide an introduction to some of the most important film theory debates and allow us to explore how writers and filmmakers from different countries and historical periods have attempted to make sense of the changing phenomenon known as "cinema," to think cinematically. Topics under consideration may include: spectatorship, authorship, the apparatus, sound, editing, realism, race, gender and sexuality, Stardom, the culture industry, the nation and decolonization, what counts as film theory and what counts as cinema, and the challenges of considering film theory in a global context, including the challenge of working across languages. There will be an asynchronous weekly film screening for this course. No knowledge of film theory is presumed.
Not Offered Every Year
Also Offered As: ARTH 2950, CIMS 2950, COML 2950, ENGL 2900
Mutually Exclusive: ARTH 6950
1 Course Unit

GSWS 2960 Literary Theory Seminar
This course explores an aspect of literary theory intensively. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 2410, ENGL 2400
1 Course Unit

GSWS 2978 Just Futures Seminar II: Health and Healing in Abiayala (the Americas)
Health and Healing in Abiayala (the Americas) will introduce students to ecosocial notions of health, colonialism's contributions to ill-health, and colonial action as healing action. Part one of the course introduces general concepts of body, health, and illness in biomedical models. It then pivots to the relational and ecosocial practices of body, health, and wellbeing among many First Peoples of the Abiayala, highlighting "radical relationality." For many First Peoples, community includes humans, plants, animals, ancestors, and earth beings (such as the land, mountains, rivers, and lakes) that are materially, socially, and spiritually interdependent. These beings work together to maintain a “shared body” through practices of reciprocal care. Part two of the course examines how the shared body has been and is threatened by the colonization of Indigenous lands and bodies through (e.g.) land dispossession, pollution, extractive industry, lack of access to quality education and medical care, forced sterilization, forced removal of children, exploitative economic relations, and political violence. The third part of the course will follow how First Peoples of Abiayala are healing from the physical, social, and spiritual wounds of colonialism through decolonial action. First Peoples are creating their own healing centers and ecological protection agencies, engaging in Land Back movements, in legal and direct-action processes to protect the shared body from extractive industry, and reproductive justice movements. Healing is future oriented, powering the “radical resurgence” of First Peoples. Some questions addressed in this class include, where does the body begin and end? What constitutes personhood? How does continued colonization affect Indigenous peoples' health—and that of all peoples? How do Indigenous peoples use ancestral knowledges, relation ethics, and local ecologies to help heal historic and contemporary wounds to power their futures? Is there a political dimension to healing? How do autonomy and self-determination figure into healing and wellbeing?
Not Offered Every Year
Also Offered As: ANTH 2978, HSOC 2332, LALS 2978
1 Course Unit

GSWS 2995 Major Transfer Credit
This course is a transfer credit for a course that we do not have a direct equivalent in our published curriculum but which meets the spirit of the major. This level is intended for GSWS majors.
1 Course Unit

GSWS 3010 French Identity in the Twentieth Century
This course explores an aspect of literary theory intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: HIST 0879
1 Course Unit
GSWS 3020 Queer Cinema
Queer Cinema, in Theory. This course explores the role of cinema in shaping the history of gender and sexuality, at the same time introducing students to some of the most relevant texts in the field of queer, gender and trans studies. While the last decades have been characterized by increasing acceptance of gays, lesbians and trans people into mainstream society, this process has no doubt reproduced new inequalities and asymmetries — in terms of race, class, and gender presentation. Does “queer” still pose a threat to the mainstream or is it now part of the “normal”? Should one welcome the progressive acceptance or queer lives within the mainstream or should one reject it in the name of an indissoluble difference? How do whiteness and homonormativity participate in the structural marginalization of black and trans people? Some of the topics addressed by this course are the “closet” in classical Hollywood cinema and its critique in 1990s queer films such as Happy Together (Wong Kar-wai, 1997); the intersection of sexuality and race in black feminist films such as Born in Flames (Lizzie Borden, 1983) and Watermelon Woman (Cheryl Dunye, 1996); the treatment of reproductive labor in experimental feminist films such as Jeanne Dielman (Chantal Akerman, 1975); the representation of the AIDS crisis in new queer films such as The Living End (Gregg Araki, 1992); sex reassignment politics in 2000s Iranian films such as Sex My Life (Bahman Motemedian).
Not Offered Every Year
Also Offered As: CIMS 3030, ITAL 3030
1 Course Unit

GSWS 3100 Politics of Political Writing: From
The Politics of Political Writing: From "We, the People" to "Power to the People" is a literary study and research course charting the development of liberatory politics, aesthetics and subjectivities in response to colony, capital and empire. Students will read anthology, collected essays, a novel, reportage, oral history, interviews, travel writing and memoir. We will look at works in which the authors articulate political stances that impact the public sphere and their literary craft as well as works in which they examine, often self-critically, the politics of writing as practice, career, advocacy, trickery, solace and pleasure. The works, including ones by June Jordan, Jean Genet, Patricia Galvao, and Claribel Alegria worry the divide between art and politics, and some trouble the notion that writing encapsulates an author’s politics and activism. Using the texts as models we will examine in lecture, discussion, and research projects the effect and impact of aesthetic acts on making trouble for state, social and financial structures as such trouble-making urged many of these works into inception, making difficult their production and reception. The Marxist theory of the dialectic and M. Jacqui Alexander’s configuration of palimpsestic time in the neo/post/anti-colonial Americas will serve as our theory touchstones. While some of the works are from the recent past and others far older, they touch on, and in many instances, speak to the histories of regions and countries currently in the news and in crisis (Central America, the Caribbean, the Middle East, France, the US and Brazil) contemporary movements (Black Lives Matter, international solidarity, undocuqueers) and problematics (migration, US financial intervention, imperialism).
Fall or Spring
1 Course Unit

GSWS 3102 Attention Poetics
This is a poetry workshop about paying close attention: to the ordinary and the inexorable systems around us. Experienced poets and students new to poetry are all welcome. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Also Offered As: ENGL 3102
1 Course Unit

GSWS 3104 Poetry Lab
A creative writing workshop in which students will learn to experiment and deepen their writing practice using the tools of poetry. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Also Offered As: ENGL 3104
1 Course Unit

GSWS 3130 Gender, Capitalism, and Environment
What is "the economy," and how is "it" gendered? How is access to land, resources, and livelihood options mediated by hierarchies of gender that are co-constituted with race, class, age, and ability? How are gender equality, economic justice, and environmental justice interrelated? This course grapples with these and other foundational questions concerning the ways that gender, economy, and environment are intimately linked. Using case studies from around the world, we will consider Marxist-feminist, ecofeminist, political ecology, queer, critical race, and postcolonial approaches to understanding how abstract economic processes are materialized in social relations and in human-environment interactions. From women peasant farmer’s online practices in Myanmar to land-grabs and contemporary witch-hunting in African countries, together we will engage with the material histories, politics, and power relations shaping the uneven distribution of wealth and resources among gendered populations — and how different social groups are mobilizing to contest these gender, economic, and environmental inequalities together. In addition to our core questions, this course asks: How is capitalism itself gendered, and with what effects? What is considered productive work, and how are categories of worker gendered? Why are women overrepresented as peasant farmers in global south countries? How and why is climate change gendered? How and why are solutions to climate change and other environmental problems gendered? What are the gendered benefits and costs of sustainable development, and who bears them? Most of these questions lack clear answers, but by the end of the semester you will be able to give compelling oral and written explanations in response to each. Using a diverse array of texts — including film, podcasts, poetry, and peer-reviewed academic literature — this course will equip students with tools to thoughtfully and ethically engage with academic, activist, policy, and development spaces that are concerned with the intersection of gender, economy, and the environment.
Also Offered As: ANTH 3130
1 Course Unit
GSWS 3136 Queer Science
This course gives students a background in the development of sex science, from evolutionary arguments that racialized sexual dimorphism to the contemporary technologies that claim to be able to get at bodily truths that are supposedly more real than identity. Then, it introduces several scholarly and political interventions that have attempted to short-circuit the idea that sex is stable and knowable by science, highlighting ways that queer and queering thinkers have challenged the stability of sexual categories. It concludes by asking how to put those interventions into practice when so much of the fight for queer rights, autonomy, and survival has been rooted in categorical recognition by the state, and by considering whether science can be made queer. Along the way, students will engage with the tools, methods, and theories of both STS and queer studies that emphasize the constructed and political underpinnings of scientific thought and practice.
Spring
Also Offered As: STSC 3136
1 Course Unit

GSWS 3150 Queer Modernisms
This course tracks the development of Modernism in America, Western Europe, and specific other locations around the globe, with particular emphasis as to how and why dissident sexualities so often found expression in and as aesthetic dissent. Creating new expressive forms and theories that often seem far removed from any traditional definition of sexuality, queer modernist artists often replaced dangerous forms of social dissent with more prudent forms of formal dissidence. In pursuing these questions, we will place art in its broader social context, seeking to answer such significant problems as how and why forms of artistic representation that were once transparent, eminently legible to all strata of society, increasingly became, under the avant garde, designed to speak only to an elect, to a select few in our culture. We will ask what happens when art deliberately narrows its audience, and how that narrowing is related to questions of sexual difference. What is the relationship between queerness and cultural elitism, a connection generally presumed in popular culture, but rarely examined academically? And finally we will ask about the utility of forms of queer political dissent if those forms remain illegible as queer to a wider audience. Throughout, new methods informed by queer, gender, and critical race theory will be utilized.
Also Offered As: ARTH 3830
1 Course Unit

GSWS 3153 American Feminist and LGBT Movements, 1960s-1980s
This seminar explores the history of the feminist and LGBT movements from the mid-1960s to mid-1980s in Philadelphia. Although there will be some attention to national organizations, we will focus on social and political activism as it was made in local groups and spaces. We will explore the social and cultural web that fostered activism, for example, in gay and lesbian coffee houses, campus women's centers, bookstores, and radio shows. We will also pay attention to groups and actions that may not have been self-consciously defined as "feminist" or "gay liberationist," but had important effects on social change related to gender and sexuality; these include African American, Latino/a, and working-class organizations. This is a hands-on research seminar, with students exploring local archives and special collections to document and analyze these complex movements. Each student will conduct an oral history, analyze a set of published and printed sources, and write a paper based on archival research.
Not Offered Every Year
Also Offered As: HIST 3153
1 Course Unit

GSWS 3220 Advanced Topics in Global Gender and Sexuality Studies
This is an advanced topics course, and the course description will vary from semester to semester.
Fall
Also Offered As: COML 3220
1 Course Unit

GSWS 3240 Children's Health in the United States, 1800-2000
This course explores the impact of historical ideas, events, and actors pertaining to the history of children's health care in the United States. Emphasis is placed on tracing the origins and evolution of issues that have salience for twenty-first century children's health care policy and the delivery of care. Prerequisite: For Benjamin Franklin Scholars & Nursing Honors Students This course satisfies the History & Traditions Sector for Nursing Class of 2012 and Beyond.
Fall
Also Offered As: NURS 3240
1 Course Unit

GSWS 3246 The Tale of Genji
"Crowning masterpiece of Japanese literature," "the world's first novel," "fountainhead of Japanese literary and aesthetic culture," "a great soap opera in the vein of Jacqueline Susann." Readers over the centuries have praised the Tale of Genji, the monumental prose tale finished just after the year 1000, in a variety of ways. In this course we will read the latest English translation of Murasaki Shikibu's work. We will watch as Genji loses his mother at a tender age, is cast out of the royal family, and begins a quest to fill the void she left. Along the way, Genji's loyalty to all the women he encounters forges his reputation as the ideal lover.
We will consider gender issues in the female author's portrayal of this rake, and question the changing audience, from bored court women to censorious monks, from adoring nationalists to comic book adaptors. Study of the tale requires consideration of poetry, imagery, costume, music, history, religion, theater, political and material culture, all of which will be components of the course. We will also trace the effect of the tale's many motifs, from flora and fauna to murderously jealous spirits, on later literature and conceptions of human emotions. All material is in English translation. There are no prerequisites.
Not Offered Every Year
Also Offered As: EALC 3246
1 Course Unit

GSWS 3340 Feminist Ethnography
This course will investigate the relationships among women, gender, sexuality, and anthropological research. We will begin by exploring the trajectory of research interest in women and gender, drawing first from the early work on gender and sex by anthropologists like Margaret Mead and Ruth Benedict; moving through the 1970s and 1980s arguments about gender, culture, and political economy; arriving at more current concerns with gender, race, sexuality, and empire. For the rest of the semester, we will critically read contemporary ethnographies addressing pressing issues such as nationalism, militarism, neoliberalism and fundamentalism. Throughout, we will investigate what it means not only to "write women's worlds", but also to analyze broader socio-cultural, political, and economic processes through a gendered lens. We will, finally, address the various ways feminist anthropology fundamentally challenged the discipline's epistemological certainties, as well as how it continues to transform our understanding of the foundations of the modern world.
Not Offered Every Year
Also Offered As: AFRC 3340, ANTH 3340
1 Course Unit
From the earliest message boards and email chains, the internet has given people a way to connect, not just digitally but sexually. Porn, online dating, sex education: digital technology has made it easier for people to find each other and explore sexuality, but these same tools have also been used in relationships that are exploitative and criminal. In this course, we look at the different connections between sex, gender, queerness and the internet: changing policies regulating sex (like FOSTA and SESTA), the platforms that have created controversies around sex (for example, craigslist, tumblr and Grindr) and shifting norms around how sex and sexuality manifest online. This is an interdisciplinary course that brings together internet studies, queer theory, and cultural studies in order to understand the social and historical dimensions of sex, sexuality and digital technologies.

Not Offered Every Year
Also Offered As: COMM 3360
1 Course Unit

GSWS 3400 Money, Power, Respect: Funding Social Change
This course is about how to apply a race, gender and LGBTQ lens to support contemporary social justice movements in the U.S. and globally, including Black Lives Matter, #MeToo, transgender equality, and disability justice. We will explore intersectionality as a theoretical framework, and how it is practically applied to support social justice organizations and leaders, and fund social change. Over the course of the semester, Professor of Practice Roz Lee, a black lesbian feminist and lifelong racial, gender, LGBTQ and economic justice advocate, and who currently serves as Vice President of Strategy and Programs at the Ms. Foundation for Women, will be joined by movement leaders and philanthropy colleagues to discuss and analyze what's happening on the frontlines of movements for equity, justice and freedom.
1 Course Unit

GSWS 3401 Contemporary Italy
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3401, ITAL 3401
1 Course Unit

GSWS 3402 Italian Film and Media Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3402, ITAL 3402
1 Course Unit

GSWS 3403 Race and Ethnicity in Italy
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3403, ITAL 3403
1 Course Unit

GSWS 3404 Italian Gender Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3404, ITAL 3404
1 Course Unit

GSWS 3405 Italian Fashion
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3405, ITAL 3405
1 Course Unit

GSWS 3406 Italian Visual Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3406, ITAL 3406
1 Course Unit

GSWS 3407 Italian Foods and Cultures
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3407, ITAL 3407
1 Course Unit

GSWS 3408 Italian Literature
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3408, ITAL 3408
1 Course Unit

GSWS 3410 Italian Renaissance Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3410, ITAL 3410
1 Course Unit

GSWS 3411 Mediterranean Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3411, ITAL 3411
1 Course Unit

GSWS 3412 Italian Performance Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3412, ITAL 3412
1 Course Unit

GSWS 3413 Italian Science and Philosophy
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3413, ITAL 3413
1 Course Unit

GSWS 3416 Boccaccio
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ITAL 3416
1 Course Unit
GSWS 3425 Gender, Religion, and China
This course examines the interrelationship among "gender," "religion," and "China" as conceptual and historical categories. We ask, for example, how gender plays critical and constitutive roles in Chinese religious traditions, how religion can be used both to reinforce and to challenge gender norms, how religious women impact Chinese society and culture, and what the construction of "China" as a cultural identity and as a nation-state has to do with women, gender, and religion. We will also think about what assumptions we have when speaking of gender, religion, and China, and the infinite possibilities when we strive to think beyond. We will read three kinds of materials: (1) scholarship on gender and religion in historical and contemporary China as well as the Chinese-speaking world, (2) scholarship concerning theories and methodology of gender and religious studies not necessarily focused on China, and (3) historical record of religious women in English translation.
Spring
Also Offered As: EALC 3425, RELS 3425
1 Course Unit

GSWS 3440 Psychology of Personal Growth
Intellectual, emotional and behavioral development in the college years. Illustrative topics: developing intellectual and social competence; developing personal and career goals; managing interpersonal relationships; values and behavior. Recommended for submatriculation in Psychological Services Master's Degree program.
Fall or Spring
Also Offered As: EDUC 3545
1 Course Unit

GSWS 3447 From Puberty to Parenting: The Evolutionary Context of Reproduction
This course explores the processes that influence reproduction in human populations. We adopt an evolutionary perspective to examine the factors that have shaped human reproductive physiology and contribute to variation in reproductive parameters between populations. To place human reproduction in a broad evolutionary context, we will consider similarities and differences between humans and other apes in how ecology shapes reproduction. The biology of puberty, pregnancy, hormonal changes across the lifespan, the cessation of reproduction, the impact of parenting behavior on the biology of offspring and parents themselves, and the influence of sex and gender diversity on reproduction will be discussed. Both the ecological and sociocultural factors that influence the steps in the reproductive process will be considered.
Not Offered Every Year
Also Offered As: ANTH 3447
Mutually Exclusive: ANTH 5447
1 Course Unit

GSWS 3448 The Future of Disability and the Afterlives of Epidemics
Medical framings of disease focus on "cure" narratives, but what does "getting better" really mean when examined from a patient perspective and how might epidemics challenge or reshape our relationships to concepts of health, illness, and disability? In this course, we will learn to examine stories of epidemics past and present through the lens of disability. In doing so, we will ask how epidemics in the past have shaped our ideas and experiences of disability, muddled our binary thinking about illness and wellness, and challenged the beliefs, epistemologies, and institutions that drive our approaches to caring for the body, the mind, and the spirit. Through an exploration of primary and secondary source readings, we will interrogate how these eras of crisis, and their aftermaths, have historically influenced the ways we think about and experience disability and its relationship to identity, family, culture, religion, society, and citizenship in the days, weeks, months, years, and decades that follow in their wake. Ultimately, we will draw upon the insights of the past to develop better questions about present epidemics, including COVID-19, Monkeypox, as well as the re-emergence of "old" epidemic diseases like measles and polio in order to think in novel and critical ways about how our ideas about wellness, disability, and society both shape and are shaped by our encounters with contagious epidemic diseases.
Fall or Spring
Also Offered As: HSOC 3447
1 Course Unit

GSWS 3480 Gender, Sexuality, & Pop Music
How is popular music implicated in the representation, production, performance, and interpretation of gender and sexuality? How have musicians negotiated traditional categories of gender and sexuality? In this class, we will approach the study of popular music through the lens of feminist and queer theory, critical race theory, transnational feminist theory, and intersectional methodologies to articulate the ways in which gender and sexuality have shaped musical discourse and popular culture more broadly. Topics include: gay anthems, trans vocality, masculinities, boy bands, oral histories, queer(ing) methods, cover songs, censorship, musical borrowings & cultural appropriation, the politics of representation, and affective modes of listening. Students will learn about and be able to articulate the values and ideologies that are communicated in various subgenres of popular music, and how musical production impacts our understanding of cultural practices and social systems. *No prior musical knowledge required.*
Also Offered As: MUSC 3480
1 Course Unit

GSWS 3500 Trans Method
What are the subjects of trans studies? What does “trans” as a category afford us in looking at texts, people, systems, and objects? To what extent is trans an identity? What might it mean to think of it as a methodology? How might the tools of trans studies intervene in conversations and practices beyond the field itself? What are the stakes of such an expansive approach? This course introduces students to "trans" as a still-forming analytic that has emerged out of academic spaces, activist movements, and trans cultural production. We will engage with texts and questions that build on trans studies’ connections to (and divergences from) queer and feminist studies, history, critical race studies, disability studies, and science studies, among other fields, and we will also consider how trans knowledge can act beyond the theoretical.
Not Offered Every Year
Also Offered As: HSOC 3889, STSC 3889
Prerequisite: GSWS 0002 OR GSWS 0003 OR ENGL 1300
1 Course Unit
GSWS 3501 Writing and Witnessing
This course will explore one of the fundamental questions we face as humans: how do we bear witness to ourselves and to the world? How do we live and write with a sense of response-ability to one another? How does our writing grapple with traumatic histories that continue to shape our world and who we are in it? The very word “witnessing” contains a conundrum within it: it means both to give testimony, such as in a court of law, and to bear witness to something beyond understanding. In this class, we will explore both senses of the term “witness” as we study work by writers such as Harriet Jacobs, Paul Celan, M. NourbeSe Philip, Bhanu Kapil, Layli Long Soldier, Claudia Rankine, Juliana Spahr, and others that wrestles with how to be a witness to oneself and others during a time of ongoing war, colonialism, racism, climate change, and other disasters. Students are welcome in this class no matter what stage you are at with writing, and whether you write poetry or prose or plays or make other kinds of art. Regardless of your experience, in this class you’ll be considered an “author,” which in its definition also means a “witness.” We will examine and question what authorship can do in the world, and we will analyze and explore the fine lines among being a witness, a bystander, a participant, a spectator, and an ally. In this class you will critically analyze and write responses to class readings; you’ll do writing exercises related to the work we read; and you’ll complete (and be workshopped on) a portfolio of creative writing (and/or art) that bears witness to events that matter to you.
Not Offered Every Year
Also Offered As: COML 3501, ENGL 3501
1 Course Unit

GSWS 3504 Italian Gender Studies
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ITAL 3504
1 Course Unit

GSWS 3508 Queer Forms
Queer and trans writers have always queered form, constantly inventing new ways to express new forms of becoming. And yet, much of the attention paid to LGBTQ+ writing has focused on identity and content rather than looking at the many innovations in form that queer and trans writers are always producing. This multi-genre creative/critical workshop will examine some of the methods contemporary LGBTQ+ writers have used to queer genre and form in their writing, whether they are working through fiction, poetry, essay, play/performance, or some combination thereof. Queer theorist José Esteban Muñoz's notions of disidentification and queer futurity will help guide our thinking in this course. Students will read and write creative/critical responses each week to a wide range of writing that queers form. The class will include weekly workshopping and students will work towards a final project that incorporates all they have learned over the term, generating ever new queer forms of making.
Also Offered As: COML 3508, ENGL 3508
1 Course Unit

GSWS 3510 Love, Anger, Madness: History and Silences in Modern Haiti
On the stage of modern world history, Haiti plays the unique role as both the exceptionally victorious and tragic character. This course interrogates archival documents, oral histories, historical texts, and prose created within the nation and her diaspora in order to establish a nuanced image of the projection of Haiti’s modern history. Using two classic Haitian texts, Marie Vieux-Chauvet’s Love, Anger, Madness (1968) and Michel-Rolph Trouillot’s Silencing the Past: Power and the Production of History (1995), this course examines how, why, and to what end Haiti’s history and popular narratives about the country have served to construct and dismantle global movements, popular culture, and meanings of race, gender, and citizenship in the Americas. In our historical examination, we will question some of the iconic representations of Haiti through literature that deepen the affective historical profile of Haiti with interrogations of culture, sexuality, political, and media performance. Students will become familiar with the post-colonial history of Haiti and the region, meanings of race, and the production of history. The course is a research and historical methods seminar. Students will conduct archival research and write narratives from primary source material. This course qualifies as a “methods” course for Africana Studies undergraduate majors and minors.
Spring
Also Offered As: AFRC 3510, HIST 0840, LALS 3510
1 Course Unit

GSWS 3514 Writing Towards Transformation
Writing Towards Transformation is a critical and creative writing workshop focused on developing works across genres that express and elaborate upon current and historical conditions of crisis and injustice. Using guided meditation, critical feedback and healthy, ethical discussion, the students of the class will develop manuscripts of poems, short stories, essays, plays and/or screenplays that in some way articulate their analysis of the present and the past towards a transformative future. We will read essays, manifestos, theater and fiction as well as view films that will hopefully inspire each student to develop texts and scripts of hope. Writers used as models of inspiration will include Gary Indiana, Valerie Solanas, June Jordan, Bertolt Brecht, Cherrie Moraga, Leslie Feinberg and Toni Cade Bambara, among many others. This is a graduate level course open to undergraduates by permission of the instructor.
Also Offered As: ENGL 3514, LALS 3514
1 Course Unit

GSWS 3550 Latin American Cuir/Queer Critique
While certain debates around queer theory and queer studies have emphasized the problematics of a deployment of a North American field to other geopolitical spaces, this course takes a different approach by emphasizing how Latin America expands the notion of queerness while also contributes to the field of queer studies and queer theory at large. As such, the course emphasizes different manifestations of the non-normative from and within Latin America. Paying close attention to aesthetic practices as well as criticism, theory, and activism, students will be exposed to how Latin American literary and cultural practices labor a critique of hegemonic structures of visibility that simultaneously direct our senses to quotidian and communal strategies of survival. Students will engage with aesthetic artifacts, such as film, literature, manifestoes, poetry, performance, music, video and street art, and photography from Argentina, Brazil, Chile, Mexico, and Peru.
Also Offered As: LALS 3551
1 Course Unit
GSWS 3559 Gender and Sexuality in Japan
If you have ever wondered about the following questions, then this is the right course for you: Is Japan a hyper-feminine nation of smiling geisha and obedient wives? Is it a hyper-masculine nation of samurai and economic warriors? Is it true that Japanese wives control the household? Is it true that Japanese men suffer from over-dependence on their mothers? What do young Japanese women and young men worry about? What does the government think about the future of Japanese women and men? Assuming that expressions of gender and sexuality are deeply influenced by cultural and social factors, and that they also show profound differences regionally and historically, this course examines a variety of texts—historical, biographical, autobiographical, fictional, non-fictional, visual, cinematic, analytical, theoretical—in order to better understand the complexity of any attempts to answer the above questions.
Not Offered Every Year
Also Offered As: EALC 3559
1 Course Unit

GSWS 3600 The Planets in my Pen: Experiments in Writing, Visual Art & Performance
The Planets in my Pen is a multi-genre creative arts workshop constellated around experimentation. We will be looking at innovative writing, visual art and film as models for the making of poetry, fiction, memoir, drawing, painting, sculpture, installation, plays and performance. The genres, techniques and movements of science fiction, surrealism, performance art and the political essay will be key with an emphasis on feminist, queer, left and anticolonial models of art and world making. The works of William S. Burroughs, John Rechy, Nelly Santiago, Jean Genet, Ntozake Shange, Octavia Butler, Adrienne Kennedy, Lucrecia Martel, Aimé Césaire, Jamaica Kincaid, Regina Jose Galindo, Raul Ruiz, Josefina Baez, Zadie Smith and Cherríe Moraga will be among those read, viewed and studied. As their final project students will submit a final manuscript, performance and/or art object as well as participate in a public reading/viewing/screening.
Also Offered As: ENGL 3608, LALS 3600, THAR 3600
1 Course Unit

GSWS 3630 Here I/We Stand: Writing/Performing Self and Community
This writing for performance workshop will focus on the creation of plays, solo performance, collectively devised work, screenings and videos. Students can work in both the autobiographical mode common to one person shows, traditional theater and screenplay form as well as avant-garde and experimental techniques. We will write and use theater exercises to develop character and narratives that either directly or obliquely speak to the conditions of subjects who struggle to make art and sense out of self and community, history and society, memory and fantasy. We will read the work of playwrights and solo performers as well as view film and video with an emphasis on the work of leftist, feminist, queer/trans, BIPOC and social justice artists such as Jean Genet, Bertolt Brecht, Ntozake Shange, Adrienne Kennedy, Cherríe Moraga, Luis Alfaro, Holly Hughes, Kate Bornstein, Ana Mendieta, Valerie Solanas, Wallace Shawn, Tomata du Plenty, Teatro Campesino and ACT UP.
Also Offered As: ENGL 3630
1 Course Unit

GSWS 3651 Passion Projects: Radical Experiments in Writing Plays, Screenplays, and Pilots
This creative writing workshop will focus on writing for screen, stage and internet and is open to undergraduate and graduate students at every level of writing experience. The course will be writing intensive and also include the reading and analysis of feminist, trans, queer, working class and racially liberatory plays, films, television and performance as models of inspiration. Meditation, drawing, theater games, improv exercises, screenings and outings to see work on and off campus will round out this holistic and experimental approach to making work that illuminates and entertains audiences from across the US and global audience spectrum.
Also Offered As: ENGL 3651, LALS 3651
1 Course Unit

GSWS 3665 Fables from the Flesh: Black feminist movement and the embodied archive
Drawing inspiration from Harge's multiform fable project FLY | DROWN and Audre Lorde's conception of biomythography, students will trace their interiority to realize and imagine how personal histories, ancestral inheritance, and metaphysics live/move through the body. We will translate and transform stories of the flesh into a series of compositional modalities—which may include text, movement, performance, sound, and installation—to create lexicons that honor subjectivity as form. Informed by surrender, refusal, imagination, and self-sovereignty, we will situate our embodied archives as vessels for fable writing, create and correct myths through movement, and expand our relationship to memory, time, space, and illegibility. Throughout the course, we will turn to Black feminist literary and performance works employing fable, myth, and ancestral legacies including but not limited to: Toni Morrison's Beloved, Aretha Franklin's gospel music, Jaamil Olawale Kosoko's Chameleon, and a close reading of Harge's FLY | DROWN. The room will be grounded in practices of Black fellowship, moving between study group, kickback, ceremony, cypher, and incubator. We will oscillate between these formats depending on the needs of the course and the cohort.
Not Offered Every Year
Also Offered As: AFRC 3665, ANTH 3665
1 Course Unit

GSWS 3702 Feminism in the Americas
Students in this seminar will choose their own research topic in the history of feminism. With guidance and support each person will produce a twenty-page paper based on intensive work with primary sources. Readings will range across Latin America, the Caribbean, and the United States. We'll take a long view, beginning in the sixteenth century, and use an expansive frame. Our purpose will not be to decide who was or wasn't 'a feminist' but instead to try to understand actors within their contexts. Readings include scholarship on Sor Juana Inés de la Cruz, Sojourner Truth, the struggle for voting rights across national lines, opposition to dictatorship, and organizing against racism and homophobia. *For History Majors and Minors: Geographic requirement fulfilled by this seminar is dependent on research paper topic.
Fall or Spring
Also Offered As: HIST 3702, LALS 3702
1 Course Unit

GSWS 3831 Queer Art Seminar
This course explores art and art history from a Queer Studies perspective, in a global and cross-cultural context. Topics vary from semester to semester and stretch widely in terms of geography and chronology.
Also Offered As: ARTH 3831
1 Course Unit
GSWS 3890 Psychoanalysis and Autobiography
Both psychoanalysis and autobiography are ways of re-telling a life. Psychoanalysis is often called "the talking cure" because, as patients tell the analyst more and more about their lives (their thoughts, dreams, memories, hopes, fears, relationships, jobs, and fantasies), they start to recognize themselves in new ways, and this can help them overcome conflicts, impasses, bad feelings, and even psychiatric illnesses that have kept them from flourishing. Autobiographers do something similar as they remember, re-examine, and re-tell their lives - though one very important difference is that they do so, not privately in a psychoanalyst's office, but publicly in books that anyone may read. This seminar is a comparative exploration of these different ways of a re-telling a life. This seminar is usually team-taught by a humanities scholar and a practicing psychoanalyst.

Fall
Also Offered As: COML 3097, ENGL 0541
1 Course Unit

GSWS 3930 Cinema and Civil Rights
This undergraduate seminar will examine key moments in the history of civil rights through a cinematic lens. Over the course of the semester, we will explore how filmmakers have depicted the lives, aspirations, and struggles of those who have struggled for equal rights; how different struggles have intersected with each other; what aesthetic strategies have been adopted to represent freedom and the denial of it; and how effective cinematic efforts to contribute to increased freedom have been as well as what criteria we use to evaluate success or failure in the first place. Each week, we will watch a film and read a series of texts that will be drawn from a variety of arenas, including histories of civil rights; civil rights pamphlets and speeches; filmmaker interviews; film and media theory; memoirs; and theories of race, gender and sexuality. Course requirements: mutual respect; completion of all readings and screenings; participation in class discussion; weekly online responses; a final project that can be a research paper, film, art project, or community-based initiative.

Not Offered Every Year
Also Offered As: AFRC 3930, ARTH 3930, CIMS 3930, ENGL 0599
1 Course Unit

GSWS 3931 Participatory Community Media, 1970-Present
What would it mean to understand the history of American cinema through the lens of participatory community media, collectively-made films made by and for specific communities to address personal, social and political needs using a range of affordable technologies and platforms, including 16mm film, Portapak, video, cable access television, satellite, digital video, mobile phones, social media, and drones? What methodologies do participatory community media makers employ, and how might those methods challenge and transform the methods used for cinema and media scholarship? How would such an approach to filmmaking challenge our understanding of terms like "authorship," "amateur," "exhibition," "distribution," "venue," "completion," "criticism," "documentary," "performance," "narrative," "community," and "success"? How might we understand these U.S.-based works within a more expansive set of transnational conversations about the transformational capacities of collective media practices? This course will address these other questions through a deep engagement with the films that make up the national traveling exhibition curated by Louis Massiah and Patricia R. Zimmerman, We Tell: Fifty Years of Participatory Community Media, which foregrounds six major themes: Body Publics (public health and sexualities); Collaborative Knowledges (intergenerational dialogue); Environments of Race and Place (immigration, migration, and racial identities unique to specific environments); States of Violence (war and the American criminal justice system); Turf (gentrification, homelessness, housing, and urban space); and Wages of Work (job opportunities, occupations, wages, unemployment, and underemployment). As part of that engagement, we will study the history of a series of Community Media Centers from around the U.S., including Philadelphia's own Scribe Video Center, founded in 1982 by Louis Massiah, this course's co-instructor. This is an undergraduate seminar, but it also available to graduate students in the form of group-guided independent studies. The course requirements include: weekly screenings, readings, and seminar discussions with class members and visiting practitioners, and completing both short assignments and a longer research paper.

Also Offered As: AFRC 3932, ARTH 3931, CIMS 3931, COML 3931, ENGL 2970
Mutually Exclusive: ARTH 6931
1 Course Unit

GSWS 4000 GSWS Honors Thesis Seminar
This course is for senior undergraduate GSWS majors who will be completing an honors thesis. The seminar helps students decide on the most appropriate methodologies to use and topics to include in their thesis. Other topics include thesis organization and drawing conclusions from primary and secondary sources of data.

Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

GSWS 4333 Love and Sex in Buddhism
From monastic celibacy to sanctified sex, this course examines the wide variety of attitudes and practices towards love, desire, attachment, and pleasure in the Buddhist tradition. Readings include primary sources from South, Southeast, and East Asia, secondary scholarship on Buddhist social history and doctrine, and theoretical literature on gender, sex, and the body.

Spring, odd numbered years only
Also Offered As: RELS 3333
Mutually Exclusive: RELS 6333
Prerequisite: RELS 0050 OR RELS 1730 OR RELS 0130 OR RELS 0500 OR RELS 0790
1 Course Unit
**GSWS 4387 Black Feminist Approaches to History and Memory**
Topics vary. Black Feminist Approaches to History & Memory - The term black feminism emerged in public discourse amid the social, political, and cultural turbulence of the 1960s. The roots of black feminism, however, are much older, easily reaching back to the work of black women abolitionists and social critics of the nineteenth century. The concept continued to grow and evolve in the work of twentieth-century black women writers, journalists, activists, and educators as they sought to document black women's lives. Collectively, their work established black feminism as a political practice dedicated to the equality of all people. More recently, black feminism has been deployed as a tool for theoretical and scholarly analysis that is characterized by an understanding that race, class, gender, and sexuality are inextricably interconnected. Using materials such as slave narratives, social criticism, and archival sources, this course will explore the theoretical and practical applications of black feminist thought in nineteenth and twentieth-century North American culture and politics. In particular, we will consider the symbols and practices (storytelling, myth-making, art, archival research) that black women use to document lives. We will ask: how do these methods of documentation inform our understanding of the past and the production of historical knowledge? How can we understand black feminism as both theory and practice? And what are the implications of black feminist approaches for current research and scholarship? We will give particular attention to concepts such as gender, race, memory, the archive, and embodied knowledge to complicate our understanding of historical documentation, epistemology, and authenticity. The course material will include scholarship by Harriet Jacobs, Audre Lorde, Saidiya Hartman, Hazel Carby, Hershini Young, Evelyn Brooks Higginbotham, Toni Morrison, and others. (Image: From In Praise of Shadows, Kara Walker (2009). See the Africana Studies Department's website at https://africana.sas.upenn.edu for a description of the current offerings.

Fall or Spring
Also Offered As: AFRC 4387, HIST 0817, LALS 4387
1 Course Unit

**GSWS 4880 Topics: Culture, Sexuality and Global Health**
What does it mean to claim that "Homosexuality is un-African"? This course explores the linked histories of race, nation, gender and sexuality in Africa that such an ideological claim invokes, yet effaces. The polemics that produce statements like this play out through the disciplinary tensions that exist between African and sexuality/queer studies. These tensions have as much to do with the role played by the relation between sexuality and race within cultures of European colonization, as they have with the role of gender and sexuality within postcolonial power relations in Africa. Such antagonisms are sustained through the marginalization of gender and sexuality perspectives within postcolonial scholarship on Africa, as well as the bracketing of African perspectives in queer and feminist studies. This course will deconstruct these impasses by exploring scholarship at the margins of each area of study. Students will be encouraged to ask questions about how issues of race, ethnicity, nation, gender and sexuality are produced as suppressed presences in a range of texts, films, and other materials. The course will include readings from postcolonial, gender, sexuality and African studies, anthropology, history, literary studies and Marxism, giving students a grounding in historical and contemporary perspectives at the intersection of African, queer and feminist studies.

Fall
Also Offered As: AFRC 4880
1 Course Unit

**GSWS 4890 Fashioning Gender**
In 1901 the average American family spent 14% of their annual income on clothing. By 1929, the average middle-class woman owned a total of nine outfits. Fast forward to the early twenty-first-century, where the relative price of clothing has dropped, clothing has become virtually disposable, and individuals post videos of their shopping hauls online. This course will examine how we got here, why fashion matters, and the far-reaching implications of our love affair with clothes. Readings and topics will include foundational theory about fashion; how clothes shape class, gender, and identity; the significance of revolutionary designers such as Vivienne Westwood and Rei Kawakubo; and the evolution of the clothing industry and its place in the global economy.

Not Offered Every Year
1 Course Unit

**GSWS 4999 Independent Study**
Upper level undergraduate independent study. Course description and materials will be decided on case by case basis upon discussion with student, GSWS Associate Director and/or faculty member.

Fall or Spring
1 Course Unit

**GSWS 5020 Brujas and Blackness: Transnational Feminist Perspectives on AfroLatinidad**
Blackness and brujería are taboo topics within Latinx communities; both typically connote negative imagery and are actively avoided. Recently, the bruja identity has been reclaimed by many AfroLatinx women who see it as an outward expression of their AfroLatinidad and source of personal empowerment. Lara (2005) describes this as a bruja positionality – “the re-membering, revising, and constructing of knowledge as well as participation in other forms of social change...built on healing the internalized desconocimientos that demonize la Bruja and the transgressive spirituality and sexuality that she represents” (p 13). Latinx spiritual practices such as espiritismo, Santeria, Palo Monte, among others, will become avenues through which will explore key themes in Black/Latina/Chicana feminisms, including the politics of representation, stigmatization, multiple forms of state and interpersonal violence, intersecting forms of oppression, economic justice, reproductive justice, queerness/sexuality/lesbianism, and strategies of empowerment and resistance. Through a variety of course materials – academic articles, personal reflections, performance, and art – we will critically examine the construction of Afro-indigenous feminist identities within the contexts of Latin America and the diaspora.

Fall, Spring, and Summer Terms

Also Offered As: AFRC 5020, LALS 5020
1 Course Unit
GSWS 5050 Women and Urban Struggles in Latin America
In Latin America, 80% of the population lives in a city. As many of these cities enter the worldwide competition for attracting networks and capitals—and to join the select club of the so-called global cities—many city residents become progressively dispossessed and excluded to the peripheries, where urban services are rarely adequate. Power relations of class, race, and gender play an essential role in how dispossession is orchestrated in the city and experienced by its residents. This course focuses on how women, specifically, find ways to “endure” in the cities of Latin America, exploring different cases of urban struggles led by women. Across the region, many have been pointing out the extraordinary leadership of women in a wide variety of political struggles—often occupying public places, to denouncing the disappearance of loved ones, and to community organizing that helps build necessary infrastructure in their neighborhoods. Women are also at the forefront of environmental and ecological transformations, leading initiatives to green their city through urban agriculture, reforestation, recycling, and compost projects. Addressed through a holistic approach to caring, these initiatives are embedded in broader struggles for housing, security, and wellness, specifically in the urban peripheries. The contingency of these projects is, at their core, multifaceted: they are typically part of women’s implication in popular education, activism, and human rights defense. During this course, we will explore and analyze how the specific urban contexts of Latin America affect women and their political subjectivities and how, through their struggles, they play an essential role in re-shaping their cities.
Not Offered Every Year
Also Offered As: LALS 5050, URBS 5050
1 Course Unit

GSWS 5090 Topics in Yiddish Literature: Modernist Jewish Poetry
One version of this seminar considers works by Jewish women who wrote in Yiddish, Hebrew, English, and other languages in the late 19th through the 20th century. The texts, poetry and prose, will include both belles lettres and popular writings, such as journalism, as well as private works (letters and diaries) and devotional works. The course will attempt to define “Jewish writing,” in terms of language and gender, and will consider each writer in the context of the aesthetic, religious, and national ideologies that prevailed in this period. Because students will come with proficiency in various languages, all primary texts and critical and theoretical materials will be taught in English translation. However, those students who can, will work on the original texts and share with the class their expertise to foster a comparative perspective. Because we will be discussing translated works, a secondary focus of the course will, in fact, be on literary translation’s process and products. Another version of this seminar presents Jewish modernism as an international phenomenon of the early 20th century. The course will attempt to define “Jewish modernism” through the prism of poetry, which inevitably given the historical events in Europe and America during this time, grapples with aesthetic, religious, and national ideologies and methods. The syllabus will focus mainly on poetry written in Yiddish and English, and will also include German, Russian, and Hebrew verse. All poetry, critical, and theoretical materials will be taught in English translation, although students who know the languages will work on the original texts and will bring to the table a comparative perspective. Because we will be discussing translated poems, a secondary focus of the course will, in fact, be on literary translation’s process and products.
Not Offered Every Year
Also Offered As: COML 5090, GRMN 5090, JWST 5090, YDSH 5090
1 Course Unit

GSWS 5100 Inner Outer Space Travel Writing: A Creative Writing Workshop
Inner Outer Space Travel Writing is a creative writing workshop focused on writing work within the science fiction/speculative fiction/alternative futurities, science/land/travel writing, and creative-critical nonfiction traditions. Students will work within a variety of genres, with an emphasis on the essay, the short story, screen/tele-play, play, blog and performance. Students will read recommended texts from within their particular interests, and the course will culminate in both a public performance and dissemination/publication via another media platform (zine, website, podcast, etc). All levels of experience, from none/first-time writer to published writers, are encouraged to register for the course.
Not Offered Every Year
Also Offered As: LALS 5100
1 Course Unit

GSWS 5120 Passion Projects: Radical Experiments in Writing Plays, Screenplays, and Pilots
This creative writing workshop will focus on writing for screen, stage and internet and is open to undergraduate and graduate students at every level of writing experience. The course will be writing intensive and also include the reading and analysis of feminist, trans, queer, working class and racially liberatory plays, films, television and performance as models of inspiration. Meditation, drawing, theater games, improv exercises, screenings and outings to see work on and off campus will round out this holistic and experimental approach to making work that illuminates and entertains audiences from across the US and global audience spectrum.
Not Offered Every Year
Also Offered As: LALS 5121
1 Course Unit

GSWS 5140 Writing Towards Transformation
Writing Towards Transformation is a critical and creative writing workshop focused on developing works across genres that express and elaborate upon current and historical conditions of crisis and injustice. Using guided meditation, critical feedback and healthy, ethical discussion, the students of the class will develop manuscripts of poems, short stories, essays, plays and/or screenplays that in some way articulate their analysis of the present and the past towards a transformative future. We will read essays, manifestos, theater and fiction as well as view films that will hopefully inspire each student to develop texts and scripts of hope. Writers used as models of inspiration will include Gary Indiana, Valerie Solanas, June Jordan, Bertolt Brecht, Cherrie Moraga, Leslie Feinberg and Toni Cade Bambara, among many others. This is a graduate level course open to undergraduates by permission of the instructor.
Not Offered Every Year
Also Offered As: LALS 5140
1 Course Unit
GSWS 5150 Queer Francophone Cinema
Taught in English. This course will survey queer cinema in French from around the world, examining cult classics beside established masterpieces and avant-garde aesthetics alongside more mainstream productions in order to probe how film participates in both the representation and the formation of LBGT epistemologies and identities. Tracing the lineage of queer French cinema from Jean Genet's and Jean Cocteau's A Song of Love (Un Chant d'amour, 1950) to Christophe Honore's Love Songs (Les Chansons d'amour, 2007), the course will cover a variety of films from France (by Francois Ozon, for example), Belgium (Chantal Akerman), Morocco (Abdellah Taia), Quebec (Xavier Dolan and Lea Pool) and elsewhere. Theoretical and critical perspectives will be provided by Judith Butler, Eve Kosofsky Sedgwick, Jose Esteban Munoz, Jack Halberstam and others. No previous knowledge of cinema studies, queer studies or Francophone cultures is assumed. The course will meet for two and a half hours weekly by Zoom, complemented by asynchronous discussion of assigned film excerpts, which students will annotate online.
Also Offered As: CIMS 5250
1 Course Unit

GSWS 5180 Nursing and the Gendering of Health Care in the United States and Internationally, 1860-2000
This course examines changing ideas about the nature of health and illness; changing forms of health care delivery; changing experiences of women as providers and patients; changing role expectations and realities for nurses; changing midwifery practice; and changing segmentation of the health care labor market by gender, class and race. It takes a gender perspective on all topics considered in the course. A comparative approach is used as national and international literature is considered. This focus is presented as one way of understanding the complex interrelationships among gender, class, and race in health care systems of the United States and countries abroad.
Spring
Also Offered As: NURS 5180
1 Course Unit

GSWS 5200 Art, Sex and the Sixties
With a distinct emphasis on performance, film, installation art, video and painting, this course explores the explosion of body-based, nude and erotic work from the 1950 to the 1970s, with particular focus on the 1960s. And it seeks to explore this dynamic not only within the familiar confines of North America and Europe but within Latin America and Asia, too, in what was a nearly simultaneous international emergence of the erotic as a political force in the art world. Reading a range of key voices from Frankfurt School philosopher Herbert Marcuse, to performance artists Carolee Schneemann and Yoko Ono, Neo-Freudian theorist Norman O. Brown and Brazilian theorist and poet Oswald de Andrade, we will examine how and why sexuality became a privileged form of politics at this historical juncture in a range of different contexts across the globe. We will pay particular attention to how and why an art about sex became a camouflaged form of political dissidence in the confines of repressive political dictatorships, as were then rising in Brazil, Argentina and ultimately Chile. Students interested in feminist, gender or queer theory, Latin American Studies, social revolution, performance studies, post war art and Frankfurt School thought should find the course particularly appealing, but it assumes no background in any of these fields.
Fall or Spring
Also Offered As: ARTH 5830, CIMS 5830, LALS 5830
1 Course Unit

GSWS 5240 Topics in Medieval Studies
This course covers topics in Medieval literature. Its emphasis varies with instructor. See the English Department's website at www/english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
Also Offered As: COML 5240, ENGL 5240
1 Course Unit

GSWS 5260 The Trouble with Freud: Psychoanalysis, Literature, Culture
For professionals in the field of mental care, Freud's work is often regarded as outmoded, if not problematic psychologists view his work as non-scientific, dependent on theses that cannot be confirmed by experiments. In the realm of literary and cultural theory, however, Freud's work seems to have relevance still, and is cited often. How do we understand the gap between a medical/scientific reading of Freud's work, and a humanist one? Where do we locate Freud's relevance today? The graduate course will concentrate on Freud's descriptions of psychoanalytic theory and practice, as well as his writings on literature and culture.
Not Offered Every Year
Also Offered As: COML 5260, GRMN 5260
1 Course Unit

GSWS 5270 Market Women, Madames, Mistresses and Mother Superior
Market Women, Madames, Mistresses & Mother Superior studies gender, labor, sexuality, and race in the Caribbean. In our historical examination of primary source documents alongside literature, and popular media, we will question some of the iconic representations of Caribbean and Latin American women in order to understand the meaning, purpose and usages of these women's bodies as objects of praise, possession, obsession and/or ridicule by communities, governments and religions within and outside of the region. Beginning in the late-18th century and ending with contemporary migration narratives, this course considers the relationship between slave society and colonial pasts on gender performance in the modern Caribbean, Latin America, and their diasporas.
Fall or Spring
Also Offered As: AFRC 5270, LALS 5270
1 Course Unit
GSWS 5280 Witchcraft and Gender in the Early Modern World
From the 15th century through the 18th century, social tensions erupted in Europe and the Atlantic colonies in the witch craze, a period when intense cultural concern over witchcraft was expressed through religious treatises and sermons, popular literature such as pamphlets and broadsides, legal accusations, trials, and, in some cases, executions. Although the number of people executed during the witch-hunts is a matter of scholarly debate, their importance in understanding early modern beliefs and responses to social tensions is clear. In this class, we will explore historians' understandings of the causes underlying this cultural phenomenon. With special attention to gender, social position, and religious belief, we will join academic debates about the causes of these persecutions. We will also read some primary sources from the medieval through the early modern periods, including trial transcripts, sermons, and pamphlets. Were women the main target of witchcraft accusations and executions, and if so, was misogyny their most important cause? What role did sexual norms and beliefs have in the way that accusations were framed? Were there different patterns of accusations and executions across time and region, and if so, what social and cultural factors might explain them? In what ways were witchcraft accusations an effort to control marginal people in local communities, particularly in regard to gender, socio-economic position, and age? How might religious developments and conflicts have influenced elite and popular ideas about witchcraft? What challenges do historians face in analyzing primary sources about witchcraft and witchcraft trials? Through in class discussions and threaded discussion forums on primary sources, students will learn about the challenges involved in interpreting sources including treatises, trial transcripts, pamphlets, and images.
Not Offered Every Year
1 Course Unit

GSWS 5290 History of Sexuality
In this online course, we will consider the impact of social, economic, and political conditions on social constructions of sexuality, from the classical world of Greece and Rome, to the early modern West, to the streets of Victorian London and 1920s New York. Topics of interest include: the prostitutes of New Orleans’ Storyville district; Jack the Ripper and sensational media accounts of crimes of passion; the taverns and bawdy houses of colonial Philadelphia; cases of sexual misconduct in premodern Europe, Latin America, and colonial America; the history of sexual harassment in the American workplace; the history of hermaphrodites and transgendered people; JFK and representations of 20th-century masculinity. We will pay special attention to the ways that race, class, religion, and gender come together to shape power dynamics through the development, change, and continuity in sexual roles, norms, and relationships.
Summer Term
1 Course Unit

GSWS 5300 Latin American Sexual Movements
This course explores significant sexual movements in Latin America that destabilized the idea of nation formation and its frames of citizenship. From the 1960s and on, we will analyze and study homosexual, lesbian, and feminist irruptions of contestation from Argentina, Chile, Mexico, and U.S. and how their interruption in the social, public, and political sphere changed sexual and reproductive rights.
Summer Term
Also Offered As: LALS 5300
1 Course Unit

GSWS 5310 Gendered Constructions of Other Cultures in Western Travel Literature
Descriptions of peoples from foreign lands and faraway places have captured the imaginations of Europeans for centuries. Pilgrims and merchants, explorers and conquistadores, Victorians taking their Grand Tour and 21st-century travelers have preserved their observations, both in written form, in ethnographies and diaries, novels and travel narratives, and in visual form, in maps, illuminated manuscripts, engravings, and photographs. Through these media, these travelers have not simply captured their memories, but have also helped to shape Western representations of the people they encountered, often justifying Western political, economic, cultural, and social dominance as a result, although some travelers have critiqued the West instead. And in all these depictions, gender and sexuality have played central roles in the creation of these identities and relationships. In this online course, we will explore this topic by studying a variety of primary and secondary sources focusing on medieval Ireland and Wales; English, Spanish, and Portuguese texts representing the New World and indigenous Americans; orientalism through the lens of imperial representations of the Middle East, India, and Africa; and 20th- and 21st-century representations of a globalized world, focusing on political, economic and cultural tensions between the West and other regions of the world. Primary texts will include travel diaries and narratives, ethnographies and novels, as well as visual images. We will also examine how scholars from fields including anthropology, art history, cultural studies, history, and literary studies have analyzed these works, with attention to theories on colonialism and post-colonialism, gendered and queer readings, orientalism and othering, and globalization. Finally, we will also look at how some of the people who were described by the Western writers described Westerners themselves. Assignments will include weekly blogs in response to readings, primary source threaded discussions, live discussions every week in our online classroom, leading class discussion for two weeks, writing two response papers, and completing a final essay in several stages.
Not Offered Every Year
1 Course Unit
GSWS 5460 Women's Writing in French, 1160–1823

In this course, we will examine a representative sample of premodern women's writing in French, beginning in the Middle Ages and concluding in the Revolutionary Era. The authors studied come from differing walks of life, social classes, and religious and political identifications, and they express themselves in a wide variety of genres, including short stories, fairy tales, lyric poetry, letters, plays, and novels. Despite their many differences, these authors are united by a common tendency to question a centuries-old tradition of misogynistic discourse, patriarchal social order, and gender normativity. Authors to be studied include: - Marie de France (ca. 1160), a brilliant storyteller and poet attached to the court of Henry II of England whose fabulous tales, arguably an early form of speculative fiction, imagine alternatives to the rigidity of arranged marriages and the heterosexual couple. - Christine de Pizan (1364–ca. 1430), a court writer for Charles VI of France and several other powerful patrons who is often considered France's first professional female writer. Her Livre de la Cité des Dames (Book of the City of Ladies) systematically refutes the misogynistic pronouncements of learned male authors and holds up devotion and religious life as alternatives to accepting the assigned role of wife and mother. - Marguerite de Navarre (1492–1549), the sister of Francis I of France and a prolific author of devotional poetry, plays, and the Heptaméron, a collection of tales modeled on Boccaccio's Decameron and known for its often shocking subject matter. Throughout her oeuvre, she calls into question the social perception of women rooted in misogynistic discourse, as well as the tendency to blame sexual violence on women, while at the same time revealing the potential danger of masculinity for men and women alike and envisioning Pauline Christianity as a means of radical equality. - Pernette du Guillet (1520–1545), Louise Labé (c. 1524–1566), and Anne de Marquets (1533–1588), three poets who respond to and write against the male-centered tradition of Petrarchan love poetry. Guillet and Labé stand out for their frank and often sensual depictions of female desire and sexuality in spite of taboos against their public expression, while Marquets, a Dominican nun at the convent of Poissy, combines Petrarchan, devotional, and mystic tropes to envision religious life as an alternative to the heteronomativity of lay French society and the Protestant Reformation. - Madame de Lafayette (1634–1693) and Madame de Sévigné (1626–1696), whose writings are of monumental importance in the history of literature in French as well as invaluable testimonies to the role played by women in the intellectual developments of the early modern period, including salons, Jansenism, and free-thinking (libertinism). - Gabrielle-Suzanne de Villeneuve (1685–1755), author of the first known version of La belle et la bête (Beauty and the Beast), who, along with other female authors of fairy tales, used the conventions of the genre to challenge social conventions and criticize the treatment of women. - Claire de Duras (1777–1828), whose novel Ourika, much like Villeneuve's La belle et la bête, shows how feminist concerns might intersect with colonialism and race; a bestseller in its day, it is one of the first works in French to feature a complex and articulate black narrator and what many scholars consider to be a modern outlook on race and identity. To provide historical and theoretical context, these readings will be supplemented with relevant primary and secondary sources, as well as with modern and contemporary adaptations, such as illustrations and films. The course is open to graduate students and to advanced undergraduates with permission of the instructor. Discussions will be in English. Readings will be made available both in the original French and in English translation, and final papers may be written in English or in French.

Also Offered As: COML 5460, FREN 5460
1 Course Unit

GSWS 5500 Etudes sur le XVIIe siècle

The specific topics of the seminar vary from semester to semester, depending on the instructor and his/her choice. Among the topics previously covered, and likely to be offered again, are the following: The Theatre of Jean Racine, Fiction of Mme de Lafayette, The Moralists (La Bruyere, La Rochefoucauld, Perrault), Realistic Novels (Sorel's Francion, Scarron’s Le Roman Comique, Furetiere's Le Roman Bourgeois). Students give oral and written reports, and write a term paper.

Not Offered Every Year
Also Offered As: COML 5500, FREN 5500
1 Course Unit

GSWS 5520 Affect Theory and Power

This seminar will examine contemporary affect theory and its relationship with Michel Foucault's theory of power. We will begin by mapping out Foucault's "analytics of power," from his early work on power knowledge to his late work on embodiment, desire, and the care of the self. We will then turn to affect theory, an approach which centralizes the non-rational, emotive force of power. No previous knowledge of theory is required.

Also Offered As: COML 5520, RELS 5520
1 Course Unit

GSWS 5560 More Human Than Human

In early 2017, animal rights lawyer Steve Wise argued that two of his clients should be afforded the rights of "personhood." The clients in question were chimpanzees. This case suggests that "speciesism" might soon be met with the same degree of suspicion as sexism and racism. This course will explore how such a shift could come about and what it might signal. We will begin by examining the western foundations of binaries such as human-animal, male-female, and self-other. From here we will explore recent attempts to dismantle these constructs by ecofeminists and post-humanists. We will also look at how such categories have manifested in social movements and cultural artifacts. Finally, we will investigate how our beliefs about who "we" are and what "we" are not can affect everything from the foods we eat to where and how we vacation.

Not Offered Every Year
1 Course Unit

GSWS 5680 Gender, Power & Feminist Theory

This seminar will examine the theme of power as it engages questions of sex and gender. Subsidiary themes that will be developed over the course of the semester include: the modernism/ postmodernism debate as it particularly relates to feminism; the intersectionality of race, gender, sexuality and class and how feminists can and do talk about "women"; the relevance of feminist theory to policy issues, and which theoretical approaches are the most appropriate or have the most powerful potential. The readings will start with "foundational" texts in feminist theory--texts that anyone who wants to work in or teach feminist theory needs to have in their repertoire, they set out the background and history of contemporary feminist theory, and they operate from a variety of disciplinary frameworks. We will then move onto some newer scholarship and some more specific political issues and topics, depending on what students in the course are interested in studying. This course is open to undergraduates who have had some prior course work in feminist theory, gender and sexuality studies, and/or political theory, in consultation with the professor.

Not Offered Every Year
Also Offered As: PSCI 5680
1 Course Unit
GSWS 5720 Language and Gender
This course traces the development of research on language and gender, introducing key theoretical issues and methodological concerns in this area. Participants will consider how gender ideologies shape and are shaped by language use, with particular attention to how research findings can be applied to educational and other professional settings. Not Offered Every Year
Also Offered As: EDUC 5240
1 Course Unit

GSWS 5780 Sexuality of Postmodernism
This course is fundamentally concerned with why so many of the defining artists of the postwar generation were queer; indeed such that one could plausibly claim that postmodernism in American art was a queer innovation. Centrally, most of these artists raise the problem of authoriality and its discontents. Deploying a combination of social-historical and theoretical texts, we will approach the problem of the disclaiming of authoriality in post-war American art, focusing on the works of John Cage, Robert Rauschenberg, Jasper Johns, Cy Twombly, Robert Indiana, Louise Nevelson, Ellsworth Kelly, Agnes Martin, Leon Polk Smith and at least Andy Warhol. Central to this course will be the continuing salience of the “death of the author” discourse, pioneered in literature by Barthes and Foucault, and in art by every one of the artists we will be examining. What, in short, is the relationship between the rise of an anti-biographical, anti-auteurial theoretical framework, and the lived histories of so many queer authors? In asking this question, we are of course self-consciously violating the very premise of one key strand of postmodernist critique—and in so doing attempting to historicize a theoretical frame that is strikingly resistant to historical analysis. (Undergraduates interested in the course should contact Professor Katz.) Not Offered Every Year
Also Offered As: ARTH 5800
1 Course Unit

GSWS 5790 Provocative Performance
What is feminist theatre? How do artists use live performance to provoke not only thought and feeling, but also social, personal, and political change? This course will examine a wide array of plays and performances by and about women; these pieces are, in turn, serious, hilarious, outrageous, poignant—and always provocative. Our focus will be on English-language works from the late 20th century to the present (#metoo) moment. We will read these performance texts and/or view them on stage/screen; we will also read essays that provide contextual background on feminist theatre theory and history. Throughout the semester, we will engage diverse perspectives on women and race, ethnicity, class, sexuality, and gender identity; the issues we encounter will also include marriage and motherhood, career and community, feminism and friendship, and patriarchy and power. The class will take full advantage of any related events occurring on campus or in the city, and will feature visits with guest speakers. Students will have the opportunity to pursue research on their own areas of interest (some recent examples are “women in comedy,” trans performance, drag kings, feminist directing, etc.). Not Offered Every Year
Also Offered As: ENGL 5790, THAR 5790
1 Course Unit

GSWS 5791 Globalism and National Identity in the Americas
This course examines the way that issues of universal, global, and national identity have been negotiated and challenged in art and visual culture of the Americas. It also aims to give students an introduction to the various theories and methodological practices that have been used to critique and explain these images and objects since the end of WWII. This course is open to graduate students and undergraduate students with permission of the instructor. Not Offered Every Year
Also Offered As: AFRC 5791, ARTH 5791, LALS 5791
1 Course Unit

GSWS 5792 Biography and Art History
Beginning with the ancient Greeks, people have created specific biographical structures as a way to understand and explain the artistic process. Artists have often been labeled as natural prodigies possessing creative powers on par with the divine. This seminar will examine the role that biography plays in the assessment of visual art and the creative process over time and across European and American culture. During the semester we will read art historical texts, watch biographical films, and debate the historical and post-structuralist critical theory that has helped to shape the current cultural construction of the artist. Throughout the seminar we will discuss the underlying debates around these various approaches to biography. This course is open to graduate students and undergraduate students with permission of the instructor. Not Offered Every Year
Also Offered As: AFRC 5792, ARTH 5792, CIMS 5792, LALS 5792
1 Course Unit

GSWS 5810 Advanced Psychology of Women
The course is intended for those who already have a foundation in the study of the psychology of women and want to expand their understanding of the provision of psychological services to include a contextual, feminist, and relational perspective. Theoretical and applied practices regarding women's mental health, issues of diversity, sexuality and relationships for women will be addressed. Prerequisite: Introduction to Psychology and an undergraduate course in the Psychology of Women or approval by professor. Also Offered As: EDUC 5581
1 Course Unit

GSWS 5850 Fashioning Gender
In 1901 the average American family spent 14% of their annual income on clothing. By 1929, the average middle-class woman owned a total of nine outfits. Fast forward to the early twenty-first century, where the relative price of clothing has dropped, clothing has become virtually disposable, and individuals post videos of their shopping hauls online. This course will examine how we got here, why fashion matters, and the far-reaching implications of our love affair with clothes. Readings and topics will include foundational theory about fashion; how clothes shape class, gender, and identity; the significance of revolutionary designers such as Vivienne Westwood and Rei Kawakubo; and the evolution of the clothing industry and its place in the global economy. Fall
1 Course Unit
GSWS 5880 The Politics of Women's Health Care
This course will utilize a multidisciplinary approach to address the field of women's health care. The constructs of women's health care will be examined from a clinical, as well as sociological, anthropological and political point of view. Topics will reflect the historical movement of women's health care from an obstetrical/gynecological view to one that encompasses the entire life span and life needs of women. The emphasis of the course will be to undertake a critical exploration of the diversity of women's health care needs and the past and current approaches to this care. Issues will be addressed from both a national and global perspective, with a particular focus on the relationship between women's equality/inequality status and state of health. This course satisfies the Society & Social Structures Sector for Nursing Class of 2012 and Beyond.
Fall
Also Offered As: NURS 5880
1 Course Unit

GSWS 5930 Classical Film Theory
At a moment when contemporary film and media theory has become increasingly interested in how earlier film theories can help us understand our moment of transition, this course will give students the opportunity to read closely some of those key early texts that are preoccupied with questions and problems that include: the ontology of film, the psychology of perception, the transition to sound, the politics of mass culture, realism, and ethnography. Course requirements: ; completion of all readings and screenings; participation in class discussion; weekly online responses; 20-25 page paper.
Not Offered Every Year
Also Offered As: ARTH 5930, CIMS 5930, COML 5930, ENGL 5930
1 Course Unit

GSWS 5931 Contemporary Film Theory
In this course, we will dig in to a variety of contemporary film theory debates in the context of earlier texts with which they engage or against which they define themselves. We will also watch films weekly and consider the relationship between theory and practice. Course requirements: ; completion of all readings and screenings; participation in class discussion; weekly online responses; 20-25 page paper.
Not Offered Every Year
Also Offered As: ARTH 5931, CIMS 5931, ENGL 5931
1 Course Unit

GSWS 5932 The Place of Film and Media Theory
Taking its title from a recent special issue in the journal Framework, this seminar will engage the where of film and media theory. At a moment when this discourse, often presumed to have roots in Anglo and Western European traditions, is purportedly undergoing a global turn, we will consider how some of film and media theory’s key terms and preoccupations including realism, documentary, genre, identity, sound, spectatorship, nation, auteur, and screens are being inflected by expanded geographic, linguistic, aesthetic and cultural frames. We will grapple with some of the logistical challenges, motivations, resistances, and questions that scholars encounter as they attempt to shift film and media theory’s borders; compare contemporary efforts to broaden the discourse’s geographic horizon with earlier efforts to do the same; and consider what happens to the viewer’s sense of space and place in different media environments. Course requirements: full participation in readings, screenings, discussion, and class presentations; 20-25 page research paper + annotated bibliography.
Not Offered Every Year
Also Offered As: ARTH 5932, CIMS 5932, ENGL 5932
1 Course Unit

GSWS 5933 Cinema and Media Studies Methods
This proseminar will introduce a range of methodological approaches (and some debates about them) informing the somewhat sprawling interdisciplinary field of Cinema and Media Studies. It aims to equip students with a diverse—though not comprehensive—toolbox with which to begin conducting research in this field; an historical framework for understanding current methods in context; and a space for reflecting on both how to develop rigorous methodologies for emerging questions and how methods interact with disciplines, ideologies, and theories. Students in this class will also engage scholars participating in the Cinema and Media Studies colloquium series in practical discussions about their methodological choices. The course’s assignments will provide students with opportunities to explore a particular methodology in some depth through a variety of lenses that might include pedagogy, the conference presentation, grant applications, the written essay, or an essay in an alternative format, such as the graphic or video essay. Throughout, we will be trying to develop practical skills for the academic profession. Although our readings engage a variety of cinema and media objects, this course will be textually based. No prior experience needed. The course is open to upper-level undergraduates with relevant coursework in the field by permission of instructor only. Course Requirements: Complete assigned readings and actively participate in class discussion: 20%; Reading responses: 10%; Annotated bibliography or course syllabus on a particular methodology: 20%; SCMS methodology-focused conference paper proposal according to SCMS format: 10%; Research paper, grant proposal, or essay in an alternative format using the methodology explored in the syllabus or bibliography: 40%.
Fall
Also Offered As: ARTH 5933, CIMS 5933, COML 5940, ENGL 5933
1 Course Unit

GSWS 5940 Topics in Contemporary Art
Topics vary. The primary for this course is the Art History Department. For a course description please see their website: http://www.sas.upenn.edu/arthistory/courses
Not Offered Every Year
1 Course Unit

GSWS 5980 Theories of Gender & Sexuality
This course addresses the history and theory of gender and sexuality. Different instructors will emphasize different aspects of the topic. See the English Department's website at www.english.upenn.edu for a complete description of the current offerings.
Also Offered As: COML 5980, ENGL 5980
1 Course Unit

GSWS 5999 Independent Study
Graduate level independent study. Course description and materials will be decided on case by case basis upon discussion with student, GSWS Associate Director and/or faculty member.
Fall or Spring
1 Course Unit

GSWS 6120 LGBT Counseling & Development
In the past quarter century, the awareness of the unique issues facing lesbian, gay, bisexual and transgender (LGBT) individuals has expanded and become essential knowledge in our work as educators, providers of psychological services, and other service provision fields. This course provides a contextual and applied understanding of the interactional processes facing LGBT individuals.
Not Offered Every Year
Also Offered As: EDUC 6512
1 Course Unit
GSWS 6400 Studies in the Renaissance
Topics vary. Previous topics have included Rabelais and M. de Navarre, Montaigne, and Renaissance and Counter-Renaissance. Please see the department’s website for the current course description: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: COML 6400, FREN 6400
1 Course Unit

GSWS 6550 Black Political Thought: Difference And Community
This course is designed to familiarize graduate students with some of the key texts and debates in Africana Studies concerning the relationship between racial slavery, modernity and politics. Beginning with the Haitian Revolution, much of black political thought (thinking and doing politics) has advocated group solidarity and cohesion in the face of often overwhelming conditions of servitude, enslavement and coercion within the political economy of slavery and the moral economy of white supremacy. Ideas and practices of freedom however, articulated by political actors and intellectuals alike, have been as varied as the routes to freedom itself. Thus, ideas and practices of liberty, citizenship and political community within many African and Afro-descendant communities have revealed multiple, often competing forms of political imagination. The multiple and varied forms of political imagination, represented in the writings of thinkers like Eric Williams, Richard Wright, Carole Boyce Davies and others, complicates any understanding of black political thought as having a single origin, genealogy or objective. Students will engage these and other authors in an effort to track black political thought’s consonance and dissonance with Western feminisms, Marxism, nationalism and related phenomena and ideologies of the 20th and now 21st century.
Also Offered As: AFRC 6550, LALS 6550
1 Course Unit

GSWS 6650 Fables from the Flesh: Black feminist movement and the embodied archive
Drawing inspiration from Harge’s multiformal fable project FLY | DROWN and Audre Lorde’s conception of biomythography, students will trace their interiority to realize and imagine how personal histories, ancestral inheritance, and metaphysics live/move through the body. We will translate and transform stories of the flesh into a series of compositional modalities—which may include text, movement, performance, sound, and installation—to create lexicons that honor subjectivity as form. Informed by surrender, refusal, imagination, and self-sovereignty; we will situate our embodied archives as vessels for fable writing, create and correct myths through movement, and expand our relationship to memory, time, space, and illegibility. Throughout the course, we will turn to Black feminist literary and performance works employing fable, myth, and ancestral legacies including but not limited to: Toni Morrison’s Beloved, Aretha Franklin’s gospel music, Jaamil Olawale Kosoko’s Chameleon, and a close reading of Harge’s FLY | DROWN. The room will be grounded in practices of Black fellowship, moving between study group, kickback, ceremony, cypher, and incubator. We will oscillate between these formats depending on the needs of the course and the cohort.
Not Offered Every Year
Also Offered As: AFRC 6665, ANTH 6665
Mutually Exclusive: ANTH 3665
1 Course Unit

GSWS 6780 Gender and Sexuality in Education
This seminar gives an overview of the intersections and interplay among gender, sexuality, and education through theory, practice, current discussions, and analysis of varied contexts in English speaking countries (e.g. the United States, Canada, Great Britain, and Australia). After examining the theoretical foundations of genders and sexualities, we will look at their histories and effects in K-12 schools and colleges and universities as well as explore special topics.
Fall
Also Offered As: EDUC 6178
1 Course Unit

GSWS 6870 Postwar Art
At a time of seismic shifts in the American politiy, postwar art has too often seemed above the fray. Even as New York came to replace Paris as the epicenter of art world in the post war period, the rapid succession of styles and movements from Abstract Expressionism to Neo-Dada, Pop Art, Minimalism, Conceptual Art and Happenings can seem to have their own internal logic, severed from the historical backdrop of the time. Some of the artists we’ll consider include Pollock, Krasner, Rauschenberg, Johns, Warhol, Kusama, Martin, Lichtenstein, Bearden, Oldenburg, LeWitt, Chicago and Judd. In this course, we’ll reexamine American art and art criticism in the postwar period alive to everything from the Cold War’s virulent anti-communism to the rise of progressive liberation movements around race, ethnicity, sexuality, and gender. In the process, we will repeatedly underscore how art both served, and bit, the hand that fed it.
Also Offered As: ARTH 6870
1 Course Unit

GSWS 6910 Transatlantic Black Feminisms in Francophone Literatures
This course explores the evolution of representations of the Black femme body in French and francophone imaginaries, tracing a chronological arc that begins with early colonial imagery and ends with the rise of a 2018 movement spearheaded by a collective of Black comediennes, denouncing exclusionary practices in the French entertainment industry. We will first focus on the male gaze — European, Caribbean and African — and the way it constructed the Black femme body, to better understand how Black female authors undermine, resist, parody, or continue to bear the weight of these early images when they take control of their own representation. While our primary readings will be authored by French-writing women, including Mayotte Capcia (Martinique), Marie Vieux-Chauvet (Haiti), Maryse Condé (Guadeloupe), Mariama Bâ (Senegal) and Marie Ndiaye (France), our theoretical foundation will include anglophone thinkers, such as bell hooks, Audre Lorde, Saidiya Hartman, and others. Readings and discussions will be in English.
Also Offered As: AFRC 6910, COML 6910, FREN 6910
1 Course Unit

GSWS 7762 Women in South Asia
This course on women in South Asian history has several objectives. To comprehend the genres of narratives in which South Asian women between the sixteenth and twentieth centuries have spoken and have been spoken about. To gain an understanding of evolving institutions and practices shaping womens lives, such as the family, law and religious traditions. To understand the impact of historical processes — the formation and and breakdown of empire, colonialism, nationalism and decolonization — upon South Asian women between the sixteenth and twentieth centuries. We will read primary sources in addition to familiarizing ourselves with the historiography of women in South Asia.
Not Offered Every Year
Also Offered As: SAST 7762
1 Course Unit
GSWS 7901 Recent Issues in Critical Theory Related to Gender & Sexuality
This course will provide an overview of critical theory related to the study of gender and/or sexuality. Different instructors will emphasize different topics within these fields. See the English Department’s website at www/english.upenn.edu for a complete description of the current offerings.
Not Offered Every Year
Also Offered As: COML 7901, ENGL 7901
1 Course Unit

GSWS 8300 Conducting Research in Global Women’s Health
An introduction to theoretical and methodological issues as they relate to conducting research in global women’s health. Advanced analysis of historical, social, cultural, economic, political, technological and geographical contexts as they influence the health of girls and women across the lifespan and their relation to health care systems as both clients and providers. This includes contextual issues that constrain the provision and receipt of adequate healthcare. Prerequisites: Completion of course in Global Health (this may include a reputable online course eg: Coursera), or equivalent background (eg. global health field experience). Permission of Instructor. For graduate and professional students from any field with an interest in global women’s health; Master students by permission of instructor. A critical examination of theoretical and methodological issues pertaining to research on women and girls conducted around the world across disciplines. A focused and intensive exploration of place as it pertains to women and girls formal and informal structures of healthcare delivery as those needing and/or seeking healthcare, care, and as those providing healthcare to others. Students will examine the multiple dimensions and qualities of these endeavors (e.g. activity, power, control, visibility, value, and remuneration) and the intersection of gender and health - locally, globally and across borders. Students will focus their examination on the implications of seeking and providing healthcare for women’s and girls’ health and well-being. By examining issues in local and global contexts and across geographical boundaries, students will have the opportunity to challenge gendered, class, political, and cultural assumptions related to women’s health.
Fall
Also Offered As: NURS 8300
1 Course Unit

GSWS 8841 Current Japanology
This is a course designed for advanced undergraduate students and graduate students, primarily those majoring in Japanese and East Asian Studies and related disciplines. The main objective of the course is to survey recent and current scholarship on Japan. Each week we will focus on one monograph or a set of chapters or essays, reading them closely not merely to acquire up-to-date knowledge, but to gain new frameworks for approaching the study of Japanese culture, history, and society. Japanese-reading ability is not assumed and discussions will be in English, but optional readings in Japanese will be available.
Not Offered Every Year
Also Offered As: EALC 8841
1 Course Unit

GSWS 9005 Finding Voice: Perspectives on Race, Class and Gender
This writing workshop explores the influence of identity, primarily race, class, gender, and sexuality, on the ways we convey our personal truths to the world.
Not Offered Every Year
Also Offered As: AFRC 9005, ENGL 9005, URBS 9005
1 Course Unit

GSWS 9006 Learning from James Baldwin
This class will examine the intellectual legacy that James Baldwin left to present-day writers such as Toni Morrison, Charles Johnson, Ta-Nehisi Coates, Thulani Davis, Caryl Phillips, and others. We will spend time reading and discussing Baldwin’s novels, short stories, plays and essays, and students will research subjects of their own choosing about Baldwin’s life and art.
Also Offered As: AFRC 9006, ENGL 9006, URBS 9006
1 Course Unit

GSWS 9013 Memoir Writing
This memoir workshop will shine light on the human experience as viewed through your personal lens. We’ll see how memoir can illuminate larger cultural themes - from the inhumanity of war, to racism, misogyny, and economic inequality - as viewed through lived experiences.
Also Offered As: ENGL 9013, URBS 9013
1 Course Unit

GSWS 9016 Being Human: A Personal Approach to Race, Class & Gender
In this workshop, we will address the ways race, class, and gender impact our lives, our work, and our culture. As a class, we will create connection and community by practicing deep listening, daily writing, deep reading, and the sharing of ideas and observations.
Not Offered Every Year
Also Offered As: AFRC 9016, ENGL 9016, URBS 9016
1 Course Unit

GSWS 9017 Considering Race, Class and Punishment in the American Prison System
This graduate writing seminar will examine the origins, myths, and realities of the complex industry that currently imprisons more than 2,300,000 men, women and teens in America’s city, county, state and federal prisons - the largest prison population and highest per-capita rate of imprisonment in the world.
Not Offered Every Year
Also Offered As: AFRC 9017, ENGL 9017, URBS 9017
1 Course Unit

Genetic Counseling (GENC)

GENC 6010 Advanced Genetics and Genomics
This course will provide an extensive survey of molecular genetics including molecular and cellular biology and the regulation of gene expression. Applications to human clinical genetics and genetic counseling through discussion of relevant case studies will be incorporated. The class will be primarily lecture-based with some small group work. In addition to exams, students will prepare and present a teaching tool to describe a complex topic to laypeople. The content of this course will provide the foundation for understanding topics covered in additional courses in the genetic counseling master’s program including Foundations in Clinical Genetics and Genomic Technologies, Cancer Genetics, Reproductive and Developmental Genetics, and Medical Genetics.
Fall
1 Course Unit
GENC 6020 Mechanisms of Disease
Primary concepts in this course introduce the fundamental principles of pathophysiology, including normal and abnormal embryological development. Pathophysiology and development are covered by major organ systems. Lectures and class exercises will review normal as well as abnormal physiology in all systems. The focus of the course will be on understanding the pathophysiology of human genetic diseases. The coursework serves as the background for understanding specific diseases as they present in clinical genetics and research that has led to improved therapy and treatment for patients. The class will be primarily lecture-based using case-based learning. Students will give formal presentations on the pathophysiology of specific disorders.

Fall
1 Course Unit

GENC 6030 Introduction to Genetic Counseling
Genetic counseling students will be oriented to the profession through a review of the history of genetic counseling. Topics covered include medical terminology, pedigree construction, the structure of genetic counseling sessions, discussion of the scope of practice and disability rights, instruction in obtaining family pedigrees, review of genetic testing practices, and the National Society of Genetic Counselors’ Code of Ethics. Students will gain an appreciation for the lived experience of individuals with genetic diseases by reading memoirs, reviewing online support groups, watching videos, and performing role plays. The course will provide experiential learning about advocacy groups for patients and their families through first-hand interviews. Students will engage in role play scenarios throughout the course.

Fall
1 Course Unit

GENC 6040 Reproductive and Developmental Genetics
A variety of topics in reproductive genetics will be covered in this course, including a review of human development emphasizing the genetic basis of these complex events and how teratogenic factors lead to abnormal development. The common indications for prenatal genetic counseling, such as advanced maternal age, first-trimester screening, NIPS, ultrasound anomalies, diagnostic procedures, prenatal complications, and prenatal therapies will be reviewed. Through the completion of assignments and discussion, students will demonstrate their abilities to think critically through cases, assess risk, and provide patient-centered care. The course will discuss psychosocial issues surrounding fertility counseling as well as perinatal bereavement and palliative care.

Spring
1 Course Unit

GENC 6110 Cancer Genetics
In this course, students will gain an understanding of cancer genetics. Topics covered include an overview of cancer biology and clinical oncology; diagnostics and predictive testing in cancer, including familial mutations in BRCA 1 and 2, and panel testing; cancer risk assessment; psychosocial aspects of cancer genetic testing and counseling. Students will examine specific inherited disorders predisposing individuals to malignancies and counseling for familial cancers. Students will learn how to conduct a genetic counseling session for inherited cancer syndromes such as HBOC and Lynch syndrome and to identify when genetic testing panels are indicated. In addition, the course will cover somatic cancer NGS technology and its relevance in cancer genetic counseling.

Spring
1 Course Unit

GENC 6120 Genetic Counseling Theory and Practice I
Students will learn how to structure genetic counseling sessions including the competencies of establishing rapport, contracting, and eliciting patient goals. The teaching of active listening and interviewing skills guides students in responding empathetically to patient concerns. Students use role play to practice skills and demonstrate their ability to organize a genetic counseling session. Students will learn chart documentation and practice letter writing. Each student will be responsible for presenting a Genetic Counseling Practice Guideline and leading a class discussion. Through role play and exploration of current practice students learn to adapt genetic counseling skills for alternate service delivery models. Students will gain an appreciation of appropriate professional interactions and expand their understanding of the impact of genetic disease on families. At the end of the semester, all students complete a genetic counseling session with a standardized patient at the Experiential Learning and Assessment Center at the Perelman School of Medicine. The highly skilled staff ensures safe, measurable, and authentic learning with qualified standardized patients.

Spring
1 Course Unit

GENC 6130 Foundations of Clinical Genetics and Genomic Technologies
In this course, students will understand the importance of conveying to families the pathophysiology, inheritance pattern, recurrence risk, testing options and management of genetic disorders. Students will learn the principles of pedigree review, particularly how to apply Mendelian genetics, population genetics, and Bayesian analysis to provide accurate risk assessment. They will also learn how genetic and molecular principles contribute to the etiology, clinical features, and expression of genetic conditions. They will appreciate how the natural history and variable expressivity of many genetic diagnoses influence differential diagnoses, interpretation of dysmorphology, choices of genetic testing, and test report interpretation. Genetic testing methodologies will be examined in depth, particularly the concepts and tools used to analyze and interpret data from next-generation sequencing (NGS). This class will provide students with hands-on opportunities to utilize databases to systematically review and classify variants. Clinical case variant interpretation and clinical relevance will be discussed in terms of its importance in genetic counseling. Case-based learning will help students understand the complexities of genetic diseases and the importance of obtaining an accurate medical history.

Fall
1 Course Unit

GENC 6140 Introduction to Genetic Counseling Research
This course will familiarize students with research methodologies in clinical genetics and genetic counseling. Students will gain an appreciation for the importance of well-designed research both in advancing our understanding of all aspects of genetic disease and in addressing the professional practice of genetic counseling. This course will introduce students to scientific writing and interpretation of the literature. Topics include how to formulate testable hypotheses, design appropriate studies, and carry out a literature review. Students will develop and refine their own IRB proposals as preparation for submitting an application to the IRB committee. Students are required to obtain CITI training and to work with their thesis committees as they develop their proposals.

Spring
1 Course Unit
GENC 6200 Medical Genetics I
The first semester of this year-long course presents a broad overview of concepts in Medical Genetics including natural history, management and counseling strategies for major pediatric and adult genetics diagnoses and syndromes, focusing on Genomic Medicine and Pediatric Genetics. Topics covered include autism, ophthalmogenetics, hearing loss, psychiatric genetics, genodermatoses, immune genetics, pediatric cancer genetics, bone marrow failure syndromes, differences of sex development, craniofacial disorders, skeletal dysplasias and imprinting disorders. Students will be exposed to future directions of clinical genetics and genetic counseling and its impact on the management and treatment of common conditions. Students will actively engage in Clinical Case Presentations and a Journal Club session. Course directors will attend each class, and guest lecturers with relevant clinical expertise will be invited to share their clinical knowledge.

Fall
0.5 Course Units

GENC 6210 Genetic Counseling Theory and Practice II
In this class, students are taught the basic tenets of counseling theory and how they can be applied to genetic counseling sessions. Theories covered include person-centered counseling with its emphasis on genuineness, empathy, and positive regard. Narrative Medicine will be covered in detail, and students will be required to digitally record a narrative medicine interview with an individual or parent of an individual with a genetic disease. The recordings are analyzed and reviewed. Standardized patient assessments will be performed to monitor students’ acquisition of more advanced counseling skills. Students will learn the integration of process in the genetic counseling session and how to address sensitive patient issues such as sharing challenging news and working with angry patients. They will learn to use active listening and value-free communication to manage a genetic counseling session in a culturally responsive manner.

Fall
1 Course Unit

GENC 6220 Biochemical Genetics
This course presents a broad overview of concepts of inborn errors of metabolism as well as detailed reviews of specific conditions so that students will learn to distinguish the basic descriptors of a wide variety of metabolic conditions, including cardinal features, biochemical signatures, genetic etiologies, inheritance patterns, and available treatments. Students will also understand the basis for, and implications of, newborn screening for both metabolic and other disorders. Students will learn the methods available for diagnosis, genetic and tissue-based testing, and the various forms of treatment for the disorder, from nutrition therapy and transplants to clinical trials. Approaches to appropriately counsel families with a wide range of metabolic conditions and to identify at-risk family members are included in this course. Course directors will attend each class, and guest lecturers with relevant clinical expertise will be invited to share their clinical knowledge.

Fall
0.5 Course Units

GENC 6230 Ethical Issues in Genetic Counseling
In this introductory course on bioethics, we will unpack ethical issues that emerge in the context of clinical genetics and genetic research. Though hospital ethics boards advise on the most challenging ethical cases, they often play the simple but crucial role of slowing the conversation down, asking questions of team members, and facilitating calm, reasoned communication regarding the ethical quandaries that family, clinicians, staff pose. Accordingly, this course gives students the opportunity to analyze ethics cases, alongside lectures, student presentations, and class debates. As a class, we aim to establish and maintain a space where students can develop ethical reasoning skills and debate controversial topics within genetics. Class time will be devoted to short lectures and selected video excerpts, student presentations and debates, and extensive discussion guided by a compendium of ethics cases and associated reading assignments that represent the diverse perspectives of different authors.

Fall
1 Course Unit

GENC 6300 Medical Genetics II
The second semester of this year-long course presents a broad overview of concepts in medical genetics including natural history, management and counseling strategies for major pediatric and adult genetics diagnoses and syndromes. Topics covered this semester include single gene disorders, bleeding and clotting disorders, hemoglobinopathies, adult liver disease, connective tissue disorders, cardiovascular genetics, psychiatric genetics, neurogenetic conditions such as epilepsy, movement disorders, ataxias, Huntington disease, and ALS, as well as classic genetic conditions identified by the organ system involved, such as cystic fibrosis. Students will learn the methods available for genetic testing, diagnosis, and treatment of genetic conditions. Students will be exposed to future directions of clinical genetics and genetic counseling and its impact on the management and treatment of common conditions. Therapeutic approaches and different modalities to treating genetic diagnoses will be reviewed, including approved gene therapy treatments as well as investigational therapies and clinical trials. Students will actively engage in Clinical Case Presentations and a Clinical Research Presentation. Course directors will attend each class, and guest lecturers with relevant clinical expertise will be invited to share their clinical knowledge.

Spring
Prerequisite: GENC 6200
1 Course Unit

GENC 6310 Genetic Counseling Theory and Practice III
This course provides students with advanced counseling skills such as advanced empathy and confrontation. Students will explore counseling theories such as solution-focused brief therapy, cognitive behavioral therapy, and family systems models. Counselor issues such as self-disclosure and countertransference will be discussed in detail. Additional skills and techniques from the counseling literature will be practiced in role plays to illustrate the usefulness of various counseling techniques in clinical genetics. This course includes an experiential component for the practice of techniques utilizing standardized patients. Students will analyze their standardized patient recordings and identify missed opportunities and areas in which they need to focus their counseling skills. Each student will analyze one of their clinical cases utilizing at least two theories discussed in class.

Spring
1 Course Unit
GENC 6400 Professional Development I
The goal of this seminar is to increase awareness of the many facets of genetic counseling as a career. The genetic counseling profession is rapidly evolving as new diagnostic technologies and treatments are developed. Skills learned by genetic counselors are applicable to many different job settings. Knowledge of these alternative ways in which counselors may work increases a student's ability to successfully pursue a career. Members of the genetics community from Philadelphia and the surrounding area provide lectures describing the current state of the profession. Selected topics include genetic counseling for a diverse population, the intersection between palliative care and genetic counseling, and how to manage a clinical genetic counseling practice with issues surrounding billing reimbursement and credentialing. This seminar also helps prepare students for the demands of the genetic counseling profession by focusing on emotional well-being through a process group facilitated by a professional counselor. Students prepare a career development plan reflecting on the essential components of an "ideal job" and develop a curriculum vitae and cover letters.

Fall
0 Course Units

GENC 6450 Professional Development II
In this continuation of GENC 6400, the goal is to increase awareness of the many facets of genetic counseling as a career. The students will learn how to obtain a license and register to take the American Board of Genetic Counseling Certification Examination. Members of the genetics community from Philadelphia and the surrounding area provide lectures describing the current state of the profession. Students will explore professional issues by reviewing the National Society of Genetic Counseling position statements and legislative initiatives. This seminar also helps prepare students for the demands of the genetic counseling profession by focusing on emotional well-being through a process group facilitated by a professional counselor. Students will present a journal club reflecting a paper that discusses current trends in genetic counseling. During the semester, students will write Op-Ed pieces exploring contemporary issues that may impact patient care or the genetic counseling profession, identify community resources for adults with neurodevelopmental disabilities, and prepare abstracts of their thesis research for submission to a conference.

Spring
Prerequisite: GENC 6400
0 Course Units

GENC 6500 Genetic Counseling Rounds I
Once a week, students participate in discussion of clinical cases and recent journal literature. Through their participation, students gain familiarity with the process of reviewing clinical material and providing peer supervision. Presenting clinical and scientific information for group discussion in conferences and patient rounds is an important skill for genetic counselors. This seminar provides these experiences in a supportive environment and thus permits skill building in this area. This activity introduces students to a broad range of diagnoses and methods of managing a case. Discussions of case organization and tailoring a presentation to a specific patient is another aspect of this seminar.

Fall
0 Course Units

GENC 6550 Genetic Counseling Rounds II
In this continuation of GENC 6500, students participate in weekly discussions of clinical cases and recent journal literature. Through their participation, students gain familiarity with the process of reviewing clinical material and providing peer supervision. Presenting clinical and scientific information for group discussion in conferences and patient rounds is an important skill for genetic counselors. This seminar provides these experiences in a supportive environment and thus permits skill building in this area. This activity introduces the students to a broad range of diagnoses and methods of managing a case. Discussions of case organization and tailoring a presentation to a specific patient is another aspect of this seminar.

Spring
Prerequisite: GENC 6500
0 Course Units

GENC 6700 Internship
In addition to course-based degree requirements, students participate in internships related to the field of genetic counseling. These internships begin in the students' first term. Internships give students the opportunity to learn in varying practice-based environments including clinical and laboratory settings, as well as placements in a research and/or advocacy capacity with a specific organization or research protocol. Students document their experiences online daily and provide written summaries of their experiences for the program leadership to review. Students attend their internships once a week. Clinical supervisors evaluate the students in each of the placements.

0 Course Units

GENC 6800 Clinical Internship
The clinical internships during the second year consist of four clinical placements in genetics clinics. Students will have a minimum of 20 days in each specialty. This experiential course will expose genetic counseling students to the genetic counselors' role in different clinical settings and to the broad range of diagnoses and methods of effectively managing patient care. Clinical supervision is provided in a supportive environment that permits skill building as students take on more roles throughout the course of the year. Students will have exposure to cases representing the wide range of diagnoses and indications seen in a clinical genetics practice and will collect at least 50 participatory encounters to satisfy the ACGC requirement. All cases will be supervised by certified genetic counselors to be acceptable for the core case log book. Students will log each case for program review, including self-reflection about their performance. All students will be evaluated by their clinical supervisors and will prepare case analyses for the program leadership to review. The course is required for all second-year students.

Fall, Spring, and Summer Terms
Prerequisite: GENC 6700
0 Course Units
GENC 7101 Research Design and Methodologies
This course focuses on study design and proposal development of research projects relevant to clinical genetics and genetic counseling, encompassing translational, clinical, and behavioral projects. Covered topics include identifying a research topic, asking a research question, study design, background, aims, and methods, proposal writing and analysis plans. IRB submission and feasibility issues will also be addressed. This course will include online asynchronous lectures, online group discussions, and weekly exercises. In addition there will be weekly hour-long online group meetings to discuss research progress. Students will implement course lessons by developing and executing a research project during the one-year program.
Fall
1 Course Unit

GENC 7102 Research Bioethics
This course will combine an overview of NHGRI’s program in the ethical, legal, and social implications of genomic research and genomics will be highlighted. National experts offer lectures on race and ancestry in relation to biomedical research and practice, disability perspectives on genetics, the social and ethical implications of genomic prognostication, best practices for and challenges with respect to informed consent, and key legislation related to genomics, research, and medicine. Students are expected to complete reading assignments, case analyses, and participate in online discussion. Synchronous sessions will be held occasionally throughout the course.
Fall
1 Course Unit

GENC 7103 Manuscript & Grant Writing
This comprehensive course will focus on the fundamentals of writing and submitting grant proposals and preparing a manuscript for publication. Grant writing training will include the mechanics of proposal writing and aspects of “grantmanship” as students identify appropriate sources of grant funding, use narrative tools to create informative, persuasive and engaging proposals, creation of Aims that outline the goals of the grant, and support of Aims with well thought out research design. Grant submission process will be discussed. Manuscript writing training will include literature review to identify gaps in knowledge and how the research project will add to the field, the various sections of a manuscript, scientific writing, how to identify the appropriate journal for submission, guidance for authorship, and details about article submission, the peer review process, revisions, and response to reviewers and editors. Students will be prepared to submit the results of their thesis project at the completion of the ART-GC program. Synchronous sessions will be held occasionally throughout the course.
Spring
1 Course Unit

GENC 9900 Thesis
This is an independent study course with a strong emphasis on writing. Students conduct their research, gather data, analyze it, and develop their final thesis in the form of a journal submission. Each student will meet regularly with his/her primary thesis mentor and committee to complete his/her project. Students will be required to submit an abstract to a professional meeting and are encouraged to prepare a manuscript for publication. Students will also present their research to members of the genetic counseling program, advisors, thesis committee members, and the public at the end of the semester.
Spring
1 Course Unit

Genomics & Comp. Biology (GCB)

GCB 4930 Epigenetics of Human Health and Disease
Epigenetic alterations encompass heritable, non-genetic changes to chromatin (the polymer of DNA plus histone proteins) that influence cellular and organismal processes. This course will examine epigenetic mechanisms in directing development from the earliest stages of growth, and in maintaining normal cellular homeostasis during life. We will also explore how diverse epigenetic processes are at the heart of numerous human disease states. We will review topics ranging from an historical perspective of the discovery of epigenetic mechanisms to the use of modern technology and drug development to target epigenetic mechanisms to increase healthy lifespan and combat human disease. The course will involve a combination of didactic lectures, primary scientific literature and research lectures, and student-led presentations.
Spring, even numbered years only
Also Offered As: BIOL 4244, CAMB 4930
Prerequisite: BIOL 2210
1 Course Unit

GCB 5330 Statistics for Genomics and Biomedical Informatics
BMN 5330 is an introductory course in probability theory and statistical inference for graduate students in Genomics and Computational Biology. The goal of the course is to provide foundation of basic concepts and tools as well as hands-on practice in their application to problems in genomics. At the completion of the course, students should have an intuitive understanding of basic probability and statistical inference and be prepared to select and execute appropriate statistical approaches in their future research.
Also Offered As: BMN 5330, IMUN 5770
1 Course Unit

GCB 5340 Experimental Genome Science
This course will survey methods and questions in experimental genomics, including next generation sequencing methods, genomic sequencing in humans and model organisms, functional genomics, proteomics, and applications of genomics methods. Students will be expected to review and discuss current literature and to propose new experiments based on material learned in the course. Prerequisite: Undergraduates and Masters students need BIOL 431.
Also Offered As: PHRM 5340
Prerequisite: BIOL 4231
1 Course Unit
GCB 5350 Introduction to Bioinformatics
This course provides an overview of bioinformatics and computational biology as applied to biomedical research. A primary objective of the course is to enable students to integrate modern bioinformatics tools into their research activities. Course material is aimed to address biological questions using computational approaches and the analysis of data. A basic primer in programming and operating in a UNIX environment will be presented, and students will also be introduced to Python R, and tools for reproducible research. This course emphasizes direct, hands-on experience with applications to current biological research problems. Areas include DNA sequence alignment, genetic variation and analysis, motif discovery, study design for high-throughput sequencing RNA, and gene expression, single gene and whole-genome analysis, machine learning, and topics in systems biology. The relevant principles underlying methods used for analysis in these areas will be introduced and discussed at a level appropriate for biologists without a background in computer science. The course is not intended for computer science students who want to learn about biologically motivated algorithmic problems; BIOL 4536/BIOL 5536 and BE 5370/CIS 5370/MPHY 6090 are more appropriate. Prerequisites: An advanced undergraduate course such as BIOL 4210 or a graduate course in biology such as BIOL 5210, BIOL 5240, or equivalent, is a prerequisite.

Fall
Also Offered As: CIS 5350, MTR 5350
Prerequisite: BIOL 4210 OR BIOL 5210 OR BIOL 5240
1 Course Unit

GCB 5360 Fundamentals of Computational Biology
Introductory computational biology course designed for both biology students and computer science, engineering students. The course will cover fundamentals of algorithms, statistics, and mathematics as applied to biological problems. In particular, emphasis will be given to biological problem modeling and understanding the algorithms and mathematical procedures at the "pencil and paper" level. That is, practical implementation of the algorithms is not taught but principles of the algorithms are covered using small sized examples. Topics to be covered are: genome annotation and string algorithms, pattern search and statistical learning, molecular evolution and phylogenetics, functional genomics and systems level analysis.

Fall
Also Offered As: BIOL 5536, CIS 5360
Prerequisite: ((BIOL 1101 AND BIOL 1102) OR BIOL 1121) AND STAT 111 AND STAT 112
1 Course Unit

GCB 5370 Advanced Computational Biology
Advanced Computational Biology will review important concepts for computer science and statistics as they apply to computational biology; discuss current topics and related papers in genomics and computational biology; teach to evaluate, criticize, and summarize research papers in genomics and computational biology; and experiment, evaluate, and try to improve tools/algorithms from topics covered in the course. Requirement: Background in statistics, biology, genetics and genomics, and computer science. Non-GCB students need permission from the instructors.

Spring
1 Course Unit

GCB 5670 Mathematical Computation Methods for Modeling Biological Systems
This course will cover topics in systems biology at the molecular/cellular scale. The emphasis will be on quantitative aspects of molecular biology, with possible subjects including probabilistic aspects of DNA replication, transcription, translation, as well as gene regulatory networks and signaling. The class will involve analyzing and simulating models of biological behavior using MATLAB. Prerequisite: Graduate standing or permission of the instructor.

Fall or Spring
Also Offered As: AMCS 5670, BE 5670
1 Course Unit

GCB 5770 Advanced Epigenetics Technology
Second year students in GCB, CAMB (G&E), or IGG programs using genomics methods to measure transcriptomics and epigenomics changes in their experimental systems. The goal is to familiarize students with the latest cutting-edge genomics tools and cover solutions to major experimental and computational challenges in the investigation of genome-wide epigenetic data sets. Students will develop competence in (i) variations of experimental techniques improving resolution and throughput, (ii) issues related to the computational analyses closely related to the various genome-wide assays used to probe epigenetic processes and signals, (iii) computational approaches useful to overcome pitfalls associated to the analysis of a given epigenetic data modality, (iv) methods, techniques and studies on the integration of multi-layer epigenetic data sets.

Spring
Also Offered As: CAMB 5770, MTR 5350, PHRM 5350
Prerequisite: (BIOL 4234 OR BIOL 4244) AND GCB 5340 AND (GCB 5350 OR GCB 5360)
1 Course Unit

GCB 5850 Wistar Institute Cancer Biology Course: Signaling Pathways in Cancer
This course is intended to provide foundational information about the molecular basis of cancer. When necessary the significance of this information for clinical aspects of cancer is also discussed. The main theme centers around cell cycle checkpoints with specific emphasis on the biochemistry and genetics of DNA damage signaling pathways, DNA damage checkpoints, mitotic checkpoints and their relevance to human cancer. The course is taught by the organizers and guest lecturers from universities and research institutions in the Northeast. Following every lecture, students present a research paper related to the topic of that lecture. The course is intended for first and second year graduate students but all graduate students are welcome to attend. Prerequisite: Undergraduates and Master’s degree candidates require permission from the course directors.

Fall
Also Offered As: BMB 5850, PHRM 6500
1 Course Unit

GCB 6990 Lab Rotation
Lab rotation
0.3 Course Units
GCB 7520 Genomics
Recent advances in molecular biology, computer science, and engineering have opened up new possibilities for studying the biology of organisms. Biologists now have access to the complete genomic sequence and set of cellular instructions encoded in the DNA of specific organisms, including homo sapiens, dozens of bacterial species, the yeast Saccharomyces cerevisiae, the nematode C. elegans, and the fruit fly Drosophila melanogaster. The goals of the course include the following: 1. introduce the basic principles involved in sequencing genomes, 2. familiarize the students with new instrumentation, informative tools, and laboratory automation technologies related to genomics, 3. teach the students how to access the information and biological materials that are being developed in genomics and 4. examine how these new tools and resources are being applied to basic and translational research. This will be accomplished through in depth discussion of classic and recent papers. Prerequisite: Permission of Instructor.

Spring
Also Offered As: CAMB 7520
Prerequisite: GCB 5340
1 Course Unit

GCB 8990 Pre-Dissertation Research
Pre-dissertation lab research
0-3 Course Units

GCB 9950 Dissertation
Fall or Spring
0 Course Units

GCB 9990 Independent Study
Independent Study for GCB Students
1-4 Course Units

Germanic Languages (GRMN)

GRMN 0010 Bad Taste
"Beauty is not a quality inherent to things: it only exists in the mind of the beholder." (David Hume) " Most of us can recognize bad taste as soon as we see it: Harlequin romances, Elvis on black velvet, lawn ornaments. But bad taste also has a history, and kitsch has been identified as a peculiarly modern invention related to capitalism and consumerism. Beginning with a discussion of taste in the eighteenth century, we will investigate under what conditions good taste can go bad, for example when it is the object of mass reproduction, and, on the other hand, why bad taste in recent times has increasingly been viewed in positive terms. Categories such as the cute, the sentimental, the popular, the miniature, kitsch, and camp will be explored. We will also ask what forms of ideological work have been done by this brand of aesthetics, for example in the connection between politics and kitsch, femininity and the low-brow, or camp and queer identity. Writers and film-makers to be discussed include: Hume, Kant, Goethe, Flaubert, Bourdieu, Sacher-Masoch, Thomas Mann, Nabokov, Benjamin, Greenberg, Sontag, John Waters.

Not Offered Every Year
Also Offered As: JWST 0012
1 Course Unit

GRMN 0011 In Praise of the Small in Literature and the Arts
We can memorize aphorisms and jokes, carry miniature portraits with us, and feel playful in handling small objects. This seminar will ask us to pay attention to smaller texts, art works, and objects that may easily be overlooked. In addition to reading brief texts and looking at images and objects, we will also read texts on the history and theory of short genres and the small.
Not Offered Every Year
Also Offered As: COML 0011
1 Course Unit

GRMN 0012 Jews and China: Views from Two Perspectives
Jews in China?? Who knew?? The history of the Jews in China, both modern and medieval, is an unexpected and fascinating case of cultural exchange. Even earlier than the 10th century. Jewish trader from India or Persia on the Silk Road, settled in Kaifeng, the capital of the Northern Song Dynasty, and established a Jewish community that lasted through the nineteenth century. In the mid-nineteenth century, Jewish merchants, mainly from Iraq, often via India, arrived in China and played a major role in the building of modern Shanghai. After 1898, Jews from Russia settled in the northern Chinese city of Harbin, first as traders and later as refugees from the Bolshevik Revolution and Russian Civil War. In the first decades of the twentieth century, a few Jews from Poland and Russia visited China as tourists, drawn by a combination of curiosity about the cultural exoticism of a truly foreign culture and an affinity that Polish Jewish socialists and communists felt as these political movements began to emerge in China. During World War II, Shanghai served as a port of refuge for Jews from Central Europe. In this freshman seminar, we will explore how these Jewish traders, travelers, and refugees responded to and represented China in their writings. We will also read works by their Chinese contemporaries and others to see the responses to and perceptions of these Jews. We will ask questions about cultural translation: How do exchanges between languages, religions, and cultures affect the identities of individuals and communities? What commonalities and differences between these people emerge?
Not Offered Every Year
Also Offered As: JWST 0012
1 Course Unit

GRMN 0013 Jews and China: Views from Two Perspectives
Jews in China?? Who knew?? The history of the Jews in China, both modern and medieval, is an unexpected and fascinating case of cultural exchange. Even earlier than the 10th century. Jewish trader from India or Persia on the Silk Road, settled in Kaifeng, the capital of the Northern Song Dynasty, and established a Jewish community that lasted through the nineteenth century. In the mid-nineteenth century, Jewish merchants, mainly from Iraq, often via India, arrived in China and played a major role in the building of modern Shanghai. After 1898, Jews from Russia settled in the northern Chinese city of Harbin, first as traders and later as refugees from the Bolshevik Revolution and Russian Civil War. In the first decades of the twentieth century, a few Jews from Poland and Russia visited China as tourists, drawn by a combination of curiosity about the cultural exoticism of a truly foreign culture and an affinity that Polish Jewish socialists and communists felt as these political movements began to emerge in China. During World War II, Shanghai served as a port of refuge for Jews from Central Europe. In this freshman seminar, we will explore how these Jewish traders, travelers, and refugees responded to and represented China in their writings. We will also read works by their Chinese contemporaries and others to see the responses to and perceptions of these Jews. We will ask questions about cultural translation: How do exchanges between languages, religions, and cultures affect the identities of individuals and communities? What commonalities and differences between these people emerge?
Not Offered Every Year
Also Offered As: JWST 0012
1 Course Unit
GRMN 0013 Euro Zone Crisis - The EU in a Currency War for Survival?

"Let me put it simply...there may be a contradiction between the interests of the financial world and the interests of the political world...We cannot keep constantly explaining to our voters and our citizens why the taxpayer should bear the cost of certain risks and not those people who have earned a lot of money from taking those risks." Angela Merkel, Chancellor of Germany, at the G20 Summit, November 2010. In January 1999, a single monetary system united Germany, a core nation, with 10 other European states. Amidst the optimism of the euro's first days, most observers forecast that Europe would progress toward an ever closer union. Indeed, in the ensuing decade, the European Union became the world's largest trading area, the euro area expanded to include 17 member states, and the Lisbon Treaty enhanced the efficiency and democratic legitimacy of the Union. In 2009, Greece's debt crisis exposed deep rifts within the European Union and developed into a euro zone crisis - arguably the most difficult test Europe has faced in the past 60 years. After two years of a more benign EURO debt situation, the risk of recession, EU sanctions against Russia, and a possible collision of a newly-elected Greek government with its creditors, the euro crisis returned with a vengeance in 2015. In addition, the pressure mounts for European leaders to find a solution to the refugee crisis which reached a peak in the fall of 2015. In 2016 the Brexit delivered the latest blow to the European Union, and the future of the European project without the UK looks bleak. The Economic and Monetary Union (EMU) is still fragile, and economic and political developments in 2017 could determine the future of the euro. Does the EU have what it takes to emerge from these crises? Will the European nations find a collective constructive solution that will lead to a fiscal union that implies further integration?

Not Offered Every Year

1 Course Unit

GRMN 0015 Hipster Philosophy from Marx to Zizek

From Wes Anderson to Williamsburg, hipster culture is everywhere. And yet the very notion of the hipster remains notoriously difficult to define--whether we perceive this cultural phenomenon as the waste product of the postmodern, as a new form of consumerism, as a peculiar attitude toward irony and authenticity, as scenester posturing or as just plain cool. This course addresses such tensions through an examination of the intellectual history of the nineteenth and twentieth centuries. Each week pairs philosophical and theoretical readings with an artifact of hipster culture: reading Instagram beside Walter Benjamin, ironic facial hair with Friedrich Nietzsche, Facebook through the lens of Georg Lukacs and indie music alongside Theodor Adorno. No previous knowledge of skinny jeans required.

Not Offered Every Year

Also Offered As: COML 0017

1 Course Unit

GRMN 0016 Babylon Berlin: German Crime Books

Why are crime books and crime shows so popular? 2017 marked a moment in time when a serialized domestic TV show took off in Germany like wild fire. The first three episodes of "Babylon Berlin" were seen by an average 7.8 million viewers on ARD last year, achieving a 24.5% share and reaching a peak of 8.5 million. On Sky, it boasted the best ratings ever for a non-English series and was only beaten overall by the seventh season of "Game of Thrones." Babylon Berlin is based on Volker Kutscher's crime books. Thus, this course will trace the success of German crime books as a best-selling genre by analyzing the appeal of the whodunit format and by questioning the transnational appeal of this genre. "Babylon Berlin" exemplifies the success of German crime books because the treatment of historical events combined with a critical eye toward the Zeitgeist of cultural products sheds light on the representation of culture and its co-construction of a transnational identity.

Not Offered Every Year

1 Course Unit

GRMN 0017 Politics of Commemoration

In this course, we will examine how commemorative traditions in Germany and the United States have been invented and contested since the nineteenth century. We will discuss why certain events in the past rather than others have been the object of commemoration; what these creations stood for originally; how their meanings have changed over the time; and the lessons, if any, these commemorative practices continue to teach us today. We also will examine the ways in which Europeans and Americans have protested, torn down old monuments, erected new ones, and turned to a wide variety of artistic forms to call into question stories about empire, fascism, communism, westward expansion and settler colonialism, enslavement, as well as military victory and loss. We will discuss topics, such as racism, ethnic conflict, Antisemitism, settler colonialism, guilt and victimhood, cultural appropriation, as well as gender and sexuality. To answer these questions, we will focus on literature, essays, art, films, podcasts, and public art and monuments found in Germany, on Penn's campus, and around Philadelphia.

Not Offered Every Year

1 Course Unit
GRMN 0018 Climate Change and Community in Indonesia
Climate change isn't fair. Countries and small island states that have contributed little to cause climate change are already confronting the worst impacts. This trend will continue. While wealthy countries in the Global North scramble to respond to sea level rise, drought, extreme weather, and other impacts with technological and infrastructural solutions, countries in the Global South know they won't be able to protect their vulnerable populations in that way. For them, part of the answer lies in social resilience: the ability of a community or neighborhood in a city or region to withstand and recover from climate shocks and stresses. What are the ingredients that promote social resilience? In this first-year seminar, we will take Indonesia, the fourth most populous country in the world, as an example. Classified as a newly industrialized developing country, Indonesia has the capacity to mount some large projects such as the decision to move the government from Jakarta to a newly created capital city on the island of Borneo. At the same time, in Jakarta and all along the coasts of the thousands of islands that make up this archipelagic nation, vulnerable communities must foster resilience within themselves. Participants in this seminar will become acquainted with Indonesia's colonial and recent history, learn about its deep cultural resources, and engage with its current efforts to mitigate emissions and adapt to climate change. Highlights include modules on the plan to protect Jakarta, designing the new capital city, and the use of the arts to increase community resilience in urban and rural kampongs in other parts of the country.
Not Offered Every Year
Also Offered As: SAST 0018
1 Course Unit

GRMN 0100 Elementary German I
Designed for the beginning student with no previous knowledge of German. German 0100, as the first course in the first-year series, focuses on the development of language competence in listening, speaking, reading, and writing. By the end of the semester, students will be able to engage in simple conversations about familiar things, know greetings and everyday expressions, they will be able to count and tell time, and negate sentences in day-to-day contexts. Furthermore, students will be able to speak about events that happened in the immediate past and express plans for the future. In addition, students will have developed reading strategies that allow them to glean information from simple newspaper and magazine articles and short literary texts. Because cultural knowledge is one of the foci of German 0100, students will learn much about practical life in Germany and will explore German-speaking cultures on the Internet.
Fall or Spring
1 Course Unit

GRMN 0150 Accelerated Elementary German
This course is intensive and is intended for dedicated, highly self-motivated students who will take responsibility for their learning and creation of meaning with their peers. An intensive two credit course in which two semesters of elementary German (GRMN 101 & 102) are completed in one. Introduction to the basic elements of spoken and written German, with emphasis placed on the acquisition of communication skills. Readings and discussions focus on cultural differences. Expression and comprehension are then expanded through the study of literature and social themes.
Fall
2 Course Units

GRMN 0200 Elementary German II
This course is a continuation of GRMN 0100 and is designed to strengthen and expand students' listening, speaking, reading, and writing competence and to deepen an understanding of German-speaking cultures. By the end of the course, students will be able to handle a variety of day-to-day needs in a German-speaking setting and engage in simple conversations about personally significant topics. Students can expect to be able to order food and beverages, purchase things, and to be familiar with the German university system, the arts, and current social topics. Students will begin to be able to talk about the past and the future, make comparisons, describe people and things in increasing detail, make travel plans that include other European countries, and make reservations in hotels and youth hostels. By the end of the course students will be able to talk about their studies and about their dreams for the future. In addition, students will develop reading strategies that should allow them to understand the general meaning of articles, and short literary texts. Furthermore, students will feel more able to understand information when hearing German speakers talking about familiar topics. Cultural knowledge remains among one of the foci of German 0200, and students will continue to be exposed to authentic materials.
Fall or Spring
Prerequisite: GRMN 0100
1 Course Unit

GRMN 0300 Intermediate German I
This course is designed to improve students writing and speaking competence, to increase vocabulary, to deepen grammar usage, and to help develop effective reading and listening strategies in German across literary genres and media as students interpret and analyze cultural, political, and historical moments in German-speaking countries and compare them with their own cultural practices. This course is organized around content-based modules and prepares students well for GRMN 0400 and a minor or major in German.
Fall or Spring
Prerequisite: GRMN 0200
1 Course Unit

GRMN 0350 Accelerated Intermediate German
This course is intensive and is intended for dedicated, highly self-motivated students who will take responsibility for their learning and creation of meaning with their peers. This accelerated course is designed to improve students writing and speaking competencies, to increase vocabulary, to deepen grammar usage, and to help develop effective reading and listening strategies in German across literary genres and media as students interpret and analyze cultural, political, and historical moments in German-speaking countries and compare them with their own cultural practices. This course is organized around content-based modules. Students conclude the basic-language program at PENN by reading an authentic literary text, offering the opportunity to practice and deepen reading knowledge and to sensitize cultural and historical awareness of German-speaking countries.
Spring
Prerequisite: GRMN 0200 OR GRMN 0150
2 Course Units
GRMN 0400 Intermediate German II
A continuation of GRMN 0300. Expands students writing and speaking competence in German, increases vocabulary and helps students practice effective reading and listening strategies. Our in-class discussions are based on weekly readings of literary and non-literary texts to facilitate exchange of information, ideas, reactions, and opinions. In addition, the readings provide cultural and historical background information. The review of grammar will not be the primary focus of the course. Students will, however, expand and deepen their knowledge of grammar through specific grammar exercises. Students will conclude the basic-language program at PENN by reading an authentic literary text; offering the opportunity to practice and deepen reading knowledge and to sensitize cultural and historical awareness of German-speaking countries.
Fall or Spring
Prerequisite: GRMN 0300
1 Course Unit

GRMN 1010 Freud: The Invention of Psychoanalysis
No other person of the twentieth century has probably influenced scientific thought, humanistic scholarship, medical therapy, and popular culture as much as Sigmund Freud. This course will study his work, its cultural background, and its impact on us today. In the first part of the course, we will learn about Freud's life and the Viennese culture of his time. We will then move to a discussion of seminal texts, such as excerpts from his Interpretation of Dreams, case studies, as well as essays on psychoanalytic practice, human development, definitions of gender and sex, neuroses, and culture in general. In the final part of the course, we will discuss the impact of Freud's work. Guest lecturers from the medical field, history of science, psychology, and the humanities will offer insights into the reception of Freud's work, and its consequences for various fields of study and therapy.
Not Offered Every Year
Also Offered As: COML 1010, GSWS 1010, HIST 0820
1 Course Unit

GRMN 1015 Freud's Objects
How do we look at objects? And which stories can objects tell? These are questions that have been asked quite regularly by Art Historians or Museum Curators, but they take a central place within the context of psychoanalytic studies as well. The seminar "Freud's Objects" will offer an introduction to Sigmund Freud's life and times, as well as to psychoanalytic studies. We will focus on objects owned by Freud that he imbued with special significance, and on Freud's writings that focus on specific objects. Finally, we will deal with a re-interpretation of the "object" in psychoanalytic theory, via a discussion of texts by British psychoanalysts such as Melanie Klein and Donald Winnicott.
Not Offered Every Year
Also Offered As: ARTH 3560, CLST 3509, COML 2052, ENGL 1425
1 Course Unit

GRMN 1020 Marx, Marxism, and the Culture of Revolution
Capitalist society is the object of Karl Marx's analysis and critique—a society that is the product of history and may one day vanish. This course will trace Marx's critique by moving between the fields of philosophy, economics, and politics. We will locate key interventions of Marx's thought that transform modern conceptions of history, the relation between economics and politics, and the limits of struggle and emancipation in capitalist society. We will consider the historical conditions of Marx's writing and the development of his thought to discover many sides of Marx and many divergent Marxisms (humanist, post-structuralist, feminist, and others) that follow, often at odds with each other. Further, we will ask about what kind of horizons Marx's and Marxist interventions open up for critique and analysis of capitalist society with respect to gender, race, class, and nation. "Theory becomes a material force when it has seized the masses," argues the young Marx; indeed, his theories have fueled emancipatory movements and propped up tyrannical regimes, substantiated scientific theories and transformed philosophical debates. In examining Marx's legacy, we will focus on the elaborations and historical limitations of his ideas by examining the challenges of fascism, the communist experiment in the Soviet Union and its collapse, as well as the climate and other crises currently taking place. In conclusion, we will turn to the question of whether and to what extent Marx's ideas remain relevant today, and whether it is possible to be a Marxist in the contemporary world dominated by global capital.
Not Offered Every Year
Also Offered As: COML 1020, PHIL 1439, REES 1172
1 Course Unit

GRMN 1030 Nietzsche's Modernity and the Death of God
"God is dead." This famous, all too famous death sentence, issued by the 19th-century German philosopher Friedrich Nietzsche, also signaled the genesis of a radical challenge to traditional notions of morality, cultural life, and the structure of society as a whole. In this course we will examine both the "modernity" of Nietzsche's thought and the ways in which his ideas have helped to define the very concept of Modernity (and, arguably, Postmodernity) itself. In exploring the origin and evolution of Nietzsche's key concepts, we will trace the ways in which his work has been variously revered or refuted, championed or co-opted, for more than a century. We will survey his broad influence on everything from philosophy and literature to music and art, theater and psychology, history and cultural theory, politics and popular culture. Further, we will ask how his ideas continue to challenge us today, though perhaps in unexpected ways. As we will see, Nietzsche wanted to teach us "how to philosophize with a hammer."
Not Offered Every Year
Also Offered As: COML 1030
1 Course Unit
GRMN 1040 Berlin: History, Politics, Culture
What do you know about Berlin's history, architecture, culture, and political life? The present course will offer a survey of the history of Prussia, beginning with the seventeenth century, and the unification of the small towns of Berlin and Koeln to establish a new capital for this country. It will tell the story of Berlin's rising political prominence in the eighteenth century, and its position as a center of the German and Jewish Enlightenment. It will follow Berlin's transformation into an industrial city in the nineteenth century, its rise to metropolis in the early twentieth century, its history during the Third Reich, and the post-war cold war period. The course will conclude its historical survey with a consideration of Berlin's position as a capital in reunified Germany. The historical survey will be supplemented by a study of Berlin's urban structure, its significant architecture from the eighteenth century (i.e. Schinkel) to the nineteenth (new worker's housing, garden suburbs) and twentieth centuries (Bauhaus, Speer designs, postwar rebuilding, GDR housing projects, post-unification building boom). In addition, we will read literary texts about the city, and consider the visual art and music created in and about Berlin, and focus on Berlin's Jewish history. The course will be interdisciplinary with the fields of German Studies, history, history of art, urban studies, and German-Jewish studies. It is also designed as a preparation for undergraduate students who are considering spending a junior semester with the Penn Abroad Program in Berlin.
Not Offered Every Year
Also Offered As: ARTH 2370, COML 1040, HIST 0821, URBS 1070
1 Course Unit

GRMN 1050 Metropolis: Culture of the City
An exploration of modern discourses on and of the city. Topics include: the city as site of avant-garde experimentation; technology and culture; the city as embodiment of social order and disorder; traffic and speed; ways of seeing the city; the crowd; city figures such as the detective, the criminal, the flaneur, the dandy; film as the new medium of the city. Special emphasis on Berlin. Readings by, among others, Dickens, Poe, Baudelaire, Rilke, Doeblin, Marx, Engels, Benjamin, Kracauer. Films include Fritz Lang's Metropolis and Tom Tykwer's Run Lola Run.
Not Offered Every Year
Also Offered As: CIMS 1050, URBS 1050
1 Course Unit

GRMN 1060 The Fantastic and Uncanny in Literature: Ghosts, Spirits & Machines
Do we still believe in spirits and ghosts? Do they have any place in an age of science of technology? Can they perhaps help us to define what a human being is and what it can do? We will venture on a journey through literary texts from the late eighteenth century to the present to explore the uncanny and fantastic in literature and life. Our discussions will be based on a reading of Sigmund Freud's essay on the uncanny, and extraordinary Romantic narratives by Ludwig Tieck, E.T.A. Hoffmann, Edgar Allan Poe, Nathaniel Hawthorne, Prosper Mérimée, Villiers de Isle-Adam, and others.
Not Offered Every Year
Also Offered As: COML 1060, GSWS 1060
1 Course Unit

GRMN 1065 Fashion and Modernity
In this class we will study the emergence of the Modernist concept of the "new" as a term also understood as "new fashion." We will move back and forth in time so as to analyze today's changing scene with a view to identify contemporary accounts of the "new" in the context of the fashion industry. Our texts will include poetry, novels, and films. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ARTH 2889, COML 1072, ENGL 1071, FREN 1071
1 Course Unit

GRMN 1070 Fascist Cinemas
Cinema played a crucial role in the cultural life of Nazi Germany and other fascist states. As cinema enthusiasts, Goebbels and Hitler were among the first to realize the important ideological potential of film as a mass medium and saw it to what Germany remained a cinema powerhouse producing more than 1000 films during the Nazi era. In Italy, Mussolini, too, declared cinema "the strongest weapon." This course explores the world of "fascist" cinemas ranging from infamous propaganda pieces such as The Triumph of the Will to popular entertainments such as musicals and melodramas. It examines the strange and mutually defining kinship between fascism more broadly and film. We will consider what elements mobilize and connect the film industries of the Axis Powers: style, genre, the aestheticization of politics, the creation of racialized others. More than seventy years later, fascist cinemas challenge us to grapple with issues of more subtle ideological insinuation than we might think. Weekly screenings with subtitles.
Not Offered Every Year
Also Offered As: CIMS 1070, COML 1071, ITAL 1930
1 Course Unit

GRMN 1080 German Cinema
An introduction to the momentous history of German film, from its beginnings before World War One to developments following the fall of the Berlin Wall in 1989 and German reunification in 1990. With an eye to film's place in its historical and political context, the course will explore the "Golden Age" of German cinema in the Weimar Republic, when Berlin vied with Hollywood; the complex relationship between Nazi ideology and entertainment during the Third Reich; the fate of German film-makers in exile during the Hitler years; post-war film production in both West and East Germany; the call for an alternative to "Papa's Kino" and the rise of New German Cinema in the 1960s.
Not Offered Every Year
Also Offered As: CIMS 1080, COML 1080
1 Course Unit
GRMN 1090 Jewish Films and Literature
From the 1922 silent film "Hungry Hearts" through the first "talkie," "The Jazz Singer," produced in 1927, and beyond "Schindler's List," Jewish characters have confronted the problems of their Jewishness on the silver screen for a general American audience. Alongside this Hollywood tradition of Jewish film, Yiddish film blossomed from independent producers between 1911 and 1939, and interpreted literary masterpieces, from Shakespeare's "King Lear" to Sholom Aleichem's "Tvey the Dairyman," primarily for an immigrant, urban Jewish audience. In this course, we will study a number of films and their literary sources (in fiction and drama), focusing on English language and Yiddish films within the framework of three dilemmas of interpretation: a) the different ways we "read" literature and film, b) the various ways that the media of fiction, drama, and film "translate" Jewish culture, and c) how these translations of Jewish culture affect and are affected by their implied audience.
Not Offered Every Year
Also Offered As: COML 1090, ENGL 1289, JWST 1090
1 Course Unit

GRMN 1100 Women in Jewish Literature
"Jewish woman, who knows your life? In darkness you have come, in darkness do you go." J. L. Gordon (1890). This course will bring into the light the long tradition of women as readers, writers, and subjects in Jewish literature. All texts will be in translation from Yiddish and Hebrew, or in English. Through a variety of genres -- devotional literature, memoir, fiction, and poetry -- we will study women's roles and selves, the relations of women and men, and the interaction between Jewish texts and women's lives. The legacy of women in Yiddish devotional literature will serve as background for our reading of modern Jewish fiction and poetry from the past century. The course is divided into five segments. The first presents a case study of the Matriarchs Rachel and Leah, as they are portrayed in the Hebrew Bible, in rabinic commentary, in pre-modern prayers, and in modern poems. We then examine a modern novel that recasts the story of Dinah, Leah's daughter. Next we turn to the seventeenth century Glikl of Hamel, the first Jewish woman memoirist. The third segment focuses on devotional literature for and by women. In the fourth segment, we read modern women poets in Yiddish, Hebrew, and English. The course concludes with a fifth segment on fiction written by women in Yiddish, Hebrew, and English.
Not Offered Every Year
Also Offered As: GSWS 1100, JWST 1100, NELC 0375
1 Course Unit

GRMN 1110 Jewish American Literature
What makes Jewish American literature Jewish? What makes it American? This course will address these questions about ethnic literature through fiction, poetry, drama, and other writings by Jews in America, from their arrival in 1654 to the present. We will discuss how Jewish identity and ethnicity shape literature and will consider how form and language develop as Jewish writers "immigrate" from Yiddish, Hebrew, and other languages to American English. Our readings, from Jewish American Literature: A Norton Anthology, will include a variety of stellar authors, both famous and less-known, including Isaac Mayer Wise, Emma Lazarus, Isaac Bashevis Singer, Celia Dropkin, Abraham Cahan, Anzia Yezierska, Saul Bellow, Philip Roth, Cynthia Ozick, and Allegra Goodman. Students will come away from this course having explored the ways that Jewish culture intertwines with American culture in literature.
Not Offered Every Year
Also Offered As: COML 1110, JWST 1110
1 Course Unit

GRMN 1120 Translating Cultures: Literature on and in Translation
"Languages are not strangers to one another," writes the great critic and translator Walter Benjamin. Yet two people who speak different languages have a difficult time talking to one another, unless they both know a third, common language or can find someone who knows both their languages to translate what they want to say. Without translation, most of us would not be able to read the Bible or Homer, the foundations of Western culture. Americans wouldn't know much about the cultures of Europe, China, Africa, South America, and the Middle East. And people who live in or come from these places would not know much about American culture. Without translation, Americans would not know much about the diversity of cultures within America. The very fabric of our world depend upon translation between people, between cultures, between texts. With a diverse group of readings--autobiography, fiction, poetry, anthropology, and literary theory--this course will address some fundamental questions about translating language and culture. What does it mean to translate? How do we read a text in translation? What does it mean to live between two languages? Who is a translator? What are different kinds of literary and cultural translation? what are their principles and theories? Their assumptions and practices? Their effects on and implications for the individual and the society?
Not Offered Every Year
Also Offered As: COML 1120, JWST 1120
1 Course Unit

GRMN 1130 Water Worlds: Cultural Responses to Sea Level Rise & Catastrophic Flooding
As a result of climate change, the world that will take shape in the course of this century will be decidedly more inundated with water than we're accustomed to. The polar ice caps are melting, glaciers are retreating, ocean levels are rising, polar bear habitat is disappearing, countries are jockeying for control over a new Arctic passage, while low-lying cities and small island nations are confronting the possibility of their own demise. Catastrophic flooding events are increasing in frequency, as are extreme droughts. Hurricane-related storm surges, tsunamis, and raging rivers have devastated regions on a local and global scale. In this seminar we will turn to the narratives and images that the human imagination has produced in response to the experience of overwhelming watery invasion, from Noah to New Orleans. Objects of analysis will include mythology, ancient and early modern diluvialism, literature, art, film, and commemorative practice. The basic question we'll be asking is: What can we learn from the humanities that will be helpful for confronting the problems and challenges caused by climate change and sea level rise?
Not Offered Every Year
Also Offered As: CIMS 1130, COML 1130, ENVS 1040
1 Course Unit
GRMN 1132 Forest Worlds: Mapping the Arboreal Imaginary in Literature and Film
The destruction of the world's forests through wild fires, deforestation, and global heating threatens planetary bio-diversity and may even, as a 2020 shows, trigger civilizational collapse. Can the humanities help us think differently about the forest? At the same time that forests of the world are in crisis, the "rights of nature" movement is making progress in forcing courts to acknowledge the legal "personhood" of forests and other ecosystems. The stories that humans have told and continue to tell about forests are a source for the imaginative and cultural content of that claim. At a time when humans seem unable to curb the destructive practices that place themselves, biodiversity, and forests at risk, the humanities give us access to a record of the complex inter-relationship between forests and humanity. Forest Worlds serves as an introduction to the environmental humanities. The environmental humanities offer a perspective on the climate emergency and the human dimension of climate change that are typically not part of the study of climate science or climate policy. Students receive instruction in the methods of the humanities - cultural analysis and interpretation of literature and film - in relation to texts that illuminate patterns of human behavior, thought, and affect with regard to living in and with nature.
Spring
Also Offered As: CIMS 1520, COML 1054, ENVS 1550
1 Course Unit

GRMN 1140 Liquid Histories and Floating Archives
Climate change transforms the natural and built environments, and it is re-shaping how we understand, make sense, and care for our past. Climate changes history. This course explores the Anthropocene, the age when humans are remaking earth's systems, from an on-water perspective. In on-line dialogue and video conferences with research teams in port cities on four continents, this undergraduate course focuses on Philadelphia as one case study of how rising waters are transfiguring urban history, as well as its present and future. Students projects take them into the archives at the Independence Seaport Museum and at Bartram's Garden. Field trips by boat on the Schuykill and Delaware Rivers and on land to the Port of Philadelphia and to the John Heinz National Wildlife Refuge invite transhistorical dialogues about how colonial and then industrial-era energy and port infrastructure transformed the region's vast tidal marshlands wetlands. Excursions also help document how extreme rain events, storms, and rising waters are re-making the built environment, redrawing lines that had demarcated land from water. In dialogue with one another and invited guest artists, writers, and landscape architects, students final projects consider how our waters might themselves be read and investigated as archives. What do rising seas subsume and hold? Whose stories do they tell? What floats to the surface?
Not Offered Every Year
Also Offered As: ANTH 1440, COML 1140, ENGL 1589, ENVS 1440, HIST 0872
1 Course Unit

GRMN 1146 Queer German Cinema
Taught in English. This course offers an introduction into the history of German-language cinema with an emphasis on depictions of lesbian, gay, bisexual, trans and queer themes. The course provides a chronological survey of Queer German Cinema from its beginnings in the Weimar Republic to its most recent and current representatives, accompanied throughout by a discussion of the cultural-political history of gay rights in the German-speaking world. Over the course of the semester, students will learn not only cinematic history but how to write about and close-read film. No knowledge of German or previous knowledge required.
Not Offered Every Year
Also Offered As: CIMS 1146, GSWS 1146
1 Course Unit

GRMN 1150 Comparative Cultures of Sustainability
Sustainability is more than science, engineering, policy, and design. Surveying the world, we see that the politics and practice of sustainability play out in different ways depending on cultural factors. Some cultures are more prone to pursue ecological goals than others. Why? Do the environmental history and experience of a nation affect policy? Do nature and the environment play a crucial role in the cultural memory of a nation? Can cultural components be effectively leveraged in order to win approval for a politics of sustainability? And what can we, as residents of a country where climate change and global warming are flashpoints in an enduring culture war, learn from other cultures? This course is designed to equip undergraduate students with the historical and cultural tools necessary to understand the cultural aspects of sustainability in two countries noted for their ecological leadership and cultural innovation, Germany and the Netherlands. This hybrid course combines online instruction with a short-term study abroad experience in Berlin and Rotterdam. During the pre-tip online portion of the course, students will become acquainted with the cultural histories of Germany and Dutch attitudes toward sustainability and the environment through a combination of recorded lectures by the instructor, reading assignments, viewing assignments (documentary and feature films), threaded discussions, and short written assignments. The goal of the pre-trip instruction are to help students develop tools for analyzing and interpreting cultural difference, construct working models of German and Dutch concepts of sustainability, and formulate hypotheses about the relation between culture and policy in Germany and the Netherlands. The class will spend a total of ten days in Europe: five days in Berlin and five days in the area of Rotterdam. The days will be jam-packed with visits to important sites of sustainable practice; discussion with policy makers, activists, and scientists; and immersion in the cultures of the Netherlands and Germany. Upon our return from Europe, the class will debrief and students will present online projects. There are no prerequisites or language requirements.
Summer Term
Also Offered As: ENVS 1540
1 Course Unit
GRMN 1151 Comparative Cultures of Resilience and Sustainability in the Netherlands and the United States
Coastal and riverside cities worldwide are under increasing pressure from sea level rise and other effects of climate change. Resilience and sustainability are paradigmatic concepts for the ways in which cities address the effects associated with global warming: sea level rise, extreme weather, changing climate, and their impacts on water, food, energy, and housing. This course focuses on the cultural side of resilience and sustainability in four signature cities: Rotterdam (with areas 6 meters below sea level), Nijmegen (which has devised a new way to live with a major river), New York City (which was devastated by Hurricane Sandy), and New Orleans (one of the most vulnerable American cities). Of course, other cities (Amsterdam, Arnhem, Boston, The Hague, Houston, Miami, etc.) will also come into play. In deeply uncertain times, cities such as these confront an array of interconnected choices that involve not only infrastructural solutions, but priorities, values, and cultural predispositions. Ideally, the strategies that cities devise are generated through inclusive processes based on the understanding that resilience and sustainability should be grounded in the cultural life of their communities. When this is the case, resilience and sustainability can become unique and motivating narratives about how cities and their residents co-develop the kinds of hard, soft, and social infrastructure the climate emergency requires. With this in mind, we will analyze the cities’ climate action plans and resilience strategies; explore their cultural histories relative to flooding events; and consult with Dutch and American experts in climate adaptation, governance, community development, and design. The highlight of the course will be travel to the Netherlands during spring break for site visits and discussions with experts.
Spring
Also Offered As: URBS 1151
1 Course Unit

GRMN 1153 Is Europe Facing a Spiritual Crisis?
Is Europe Facing a Spiritual Crisis? On Contemporary Debates about Secularization, Religion and Rationality. Point of departure for this course is the difference between Europe and the US as to the role of religion in the unfolding of their respective “cultural identities” (cf. Charles Taylor, A Secular Age, 522-530). As a rule, both the US and Western Europe are now defined as secularized cultures, even if their histories and specific identities are strongly rooted in the Christian heritage. Given this contemporary situation, four research questions will be dealt with in this course. 1) What is meant by secularization? In answer to that question, two secularization theories are distinguished: the classic versus the alternative secularization thesis; 2) What is the historical impact of the nominalist turning-point at the end of the Middle Ages in this process towards secularization? 3) How did the relation between rationality and religion develop during modern times in Europe? 4) What is the contemporary outcome of this evolution in so-called postmodern / post-secular Europe and US? We currently find ourselves in this so-called postmodern or post-secular period, marked by a sensitivity to the boundaries of (modern) rationality and to the fragility of our (modern) views on man, world and God. In this respect, we will focus on different parts of Europe (Western and Eastern Europe alike) and will refer to analogies and differences between Western Europe and US. This historical-thematic exposition is illustrated by means of important fragments from Western literature (and marginally from documents in other arts) and philosophy. We use these fragments in order to make more concrete the internal philosophical evolutions in relation to corresponding changes in diverse social domains (religion, politics, economy, society, literature, art...).
Spring
Also Offered As: DTCH 1153
1 Course Unit

GRMN 1160 Sustainability & Utopianism
This seminar explores how the humanities can contribute to discussions of sustainability. We begin by investigating the contested term itself, paying close attention to critics and activists who deplore the very idea that we should try to sustain our, in their eyes, dystopian present, one marked by environmental catastrophe as well as by an assault on the educational ideals long embodied in the humanities. We then turn to classic humanist texts on utopia, beginning with More’s fictive island of 1517. The “origins of environmentalism” lie in such depictions of island edens (Richard Grove), and our course proceeds to analyze classic utopian tests from American, English, and German literatures. Readings extend to utopian visions from Europe and America of the nineteenth and twentieth centuries, as well as literary and visual texts that deal with contemporary nuclear and flood catastrophes. Authors include: Bill McKibben, Jill Kerr Conway, Christopher Newfield, Thomas More, Francis Bacon, Karl Marx, Henry David Thoreau, Robert Owens, William Morris, Charlotte Perkins Gilman, Ayn Rand, Christa Wolf, and others.
Not Offered Every Year
Also Offered As: COML 1160, ENGL 1579, ENVS 1050, STSC 1160
1 Course Unit
GRMN 1170 Global Sustainabilities
This research-oriented seminar focuses on the ways in which "sustainability" and "sustainable development" are linguistically and culturally translated into the world's languages. We may take the terms for granted, but they have only really been on the global stage since they were widely introduced in the 1987 United Nations report, Our Common Future. Seminar participants will first become acquainted with the cultural and conceptual history of the terms and the UN framework within which sustainability efforts directly or indirectly operate. Having established the significance of cultural and linguistic difference in conceiving and implementing sustainability, participants will collaboratively develop a research methodology in order to begin collecting and analyzing data. We will draw heavily on Penn's diverse language communities and international units. Seminar members will work together and individually to build an increasingly comprehensive website that provides information about the world's languages of sustainability.
Not Offered Every Year
Also Offered As: COML 1170, ENVS 1450
1 Course Unit

GRMN 1235 Autobiographical Writing
How does one write about oneself? Who is the "author" writing? What does one write about? And is it fiction or truth? Our course on autobiographical writing will pursue these questions, researching confessions, autobiographies, memoirs, and other forms of life-writing both in their historical development and theoretical articulations. Examples will include selections from St. Augustine's confessiones, Rousseau's Confessions, Benjamin Franklin's Autobiography, as well as many examples from contemporary English, German, French, and American literature.
Not Offered Every Year
Also Offered As: COML 1235
1 Course Unit

GRMN 1300 Topics German Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at http://cinemastudies.sas.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 1301, COML 1300
1 Course Unit

GRMN 1301 Northern Renaissance Art
This course critically examines concepts traditionally associated with the Renaissance by focusing on the exchange of artistic ideas throughout the Holy Roman Empire and across different media, such as the altarpieces of Jan van Eyck, the expressive drawings of Albrecht Durer and Hans Baldung Grien, the peasant studies of Pieter Bruegel and the prints of satirists who wished to remain anonymous. The material is organized thematically around four topics: religious art as piety and politics; antiquity as a source of tradition and imagination; the formulation of a public discourse that exposed social threats; and the distinctiveness of artistic claims of individual achievement. A motif throughout the course is the question of how the survival of fragments may be presented in museum contexts as parts standing in for an absent whole. We will also consider how historians approach designs for works of art now lost or never completed. Encouraging encounters with art and artifacts around the city, assignments focus on objects in Philadelphia collections.
Not Offered Every Year
Also Offered As: ARTH 2610
Mutually Exclusive: ARTH 6610
1 Course Unit

GRMN 1302 Writing About Art Seminar
What does it mean to write about art? What are the historical origins of this undertaking? How does language mediate the intellectual, somatic, and cultural rapport between the viewing self and the physical object? As an initial response to these questions we will examine the writings of the Tuscan artist and critic Giorgio Vasari (1511-1574), the biographer of such renowned artists as Leonardo, Raphael, Donatello, and Michelangelo. We will also read the letters of famous artists from the early modern period, and examine the theoretical forays of artists such as Albrecht DÃ?rer, who attempted to sketch the relationship between the memory and the imagination. Finally, we will look to examples of works of art for how we might read visual images as expressive of theories about what are is and what it can do.
Not Offered Every Year
Also Offered As: ARTH 3510, ENGL 0549, ITAL 3610
1 Course Unit

GRMN 1303 Introduction to Literary Theory
This course introduces students to major issues in the history of literary theory, and provides an excellent foundation for the English major or minor. Treating the work of Plato and Aristotle as well as contemporary criticism, we will consider the fundamental issues that arise from representation, making meaning, appropriation and adaptation, categorization and genre, historicity and genealogy, and historicity and temporality. We will consider major movements in the history of theory including the "New" Criticism of the 1920's and 30's, structuralism and post-structuralism, Marxism and psychoanalysis, feminism, cultural studies, critical race theory, and queer theory. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 1400, ENGL 1400
1 Course Unit

GRMN 1304 Global Modernism Seminar
This course explores literary modernism as a global and cross-cultural phenomenon. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3850, COML 2071, ENGL 2071
1 Course Unit
GRMN 1305 The Vikings
The Vikings were the terror of Europe from the late eight to the eleventh century. Norwegians, Danes and Swedes left their homeland to trade, raid and pillage; leaving survivors praying “Oh Lord, deliver us from the fury of the Norsemen!” While commonly associated with violent barbarism, the Norse were also farmers, craftsmen, and merchants. As their dragon ships sailed the waterways of Europe and beyond, they also transformed from raiders to explorers, discoverers and settlers of found and conquered lands. This course will introduce students to various facets of the culture and society of the Viking world ranging from honor culture, gender roles, political culture, mythology, and burial practices. We will also explore the range of Viking activity abroad from Kiev and Constantinople to Greenland and Vineland, the Viking settlement in North America. We will use material and archeological sources as well as literary and historical ones in order to think about how we know history and what questions we can ask from different sorts of sources. Notably, we will be reading Icelandic sagas that relate oral histories of heroes, outlaws, raiders and sailors that will lead us to question the lines between fact and fiction, and myth and history.
Fall or Spring
Also Offered As: HIST 1210
1 Course Unit

GRMN 1306 Origins of Nazism: From Democracy to Race War and Genocide
Where did the Nazis come from? Was the Weimar Republic bound to fail? Did the Treaty of Versailles or the Great Depression catapult the Nazis into power? What was the role of racism, of Anti-Semitism? How did the regime consolidate itself? What was the role of ordinary people? How do we explain the Holocaust and what kind of a war was the Second World War? Grappling with these and more questions, the first half of the course focuses on Germany’s first democracy, the Weimar Republic and its vibrant political culture. In the second half, we study on the Nazi regime, how it consolidated its power and remade society based on the concepts of race and struggle. Discussions of race and race-making are crucial throughout the course. In the name of the “racial purity,” the Nazi state moved ruthlessly against Germany’s Jewish population and cleansed German society of all “undesirable” elements. These ideas and practices didn’t originate with the Nazis and they didn’t operate in a geopolitical vacuum. Thinking about Nazi racism and genocide in both its particular specifics and in a larger global historical context is the main goal of this course.
Fall or Spring
Also Offered As: HIST 1280
1 Course Unit

GRMN 1800 German in Residence
The German House is a half-credit course with concentrations in German conversation, film, and culture. Though many students enroll for credit, others often come to select events. All interested parties are invited, and you do not have to actually live in the house to enroll for credit. Students from all different levels of language proficiency are welcome. Beginners learn from more advanced students, and all enjoy a relaxed environment for maintaining or improving their German language skills.
Fall or Spring
0.5 Course Units
GRMN 3120 Places of Memory. Lieux de memoire. Erinnerungsorte.  
What is culture? What is German? Where are the borders between German, Austrian and Swiss culture? What is part of the "cultural canon"? Who decides and what role does memory play? Relying on the theory of collective memory (Halbwachs) and the concept of "places of memory" (Erinnerungsorte; Nora, Francois/Schulze) and with reference to exemplary scholarly and literary texts, debates, songs, films, documents, and paintings from high and pop culture, this course will weave a mosaic of that which (also) constitutes German or German-language culture. 
Fall  
Prerequisite: GRMN 2100  
1 Course Unit

GRMN 3210 Krautrock und die Folgen  
Not Offered Every Year  
Prerequisite: GRMN 3110 OR GRMN 3120  
1 Course Unit

GRMN 3212 Seeing Green: Environmentalism in Germany and Austria  
Many regard Germany as a leader in the transition to renewable energy. The Green Party has been a significant player in federal and local politics since 1981. The current Austrian chancellor is a member of the Green Party. Soon, Germany will shutter its last nuclear reactor. Work on the coal phase-out has already begun. Germans overwhelmingly support aggressive climate action by their government. How can we explain this? In this course, we will become familiar with current climate, environmental, and energy policy and practice in Germany and Austria, but we will also delve into the cultural history of German environmentalism. We'll learn about the origin of the German concept of sustainability in early 18th-century forestry; the role of the forest in Romanticism; the origin of the concepts of ecology and environment in the work of Ernst Haeckel and Jacob von Uexkull; the role of the mountains in Austrian environmental thinking; Nazi-era environmentalism; "Waldersterben," the anti-nuke movement and the rise of the Green Party; the "Energiewende"; and the impact of the uprising to protect the Hambacher Forest on the coal phase-out. We'll make use of readings from policy, history, and literature, and screen feature and documentary films. This course is taught in German.  
Not Offered Every Year  
1 Course Unit

GRMN 3215 German Youth Cultures  
This course examines how youth has been understood in German history and how it is experienced today. Literary and non-literary texts, historical documents, and films will help us generate discussion about youth movements; subcultures; sexual expression and repression; and the social and psychological developments that have been part of becoming an adult since the late eighteenth century. Students will improve their spoken and written German during class discussion as well as through individual and collaborative assignments. Taught in German.  
Not Offered Every Year  
1 Course Unit

GRMN 3220 Writing in Dark Times: German Literature  
The rise of Hitler and the Nazis in 1933 radically disrupted the literary marketplace in Germany. Public book burnings were the most visible sign of a complete reorganization of the literary world. What was it like to be a writer in the Third Reich? How did censorship work? What kind of choices were writers forced to make? What political roles did writers adopt? Under what conditions could they publish? Who read their books and how did they read them? These are some of the questions we will ask as we become acquainted with German writers in ideological adherence or alliance, in exile throughout Europe and the Americas, in "inner emigration," even in concentration camps, and in hiding. By focusing on their writing, we will shed light on the value of literature in dark times.  
Not Offered Every Year  
1 Course Unit
GRMN 3221 German Ideas and Nazi Ideology
Right-wing movements are often considered to be a reservoir of those who are left behind and economic losers. This seems to apply as much today as it did to the fascist movements of the first half of the 20th century. Admittedly, the economic situation has had a considerable influence on the development and success of these movements and most intellectuals have obviously reacted with open rejection to the aggressive and racist policies, which has led to mass emigration, especially to the United States. It must be noted, however, that the movement itself was supported by a prominent conservative worldview from which it emerged and through which it is best understood. The notion of the "Downfall of the West" (Oswald Spengler) or the prevailing view among the intellectual elite that "Germany's soul is the place where Europe's spiritual oppositions are carried out" (Thomas Mann) and the resulting disdain for political business, are all expressions of the idea of a special historical responsibility of the Germans. Even though this intellectual elite was opposed to the National Socialist movement, it must be said that the most renowned thinkers not only arranged themselves with the regime, but even supported it at times. Three particularly important examples are Martin Heidegger, Carl Schmitt and Gottfried Benn. Today they are counted among the intellectual giants of the 20th century and their works are studied worldwide, including the University of Pennsylvania. In this seminar, the spirit of National Socialism will be explored. To this end, we will look at the intellectual background in Europe at the beginning of the 20th century, but especially at the period between the two wars, before we will then intensively deal with the National Socialist involvement of the three thinkers Heidegger, Schmitt, and Benn.
Not Offered Every Year
Prerequisite: GRMN 3110 OR GRMN 3120
1 Course Unit

GRMN 3240 Crime and Detection - Dark Deeds
The detective story and the crime drama are time-honored genres of literature and popular culture. We are drawn to morbid scenes of violence and crime, and satisfied by the apprehension of criminals and their punishment. At the same time, the process of detection, of deciphering clues, is much like the process of reading and interpretation. In this course we will read a variety of detective and crime stories, some by famous authors (e.g., Droste-Huelshoff, Fontane, Handke), others by contemporary authors that address interesting aspects of German culture (e.g., Turkish-Germans, gay and lesbian subcultures, DDR and Wende). We will also look at episodes from popular West, East, and post-reunification German TV crime shows (e.g., Tatort).
Not Offered Every Year
1 Course Unit

GRMN 3250 Theater and Language: Staging the 20th Century
Germany's relationship to theater has been intimate since its beginnings, and the events shown on its stages have close ties to the country's social, political, and economic conditions. In this course, students will improve their language skills and cultural knowledge by reading Germany's social and political history through the lens of some of its most fascinating theatrical moments: death scenes. Whether gruesome, suspenseful, uneventful, or unexpected, death fascinates an audience like almost nothing else, and the greatest German-language playwrights of the twentieth century—including Brecht, Wedekind, and Dürenmatt—knew this well. Their works feature everything from friendly executions to grisly serial killings, which students will both read and watch against a background of German cultural history. Taught in German.
Not Offered Every Year
Prerequisite: GRMN 3110 OR GRMN 3120
1 Course Unit

GRMN 3260 Topics in German Literature
Topics vary annually. The course description for Spring 2015 is as follows: Typically "the Other" stands for a person or a group of people from another cultural background. But there have always been other encounters that forced people to distinguish themselves from an "other". Foremost, in order to define what is "human", the "unhuman" needed to be described. Initially, this meant distinguishing the human from the rest of nature. With the industrial revolution, the technological became a concern—machines as monsters. On a figurative level, we have the supernatural, ghosts, aliens, and cyborgs. In this course we will explore the ways in which real and imagined encounters with these "other Others" are depicted in German language literature and culture.
Not Offered Every Year
Prerequisite: GRMN 3110 OR GRMN 3120
1 Course Unit

GRMN 3265 Kafka's Creatures
Franz Kafka's writings are replete with bestial beings, talking animals, hybrid creatures and other non-human or quasi-human entities. Examining the monstrous or grotesque bodies his work offers up for display, this course, taught in German, will interrogate how Kafka's short stories and novellas construct and call into question the very category of the anthropological. Examining the tradition out of which this creaturely writing grows (reading Kafka's animal fables beside Aesop's, for instance) and its legacy in literature, art and cinema (comparing, for example, Kafka's Metamorphosis with David Cronenberg's The Fly), we will also attend to how these incongruous critters and bodies-in-becoming reflect on Kafka's minoritarian experience as a German-speaking Jew in Habsburg-Era Prague and are in turn reflected in uncanny and ever-evolving aesthetic forms.
Not Offered Every Year
1 Course Unit

GRMN 3270 German Literature after 1945
Focus on the continuity of the literary tradition, innovation, and prominent themes related to coming-of-age in today's society, and specific stylistic experiments. Topics include: the changing literary perspective on German history and World War II; the representation of such prominent issues as individual reponsibility, German reunification, and human relations in modern society.
Not Offered Every Year
1 Course Unit

GRMN 3273 Critical Theory of Christa Wolf: What remains?
Understood as one of the most prominent writers of the GDR, Christa Wolf's literary contributions shape cultural production of former East Germany and beyond. Nevertheless, her critical engagement with the writing process and the role that memory plays for identity formation and a collective historical process remain less known. This course will shed light on Wolf's iconographic text Die Dimension des Autors, in which she develops the notion of fossilization—medallions of memory—to unpack the anthropological. Examining the tradition out of which this creaturely writing grows (reading Kafka's animal fables beside Aesop's, for instance) and its legacy in literature, art and cinema (comparing, for example, Kafka's Metamorphosis with David Cronenberg's The Fly), we will also attend to how these incongruous critters and bodies-in-becoming reflect on Kafka's minoritarian experience as a German-speaking Jew in Habsburg-Era Prague and are in turn reflected in uncanny and ever-evolving aesthetic forms.
Not Offered Every Year
1 Course Unit
**GRMN 3280 Decadence**
The period of the late nineteenth and turn to the twentieth century has often been described as a time of decadence—a decline in the "standards" of morals and virtue. While Freud explored the nature of sexual desire, writers like Schnitzler or Wedekind made this exploration central for their stories or plays. The course will focus on the literature and culture of fin-de-siecle Vienna and Berlin, and consider a variety of texts as well as their later reception and translation into film. Lectures and discussion in German.
Not Offered Every Year
Prerequisite: GRMN 3110 OR GRMN 3120
1 Course Unit

**GRMN 3290 Topics in German Culture**
Topics vary; see departmental website for details.
Not Offered Every Year
Prerequisite: GRMN 3110 OR GRMN 3120
1 Course Unit

**GRMN 4100 Trans(l)its**
Drawing on Goethe's musings on "world literature", the course focuses on authors who have arrived at their German words via global, worldly itineraries. The course considers movements between languages, including those of the students themselves and encourages students to develop their own voice as authors via a series of critical and creative writing exercise. At the same time, students develop strategies to reflect on their own language learning. This course provides an important space for German-learners at Penn to draw on one another's experiences in the program and to build a sense of community. The course is required for all German majors in the Fall semester of their senior year.
Fall
Prerequisite: GRMN 3110 OR GRMN 3120
1 Course Unit

**GRMN 5070 Elementary Middle High German**
Designed to familiarize the student with the principal elements of Middle High German grammar and to develop skills in reading and translating a major work of the twelfth century. Limited text interpretation.
Not Offered Every Year
1 Course Unit

**GRMN 5090 Topics in Yiddish Literature: Modernist Jewish Poetry**
One version of this seminar considers works by Jewish women who wrote in Yiddish, Hebrew, English, and other languages in the late 19th through the 20th century. The texts, poetry and prose, will include both belles lettres and popular writings, such as journalism, as well as private works (letters and diaries) and devotional works. The course will attempt to define "Jewish writing," in terms of language and gender, and will consider each writer in the context of the aesthetic, religious, and national ideologies that prevailed in this period. Because students will come with proficiency in various languages, all primary texts and critical and theoretical materials will be taught in English translation. However, those students who can, will work on the original texts and share with the class their expertise to foster a comparative perspective. Because we will be discussing translated works, a secondary focus of the course will, in fact, be on literary translation's process and products. Another version of this seminar presents Jewish modernism as an international phenomenon of the early 20th century. The course will attempt to define "Jewish modernism" through the prism of poetry, which inevitably, given the historical events in Europe and America during this time, grapples with aesthetic, religious, and national ideologies and methods. The syllabus will focus mainly on poetry written in Yiddish and English, and will also include German, Russian, and Hebrew verse. All poetry, critical, and theoretical materials will be taught in English translation, although students who know the languages will work on the original texts and will bring to the table a comparative perspective. Because we will be discussing translated poems, a secondary focus of the course will, in fact, be on literary translation's process and products.
Not Offered Every Year
Also Offered As: COML 5090, GSWS 5090, JWST 5090, YDSH 5090
1 Course Unit

**GRMN 5100 Kant I**
The course will concentrate on the Critique of Pure Reason and discuss in detail Kant's conception of knowledge and experience, his criticism of traditional metaphysics and the resulting project of a system of transcendental philosophy.
Not Offered Every Year
1 Course Unit

**GRMN 5110 Stylistics**
Textual analysis based on communication theory. Texts selected from literature and other disciplines. Emphasis placed on the development of the student's own compositional and stylistic skills.
Not Offered Every Year
Prerequisite: GRMN 3110 OR GRMN 3120
1 Course Unit

**GRMN 5160 Teaching Methods**
This course examines major foreign language methodologies, introduces resources available to foreign language teachers, and addresses current issues and concerns of foreign language teaching and learning, such as second language acquisition theory and application of technology.
Fall or Spring
1 Course Unit

Although the starting point for the Anthropocene is still under discussion, there is broad agreement that the industrial revolution and the turn to fossil fuels mark an intensification of humanity’s impact on the Earth. It may not be a coincidence that Kant’s proclamation of the Copernican revolution in philosophy, according to which human reason replaces the natural light of traditional metaphysics, falls roughly in the same period. Human finite cognition became the measure for God and his creation. The dawn of the era of human freedom and the ramped up exploitation of resources coincide. It is against this background that the Naturphilosophie of F. W. J. Schelling can become particularly interesting. The genesis of German idealism is closely related with the opposition between freedom and necessity that lies at the heart of Kant’s critical project. Kant associated the former with man and the latter with nature. In trying to bridge the gap between them, Schelling reinstates nature as an autonomous actor in its own right. Schelling’s thinking about nature chimed with the literary and empirical-scientific work of his contemporary Johann Wolfgang von Goethe. In the productive interplay of poetry, science, religion, and philosophical thought, Goethe and Schelling offer a critical alternative to philosophy in the aftermath of the Copernican revolution that may be viable or useful today as humanity tries to come to terms with anthropogenically induced climate change. This co-taught interdisciplinary seminar will focus on works by Schelling (Ideas for a Philosophy of Nature, First Outline of a System of the Philosophy of Nature, On the World Soul) and Goethe (scientific writings, Faust I & II), in addition to engaging recent scholarship of Schelling and Goethe in relation to environmental humanities.

Not Offered Every Year
Also Offered As: COML 5250
1 Course Unit

GRMN 5260 The Trouble with Freud: Psychoanalysis, Literature, Culture

For professionals in the field of mental care, Freud’s work is often regarded as outmoded, if not problematic psychologists view his work as non-scientific, dependent on theses that cannot be confirmed by experiments. In the realm of literary and cultural theory, however, Freud’s work seems to have relevance still, and is cited often. How do we understand the gap between a medical/scientific reading of Freud’s work, and a humanist one? Where do we locate Freud’s relevance today? The graduate course will concentrate on Freud’s descriptions of psychoanalytic theory and practice, as well as his writings on literature and culture.

Not Offered Every Year
Also Offered As: COML 5260, GSWS 5260
1 Course Unit

GRMN 5350 The Elemental Turn

The unfolding effects of climate change—rising sea level, melting ice sheets, subsiding land masses, drought stricken regions, wild fires, air laden with greenhouse gases, and inundated cities—heighen our awareness of the elements: air, earth, fire and water. Within the context of the new materialism, philosophers, eco-critics, and writers are re-turning to the elements and encountering, at the same time, predecessor texts that assume new relevance. This seminar will place current thinking and writing about the elements into dialogue with older traditions ranging from the classical (Empedocles, Plato, Lucretius) to writers and thinkers of the eighteenth, nineteenth and twentieth centuries (e.g., Goethe, Novalis, Tieck, Stifter, Bachelard, Heidegger, Boehme).

Not Offered Every Year
Also Offered As: COML 5350
1 Course Unit

GRMN 5370 Translating Literature: Theory and Practice

The greats all have something to say about translation. The Hebrew poet H. N. Bialik is attributed with saying that “he who reads the Bible in translation is like a man who kisses his bride through a veil.” That, however, is a mistranslation: What Bialik really wrote was, “Whoever knows Judaism through translation is like a person who kisses his mother through a handkerchief.” (http://benyehuda.org/bialik/dvarim02.html), a saying that he probably translated and adapted from Russian or German. (https://networks.h-net.org/node/28655/discussions/116448/query-bialik-kissing-bride) Robert Frost wrote, “I could define poetry this way: it is that which is lost out of both prose and verse in translation.” Walter Benjamin defines it: “Translation is a form. To comprehend it as a form, one must go back to the original, for the laws governing the translation lie within the original, contained in the issue of its translatability.”

Lawrence Venuti rails against translation that domesticates, rather than foreignizes, thus betraying the foreign text through a contrived familiarity that makes the translator invisible. Emily Wilson wants her translation “to bring out the way I think the original text handles it. [The original text] allows you to see the perspective of the people who are being killed.” https://bookriot.com/2017/12/04/emily-wilson-translation-the-odyssey/ Is translation erotic? A form of filial love? Incestuous? A mode of communion, or idol worship? Is translation a magician's vanishing trick? Is translation traitorous, transcendent? Maybe translation is impossible. But let's try it anyways! In this graduate seminar, we will read key texts on the history and theory of translating literature, and we sample translations from across the centuries of the “classics,” such as the Bible and Homer. We will consider competing translations into English of significant modern literary works from a variety of languages, possibly including, but not limited to German, Yiddish, French, Hebrew, and Russian. These readings will serve to frame each student’s own semester-long translation of a literary work from a language of her or his choice. The seminar offers graduate students with their skills in various language an opportunity to take on a significant translation project within a circle of peers.

Not Offered Every Year
Also Offered As: COML 5370, JWST 5370
1 Course Unit
GRMN 5400 Franz Kafka and J. M. Coetzee
This seminar will listen attentively to the echoes of Franz Kafka in the novels of J.M. Coetzee. Building on Gilles Deleuze and Felix Guattari's concept of a minor literature, elaborated on the example of Kafka's oeuvre, we will situate Kafka against the backdrop of the German-speaking Jewish community of Habsburg-era Prague and read Coetzee within the context of apartheid and his native South Africa. Beyond an investigation of empire and its aftermath, this course will consider the arguably posthuman ethics of these authors, examining them through the lens of animal studies and the environmental humanities in order to reveal how they anticipate and participate in current thinking on the Anthropocene. Reading Kafka's fables beside Coetzee's allegorical narratives, the seminar will follow the twisted course taken by literary justice from the Josef K. of Kafka's Trial to Coetzee's Life and Times of Michael K. Alongside these two towering figures, the influence of and affinities with other German-language authors (Heinrich von Kleist, Hugo von Hofmannsthal, Robert Walser) and Anglophone contemporaries (Samuel Beckett, Nadine Gordimer, Cormac McCarthy) will also be considered. Other works to be read will include Kafka's Castle, In the Penal Colony, Metamorphosis and late animal stories as well as Coetzee's In the Heart of the Country, Waiting for the Barbarians and Elizabeth Costello. Advanced undergraduates may enroll with the permission of the instructor. Readings and discussions in English. Not Offered Every Year
Also Offered As: COML 5400, ENGL 6400
1 Course Unit

GRMN 5410 Topics in Cultural History
Topic for Fall 2021: Making and Marking Time. Not Offered Every Year
Also Offered As: ARTH 5870, COML 5410, ENGL 5410
1 Course Unit

GRMN 5420 Topics in Culture.
Topics vary annually. Not Offered Every Year
Also Offered As: COML 5420
1 Course Unit

GRMN 5430 Environmental Humanities: Theory, Method, Practice
Environmental Humanities: Theory, Methods, Practice is a seminar-style course designed to introduce students to the trans- and interdisciplinary field of environmental humanities. Weekly readings and discussions will be complemented by guest speakers from a range of disciplines including ecology, atmospheric science, computing, history of science, medicine, anthropology, literature, and the visual arts. Participants will develop their own research questions and a final project, with special consideration given to building the multi-disciplinary collaborative teams research in the environmental humanities often requires. Not Offered Every Year
Also Offered As: COML 5430, ENGL 5430, ENVS 5410, SPAN 5430
1 Course Unit

GRMN 5440 Public Environmental Humanities
This broadly interdisciplinary course is designed for Graduate and Undergraduate Fellows in the Penn Program in Environmental Humanities (PPEH) who hail from departments across Arts and Sciences as well as other schools at the university. The course is also open to others with permission of the instructors. Work in environmental humanities by necessity spans academic disciplines. By design, it can also address and engage publics beyond traditional academic settings. This seminar, with limited enrollment, explores best practices in public environmental humanities. Students receive close mentoring to develop and execute cross-disciplinary, public engagement projects on the environment. In spring 2018, participants have the opportunity to participate in PPEH's public engagement projects on urban waters and environmental data. These ongoing projects document the variety of uses that Philadelphians make of federal climateand environmental data, in and beyond city government; they also shine light on climate and environmental challenges our city faces and the kinds of data we need to address them. Working with five community partners across Philadelphia, including the City's Office of Sustainability, students in this course will develop data use stories and surface the specific environmental questions neighborhoods have and the kinds of data they find useful. The course hosts guest speakers and research partners from related public engagement projects across the planet; community, neighborhood, open data, and open science advocates; and project partners in government in the City of Philadelphia and Commonwealth of Pennsylvania. Course assignments include: * 2 short-form essays (course blog posts); * a 12-hour research stay (conducted over multiple visits) with a community course partner to canvas data uses and desires; * authorship of 3 multi-media data stories; * co-organization and participation in a city-wide data storytelling event on May 2, 2018. Not Offered Every Year
Also Offered As: ANTH 5440, COML 5440, ENVS 5440, URBS 5440
1 Course Unit

GRMN 5450 Reading Benjamin Reading Kafka
Readings and discussions in English. Walter Benjamin's study of the works of Franz Kafka is as enlightening as it can be bewildering. Moving from philology to Marxism, metaphysics to messianism, Daoism to Talmud, this densely argued piece elliptically touches on almost all of Kafka's published works in just four short sections. This seminar proposes a line-by-line reading Benjamin's 1934 "Franz Kafka on the Tenth Anniversary of His Death" with an eye to its literary, philosophical and religious contexts as well as to the rich history of its intellectual reception. Reading Kafka's works as the essay evokes them, we will situate this piece with regard to Benjamin's other writings, the essay's interlocutors (Brod, Scholem, Lukacs, Brecht) and its most illustrious interpreters (Adorno, Arendt, Celan, Hamacher). Not Offered Every Year
Also Offered As: COML 5650, JWST 5650
1 Course Unit
GRMN 5470 Writing in Dark Times: German Literature
The rise of Hitler and the Nazis in 1933 radically disrupted the literary marketplace in Germany. Public book burnings were the most visible sign of a complete reorganization of the literary world. What was it like to be a writer in the Third Reich? How did censorship work? What kind of choices were writers forced to make? What political roles did writers adopt? Under what conditions could they publish? Who read their books and how did they read them? These are some of the questions we will ask as we become acquainted with German writers in ideological adherence or alliance, in exile throughout Europe and the Americas, in “inner emigration,” even in concentration camps, and in hiding. By focusing on their writing, we will shed light on the value of literature in dark times.
Not Offered Every Year
1 Course Unit

GRMN 5500 Topics German Cinema
This topic course explores aspects of Film History intensively. Specific course topics vary from year to year. See the Cinema Studies website at http://cinemastudies.sas.upenn.edu for a description of the current offerings.
Not Offered Every Year
1 Course Unit

GRMN 5510 Kant I
The graduate course will concentrate on the Critique of Pure Reason and discuss in detail Kant’s conception of knowledge and experience, his criticism of traditional metaphysics and the resulting project of a system of transcendental philosophy.
Not Offered Every Year
Also Offered As: PHIL 6181
Prerequisite: PHIL 1170
1 Course Unit

GRMN 5520 Kant II
This graduate course is a study of Kant’s moral and political philosophy. Texts may include Kant’s Lectures on Ethics, Groundwork for the Metaphysics of Morals, Critique of Practical Reason, Religion within the Boundaries of Mere Reason, and Metaphysics of Morals.
Not Offered Every Year
Also Offered As: PHIL 6182
1 Course Unit

GRMN 5550 Topics in Dutch Studies
Topics vary.
Not Offered Every Year
Also Offered As: COML 5550, DTCH 5300
1 Course Unit

GRMN 5560 What is Enlightenment?
The question “What is the Enlightenment?” was posed for an essay competition in a journal, the Berlin Monatsschrift in 1784. At that point, French and English philosophers had already considered new ways of thinking, inventing the modern individual and the modern citizen (in contrast to a state’s subject). German responses to this question were written by an established philosopher (Immanuel Kant), a Jewish resident of Berlin (Moses Mendelssohn), as well as concerned readers of recent philosophical treatises. In our course, we will consider this question by exploring this early discussion and the formation of Enlightenment thought in Europe and specifically Germany, including the German-Jewish Enlightenment (Haskalah), but also trace the historical transformation of this discussion, including Theodor W. Adorno’s and Max Horkheimer’s Dialectics of Enlightenment (1944/1947) and more recent criticism.
Not Offered Every Year
1 Course Unit

GRMN 5570 Reading the Twentieth Century
Taught in German, this graduate anchor course gives an introduction to German-language literary traditions through an overview of important authors, texts and movements of the long twentieth century. Short texts by Franz Kafka and Elfriede Jelinek provide conceptual bookends permitting an understanding of the evolution of literary modernism into the postmodern—from psychoanalysis to the postnational, Expressionism to postdramatic theater and from language crisis to the (im)possibility of poetry after Auschwitz. Longer works of narrative and theater are complemented by accompanying poetry, theoretical or philosophical approaches. Readings include works by Hofmannsthal, Rilke, Schnitzler, Musil, Brecht, Celan, Özdamar and Tawada, among others.
Not Offered Every Year
1 Course Unit

GRMN 5580 The Long Nineteenth Century: Literature, Philosophy, Culture
The present course will discuss German literature and thought from the period of the French Revolution to the turn of the twentieth century, and put it into a European context. In regard to German literature, this is the period that leads from the Storm and Stress and Romanticism to the political period of the Vormärz, Realism, and finally Expressionism; in philosophy, it moves from German Idealism to the philosophy of Schopenhauer, Nietzsche, and neo-Kantian thought. It is also the period that saw the rise of the novel, and new forms of dramatic works. Painting moved out of the studio into plein air; the invention of photography made an imprint on all arts, and the rise of the newspaper led to new literary genres such as the feuilleton. Economically, Germany experienced the industrial revolution; politically, it was striving for a unification that was finally achieved in 1871. The nineteenth century saw the establishment of the bourgeoisie, the emergence of the German working class, and the idea of the nation state; it also saw Jewish emancipation, and the call for women’s rights. Readings will focus on a variety of literary, political, and philosophical texts; and consider a selection of art works.
Not Offered Every Year
Also Offered As: ARTH 7770, COML 5660
1 Course Unit

GRMN 5590 Myth Through Time and In Time
The textual and physical remains of Greek and Roman culture and belief as ‘myth’ entrenched the post-antique European world and its neighbors. Makers, patrons and viewers manipulated those survivals to challenge and speak to a contemporary world. This course focuses on how and why artists and their patrons engaged the mythic and examines the various areas of political and religious life that sought animation through evocation of narratives from the past. Readings and case studies will engage with very late antique, medieval, and early modern art, turning to the modern and contemporary as well. Moving to the modern lets us examine, among other things, how artists address the exclusionary histories of the past, to enable critiques of myths of supremacy by one gender, race, or culture over others.
Also Offered As: AAMW 5590, ARTH 5590, CLST 7400, COML 5590
1 Course Unit

GRMN 5600 Topics in Philosophy and Literature
Topics vary annually.
Not Offered Every Year
1 Course Unit
GRMN 5610 The Long Eighteenth Century
The aim of this anchor course is to acquaint students with the literary, philosophical, and cultural complexity of the “long eighteenth century,” roughly 1648-1806. Often associated with the enlightenment and the revolutions it inspired, the eighteenth century is a prolonged period in which institutions of power and knowledge come under pressure and are reconfigured. Old institutions are submitted to the critique of reason, while new institutions of governance, sociability, gender, race and class create new spaces for cultural production. Students will analyze representative works in context and in combination with current scholarship.
Not Offered Every Year
1 Course Unit

GRMN 5620 Early Modernism
Topics vary annually.
Not Offered Every Year
1 Course Unit

GRMN 5690 New German Fiction
This seminar addresses topics in contemporary German literature, including migration, exile, memory, identity, family, and language. We will evaluate the aesthetic merits of these works as well as discuss their social, political, and cultural contexts. Assignments will include book reviews; interpretations; and presentations on authors and the contemporary publishing industry. Readings and class discussion in German.
Not Offered Every Year
Prerequisite: GRMN 3110 OR GRMN 3120
1 Course Unit

GRMN 5710 Literature and Multilingualism
Since several years, the societal and cultural reality of multilingualism has become an important research field in linguistics and literary studies, as in cultural studies more generally. This graduate course will investigate how multilingual poetics challenge and resist paradigms and ideologies of innate monolingualism, linguistic mastery, absolute translatability and monocultural nationalism. To begin with, the course will introduce central aspects of scholarship on literature and multilingualism, covering concepts such as heteroglossia, code switching, translanguaging and macaronic language, and debates such as those on world literature, global English, foreignization, (un)translatability and non-translation, including their political and ethical importance. After a brief historical overview, glancing at western literary multilingualism in the Middle Ages, Romanticism and the avantgarde, the course will mainly focus on literature of the late 20th and 21st centuries taken from Germanic and Romance linguistic contexts. Using an exemplary selection, the course will cover prose, poetry and drama, and include excerpts of texts by authors such as Andrea Camilleri, Gino Chiellino, Fikry El Azzouzzi, Ernst Jandl, Jackie Kay, Çağlar Köseoğlu, Monique Mojica, Melinda Nadj Abonji, Emine Sevgi Özdamar, Olivier Rolin, Yoko Tawada, Nicole van Harskamp, and others. Reading these texts, we will try to determine how multilingualism manifests itself (linguistically, discursively, rhetorically, thematically, contextually etc.) and how the texts engage with linguistic, cultural and social pluralities. The course will conclude with a focus on the translator as a central character in fictional prose and movies. Classes will take place in an interactive format that stimulates discussion and exchange. Students will get the respective excerpts – both in the original version and in English translation – one week at a time so that they can prepare themselves each week for the discussion. Theoretical and contextual information will be provided via Power Point presentations.
Not Offered Every Year
Also Offered As: COML 5710, DTCH 5710, FREN 5710, ITAL 5710
1 Course Unit

GRMN 5720 Materialism
How do we recognize materialism? This seminar poses this question by acknowledging “materialism” as a contested category with disparate and contradictory historical meanings: as a synonym for dogmatism, as the arch-enemy of reason and morality, as the scientific philosophy of the revolutionary workers' movement, as an alternative to (ideal)ist metaphysics, as a poetic practice, or as a central concern for material nature and environment, among others. Less concerned with enumerating philosophical systems, we will search out “family resemblances” and materialist tendencies among a wide range of texts. To this end, we will not only read the major historical texts of the so-called materialists (from Lucretius to Spinoza, from La Mettrie to Lenin), but also engage with materialism's supposed critics and antagonists (from Plato to Kant and Hegel). A special emphasis will be placed on the attempts to recuperate materialism as a positive category in recent critical theory and continental philosophy, for example, in the reinventions of Marxist and Spinozist traditions. We will also survey the attempts that found new traditions, such as aleatory materialism or various new materialisms. By reading exemplary literary texts that engage with the problem of materialism the seminar will also ask: can one speak of materialist poetics?
Not Offered Every Year
Also Offered As: COML 5380
1 Course Unit
GRMN 5730 Topics in Criticism & Theory: Object Theory
Topics vary annually
Not Offered Every Year
Also Offered As: ARTH 5730, CIMS 5730, COML 5730, ENGL 5730, REES 6683
1 Course Unit

GRMN 5740 Politics and Societies in the Early Modern World
In this seminar, we will discuss how early modern globalization affected societies and the ways their members and rulers made politics. Following a historiographical introduction, it is divided in three sections. In the first, we will concentrate on empires and kings in order to detect common features of dynastic power across the globe and to explore how such characteristics influenced each other. Second, we will shift our attention to citizens and the ways they made politics in their city-states. For a long time, research on citizenship has been confined to the post-revolutionary nation states. However, recent research suggests that urban citizenship has far deeper roots in medieval and early modern cities. Up to now most research has focused on urban centers in Western Europe and more precisely on the so-called urban belt stretching from Central and North-Italy over Switzerland and Southern Germany to the Rhineland and the Low Countries. Comparisons with urban centers in Asia and the colonial Americas will be needed to test that view. In the third section, we will study the people who provided information to societies and decision makers. Often, they held multiple identities or they acted as religious or ethnic outsiders. Therefore, we call them, with a term borrowed from anthropology ‘brokers’. Taken together, the analysis of these aspects will deepen our understanding of politics and societies in the globalizing early modern world. Thus, the seminar will contribute to a more comprehensive, less Europe-centered view on that period.
Not Offered Every Year
Also Offered As: DTCH 5740
1 Course Unit

GRMN 5750 Kafka's Creatures
Franz Kafka's writings are replete with bestial beings, talking animals, hybrid creatures and other non-human or quasi-human entities. Examining the monstrous or grotesque bodies his work offers up for display, this course, taught in German, will interrogate how Kafka's short stories and novellas construct and call into question the very category of the anthropological. Examining the tradition out of which this creaturely writing grows (reading Kafka's animal fables beside Aesop's, for instance) and its legacy in literature, art and cinema (comparing, for example, Kafka's Metamorphosis with David Cronenberg's The Fly), we will also attend to how these incongruous critters and bodies-in-becoming reflect on Kafka's minoritarian experience as a German-speaking Jew in Habsburg-Era Prague and are in turn reflected in uncanny and ever-evolving aesthetic forms.
Not Offered Every Year
1 Course Unit

GRMN 5750 The Panorama Experience
Painted panoramas were one of the nineteenth century's signature popular entertainments. Since its invention in 1787, audiences from cities and towns around the world have admired these circular landscape representations of nature, cities, and battles, which provide an opportunity to escape everyday life by witnessing scenes from the past and far-away places from an unfamiliar perspective. In this seminar, we will consider the phenomenon of the panorama, above all, as a political art form. We will examine the ways in which European and American artists since the nineteenth century have turned to panoramic forms to tell and call into question stories about empire and colonialism, enslavement and freedom struggles, the mastery of natural environments, as well as military victory and loss. As we debate the politics of panoramic forms, we will gain familiarity with a set of related topics from visual and material culture, including vedute, transparencies, magic lantern projections, panoramic wallpaper, dioramas, cartographic representation, history painting, illustrated print culture and pictorial journalism, travel literature and guidebooks, accordion folds and gatefolds, stereoscopes, panoramic photography, panoramic shots in cinema, and immersive environments. In addition to enriching your knowledge of nineteenth-century media history and how to conduct media archaeological research in libraries, archives, and museums, this seminar will offer an overview of approaches to visual culture from social history, gender, race, colonialism, museum studies, print history, sound studies, transnational history, and digital art history, which will be of use for work in a number of interdisciplinary fields. Students with a background in disciplines, such as architecture, literature, history, cinema studies, gender and sexuality studies, Africana Studies, and material texts, are welcome.
Not Offered Every Year
1 Course Unit

GRMN 5770 Inside the Archive
What is an archive, and what is its history? What makes an archival collection special, and how can we work with it? In this course, we will discuss work essays that focus on the idea and concept of the archive by Jacques Derrida, Michel de Certeau, Benjamin Buchloh, Cornelia Vismann, and others. We will consider the difference between public and private archives, archives dedicated to specific disciplines, persons, or events, and consider the relationship to museums and memorials. Further questions will involve questions of property and ownership as well as the access to material, and finally the archive's upkeep, expansion, or reduction. While the first part of the course will focus on readings about archives, we will invite curators, and visit archives (either in person or per zoom) in the second part of the course. At Penn, we will consider four archives: (1) the Louis Kahn archive of architecture at Furness, (2) the Lorraine Beitel Collection of material relating to the Dreyfus affair, (3) the Schoenberg collection of medieval manuscripts and its digitalization, and (4) the University archives. Outside Penn, we will study the following archives and their history: (1) Leo Baeck Institute for the study of German Jewry in New York, (2) the Sigmund Freud archive at the Library of Congress, Washington, D.C., (3) the German Literary Archive and the Literaturmuseum der Moderne in Marbach, Germany, and (4) the archives of the National Library of Israel in Jerusalem.
Not Offered Every Year
1 Course Unit
GRMN 5780 Northern Renaissance Art
This course critically examines concepts traditionally associated with the Renaissance by focusing on the exchange of artistic ideas throughout the Holy Roman Empire and across different media, such as the altarpieces of Jan van Eyck, the expressive drawings of Albrecht Durer and Hans Baldung Grien, the peasant studies of Pieter Bruegel and the prints of satirists who wished to remain anonymous. The material is organized thematically around four topics: religious art as piety and politics; antiquity as a source of tradition and imagination; the formulation of a public discourse that exposed social threats; and the distinctiveness of artistic claims of individual achievement. A motif throughout the course is the question of how the survival of fragments may be presented in museum contexts as parts standing in for an absent whole. We will also consider how historians approach designs for works of art now lost or never completed. Encouraging encounters with art and artifacts around the city, assignments focus on objects in Philadelphia collections.
Not Offered Every Year
Also Offered As: ARTH 2610, GRMN 1301
1 Course Unit

GRMN 5781 Privacy and Society in Seventeenth-Century Dutch Art Seminar
How do paintings offer occasions for personal reflection, and how do they construct social bonds? The aim of this seminar is to develop a set of critical skills for analyzing the different ways in which seventeenth-century Dutch paintings drew upon shared social values, national identity and economic pride, how they appealed to individual buyer tastes, and how they have engaged and continue to engage poetic minds. We will address these matters by paying particular attention to the representation of space, considering domestic interiors, urban settings, church architecture, imperial arenas, and landscapes both real and imagined. Our discussions of how paintings reflect and shape privacy and society will be informed by visits to the Philadelphia Museum of Art, by readings from methodologically diverse essays, and by writing frequently, which will provide us with occasions to test our ideas in response to what we see and read. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: ARTH 5610, DTCH 5780
1 Course Unit

GRMN 5790 Spinoza After Marx
This seminar will focus on the thought of Baruch Spinoza and Karl Marx, tracing the effects of their encounter, not only in philosophy and critical theory, but in fields ranging from literary studies to environmental humanities. The second half of the twentieth century saw a revival of interest in Spinoza across the humanities and social sciences as a means of rethinking the very terms of philosophical and political debates of modernity. Mobilized for political purposes and contemporary demands, especially among Marxist theoreticians, Spinoza's philosophy became virtually unrecognizable from its earlier forms of reception. This seminar departs from the following observation: on the one hand, this revival of Spinoza proved especially fruitful among Marxist theoreticians; on the other hand, the modes of interpretation of Spinoza and the adaptations of Spinoza and Marxism are highly heterogeneous and often conflictual. The seminar will ask: what is it about Spinoza's thought that lends itself to a revival of Marxism? To what extent is Marx's thought necessary for a reevaluation of Spinoza? Why Spinoza today? To address these questions, we will trace the multiple traditions that think Marx and Spinoza together: the deployment of Spinoza against Hegel to rejuvenate Marxism in France (Louis Althusser, Etienne Balibar, Gilles Deleuze, Chantal Jaquet); the development of theories of the multitude in the tradition of Autonomism in Italy (Antonio Negri, Paolo Virno); the vicissitudes of Spinozism among the Soviet Marxists (Lyubov Axelrod, Abram Deborin, Evald Ilyenkov). Likewise, we will investigate the most recent turn to the Marx-Spinoza tradition in psychoanalysis (A. Kiariana Kordela), rethinking finance capitalism (Frederic Lordon), feminist theory (Moira Gatens), literary studies (Pierre Macherey, Anthony Uhlmann), and environmental humanities (Hasana Sharp, Beth Lord).
Not Offered Every Year
Also Offered As: COML 5790
1 Course Unit

GRMN 5791 German Art Seminar
This seminar surveys German art from the early-modern period (Schongauer, Düer, Grunewald, Holbein) through the twenty-first century (Gerhard Richter, Isa Genzken, Rosemarie Trockel). Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: ARTH 5611
1 Course Unit

GRMN 5800 Topics In Aesthetics
Topic title for Spring 2018: Walter Benjamin. Walter Benjamin (1892-1940) is a philosopher whose writings on art, literature, and politics have had tremendous influence on many disciplines in the Humanities and Social Studies. He has been variously described as one of the leading German-Jewish thinkers, and a secular Marxist theorist. With the publication of a four-volume collection of this works in English, many more of his writings have been made accessible to a wider public. Our seminar will undertake a survey of his work that begins with his studies on language and allegory, and continues with his autobiographical work, his writings on art and literature, and on the imaginary urban spaces of the nineteenth-century.
Not Offered Every Year
Also Offered As: ARTH 5871, COML 5800, JWST 5800, PHIL 5389
1 Course Unit
GRMN 5810 Topics in Jewish History
Reading and discussion course on selected topics in Jewish history. The instructors are visiting scholars at the Center for Advanced Judaic Studies. Topic and seminar title for Spring 2015: Topics in Jewish Studies: The Origins of Jewish Studies. Course description for Spring 2015: This is a reading course that grants seminar participants access to Katz Center fellows, some of the best scholars in Judaic studies from around the world. The aim of the course is to expose students to these scholars and their work, to get to know them as people, learn from them at high level, and understand their approach to the field. Over the course of the spring semester there will be four 3-session modules. Students will meet with 4 different fellows for 3 sessions each. The weekly 90-minute classes will be held at the Katz Center on Wednesdays from 10:30 am - 12 pm, and participants will be encouraged to stay for lunch and the fellows’ seminar which runs from 12:30 - 2:30 pm.
Not Offered Every Year
Also Offered As: JWST 5811
1 Course Unit

GRMN 5830 Hegel
A graduate seminar on Hegel's philosophy, focusing primarily on his Phenomenology of Spirit, with attention to passages in other works such as Hegel's Logic and Philosophy of Right. Topics may include: (1) Hegel's conception of philosophy, (2) the development of his system, (3) the problem of an introduction to his system (Phenomenology of Spirit), (4) Hegel's criticism of traditional metaphysics, (5) his notion of a ‘concept’ (Begriff), his theory of the Idea. The seminar will focus primarily on some of Hegel's early Jena writings, his Phenomenology of Spirit, on passages from different versions of Hegel's Logic and (maybe) on aspects of his Philosophy of Right. Topics that are dealt with include: (1) Hegel's conception of philosophy, (2) the development of his system, (3) the problem of an introduction to his system (Phenomenology of Spirit), (4) Hegel's criticism of traditional metaphysics, (5) his notion of a 'concept' (Begriff), his theory of the Idea. Other topics might become of interest as well.
Not Offered Every Year
Also Offered As: PHIL 6191
1 Course Unit

GRMN 5990 Teaching and Learning
The course focuses on diverse areas of Foreign Language and Second Language Acquisition research and theories and how they apply to foreign language teaching. Students will familiarize themselves with the major foreign language methodologies and approaches, as well as the ACTFL standards and proficiency guidelines for foreign language learning. Similarly, students will analyze the resources and tools for planning instruction in a second language based on the Universal Design for Learning. Furthermore, students will research and discuss the most effective ways to promote diversity, inclusivity, and equity; enhance learning experiences and outcomes through technology; foster engagement and active learning; and build a sense of community in the foreign language classroom.
Fall
Also Offered As: FREN 5990, ITAL 5990
1 Course Unit

GRMN 6050 Modern Literary Theory and Criticism
This course will provide an overview of major European thinkers in critical theory of the 20th and 21st centuries. We will pay particular attention to critical currents that originated in Eastern European avant-garde and early socialist contexts and their legacies and successors. Topics covered will include: Russian Formalism and its successors in Structuralism and Deconstruction (Shklovsky, Levi-Strauss, Jakobson, Derrida); Bakhtin and his circle, dialogism and its later western reception; debates over aesthetics and politics of the 1930s (Lukacs, Brecht, Adorno, Benjamin, Radek, Clement Greenberg); the October group; Marxism, new Left criticism, and later lefts (Althusser, Williams, Eagleton, Jameson, Zizek).
Fall or Spring
Also Offered As: COML 6050, ENGL 6050, ENGL 7905, FREN 6050, ITAL 6050, REES 6435
1 Course Unit

GRMN 6120 Hannah Arendt: Literature, Philosophy, Politics
The seminar will focus on Arendt’s major work, The Origins of Totalitarianism (and its three parts, Anti-Semitism, Imperialism, Totalitarianism). We will also discuss the reception of this work and consider its relevance today.
Not Offered Every Year
Also Offered As: COML 6120, ENGL 6120, JWST 6120, PHIL 5439
1 Course Unit

GRMN 6210 Reading Marx's Capital: Divergent Traditions in Europe, the Soviet Union, and the Global South
Karl Marx's masterpiece Capital received little attention at the time of its publication, but gained new life in the twentieth and twenty-first centuries. The afterlives of Capital, however, took disparate forms across different regions and traditions globally: while working on the same text, these traditions gave rise to conflicting and contradictory interpretations, antagonistic dialogues, and cross-disciplinary encounters. This seminar will examine a series of exemplary interpretations of Capital with attention to detail in order to clarify the stakes of different readings and pose the question of relevance of Marx’s masterpiece for the contemporary moment. We will investigate how political conjunctures, regional specificities, and ideological concerns shape disparate modes and cultures of reading. We will also examine how Capital is transfigured through the lens of disciplines such as literary studies and comparative literature, philosophy, political science, postcolonial studies, and economics. We will also pose the question of philosophical genealogies of Capital, tracing how divergent philosophical backgrounds inflect the reconfigurations of Marx’s thought, e.g., in examining “Hegelian,” “Spinozist,” and “Epicurian” readings. The topics may include, but are not limited to, the following regions and traditions: France (Louis Althusser group), Italy (Mario Tronti and autonomia tradition), and Germany (Neue Marx Lektüre); Soviet Union (Isaak Rubin, Evald Ilyenkov); Bolivia (Alvaro Garcia Linera), and Argentina (Ernesto Laclau). Finally, we will engage with the most recent readings of Capital in the twenty-first century in the works of thinkers such as Sylvia Federici, Michael Heinrich, and A. Kiarina Kordela, among others.
Spring
Also Offered As: COML 6210, REES 6151
1 Course Unit
GRMN 6280 Topics 18th Century, vary annually.
Topic for Fall 2014 is: Wolfgang’s Lehrjahre (1765-1774) The decade before the publication of Goethe’s Die Leiden des jungen Werthers is full of literary ferment. The goal of this course is to gain a sense of the multiplicity of projects and perspectives in this crucial decade in order to break down any teleology that might see Werther as its crowning triumph. In other words, this is a course in the “politics” of literature and literary aesthetics. Works to be read, discussed, and reported on include: Kant, Beobachtungen ueber das Gefuehl des Schoenen und Erhabenen; Lessing, Minna von Barnhelm; Mendelssohn, Phaedon oder ueber die Unsterblichkeit der Seele; von Gerstenberg, Ugolino; Wieland, Geschichte des Agathon; Lessing, Emilia Galotti; Goethe, Goetz von Berlichingen mit der eisernen Hand; Herder, Von deutscher Art und Kunst; Nicolai, Sebaldus Nothanner; Wieland, Alcestis; Zimmerman, Von der Einsamkeit; Blankenburg, Versuch ueber den Roman, and, of course, Werther.
Not Offered Every Year
1 Course Unit

GRMN 6320 Romanticism
The course focuses both on the timely impact and the lasting contribution of Romanticism. Lectures cover the philosophical, intellectual, social, and political currents of the age. Authors: Schlegel, Wackenroder, Tieck, Brentano, Arnim, Novalis, Hoffmann, Kleist, Eichendorff.
Not Offered Every Year
1 Course Unit

GRMN 6381 Troubadours at the Center
‘Troubadour’ is a term whose meaning has evolved from the eleventh century to our day. In the Middle Ages, a troubadour was a singer-songwriter (male or female) who composed in a language called Occitan, the language spoken in northern Italy, across southern France, and into today's Catalonia. Medieval works in this language include epic poetry, didactic texts, lengthy romances, and love poetry. Renowned and imitated throughout medieval Europe - by authors from today's Italy, Austria, Germany, France, Spain, and Portugal – the Occitan literary heritage cannot be ignored. Though sometimes presented as a dead language, Occitan is very much alive, and one purpose of this course is to introduce students to it and to its broad importance in European literary history. This course will present the literary and cultural history of the Occitan region, wit large, from the Middle Ages to the modern day. By the end of the course, students will be able to read Occitan with the aid of a dictionary; they will understand the culture of the French Midi as distinct from that of France; they will know something of the distinctive cultural elements of Occitania. They will also have a profound knowledge of at least one Occitan author, medieval, modern, or contemporary. The course will be taught in English. In addition to learning the material covered in the course, students will gain expertise in producing professional presentations and research papers.
Also Offered As: COML 6381, FREN 6381, ITAL 6381
1 Course Unit

GRMN 6420 Drama of the Twentieth Century
Based on a discussion of the relationship of drama (text) and theater (performance), the course examines the development of realistic and antirealistic currents in modern German drama. From Wedekind and Expressionism to Piscator’s political theater, Brecht’s epic theater and beyond (Horvath, Fleisser, Frisch, Duerrenmatt, Handke).
Not Offered Every Year
1 Course Unit

GRMN 6510 Studies in 17th Century
Topics in 17th Century Studies
Not Offered Every Year
1 Course Unit

GRMN 6570 Becoming Modern: The German-Jewish Experience
Yuri Slezkine described the twentieth century as a "Jewish Age"—to be modern would essentially mean to be a Jew. In German historical and cultural studies, this linkage has long been made—only in reference to the last years of the German monarchy and the time of the Weimar Republic. Indeed, what has become known as "modern" German culture—reflected in literature, music, and the visual arts and in a multitude of public media—has been more often than not assigned to Jewish authorship or Jewish subjects. But what do authorship and subject mean in this case? Do we locate the German-Jewish experience as the driving force of this new "modernity" or is our understanding of this experience the result of this new "modern" world?
Not Offered Every Year
Also Offered As: COML 6570, JWST 6570
1 Course Unit

GRMN 6770 The Life of Forms: Ontogenesis, Morphology, Literature
In recent years, the notions of form, formalism, and morphology have reentered contemporary debates across the humanities. This seminar considers the current resurgence of interest in form by tracing form's evolving concepts throughout modernity. It departs from the observation that experimention with and debates on form in art and literature are inextricably linked to various notions of life and the living. These debates—this is the provisional thesis of the seminar—are the battlefield where literary and art criticism undermine the major presuppositions of the western metaphysical tradition (e.g., determinations of inside-outside, form-content, living-inorganic). On the one hand, the seminar will explore a selective genealogy of various attempts to dynamize the concept of form through theories of 1) ontogenesis, 2) morphology, 3) aesthetics (e.g., Baumgarten, Schlegel brothers, Adorno). On the other hand, in order to investigate the political, ideological, and methodological implications of differing concepts of form, the seminar will bring together texts from different disciplines, including literary studies (literary morphology, Russian Formalism), art history (Focillon, Kubler), philosophy (Wittgenstein, Macherey), On the other hand, in order to investigate the political, ideological, and methodological implications of differing concepts of form, the seminar will bring together texts from different disciplines ranging from literary studies (e.g., Jolles, Russian Formalism, Jauss), art history (e.g., Panofsky, Focillon, Kubler), philosophy (e.g., Wittgenstein, Blumenberg, Macherey), history of science (e.g., Vygotsky, Varela), and sociology (e.g., Tarde, DeLanda). Finally, the seminar will engage in close reading of exemplary literary and art works, and situate the findings on the conjunction of form and life in current debates on New Formalisms (e.g., Levine, Levinson, Kornbluh) and New Materialisms (e.g., Bennett, Grosz).
Not Offered Every Year
Also Offered As: COML 6770
1 Course Unit
GRMN 6780 Realism: Literature and Theory
What is "realism"? What does it mean to depict the world as a "realist" writer or artist? This seminar will consider these questions and concentrate on German literature and art of the second half of the nineteenth century. It will focus on writers such as Stifter, Storm, Raabe, and Fontane; but also on Stifter's drawings and paintings, visual artists such as Menzel, and the vogue of historical painting. Finally, the seminar will consider the role of early photography in the development of the notion of "realism." Secondary literature will include studies by Michael Fried, Linda Nochlin, and others.
Not Offered Every Year
1 Course Unit

GRMN 6830 Topics in Philosophy
Topics vary
Not Offered Every Year
1 Course Unit

GRMN 6840 Topics in Philosophy.
This seminar explores political thought in Germany from the Imperial state of the early 20th century through its fragmentation and division and into the reunification of east and west Germany in 1992. Much of this period was "after idealism" philosophically and politically, the preface to pessimism and "the passing of political philosophy" as articulated in the Enlightenment (Shklar), but fascinating period of thought and argument. Among our texts are Habermas (philosophy), Weber (sociology), Schmitt (law), Juenger (literature) & their contemporaries. Students are not expected to read texts in the original, although having German will greatly expand your range and the depth of your reading.
Not Offered Every Year
Also Offered As: COML 6840
1 Course Unit

GRMN 6850 Nature and Labor in Early Modern Art Seminar
In the sixteenth century, the notion of nature as fecund spawned not only images of lushness but also analogies to the artist's mind as a fertile place. The idea of "natural law" was also appealed to as a presumably primal condition, one that established how the earth's resources were to be distributed among its people. Yet the taste for artistic objects in gold, silver, wax, and wood--materials that could be worked into shapes attesting to the owner's dominium over land--led to harvesting processes which met the awareness that nature's resources could run low or even run out. Untappable nature was a functional metaphor, but scarcity was a reality. As a collective effort to write the other side of the story of Renaissance abundance, this seminar will proceed by addressing the question of how the history of art might be told as a description of natural and human resources. We will address this question by focusing on primary texts, theoretical interventions, and a selection of objects, images, and early books from collections near at hand. Open to graduate students only.
Not Offered Every Year
Also Offered As: ARTH 7610, DTCH 6610
1 Course Unit

GRMN 7000 Graduate Research Workshop
Graduate Research Workshop. GRMN Ph.D. requirement.
0.5 Course Units

GRMN 7010 Pedagogy Roundtable
Pedagogy Roundtable. GRMN Ph.D. requirement.
0.5 Course Units

GRMN 7770 Francophone, Italian and Germanic Proseminar
This proseminar will introduce first-year FIGS graduate students to doctoral studies in the humanities. It is organized into four parts. Part I, "Scholarly Habits and Resources," introduces students to a variety of resources at Penn, discusses the scholarly habits that graduate students should develop, and covers strategies for promoting mental and physical well-being as a graduate student. Part II, "Intervening in the Field," introduces students to the processes of conference participation and article publication. Part III, "The Dissertation," covers the ins-and-outs of writing the dissertation. Part IV, "Awards, Networking, and Jobs," addresses the importance of awards and networking as well as the academic and non-academic job markets. While DEI issues are constantly addresses throughout the course, also in the form of assignments, there are also bridge sessions to other courses, especially on pedagogy and recent research trends. In addition to weekly discussions and activities, this course will include a number of guest speakers who will share their expertise and give guidance on the how-tos of the field. Students will be given pre- as well as post-class activities to reflect on each week's topic and begin to prepare a dossier for later use in their graduate studies. Much of the information in this proseminar becomes particularly relevant during the final years of coursework and your dissertation writing years, but it is important to be introduced to these topics and to begin to think about them now. This course is designed for PhD students in Francophone, Italian, and Germanic Studies. Many of the topics apply to all three fields; however, students will also have the opportunity to work on areas that are specific to their language for certain topics. They will also be able to add to the course materials for future graduate students in FIGS.
Fall
Also Offered As: FREN 7770, ITAL 7770
1 Course Unit

Global MPA (GMPA)

GMPA 6010 Critical Issues in Governance: Strategic Leadership
What types of leadership and problem-solving have contributed to notable successes in addressing and ameliorating challenges to human well-being ranging from public health in Africa to economic development in Latin America, eldercare services in Asia to carbon emissions in Europe, homelessness in the US to HIV/AIDS in Australia? In these cases, and countless others, the answer relates in part to cross-sector collaboration in the form of two or more organizations working together intentionally across sectors to strategically manage, innovatively leverage their respective human and financial resources, and achieve mutually beneficial, pro-social, and pro-civic outcomes. Drawing on the best inter-disciplinary studies, this course is dedicated to helping students identify, delineate, and promote the conditions under which "boundary-spanning" and "bridge-building" organizational leaders arise, persist, and operate within and across each sector. In addition to classic and contemporary work by social and behavioral scientists who have made notable contributions to the field of public administration or public management, we focus particular attention on the work of scholars and practitioners from across the globe and in many different disciplines (social work, public health, urban design, and others) who are contributing to our basic and applied knowledge about "the built environment"—the concepts and skills needed to build healthy communities and meet such challenges as sudden pandemics, structural inequities, and slow but steady climate change.
1 Course Unit
GMPA 6020 Critical Issues in Business: Strategic Management
Together with government and the nonprofit sector, the business, corporate, or for-profit sector has a profound bearing on human well-being. For socially responsible business leaders, the challenge is to formulate successful organizational strategies that sustain and grow the organization’s profits and market shares, and satisfy its employees, shareholders, and customers, while also benefiting, or at least not adversely affecting, wider communities, whether local, regional, national, or transnational. Especially when facing less scrupulous business competitors, aggressive government regulators, or adversarial nonprofit advocates, civic-minded business leaders grapple with this challenge every day. How can such leaders nonetheless formulate strategies to gain and sustain a competitive advantage at home or abroad? In this course, we explore the complexity and ambiguity of strategic management by examining real-world cases in which firms either failed or succeeded. Specific topics to be covered include performance measures, industry analysis, resources and capability analysis, business-level strategy, corporate-level strategy, and strategies for expanding into foreign markets. *Students must take this course prior to GMPA 6070.

1 Course Unit

GMPA 6030 Critical Issues in Nonprofit Management: Strategic Collaboration
Over the last quarter-century, the nonprofit, independent, or social sector—also often dubbed the “third sector” in juxtaposition to government and business—has become an ever-greater presence in nations all across the globe. In tandem, nonprofit management, and the role of local, regional, national, and transnational social entrepreneurs, has become internationally recognized as a critically vital field of study and practice. Coinciding with the rise of the “third sector,” it has become increasingly clear that leaders in all three sectors must work across three different types of boundaries: interpersonal boundaries, which involve relations with persons who differ from oneself demographically and in other ways; institutional boundaries, which involve working across government, nonprofit, and business organizations; and international boundaries, which involve both individual and institutional engagements that are carried on across national borders. This course focuses mainly on nonprofit management and the latest and best empirical research pertaining to the second stratum of boundary-spanning leadership: the theory, policy, and practice of cross-sector collaboration, what purposes collaboration may serve, and the steps involved in initiating, sustaining, and evolving collaborative enterprises and governance.

1 Course Unit

GMPA 6040 Economic Reasoning for Public Decision-Making
This course introduces students to key economic concepts such as scarcity, efficiency, monopolies, and other markets to investigate the notions of economic efficiency in a competitive marketplace. In addition, it examines how such efficiency is affected by distortions relevant to public policy, especially regulations, externalities, and incomplete information. From the macroeconomics side, we cover a variety of timely and timeless topics including the short-run and long-run effects of government debt. Students practice applying these principles to the range of decisions that public sector executives have to make in order to understand the trade-offs inherent in any public policy or program. Students must take this course prior to their final semester in the program.

1 Course Unit

GMPA 6050 Quantitative Reasoning for Program Evaluation
Many governments, businesses, and NPO/NGO leaders around the globe are drowning in numerical and statistical data. The challenge they face is not only how to organize, parse, and analyze the data, but also how to utilize it effectively and in real time. This course is uniquely designed to enhance your ability to use data effectively for real-time problem-identification, definition, decision-making, problem-solving, and, most particularly, program evaluation. In this course, students are introduced to key concepts, principles, protocols, and analytical tools and techniques relevant to the theory and practice of three separate but related problem-solving leadership skills: (1) forecasting general social, economic, and civic trends; (2) measuring government performance and results; and (3) evaluating particular social, economic, and civic programs. Students advance and apply these skills in relation to several cases. Students must take this course prior to their final semester in the program.

1 Course Unit

GMPA 6060 Critical Issues in Leadership Theory and Practice: Ethical Analysis
In a world filled with multiple and competing human well-being needs, not all of which can be addressed or acted upon fully or at once, which human well-being goals or purposes ought to matter most, which problems ought to be considered most deserving of attention and action, and which goals, purposes, or problems should be treated as top priorities with respect to their claims on attention, resources, and action? In this course, students explore how, whether, and to what extent “effective leadership” is, ought to be, or can be made synonymous with “moral” or “ethical leadership,” and by which understanding(s) of “morality” and “ethics.” Through classic and contemporary readings and case studies, students explore several different philosophical and religious traditions that might usefully inform the moral reasoning of present or future leaders who seek to promote human well-being by solving local, regional, national, or global problems.

1 Course Unit

GMPA 6070 Critical Issues in Leadership Theory and Practice: Innovation Management
In today’s environment, it is increasingly apparent that success is driven by an organization’s ability to create and capture value through innovations, either technological or non-technological. Thus, the processes used by organizations to develop and foster innovations, the choices they make regarding how to commercialize their innovations, the changes they make to their business models to adapt to the dynamic environment, and the strategies they use to position and build a dominate competitive position all are important issues facing the organizations. Building directly on the learnings achieved in G-MPA 6020, this course identifies and analyzes various types of innovation by socially responsible business leaders, and generates insights about how leaders can strategically manage innovation and implement their innovation strategies to maximize their likelihood of success.

1 Course Unit
GMPA 6080 Global Leadership and Problem-Solving - Public Health in Africa

Globally, more than half of all children under age five who die of pneumonia, diarrhea, measles, HIV, tuberculosis, and malaria reside in Africa. More generally, by many public health indices, including rates of life-threatening infectious diseases, access to healthcare delivery, life expectancy, and rates of foodborne illnesses, Africa faces huge and still largely unmet public health challenges. Millions of people in Africa die each year from diseases that can be prevented by access to certain medicines and mitigated by participation in particular programs. Focusing mainly on malaria in Africa, and with a special case-based focus on Tanzania, students describe, analyze, and evaluate multiple and competing anti-malaria approaches and programmatic initiatives. 1 Course Unit

GMPA 6090 Global Leadership and Problem-Solving: Economic Development in Latin America

From the mid-1950s to the early 1980s, by most conventional economic measures including growth in GDP per capita, Latin America was at least slightly ahead of East Asia. Over the last several decades, however, the economic fortunes of Latin America dimmed while those of East Asia brightened. This course surveys multiple and competing theories about economic development with a special case-based focus on Latin America: What explains Latin America's global economic position? What factors might account for its most acute national or regional economic downturns and concentrated pockets of poverty? What explains the sometimes wide differences in economic development patterns among and between Latin American nations, and within single Latin American nations over time? And what, if any, reforms and initiatives have proven efficacious in boosting economic development and improving overall human well-being in one or more Latin American nations? Capstone Option: Students who opt to utilize this course for their one required capstone research paper will be co-advised and co-evaluated by experts associated with multiple international organizations that have been engaged in economic development initiatives in Latin America. Students who opt to write the capstone paper for this course may utilize materials for the purpose that are in English as well as in either Portuguese, or Spanish, or both. 1 Course Unit

GLBS 1000 Introduction to Global Studies

A focus on three major historical circulations of ideas, people, capital, and goods introduces basic concepts about cultural change, economic interest, the creation of new societies, and human preoccupations with ethical and moral issues. Through study of these global circulations, students develop analytical skills that support further work in global studies. We look at the early historical creation of a "Sinosphere" in East Asia, as demand for ideas from China, from Japan, Korea, and Vietnam, led to the expansion of Chinese language and script and the invention of phonetic scripts. This innovation in scripts and interest in Chinese learning, and then Buddhism coming through China, contributed to the development of an East Asian thought world that is still defined by distinctive cultural traditions. The Indian Ocean trade, from the 7th to the 16th century, connected different cultural worlds by trade routes that themselves contributed to the spread of Islam. These trade networks built complex alliances and new societies with use of military power. The third circulation, the Atlantic trade from the 16th to the 19th century, connected Europe to West Africa, building an expanded trade in enslaved Africans and disrupted and transformed that region. Scholars analyzing the end of the slave trade have made competing arguments about changing economic conditions, the emergence of new economic interests, and efforts based on ethical commitments. These global circuits present essential ideas for considering global connections today. 1 Course Unit

GLBS 2000 Globalization: Social, Economic, and Political Aspects

This course offers an analysis of globalizing and anti-globalizing tendencies in the world. It combines the insights of sociology, economics, and political science to provide an understanding of topics such as population and migration trends, the evolution of global consumer and financial markets, the spread of digital technologies, inequality, populism, climate change and food security, and the shifting geopolitical balance of power. Students will learn how different theories explain the current interplay among social, economic, and political forces. 1 Course Unit

GLBS 2750 Latin America and the Caribbean: Themes, Trajectories and Disruptions

This course explores the world region now known as "Latin America" over centuries, helping students see aspects of the present for which "Latin" is definitely the wrong word. We will examine the diverse political and economic relationships that preceded Europeans' arrival, analyze the complexities of conquest-era texts, learn about Africans' resistance to enslavement, and trace multiple revolutions in the modern period. The course includes attention to current events. For example, we will discuss both the way coca leaf was used by indigenous people going back millennia and debates in the present about what many call the "War on Drugs." Throughout, we will pay primary attention to the experiences of people rooted in the region, including writers, musicians, religious leaders, revolutionaries, military officers, artists, and people who lived marked by manual labor. Some readings will be available in Spanish, but everything required will also be accessible in English translation. No previous knowledge of the region is required and there are no prerequisites. 1 Course Unit

Global Studies (GLBS)

The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).

2023-24 Catalog | Generated 08/02/23
GLBS 2800 Contemporary Issues in Global Health
This course focuses on how social, political, and economic forces—increasingly global in nature— influence how biomedical diseases are experienced, understood, and treated. The course covers topics such as structural violence, narratives of illness, and global pharmaceuticals. The larger approach in the course is that of medical anthropology, where disease, health, and treatment are understood in their social contexts. As we explore how people in different global contexts confront and are affected by disease, poverty, and unequal access to treatment and information, students will gain an understanding of the interconnectedness of the issues that the larger "global health project" seeks to uncover and address. Specifically, students will: 1.) learn some of today's most pressing global health issues; 2.) learn how to explain the connections between social, economic, and political systems and health outcomes for individuals and groups; and 3.) develop their own toolkit for engaging with global health issues. All readings will be available in the course site.

1 Course Unit

GLBS 3200 Latin America and the Caribbean: Themes, Trajectories and Disruptions
This course explores the world region now known as "Latin America" over centuries, helping students see aspects of the present for which "Latin" is definitely the wrong word. We will examine the diverse political and economic relationships that preceded Europeans' arrival, analyze the complexities of conquest-era texts, learn about Africans' resistance to enslavement, and trace multiple revolutions in the modern period. The course includes attention to current events. For example, we will discuss both the way coca leaf was used by indigenous people going back millennia and debates in the present about what many call the "War on Drugs." Throughout, we will pay primary attention to the experiences of people rooted in the region, including writers, musicians, religious leaders, revolutionaries, military officers, artists, and people who led lives marked by manual labor. Some readings will be available in Spanish, but everything required will also be accessible in English translation.

1 Course Unit

GLBS 3800 Putin's Russia
Winston Churchill famously said that Russia is "a riddle, wrapped in a mystery, inside an enigma." Strikingly, today many informed Russians would agree: no one can provide definitive answers concerning what has driven Russian public life and politics over the past three decades, from the unexpected collapse of the Soviet Union in 1991, to the rise of powerful oligarchs amid social violence in the 1990s, to the seeming stabilization of social and economic life under president Vladimir Putin in the 2000s, to the whirlpool of mass, oppositional protests in 2011-2012 that culminated in Putin's reelection, the stabilization of a conservative, "patriotic regime," renewed belligerence between Russia and western states, and finally notoriety in the US as a shadow force in our own political life. In this course we will examine how Russians themselves represent Russia and what this reveals about this complex society and its development, as well as how Russia has been viewed from abroad. We will consider print journalism, novels, films, televised media, and the internet—paying close attention both to particular representations and to social institutions for their production, dissemination and consumption. Our work will triangulate between analysis of media representations and public discourse and close readings of works of literature and film, in order to analyze cultural life in the light of political and social actuality, and to learn how works of art and culture comment upon and inform social life and politics. Topics of special concern will include representations of Russian history, collective identity and patriotism, intellectuals and elites, gender and sexuality, consumption and wealth, and of course, the career and public image of Vladimir Putin himself. No prior knowledge of Russian history, culture or society is required.

1 Course Unit

GLBS 3900 Applied Economics in Global Contexts
An introduction to basic economics with emphasis on global contexts, this course combines economic studies with readings on contexts, examples, and applications. Scarcity, markets, market failures, monopolies, inflation, subsidies, famine, and growth are among the basic economic issues students will study. Examples from different countries will be used to further theoretical and practical understanding. Different economic policy approaches will also be presented. This approach relies on less math background although students will engage with economic models and economic thinking, and be able to participate in discussions about economic and business policies. Learning goals include a good grasp of basic economic terms and models of analysis, engagement with economics in the workplace, connecting to economics as a field, and understanding the global contexts of economic policy making. No prerequisites are required however a previous course in Global and Regional Studies is strongly recommended. All readings will be available through the course site. All classes are asynchronous; any synchronous sessions are optional.

1 Course Unit
Government Administration (GAFL)

GAFL 5000 Half-Term Electives

--- GAFL 5000 - 025: Empowering Communities through Real Estate Development — This course introduces students to residential and commercial real estate development and its inherent risks and benefits. By understanding the development process, students will be better able to enact public policy that promotes the advantages brought by development while slowing the gentrification process. Using the successful JumpStart Germantown model, students will learn the 7 JumpSteps of real estate development beginning with creating a development strategy and ending with leasing or selling the property. JumpStart is a successful alternative to the boom and bust cycle of real estate development. It encourages slow growth, scattered development, and a mix of price points - all of which act to slow gentrification and encourage healthy development that supports sustainable communities.

--- GAFL 5000 - 026: Economic Development, Equity and Inclusion — Virtually every US city experienced a great decline in the second half of the twentieth century. As the manufacturing base of the industrial city deteriorated, as factories moved to the suburbs in search of cheaper land, a vicious cycle ensued. Following the jobs and taking advantage of racial preferences in the suburbs, working and middle class residents fled; as the tax base shrunk, cities were forced to raise taxes to support city services, leading to more job and residential flight. The “inner city” became synonymous with blight and decline, with ominous racial undertones, as urban and suburban political priorities and sentiments began to diverge sharply. Yet by the turn of the 21st century, this process had bottomed out and in many so-called “post-industrial” cities, some of these trends were beginning to reverse. In the 1990s and early 2000s in particular, civic and political leaders had to make tough decisions about prioritizing scarce public resources. Should they focus on revitalizing the downtown core to create jobs, create amenities to induce people with higher incomes to choose their city, grow a tourism economy? Or on rebuilding the most distressed and disinvested inner city neighborhoods? Or on shoring up the so-called “middle neighborhoods” that were able to maintain some stability during the great decline? Layered on top of these issues were (and are) critical questions about who does and should benefit from economic development. Should we prefer “trickle down” policies that focus on high-end development and presume that they will eventually lead to benefit for the less advantaged in the form of service sector or indirect jobs? Or should cities be more proactive and ensure that public and publicly-enabled investments leverage increases in human capital development, in public goods like parks and schools? This course will focus on case studies from several cities to explore the policy options available to leaders, to assess their decisions, and to consider whether it is possible to promote economic development that is robust and sustainable at the same time as it is equitable and inclusive. This is a half-credit course (0.5 CU) that meets in the first half of the semester. The first class session will meet on January 23, and the last class session will meet on March 13.

Fall or Spring

1 Course Unit

Fall, Spring, and Summer Terms

GAFL 5020 Public Communications

Successful leaders must be able to convey their integrity and their ideas, their vision and their values clearly and convincingly in public settings. By analyzing great political speeches and afford students the opportunity to prepare and deliver different types of speeches, this course teaches the fundamentals of persuasive public speaking while encouraging students to develop their own voice. This is a performance course. Students will gain skill and confidence in their speech writing and public speaking skills through practice, peer feedback, and extensive professional coaching. Class lectures and discussions will focus on persuasive strategies and techniques for handling community meetings, Q and A sessions, and interactions with the media.

Fall, Spring, and Summer Terms

1 Course Unit

GAFL 5060 The Problem of Jobs: The Philadelphia Story

Once the “workshop of the world” with a diverse manufacturing economy, the City of Philadelphia has lost a huge proportion of its historical economic base in the past 60 years. Today, Philadelphia struggles to find its competitive advantage. Yet, it has tremendous assets that can be leveraged. This course will explore the rise and fall of Philadelphia’s manufacturing economy, efforts to forestall its decline in the 1960s and 70s, the racial and gender dynamics of its employment ecosystem, and contemporary strategies to create a sustainable local economy.

We will focus on the emerging national recognition of place-based economic development strategies, including the revival of downtown residential living, tourism, and hospitality, and the role of institutions, such as universities and hospitals, in the revitalization of urban America. The course will combine readings in economic and social history and urban economics with case study analyses of local policies aimed at stimulating growth.

Not Offered Every Year

1 Course Unit

GAFL 5110 Reinventing Nonprofits

Three nonprofit leaders walk into a bar. What’s the conversation? cross fields, focus, size, and target audiences, nonprofits often face similar challenges: public policy changes, evolving stakeholder expectations, new modalities to service requiring investment, rising competition, fickle funders and demographic shifts, all in a world where culture eats strategy for breakfast. Against this backdrop, nonprofits need to re-assess their mission, approach, position, organizational structure and revenue model.

Why are some organizations able to pivot and reinvent themselves while others languish? Through readings to frame the issues, speakers offering firsthand accounts of successes and disappointments, projects with practitioners wrestling with real-ime issues, and group discussions to tie it all together, this course is intended to provide students with an intellectual construct, ideas, and experience to be better prepared to enter and advance in the field, and be part of the conversation.

Fall, Spring, and Summer Terms

1 Course Unit
GAFL 5120 Advocacy and Communicating Change
The skills used by leaders to advocate for change involve a seemingly random collection of behaviors: the ability to simplify a complex idea, the application of precise well-focused language to define a problem and its solution, the ability to tell a compelling and relevant story in human terms, and the skill to spin logic and emotion into an ethically coherent narrative that leads to new thinking and collective action. The effective application of these skills can mark the difference between a successful policy change, a successful political campaign and even, as demonstrated in history, the difference between war and peace. This course will explore the tools and strategies employed by leaders, policymakers, and thought leaders to impact the decision making process, build support for ideas and to navigate interactions with media and other sources of influence on public opinion that shape our world. Students will be challenged to identify their own topic of change and then to use the communication theories and paradigms discussed in class and presented by guest speakers to expand their leadership communication proficiency. They will learn from peer and instructor feedback to enhance their advocacy skills and to better understand the processes that underlie organizational and policy change.
Not Offered Every Year
1 Course Unit

GAFL 5140 Public Finance and Public Policy
This course deals with how governments tax and spend. Students become familiar with the theoretical, empirical, and practical tools and methods used to create and analyze government budgets, as well as the flow of public resources. The course examines public revenues and expenditures within the context of fiscal federalism, in addition to budgeting and resource management and the social, economic, and political forces that shape the fiscal environment within which governments (particularly state and local governments) operate. Significant attention is paid to tax policy analysis and the fiscal crises confronting many large cities and states. Additional special topics covered include health care & social security, public education finance, public finance and the environment, bond markets & municipal finance, and public pensions.
Fall
1 Course Unit

GAFL 5150 Public Finance Leadership in the New Fiscal Reality
Several factors are intersecting upon U.S. local governments including: muted economic growth, demographics, technological change, ineffective monetary & fiscal policy, and political shenanigans. These are having a profound impact on local government financial health. Many local governments are struggling to structurally balance their budgets, even now several years into one of the longest U.S. post-WWII economic recoveries. Expenditure demand, especially because of rising employee pension and OPEB benefits, is rising faster than expected. Revenues are not rising as quickly as they have historically. This New Fiscal Reality is redefining the concept of municipal distress. Further, the options local governments have to respond to distress may be changing. It might be necessary for local governments to move away from typical solutions like distressed municipality programs and other state level aid. If the current financial trajectory continues, some local governments will not be able to deliver the same service level they have in the past. New solutions are required. This class will 1) define the New Fiscal Reality; 2) review essential public finance concepts and relationships; 3) study past and recent examples of financial distress and prescribed solutions; 4) survey the current local government financial landscape; and 5) identify solutions public finance leaders can institute for the future. Several local government finance, political and policy experts will speak during the semester. A heavy amount of student engagement is expected to be completed in the form of research, group work, writing, and the critiquing of other students’ work.
Spring
1 Course Unit

GAFL 5170 Quantitative Tools for Consulting
The purpose of the course is to study the theory and application of certain, key quantitative methods utilized in financial and fiscal decision-making in state and local governments: defining and measuring efficiency and equity; statistical analysis, multivariate analysis, linear and multiple regression; inter-temporal decision-making; and cost-benefit analysis. Primary emphasis will be on understanding the context and quantitative basics of these methods to prepare students for effective careers in state and local governments. Each student should have a basic understanding of market economics, the roles of government in our market economy, accounting/budgeting basics, and the Philadelphia metro area economy and government.
1 Course Unit
GAFL 5200 Marketing & Fundraising for Non-Profit Organizations
Fundraising and marketing are complementary tools for building revenue streams and fulfilling the program objectives of nearly every nonprofit organization. This course develops students’ ability to market a nonprofit to mission recipients and prospective donors and to solicit funds from individuals and organizations. Through lectures, readings, discussions, and assignments, students are actively engaged in learning how to help an organization achieve its mission and objectives. This includes but is not limited to the assessing an organization’s marketing and fundraising capabilities; identifying, segmenting, and creating relationships with target markets and donors; building infrastructure to properly seek and steward gifts; using technology to fulfill marketing and fundraising objectives; and focusing on fundraising and marketing methods such as social media, direct response, events, major gifts, planned giving, and others. This course emphasizes applications. Each student will complete a fundraising and/or marketing plan for a specific organization of their choosing, the structure of which will be derived from the term’s assignments. This course will meet in-person from 2:00-5:30pm on the following Fridays and Saturdays: September 9-10, October 14-15, November 18-19, December 2-3. This course will meet virtually Wednesdays 9:00-10:00pm.

Fall  
1 Course Unit

GAFL 5210 Advanced Public Management
A wait list will be kept for this course. To be added to the wait list, please email Josh Power at joshuarp@upenn.edu. This is a “hybrid” course, with synchronous online meetings and once-monthly on-campus meetings. Synchronous online meetings will be held on Mondays 6:30-7:30pm. On-campus meetings for Spring 2018 will be held on the following Friday afternoons (2-5:30pm) and Saturday mornings (9:30am-1pm): January 12-13, February 9-10, March 16-17, April 20-21. This course is designed to provide students with a scientific foundation of management and leadership theory to inform their actions as current and aspiring public leaders. We will draw from diverse disciplines within applied social science, including management science, positive psychology, organizational psychology, system thinking, and change management. Students will learn these theoretical frameworks and management strategies by applying these theoretical frameworks to their specific professional interests.

Spring  
1 Course Unit

GAFL 5260 Municipal Bonds
The course provides a comprehensive overview of the $3.7 trillion municipal bond market, with a focus on public finance investment banking; capital project financing for state and local governments including water, sewer, mass transit and road projects, and non-profit financing for educational and healthcare institutions; the legal and regulatory framework governing the municipal bonds market; rating agency analysis; quantitative modeling; and investor perspectives.

Fall  
1 Course Unit

GAFL 5270 Community Development and Qualitative Methods
Urban planning and community development involve attempting to understand (and then propose methods for solving) complex problems arising from our shared experience of living together in communities. These wicked problems (Rittel & Weber, 1973) often arise from multiple co-occurring influences; economic, socio-cultural, political, geographic/geological, psychological, etc. The fluid and multi-dimensional nature of these problems, therefore, calls for a fluid and multi-dimensional approach to understanding them. Nonetheless, for the better part of the last half a century the majority of efforts to approach such dilemmas has relied largely on quantitative research methods. While quantitative approaches to understanding community dynamics certainly have a demonstrated value, an over-reliance on such methods can come at the expense of the more nuanced understanding available through qualitative research approaches. Quantitative methods are useful in exploring questions such as where, when, who and how many. For answers to these sorts of questions we must turn to qualitative research methods.

This course will introduce students to qualitative research approaches currently used in urban planning/community development, along with methods NOT currently in use, but that hold the potential to yield insights into community dynamics. In addition, this course will teach students how to apply these research techniques in the service of producing a professional-quality outcome, as opposed to producing a purely academic end result. To this end, attention will be given to the process by which these research methods are applied, or would be applied, in the professional consulting world and the language and concepts that would be used in that process and setting. Each student will leave the course with a firm understanding of terms and concepts such as: project scope; sub-deliverable(s); final deliverable(s); benchmarks; Notice to Proceed (NTP); project kick-off; out of scope services, front-end and best practices research; and other related professional concepts/terms.

1 Course Unit

GAFL 5280 Critical Issues in Public Finance
The Course, Critical Issues in Public Finance will consider contemporary issues affecting the fiscal state of local governments. Covered will be issues that have distressed municipalities; the policies/initiatives that seek to rectify such including privatization/public private partnerships; reformation of municipal pensions; sustainable education funding alternatives; and tax policies aimed at promoting economic growth. Students will be assigned to a team, which will identify and provide a solution for an issue or issues plaguing a fictional government. Each team will prepare a written report and make a presentation all of which will constitute the final project. Assignments will serve as the building blocks for the final written work product and presentation developed by each team. The class is divided into four modules. The first module will take a historical look at events behind fiscal distress in municipalities and then explore current day drivers that are causing the same today. Modules two, three and four will examine some of the tools that have been used successfully or otherwise to remediate the drivers of fiscal distress. In each module case studies will be used to further analyze the particular fiscal challenge of a municipality. Written assignments will be based on case studies.

Spring  
1 Course Unit
GAFL 5290 Nonprofit Financial Management
The course is designed to provide the student with an understanding of the primary financial management issues and decisions that confront senior management in nonprofits and government. Students will examine financial analysis techniques from both a practical and strategic perspective as they examine operating and capital decisions. The objective of the course is to allow the student to understand how managers integrate the various discrete financial decisions within a broader framework that allows them to analyze, develop and execute a coherent overall financial strategy.
Spring
1 Course Unit

GAFL 5300 Evidence Based Policies of Economic and Political Development
This class provides a "hands-on" introduction to the promises and limitations of using Randomized Control Trials (RCTs) to inform policy makers, practitioners, and academics of the conditions under which policies likely would have a positive effect on economic and political outcomes, in the context of international development. This course has three parts: the first is devoted to understanding the "nuts and bolts" of running field experiments / RCTs in developing countries. In part, we will be reading Glennester and Takavarasha's Running Randomized Evaluations: A Practical Guide. In addition, we will discuss core behavioral concepts from both behavioral economics and social psychology (prospect theory). The second part of the course will be devoted to demonstrating how schools have used RCTs to inform core policy debates (e.g. What are some effective ways to reduce corruption? How can we improve the performance of frontline service providers? How can politicians be more responsive to their constituents?) In the third part, students will be presenting their own research proposals, explicitly designed to address either a core policy question in the developing world or-for those interested-in the USA. Here students will have an opportunity to partner with the Social and Behavioral Sciences Team (https://sbst.gov), which is under the National Science and Technology Council.
Spring
1 Course Unit

GAFL 5310 Data Science for Public Policy
In the 21st century, Big Data surround us. Data are being collected about all aspects of our daily lives. To improve transparency and accountability an increasing number of public organizations are sharing their data with the public. But data are not information. You need good information to make sound decisions. To be an effective public leader, you will need to learn how to harness information from available data. This course will introduce you to key elements of data science, including data transformation, analysis, visualization, and presentation. An emphasis is placed on manipulating data to create informative and compelling analyses that provide valuable evidence in public policy debates. We will teach you how to present information using interactive apps that feature software packages. As in all courses at Fels, we will concentrate on more practical skills than theoretical concepts behind the techniques. This course is designed to expand upon core concepts in data management and analysis that you learned in GAFL 6400: Program Evaluation and Data Analysis. This is a graduate level course and while GAFL 6400 is not a pre-requisite, students are expected to have a foundation of data management and analysis before beginning this course.
Spring
1 Course Unit

GAFL 5340 Infrastructure Investment and Economic Growth: Why, How, and When
Infrastructure is widely acknowledged to be critical for economic success, and infrastructure investments are promoted as leading to economic growth, either at the local or national level. Yet, investments in telecommunications, transportation, energy, or other infrastructure do not always yield the hoped public benefit. This course will help answer the question: Under what circumstances does infrastructure investment contribute to economic growth, and how do we know? Because government resources are limited, advocates often must be creative to find sufficient funding to get desirable projects completed. This course will also help answer the question: How do we pay for the infrastructure projects we want to build? The course will illustrate approaches to answering these questions using case studies of past and proposed investments.
Spring
1 Course Unit

GAFL 5350 International Policy and Security Seminar
This course provides a practical survey on the underpinnings of the idea of the "international order" and how it affects trade, politics, and security for the United States and the world. Students will be able to consider and analyze what states mean when they appeal to the international community, to a putative liberal order, and why other states may contest it. The course will also provide a basic survey of key policy and security challenges in the contemporary international environment related to international policy and security. Does an international community really exist? Why does it matter? What's the difference between the Yalta Agreement and the Helsinki principles, and how does this interact with the United Nations charter? Students will examine primary source texts, key analyses, and will have the opportunity reflect upon and develop policy advisories around international policy. Aligned with the Fels' mission in service of praxis, the course will also allow students the opportunity interact with guest speakers involved in foreign and national security policy and present their policy recommendations on a key international public policy issue.
Not Offered Every Year
1 Course Unit

GAFL 5380 Human Rights, Access To Justice, and Public Policy
Law is central to effective and legitimate governance at all levels (local, national, regional, global). Law not only serves as a basis and frames governance and policy-making processes; it also offers tools and opportunities for public policy, as well as accountability mechanisms. Familiarity and understanding of legal frameworks, mechanisms and dynamics is thus essential for public and private actors involved in policy making. This course combines theoretical insights as well as practical components. During the first portion of each class students will examine a wide spectrum of international legal frameworks and instruments which set standards for good governance on a variety of themes: eg. Children, women, refugees. This comparative perspective lays the context for US policies. During the second major portion of each class, students will explore how statutes, regulations and case law serve as tools for social change. Students will gain familiarity with relevant US legal frameworks at the Federal, State and Municipal level and at all three branches of government: legislative, executive and judicial. The third portion of each class will explore the role of the non government sector in public policy. Students will learn about core competencies needed to non profits effective such as: Boards, management leadership, and program Fall, Spring, and Summer Terms
1 Course Unit
GAFL 5460 Social Enterprise Models and Social Impact Locally and Globally
If you believe in finding innovative ways to make a difference and solve social issues locally and globally, you will benefit from the Social Enterprise and Impact Locally and Globally Course (Social Enterprise). Social Enterprise is designed for those who have a practitioner's interest in the development, leadership, and management of the evolving nonprofit sector and their intersection with the socially conscious private sector and government. The course takes the student through the process of developing a mock social enterprise including idea exploration, testing and plan execution and provides the student with essential strategies and tools to conduct in-depth analysis of a social enterprise leading to their application to a regional social enterprise. This course fulfills an elective for the MPA and the Certificate in Nonprofit Administration.
Spring
1 Course Unit

GAFL 5480 Grant Writing
This is a "hybrid" course, with synchronous, online meetings and once-monthly, on-campus meetings in Philadelphia, PA. Also, please note there is an additional $150 online course fee. Spring 2019 on-campus meetings will be held on the following Fridays and Saturdays from 9:30 AM - 1:00 PM: January 18 & 19;February 15 & 16, March 15 & 16, and April 26 & 27. Class will meet online on Monday evenings from 7:45 PM - 8:45 PM. This course will provide students with the role of the foundation in philanthropy, what it does, how it does it, and what you need to know to be both an effective foundation manager and foundation grant seeker. From the foundation side, the course will include strategic planning, assessment of project results, and the responsibilities of the foundation grant program officer. From the grant seeker side, it will include identifying the appropriate foundations, making the connection to the foundation, grant writing, and relationship management.
1 Course Unit

GAFL 5490 Leading Nonprofits
Leading Nonprofit Organizations is designed for those interested in leading and managing a nonprofit organization. It takes a practitioners perspective on strategic realities of modern practice. Each section will seek to rapidly orient a new manager to the complexities, strategic issues, & politics. The course is taught through a combination of theory and practice using selected readings, lectures, guest presentations, group activities (Mock senior staff discussions) and field assignments (pairing with area nonprofit leader and attendance at one of the organizations board meetings.) This course has seats reserved for Fels students and NPLD students, and gives priority to grad students.
1 Course Unit

GAFL 5500 Organizational Diagnosis
This course will help participants learn the skills involved in conducting a systemic, organizational diagnosis. Applying organizational diagnosis skills can help organizations make more effective, evidence-based decisions; increase an organization’s ability to learn and to apply these learnings; increase organizational effectiveness; and, often, save organizations from flawed and detrimental actions. The course places an emphasis on systems thinking, psychodynamic organizational theory, and appreciative inquiry as ways into understanding organizational issues and problems. Frequently, when organizations find themselves in trouble, e.g. problems in the system about such things as lack of leadership, poor communication, diminished productivity, low morale, etc., there is a tendency to frame the problem(s) simplistically and/or locate blame on a few difficult individuals or groups. However, upon closer examination, problematic issues are often found to be symptomatic and/or symbolic of multiple issues within the organization. This course will help participants to understand how problems, which appear, at one level of the system, (e.g. at the personal or interpersonal level) often represent problems at other levels of the system (e.g. at the group and/or institutional level), or signify a range of inter-related issues. Emphasis will be placed on the diagnostic skills needed to examine government agencies, non-profits, and bureaucracies. It will provide participants with the theoretical constructs and application skills necessary for identifying and framing problem areas, collecting data, and organizing feedback to client systems. Real-time examples will inform our discussions as we consider the relationship between diagnosis, organizational reflection, and appropriate action. Summer 2017 On-Campus Meetings: 9:00am-1:00pm Fridays June 23, July 21 and Saturdays May 20, June 24, and July 22.
1 Course Unit

GAFL 5510 Government Relations
In a system of representative government, organizations and individuals with interests at stake often seek the support of a government relations professional. This course addresses government relations from the varying perspectives of the current or aspiring professional, the client, and the government official.
Not Offered Every Year
1 Course Unit
GAFL 5550 Using the Political Process to Effect Organizational Change
At one time or another, each of us has said something like, "I know what to do to make some really effective—and possibly even profitable—changes in this organization, but the politics make it almost impossible to get anything done." The sense is that, although there are changes that should be made to improve organizational performance, politics (internal, external, governmental) simply obstruct our ability to make a difference. Frustrations notwithstanding, depending on how it is employed, politics can be either an impediment or, more importantly, a source of opportunities for improving organizations. Politics is the art and science of coordinating individuals, departments, management, markets—the entire organizational environment—to effect a balance between the organization’s objectives and the methods used to achieve them. As with the other factors that are employed to affect organizational performance—the methods used to improve manufacturing, marketing, sales, finance, and so on—politics is a means that organizations can use to initiate and maintain critical personal and institutional relationships. One of the seminar readings—Latimer’s “Why Do They Call It Business If It’s Mostly Politics?” is used to provide illustrations of the ambiguous nature of much of what is regarded as organizational politics. What is critical to understand and appreciate from the outset, however, is that politics is not an external factor that is imposed on organizations. Politics is not only a means for achieving personal or institutional power; it is also a method for developing and maintaining personal and institutional relationships within and among individuals and organizations of all types. This seminar will discuss organizational politics and the ways that it is used to identify, characterize, and affect change—both within and among organizations. After reviewing several perspectives on organizations and the roles that political processes play in decision-making, a series of cases is presented that illustrate the contexts and conditions for effective political communication and coordination. Prerequisite: Course Permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit
Fall or Spring
Also Offered As: DYNM 6550
1 Course Unit

GAFL 5590 Social Enterprise
With an increasing competitive market, the landscape for private, not-for-profits and government organizations nationally and globally is becoming more complex and diverse. Leaders across government, private, and not-for-profits are being challenged to lead differently given the diversity and complexity of organizations that cross and blend the traditional organizations that cross and blend the traditional organizational legal structures. The course includes providing students with the essential competencies and tools to create, lead, and influence system and policy change utilizing Social Enterprise, Social Finance, and Collective Impact strategies and tools. The knowledge accumulated through this course will be translated to a working level knowledge of a Critical Thinking that is important for any leader or manager in government, private, or the non-profit sectors. Critical thinking involves making judgments based on reasoning: leaders consider options; analyze these using specific criteria; and draw conclusions and make judgments. Critical thinking competency encompasses a set of abilities that leaders use to examine their own thinking, and that of others, about information that they receive through observation, experience, and various forms of communication. This course has seats reserved for Fels’ students and gives priority to grad students. Non-Fels students should contact Vincent George at vigeorge@sas.upenn to request a permit. Seats are not guaranteed to post-bacc or undergraduate students.
1 Course Unit

GAFL 5610 Media Relations
This course is designed to help you better understand the role and practice of media relations and messaging in corporate, non-profit, and government organizations in this new media era. You will learn how to research media and reporters, develop messages, build strategic media plans, generate media coverage, serve as spokespeople, handle crisis situations, and use new media strategies. You will hear from public relations professionals on such topics as working with reporters, developing PR campaigns, and creating effective web outreach programs. Class discussions, reading assignments, research and writing projects, group projects, and case studies offer an engaging and interactive learning environment to expand and apply your knowledge of media relations and messaging. Summer 2017 On-Campus Meetings are 9:30am-1:00pm on Fridays—May 19, June 23, and July 21 and Saturdays—May 20, June 24, and July 22
Summer Term
1 Course Unit

GAFL 5690 The Politics of Housing and Community Development
This course offers an exploration of how legislative action, government policymaking, and citizen advocacy influence plans for the investment of public capital in distressed urban neighborhoods. Course topics this semester will include an evaluation of the results of City of Philadelphia development policies under the administration of former Mayor Michael A. Nutter, as well as consideration of plans being undertaken by the administration of Mayor James F. Kenney, who took office in January. The course will also include an assessment of a large-scale property acquisition and development strategy being implemented by the Philadelphia Housing Authority in North Philadelphia and a review of recent and current reinvestment proposals for Camden’s waterfront and downtown-area neighborhoods.
Fall
Also Offered As: CPLN 6250
Mutually Exclusive: URBS 4510
1 Course Unit

GAFL 5710 Children and Law Seminar
This seminar will draw on Prof. Hamilton’s distinguished career as one of the nation’s leading advocates for the civil rights of children. Materials for class discussion will be derived from her textbook, Children and the Law, and other publications. Topics include the rights of a child in relation to the family, school, society, and the justice system. Law students and graduate students welcome. Undergraduate students must obtain permission
1 Course Unit
GAFL 5810 Law, Religion, and Politics
This course addresses the contemporary interplay between government, religion, and politics with focus on issues during the COVID-19 pandemic and the 2020 presidential election. Due to the rise in statutory religious liberty statutes at the federal and state levels over the last 20 years—which have placed constraints on government beyond the First Amendment—adjustments between the government's interest and religious liberty have become complicated. Public administrators need to anticipate challenges to government action, including the limits imposed by the First Amendment and these relatively new statutory constraints. This course will teach future public policy administrators how to assess the myriad of instances where policy determinations must take into account the likely impact of politically powerful and connected religious leaders and organizations on the public interest. This knowledge has never been more important than it is now with the COVID-19 pandemic and the 2020 presidential election occurring at the same time, both of which entail fascinating questions related to religious liberty and public safety.
1 Course Unit

GAFL 5830 Religion, Public Policy, and Law
We will address the ways in which religious Liberty claims interact with public policies involving health care, reproductive rights, anti-discrimination laws, vaccination, and child protection among other issues. We will also examine how the changes to the landscape of religious devotion in the US is affecting public policy debates and policies.
Not Offered Every Year
1 Course Unit

GAFL 5900 Use and Misuse of Data for Policy Challenges
"Data-Driven Policy Making" has become a popular phrase, but what does it actually mean and how can aspiring policy-makers meet its lofty goals? This class will help students understand how data of all sorts (administrative, observational, experimental, "big") can be used to shed light on various policy issues. To do this, the class teaches students a set of computational tools (centered on the R statistical programming language), and shows them how to gather, analyze, and present data in useful ways. It does so by working through a number of important policy issues, including policing, campaign finance, public health, political polling, and many others. No prior statistical or technical knowledge is assumed, though basic statistical literacy is helpful. This class was previously called "Using Big Data for Policy Challenges."
1 Course Unit

GAFL 5999 Independent Study
Independent study course.
1 Course Unit

GAFL 6110 Statistics for Public Policy
This course is GAFL 6110, the required course in statistical analysis for students in the Fels school. This is the required course in statistical analysis for public policy/public administration. Increasingly, this is a quantitative field. Even if you think you'll someday just be (say) a city manager, and not likely to use quantitative analysis yourself, you will likely find yourself working with quantitative data. For example, "policy evaluation" has become a buzzword in recent years in public management and examples involving Fels graduates—or their equivalents—abound. Did giving low-income children after-school tutoring improve their academic performance? Does expanding a free-lunch program reduce the number of student outbursts in classrooms? Did Philadelphia’s "big belly" trash cans actually reduce the amount of litter on our streets? Answering any of these questions requires statistical analysis. This course aims to lay the groundwork for you to answer these (and many more!) questions. The point here is not to convince you to adopt a quantitative design for your own work, or that quantitative designs are the "best" designs for answering all questions. Rather, the goal is to give you a set of tools that will enable you to read, critique and eventually produce your own quantitative research. The course will introduce you to the logic of social scientific inquiry, and the basic statistical tools used to analyze politics and public policy.
Fall
1 Course Unit

GAFL 6120 Quantitative Methods for Policy Analysis
This course will help students learn how to make evidence-based decisions in a public sector context. The course will introduce important data analysis skills and help students evaluate the quality of studies undertaken to measure the impact of public policies and programs. This course has seats reserved for Fels’ students and gives priority to grad students. Post-bacc students, contact Vincent George (vigeorge@upenn.edu) for a permit.
Fall
1 Course Unit

GAFL 6210 Public Economics
This course provides students with the knowledge required to understand government operations in relation to the market economy. In theory of supply and demand, students explore the pricing mechanism, price elasticity, and the effects of price controls on markets. Efficiency is examined in connection with competition and again in connection with equity, and market failure is considered as a reason for government intervention. Cost-benefit analysis is examined in the context of selecting among public investment alternatives. The course also assists students in addressing issues connected with local public goods and economic development.
Fall
1 Course Unit

GAFL 6222 Economic Principles of Public Policy
This course will introduce students to key economic concepts such as scarcity, efficiency, monopolies and cost-benefit. Students will practice applying these principles to the range of decisions that public sector executives have to make in order to understand the trade-offs inherent in any public policy or program.
Spring
1 Course Unit
GAFL 6230 Leading People
Leading Diverse Organizations focuses on Strategic Human Resource Management (SHRM), the combination of human resource management (HRM) and the strategic direction of the organization, whether public or non-profit. This course will examine the theory and principles of SHRM as they relate to job analysis, recruitment and selection, compensation, benefits, training and career development, performance management, and labor-management relations. Learning to deal with the daily SHRM challenges makes leaders and managers more effective and more valuable to the organization. This course has seats reserved for Fels’ students and gives priority to grad students. Post-bacc students, contact Vincent George at vigeorge@sas.upenn.edu for a permit. Undergraduate students, contact Vincent George 2 weeks before the start of the pertinent term to request a seat. Seats are not guaranteed to post-bacc or undergraduate students.
Summer Term
1 Course Unit

GAFL 6300 Public Law and Public Process (Executive)
This class introduces students to the processes by which ideas of public policy make their way into public law. The course will examine a variety of case studies involving the interaction between public policy initiatives and how they evolve into public law. It will also involve critical examination of the processes that lead to the creation of law intended to serve the public interest. The class requires students to read accounts of public law battles and to analyze them through different metrics, including assigned reading, independent research, class discussion, papers, and a final presentation. This is a "hybrid" course, with synchronous, online meetings and once-monthly, on-campus meetings in Philadelphia, PA. This course has seats reserved for Fels students and gives priority to grad students.
Summer Term
1 Course Unit

GAFL 6310 Public Law and Process
This course introduces students to the theories and practice of the policy-making process. There are four primary learning objectives. First, understanding how the structure of political institutions matter for the policies that they produce. Second, recognizing the constraints that policy makers face when making decisions on behalf of the public. Third, identifying the strategies that can be used to overcome these constraints. Fourth, knowing the toolbox that is available to participants in the policy-making process to help get their preferred strategies implemented. While our focus will primarily be on American political institutions, many of the ideas and topics discussed in the class apply broadly to other democratic systems of government. The class will be a mix of lecture and cases. Cases are on a diverse set of policy topics, with a goal of illustrating broad themes about the policy-making process rather than the specifics of certain policy areas.
1 Course Unit

GAFL 6400 Program Evaluations and Data Analysis
One of the trademarks of the 21st century public management is the usage of data and analysis in the decision-making process. A successful public leader will use empirical evidence to guide her decisions. She knows what types of data and analysis she should ask her analysts to collect and conduct, how to consume the results they generate, and how to transform the analytical results into effective communication with stakeholders. This class will help you become that 21st century public leader. At the end of this course, you will understand key principals of performance measures and program evaluation. In addition, you will be able to process, manage, and analyze quantitative data using R, a modern programming language optimized for statistical analysis. I picked R for many reasons: it is free, has many open-source visualization techniques and statistical models, and many statistical and quantitative method courses on campus use it as the language of choice. More importantly, knowing how to use R can be a unique and attractive skill for your employer.
Spring
Prerequisite: GAFL 6110
1 Course Unit

GAFL 6410 Program Evaluations & Data Analysis
This is a "hybrid" course, with synchronous, online meetings and once-monthly, on-campus meetings in Philadelphia, PA. Also, please note there is an additional $150 online course fee. This course introduces program evaluation in the context of research methods. Students learn about design and the application of data collection skills to all phases of program/service delivery from needs assessment to analysis of findings to implementation of changes based on results. Students learn to appreciate how these skills can be used as practical tools for identifying problems to developing and implementing programs. This applied course provides students with practical experiences to apply guidelines of evaluation and research methods in actual program evaluation projects in Philadelphia.
Spring
Prerequisite: GAFL 6120
1 Course Unit

GAFL 6510 Public Finance & Public Policy
This course provides an introduction to the fundamentals of accounting and budgeting for government and nonprofit organizations. The course is designed for students with little or no background in financial reporting, budgeting, and financial management. “Accounting and budgeting must be recognized as separate systems that must interact in a complementary manner if managers are to exercise control of the financial resources of their organizations” (Garner, 1991). Guided by the premise above, the course naturally divides into two parts: In the first, students are introduced to basic financial reporting concepts. The course will provide a foundation in the state and local government financial reporting model. Students will analyze Comprehensive Annual Fund Reports (the main filings required for state and local governments) and focus on the aspects and objectives that make reporting for governments unique. Students will develop a framework for evaluating performance and operating results of governments. In the second part of the course, students will focus on budgeting, which is central to the successful operation of government organizations. Government budgets are expressions of public policy and carry the authority of the law. The course examines budget formulation and development, forecasting, budget adoption, and budget evaluation. Students will be trained to determine whether organizations are effectively using their resources while meeting their legal requirements and social responsibilities.
Spring
1 Course Unit
GAFL 6520 Financial Management of Public and Nonprofit Organizations
This course provides an introduction to financial management principles for public and nonprofit organizations. The primary objective of this course is to demystify financial information and improve students' ability to effectively engage in financial discussions, regardless of their role in the organization. This course will be focused on the vocabulary and tools necessary to interpret, analyze, and properly communicate financial information in order to develop and execute an appropriate financial strategy.
Summer Term
1 Course Unit

GAFL 7100 Negotiations
To influence public policy you need analytical skills to discover optimal solutions to problems, and good negotiation skills to tailor implementable solutions that address the needs and priorities of multiple stakeholders. What resources you want to invest, whom you engage in discussions, and what you expect to receive in return are open to explicit and implicit negotiations. This course will provide a working understanding of key negotiations concepts, including: Strategic elements of negotiations - interests, goals, positions, rights, power, value creation, high stakes, disputes; Preparation for and the details of negotiation processes; Ethical encounters and conundrums; Leveraging your strengths/ understanding your negotiating personality. You will learn cooperative and competitive strategies, have a solid grasp of the decision-making science of negotiation, and better understand cognitive processes and emotional dynamics that affect the ways people negotiate. This is a “hybrid” course, with synchronous, online meetings and once-monthly, on-campus meetings in Philadelphia, PA. Also, please note there is an additional $150 online course fee.
Fall
1 Course Unit

GAFL 7190 Advanced Budgeting
The course will build on the fundamentals taught in the introductory budgeting unit to help build students' competence in budgetary analysis. Using detailed data from a major city as a course-long case study, and incorporating excel skill-building exercises, students will develop hands-on understanding of budgets by working through such factors as economic drivers of fiscal performance, revenue analysis and forecasting, including tax policy considerations; expenditure analysis and projection, with an emphasis on workforce costs; and capital budgeting and financing. Students will also be introduced to key fiscal policies, budget monitoring and performance measurement, and the development of effective budget communications for various audiences.
Fall
1 Course Unit

GAFL 7320 Public Management
This core MPA course is intended to help each student to learn more than he or she already knows about public management both as a profession and as a field of academic study and to enjoy the company of supportive peers, instructors, and special guests as he or she contemplates a post-MPA career in governance. This course satisfies a core requirement in the Master of Public Administration full-time program.
Spring
1 Course Unit

GAFL 7330 Public Management (MPA Executive Section)
This core MPA course is intended to help each student learn more than s/he already knows about public management, both as a profession and field of academic study, and to enjoy the company of supportive peers, instructors, and special guests as s/he contemplates a post-MPA career in governance. This course satisfies a core requirement in the Master of Public Administration program. Seats are reserved for Fels' students and this course gives priority to grad students.
Fall
1 Course Unit

GAFL 7350 The Performance Imperative
This course will examine the role of performance management within public organizations (government and nonprofit), including why measuring and managing performance is critically valuable to high-functioning organizations' success. With the increasing pressures on nonprofit and government organizations to continue to produce more with less, performance management systems are becoming a staple within organizations looking to drive better outcomes for their constituents. The goal of a highly functioning performance management system within a public organization is to establish a system of continuous monitoring designed to routinely measure specific quantitative and qualitative indicators in real-time - Key Performance Indicators (KPIs) - in order to improve the organization's ability to achieve specific outcomes through continuous improvement and timely, data-based decision-making. This course will use a diversity of course materials, including real-life examples and case studies to:
(a) demonstrate how organizations have successfully implemented performance management systems, (b) indicate the importance of using real-time, valid and reliable data, and linking performance results with effective budget resource allocation (e.g., program and outcome-based budgeting) and constituent satisfaction, and (c) explore practices on how to best protect valuable aspects of performance management systems despite changes in leadership.
Fall or Spring
1 Course Unit

GAFL 7980 MPA Capstone I
This required non-credit class is the first part of the MPA Capstone, which is a requirement for the Master of Public Administration at the University of Pennsylvania's Fels Institute of Government. During MPA Capstone I, students will work through the early stages of their capstone projects, including project planning and project research and design. Examples of early stage work include conducting background research, creating a working bibliography, designing the project, and planning and executing data collection. Students will work with their Capstone instructor, advisor and Community Partner Organization. Full-time MPA students take MPA Capstone I during the Spring semester. Executive MPA students take MPA Capstone I during their second Fall semester.
0 Course Units

GAFL 7990 MPA Capstone II
Successful completion of a Capstone project is one of the academic requirements for the Master of Public Administration (MPA) at the University of Pennsylvanias Fels Institute of Government. This core course is designed to give students direct guidance as they apply and consolidate knowledge and skills gained across the curriculum through the completion of a rigorous Capstone project. Capstone students are responsible for designing and completing a public policy or public administration-related project and presenting a deliverable (described below) to the Fels community and other stakeholders.
Fall or Spring
1 Course Unit
**GAFL 8990 Public Administration Internship**
Internship with a relevant nonprofit or government agency, chosen in consultation with a career services advisor. Students put their knowledge to use, develop vital skills, and build a professional network through an internship with a government or nonprofit organization. Our career advising team helps students identify internship opportunities to align with their professional goals.
Fall, Spring, and Summer Terms
0 Course Units

**Graduate Arts & Sciences (GAS)**

**GAS 6000 English Language Skills**
For prospective International Teaching Assistants (ITA) seeking English fluency certification, this course emphasizes the development of oral academic discourse skills and practices prominent features of spoken English that promote successful communication in academic settings, including intelligibility, active listening skills, grammar.
Fall
1 Course Unit

**GAS 6010 Proseminar in Graduate Studies**
Graduate Arts and Sciences doctoral students may register for GAS 6010 as an introduction to the methods of graduate study and research. To be conducted by individual graduate group faculty.
Fall or Spring
1 Course Unit

**Greek (GREK)**

**GREK 0100 Elementary Classical Greek I**
Intensive introduction to Classical Greek morphology and syntax. This course includes exercises in grammar, Greek composition, and translation from Greek to English. Emphasis is placed upon developing the ability to read Greek with facility.
Fall
1 Course Unit

**GREK 0110 Intensive Elementary Classical Greek**
An introduction to the ancient Greek language for beginners, with explanation of basic grammatical concepts and intensive exercises in reading and writing. Ideal for undergraduates or graduate students from Penn or elsewhere with some background in learning other languages, or who need to learn Greek rapidly. The course covers the first year of college-level Greek, equivalent to GREK 0100 + GREK 0200 at more than twice the normal pace. For further information on Penn's Greek curriculum, visit the Classical Studies department website.
Summer Term
2 Course Units

**GREK 0130 Elementary New Testament Greek**
This course provides a one-semester introduction to koine, the version of ancient Greek that was shared by many communities around the Mediterranean and was used in the composition of the Greek New Testament and much early Christian literature. Coursework will focus on grammar, vocabulary, and basic readings. The course prepares students for more extensive readings in biblical Greek literature, in the sequel course GREK 0230 Readings in New Testament Greek. Students aiming to learn classical Greek should take instead GREK 0100 Elementary Classical Greek I.
1 Course Unit

**GREK 0180 Elementary Modern Greek I**
This course is designed for students with no prior knowledge of the modern Greek Language. Instructions are theme based and is supported by a Textbook as well as other written or audiovisual material. It provides the framework for development of all communicative skills (reading, writing, comprehension and speaking) at a basic level. The course also introduces students to aspects of Modern Greek culture that are close to students' own horizon, while it exposes them to academic presentations of Greek history, arts, and current affairs. Quizzes, finals and short individual work with presentation are the testing tools. The completion of this unit does NOT satisfy the language requirement.
Not Offered Every Year
1 Course Unit

**GREK 0200 Elementary Classical Greek II**
Continuation of Elementary Modern Greek I, with increased emphasis on reading and writing.
Not Offered Every Year
Prerequisite: GREK 0180
1 Course Unit

**GREK 0280 Elementary Modern Greek II**
Continuation of Elementary Modern Greek I, with increased emphasis on reading and writing.
Not Offered Every Year
Prerequisite: GREK 0200 OR GREK 0110
1 Course Unit

**GREK 0300 Intermediate Classical Greek: Prose**
This course is for those who have completed GREK 0200, Greek 0110, or equivalent. You are now ready to begin reading real Greek! We will read a selection of passages from Greek prose authors, focusing on language and style.
Fall
Prerequisite: GREK 0200 OR GREK 0110
1 Course Unit

**GREK 0310 Intensive Intermediate Greek**
An introduction to the basic history and conventions of Greek prose and poetry, with continuous readings from classical authors accompanied by grammar review and exercises. Ideal for undergraduates or graduate students from Penn or elsewhere who have completed the equivalent of one year Greek (e.g., GREK 0110). The course covers the second year of college-level Greek, equivalent to GREK 0300 + GREK 0400 at more than twice the normal pace.
Summer Term
2 Course Units

**GREK 0380 Intermediate Modern Greek I**
This course is designed for students with an elementary knowledge of Demotic Modern Greek, and aims mainly at developing oral expression, reading and writing skills.
Not Offered Every Year
Prerequisite: GREK 0180 AND 0280
1 Course Unit
GREK 0388 Greek/Heritage Speakers I
This course is intended to help Heritage Speakers or student with prior knowledge of conversational modern Greek (or even Ancient Greek) to refresh or enrich their knowledge of modern Greek and who would not be a good fit for the elementary or intermediate classes. A theme based textbook and instructions along with a comprehensive overview of grammar as a whole is presented while original text, songs, video and other media are used in order to augment vocabulary and increase fluency in modern Greek. Students are expected to properly use the language, do theme-based research on the themes examined and provide written work on various subjects and make conversation in class.
Presentations on researched topics account for final exam.
Fall or Spring
1 Course Unit

GREK 0400 Intermediate Classical Greek: Poetry
We will read a selection of passages from Greek poetic authors, ranging from Homer to tragedy.
Spring
Prerequisite: GREK 0300
1 Course Unit

GREK 0480 Intermediate Modern Greek II
Further attention to developing oral expression, reading, and writing skills for students with knowledge of Demotic Modern Greek.
Not Offered Every Year
Prerequisite: GREK 0180 AND GREK 0280 AND GREK 0380
1 Course Unit

GREK 0488 Greek/Heritage Speakers II
It is the continuation of GREK 0388 with completing Grammar (passive voice as well as unusual nouns and adjectives etc.) and adding more challenging reading and writing material. The completion of this course satisfies the language requirement. ALL students completing the HSI GREK 0388 are eligible to enroll. ALL OTHERS will have to take a placement test.
Spring
1 Course Unit

GREK 3001 Hymnic Poetry
In this course, we will read the four major Homeric hymns and five Callimachean hymns, with briefer examinations of the minor Homeric hymns and Orphic hymns. Some of the questions that will arise from our readings include the contexts for which they were composed, the literary and religious relationship of humans and gods, mythopoetics, and the differences in dialect and language between the works. (This course is for those who have completed Greek 0400, Greek 0310, or equivalent.)
Not Offered Every Year
Prerequisite: GREK 0400
1 Course Unit

GREK 3003 Greek Dialogue
TBA
Not Offered Every Year
1 Course Unit

GREK 3202 The Myth of Prometheus
In Greek mythology, human beings are indebted for their survival and their way of life to Prometheus, the powerful Titan and clever trickster who defies Zeus to give them the gift of fire and the various arts and technologies of civilization. We will trace the development of the Prometheus myth through a series of works in different genres by Hesiod, Aeschylus, and Plato.
1 Course Unit

GREK 3203 Alcibiades and the Athenian Imagination
Political superstar, demagogue, desperate lover, brilliant general, and traitor, Alcibiades captured the imaginations of his fellow Athenians as well as thinkers and artists for centuries to come. This course offers students an opportunity to study democracy, sexuality, ethics, and youth through the perspectives on Alcibiades presented in comedy, historiography, philosophy, and oratory. In addition to preparing weekly translations, students will write individual papers presenting original close readings or research and will additionally collaborate on a digital project.
Not Offered Every Year
1 Course Unit

GREK 3204 Alcibiades and the Athenian Imagination
Political superstar, demagogue, desperate lover, brilliant general, and traitor, Alcibiades captured the imaginations of his fellow Athenians as well as thinkers and artists for centuries to come. This course offers students an opportunity to study democracy, sexuality, ethics, and youth through the perspectives on Alcibiades presented in comedy, historiography, philosophy, and oratory. In addition to preparing weekly translations, students will write individual papers presenting original close readings or research and will additionally collaborate on a digital project.
1 Course Unit

GREK 3205 Helen of Troy
Helen of Troy was one of the most debated figures in classical literature, at once overwhelmingly attractive and responsible for the immense suffering and loss of the Trojan War. We will focus on Euripides’ complex, playful presentation of the Helen myth in his tragedy Helen (in which she never goes to Troy at all), but will also look at portrayals of Helen by Homer, Sappho, Herodotus, and Gorgias. Reading knowledge of Greek or permission of instructor is required to enroll in this course.
Not Offered Every Year
1 Course Unit

GREK 3206 Ancient Ideas on Myth
Ancient readers were puzzled by their myths. The myths conveyed authoritative stories, many thought, but they did this in sometimes baffling ways. Heroes are not all that heroic, gods do things it seems they shouldn’t, and strange creatures and behaviors abound. This course will survey views on the myths among Greek philosophers, historians, and mythographers, and try to piece together what they think myth is and how it works. Texts will be read in Greek. Introductory and Intermediate Greek, or the equivalent, are pre-requisites.
Not Offered Every Year
1 Course Unit

GREK 3402 Thucydides
In this class we will read excerpts from the Greek historian, Thucydides, whose account of the Peloponnesian War is one of the most influential and compelling examples of history writing from any culture. Thucydides is generally thought of as one of the more difficult Greek prose authors. We will read some basic narrative passages in order to become familiar with Thucydidean style, before moving to the more difficult speeches and editorial passages in which Thucydides expounds upon the goals and difficulties of writing history.
Fall or Spring
1 Course Unit
GREK 3601 Demosthenes
This semester we shall read Demosthenes, On the Crown. This speech, one of the masterpieces of Greek oratory, was delivered in 330 BC towards the end of Demosthenes’ career. It has long been used as a valuable source of information on social, religious and political history, but it is also a pleasure to read for its clarity and vigour. We will read approximately five pages per week, and each Thursday there will be a short student report on a topic relating to the speech and Athenian oratory. These reports will be written up and submitted one week later as the only papers required in the class. Intermediate-level (200-level) Greek for undergraduate students is a pre-requisite for this class.
Not Offered Every Year
1 Course Unit

GREK 3801 Advanced Greek Language and Composition
Study of Greek grammar, vocabulary, and stylistic features, combining exercises in analysis, composition, and sight translation. Intended for graduate students and advanced undergraduates.
Not Offered Every Year
Mutually Exclusive: GREK 5801
1 Course Unit

GREK 5003 Greek Dialogue
In this course we will examine the various manifestations of dialogue in ancient Greek literature. We will read some whole dialogues (such as those by Plato and Lucian; some dialogues in drama and dialogue episodes in historiography). We will also study, and experiment with, the linguistic and discursive phenomena associated with dialogue. (Prior completion of intermediate 200-level Greek sequence or high-school exercises in analysis, composition, and sight-translation.
1 Course Unit

GREK 5203 Alcibiades and the Athenian Imagination
Political superstar, demagogue, desperate lover, brilliant general, and traitor, Alcibiades captured the imaginations of his fellow Athenians as well as thinkers and artists for centuries to come. This course offers students an opportunity to study democracy, sexuality, ethics, and youth through the perspectives on Alcibiades presented in comedy, historiography, philosophy, and oratory. In addition to preparing weekly translations, students will write individual papers presenting original close readings or research and will additionally collaborate on a digital project.
Not Offered Every Year
1 Course Unit

GREK 5204 Alcibiades and the Athenian Imagination
Political superstar, demagogue, desperate lover, brilliant general, and traitor, Alcibiades captured the imaginations of his fellow Athenians as well as thinkers and artists for centuries to come. This course offers students an opportunity to study democracy, sexuality, ethics, and youth through the perspectives on Alcibiades presented in comedy, historiography, philosophy, and oratory. In addition to preparing weekly translations, students will write individual papers presenting original close readings or research and will additionally collaborate on a digital project.
1 Course Unit

GREK 5402 Thucydides
In this class we will read excerpts from the Greek historian, Thucydides, whose account of the Peloponnesian War is one of the most influential and compelling examples of history writing from any culture. Thucydides is generally thought of as one of the more difficult Greek prose authors. We will read some basic narrative passages in order to become familiar with Thucydidean style, before moving to the more difficult speeches and editorial passages in which Thucydides expounds upon the goals and difficulties of writing history.
Fall or Spring
1 Course Unit

GREK 5602 Demosthenes
This semester we shall read Demosthenes, On the Crown. This speech, one of the masterpieces of Greek oratory, was delivered in 330 BC towards the end of Demosthenes’ career. It has long been used as a valuable source of information on social, religious and political history, but it is also a pleasure to read for its clarity and vigour. We will read approximately five pages per week, and each Thursday there will be a short student report on a topic relating to the speech and Athenian oratory. These reports will be written up and submitted one week later as the only papers required in the class. Intermediate-level (200-level) Greek for undergraduate students is a pre-requisite for this class.
Not Offered Every Year
1 Course Unit

GREK 5801 Advanced Greek Language and Composition
Study of Greek grammar, vocabulary, and stylistic features, combining exercises in analysis, composition, and sight translation. Intended for graduate students and advanced undergraduates.
Not Offered Every Year
Mutually Exclusive: GREK 3801
1 Course Unit

GREK 5802 Demosthenes
This semester we shall read Demosthenes, On the Crown. This speech, one of the masterpieces of Greek oratory, was delivered in 330 BC towards the end of Demosthenes’ career. It has long been used as a valuable source of information on social, religious and political history, but it is also a pleasure to read for its clarity and vigour. We will read approximately five pages per week, and each Thursday there will be a short student report on a topic relating to the speech and Athenian oratory. These reports will be written up and submitted one week later as the only papers required in the class. Intermediate-level (200-level) Greek for undergraduate students is a pre-requisite for this class.
Not Offered Every Year
1 Course Unit

GREK 6600 The Greek Text: Language and Style
What do we need to read texts in ancient Greek? In this course we read just one prose text and one poetic text, or a very limited number of texts and passages, with a focus on language and formal analysis (such as diction, grammar, stylistics, metrics, rhetoric, textual criticism). A range of exercises will be used to develop these skills, including composition, lexical studies, recitation, memorization, exegesis, written close-readings, and sight-translation.
Not Offered Every Year
1 Course Unit

GREK 6601 Greek Literary History
Through selected readings from both poetry and prose, we will survey the range and evolution of ancient Greek literary practice and will identify some of Greek literature might be constructed.
Not Offered Every Year
1 Course Unit

GREK 6610 Reading Greek
Intensive reading in ancient Greek literature, focusing on the skills and practices required to read closely a 150-page “short list” of key texts and becoming familiar with authors, chronology, meters, dialects, and genres. Exercises include analysis, sight translation, and practice versions of the Qualifications Examinations in Greek.
1 Course Unit
**GREK 7201 Troy and Homer**

An interdisciplinary seminar focusing on the city of Troy both as an archaeological site and as the setting of the legendary Trojan War. We will consider Homer’s Iliad (with selected sections read in Greek) together with the topography and archaeology of the site of Troy in order to address a series of interrelated questions: What are the points of continuity and discontinuity between the stories told by the literary tradition and the material record? How do both types of evidence contribute to our understanding of political relations and cultural interactions between Greece and Anatolia in the Bronze Age? How do Hittite sources bear on our reconstruction of the events behind the Troy legend? How have the site and the poem contributed to each other’s interpretation in the context of scholarly discovery and debate? We will give some attention to modern receptions of the Troy legend that deliberately combine material and textual elements, such as Cy Twombly’s “Fifty Days at Iliam” and Alice Oswald’s “Memorial: An Excavation of Homer’s Iliad.” The seminar will include a visit to the site of Troy during the Spring Break.

Also Offered As: AAMW 7259

1 Course Unit

**GREK 7202 Plato and Aristotle on Human Nature**

The place of humans in the order of things was a perennial question for ancient philosophers. The puzzle typically begins with questions of humans’ place within a hierarchy, setting them between inanimate things and non-human living things on the one side, and the divine on other. These categories, along with others like metabolism, growth and decay, death, sentence, cognition, and knowledge, will form the background against which we look closely at Plato’s and Aristotle’s views. We will read sections of Phaedo, Republic, and Timeaues, along with On the Soul, On the Motion of Animals, and On Divination During Sleep. The course will invite both broad synthetic thinking, and focused textual analysis. Students will be responsible for a class presentation, a stint as lead questioner, a presentation of work toward a research paper, and a final research paper.

Not Offered Every Year

1 Course Unit

**GREK 7203 Ancient and Medieval Theories and Therapies of the Soul**

This seminar focuses on premodern conceptions of the ‘soul’, the force felt to animate and energize a human body for as long as it was considered alive, and to activate virtually all aspects of its behavior through time. Premodern concepts of the soul attempted to account for a person’s emotions and desires, perceptions, thoughts, memory, intellect, moral behavior, and sometimes physical condition. The course will trace the various ancient theories of the soul from the Presocratics, Plato, Aristotle, Stoic thought in Greek and Latin, medical writers (Hippocrates, Hellenistic doctors, Galen), and Neoplatonists, to the medieval receptions and transformations of ancient thought, including Augustine and Boethius, Avicenna’s interpretation of Aristotle and its medieval influence, and Aquinas and other later medieval ethicists. These premodern conceptions of the soul have a surprisingly long afterlife, reaching into the literary cultures and psychological movements of early modernity and beyond. Knowledge of Greek or Latin not required, but see the following: The seminar will meet for one two-hour session per week, and a separate one-hour ‘breakout’ session during which students who have registered for GREK 7203 will meet to study a selection texts in Greek, and students who have registered for COML/ENGL will meet to discuss medieval or early modern texts relevant to their fields of study.

Not Offered Every Year

Also Offered As: COML 6100, ENGL 7060

1 Course Unit

**GREK 7402 Aristophanes and Old Comedy**

This advanced graduate seminar in ancient Greek literature will focus in detail on several plays of Aristophanes and selections from his contemporaries in Old Comedy, Cratinus and Eupolis. Special attention will be paid both to questions of genre and comic dynamics, and to the historical and political contexts in which these plays were first performed.

Not Offered Every Year

1 Course Unit

**GREK 7403 Aristophanes and Lucian**

This seminar will explore the comic drama of Aristophanes and its influence on the comic prose of Lucian in the Imperial period. Aristophanes was an important literary model for Lucian, but Lucian read Aristophanes in his own way and for his own literary agenda. We will consider each author both in their own historical contexts, and comparatively, as parodists, satirists and cultural critics within a long and varied literary tradition.

Fall or Spring

1 Course Unit

**GREK 7404 Herodotus**

An overview of Herodotus’ Histories with attention both to its place in Greek literary history and to its uses and limitations as an historical source. We will consider the Histories in relation to questions of ethnic identity, cultural contact, and the construction of East and West. In their individual projects, students will explore the relevance of this protean, polyvocal text to their particular interests and scholarly perspectives.

Not Offered Every Year

1 Course Unit

**GREK 7707 The Iliad and its Receptions**

We will read selections from the Greek poem together, alongside some modern scholarship on it. We will also read Plato’s Ion and the Battle of the Mice and Frogs, as evidence for Homer’s ancient philosophical, rhetorical and poetic receptions. We will discuss the history of the poem’s translation into English, focusing on earlier translations (Chapman, Hobbes, Pope) and discussing the instructor’s goals and challenges in producing a new re-translation. We will also talk about two recent novelizations of the poem, Pat Barker’s Silence of the Girls and Madeline Miller’s Song of Achilles. The course is primarily intended for graduate students in Classical Studies and Ancient History, but it is also open to students in other programs, including those whose Greek might be less advanced. Prerequisite: Students should have a working knowledge of Greek.

Not Offered Every Year

Also Offered As: COML 7707

1 Course Unit

**GREK 7802 Greek Epigraphy**

An introduction to the principles and practices of Greek Epigraphy. Study of selected Greek inscriptions.

Not Offered Every Year

Also Offered As: ANCH 7202

1 Course Unit

**GREK 9999 Independent Study**

This course is taken by graduate students doing independent work with a faculty advisor.

Fall or Spring

1-2 Course Units
**Gujarati (GUJR)**

**GUJR 0100 Beginning Gujarati Part I**
During the first year of Gujarati, major emphasis is placed on acquiring phonetics, grammatical patterns, and basic vocabulary. These goals are accomplished through guided drills and conversations accompanied by formal instruction on Gujarati grammar. From the outset, students are also taught the Gujarati writing system, which is used for all materials. By the end of the first year of instruction, student should be able to carry on coherent conversations on selected topics, read simple texts and compose short pieces in Gujarati.

Fall
1 Course Unit

**GUJR 0200 Beginning Gujarati Part II**
During the first year of Gujarati, major emphasis is placed on acquiring phonetics, grammatical patterns, and basic vocabulary. These goals are accomplished through guided drills and conversations accompanied by formal instruction on Gujarati grammar. From the outset, students are also taught the Gujarati writing system, which is used for all materials. By the end of the first year of instruction, student should be able to carry on coherent conversations on selected topics, read simple texts and compose short pieces in Gujarati.

Spring
Prerequisite: GUJR 0100 OR GUJR 5100
1 Course Unit

**GUJR 0300 Intermediate Gujarati Part I**
This course is designed as a continuation of beginning Gujarati. The course objectives are to expand the mastery of sentence patterns and augment vocabulary and its usage through intensive grammar and comprehension exercises. A special emphasis will be placed on greater cultural awareness. Upon completion of this course students should be able to interact socially with added confidence and greater expressiveness. Students should also experience a great improvement in their comprehension of spoken and written language. During the second year of Gujarati, students are introduced to progressively more difficult reading selections, along with additional instructions in the formal grammar of the language. To maintain and develop oral and aural command of the language, readings are discussed in Gujarati. To develop their writing abilities, students are also expected to compose short essays on their readings.

Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

**GUJR 0400 Intermediate Gujarati Part II**
This course is designed as a continuation of intermediate Gujarati I. Course objectives are to expand the mastery of sentence patterns and augment vocabulary and its usage through intensive grammar and comprehension exercises. A special emphasis will be placed on greater cultural awareness. Upon completion of this course students should be able to interact socially with added confidence and greater expressiveness. Students should also experience a great improvement in their comprehension of spoken and written language. During the second year of Gujarati, students are introduced to progressively more difficult reading selections, along with additional instructions in the formal grammar of the language. To maintain and develop oral and aural command of the language, readings are discussed in Gujarati. To develop their writing abilities, students are also expected to compose short essays on their readings.

Spring
Prerequisite: GUJR 0300 OR GUJR 5300
1 Course Unit

**GUJR 1502 Advanced Gujarati**
A follow up semester to Advanced Gujarati I, focused on the comprehensive study in reading, writing, speaking, and comprehension to gain advanced knowledge of Gujarati. Instructor may use poetry and/or prose as tools to engage students while having them create their own written works. Contact instructor for details.

Spring
1 Course Unit

**GUJR 5100 Beginning Gujarati Part I**
During the first year of Gujarati, major emphasis is placed on acquiring phonetics, grammatical patterns, and basic vocabulary. These goals are accomplished through guided drills and conversations accompanied by formal instruction on Gujarati grammar. From the outset, students are also taught the Gujarati writing system, which is used for all materials. By the end of the first year of instruction, student should be able to carry on coherent conversations on selected topics, read simple texts and compose short pieces in Gujarati.

Fall
1 Course Unit

**GUJR 5200 Beginning Gujarati Part II**
During the first year of Gujarati, major emphasis is placed on acquiring phonetics, grammatical patterns, and basic vocabulary. These goals are accomplished through guided drills and conversations accompanied by formal instruction on Gujarati grammar. From the outset, students are also taught the Gujarati writing system, which is used for all materials. By the end of the first year of instruction, student should be able to carry on coherent conversations on selected topics, read simple texts and compose short pieces in Gujarati.

Spring
1 Course Unit
GUJR 5300 Intermediate Gujarati Part I
This course is designed as a continuation of beginning Gujarati. The course objectives are to expand the mastery of sentence patterns and augment vocabulary and its usage through intensive grammar and comprehension exercises. A special emphasis will be placed on greater cultural awareness. Upon completion of this course students should be able to interact socially with added confidence and greater expressiveness. Students should also experience a great improvement in their comprehension of spoken and written language. During the second year of Gujarati, students are introduced to progressively more difficult reading selections, along with additional instructions in the formal grammar of the language. To maintain and develop oral and aural command of the language, readings are discussed in Gujarati. To develop their writing abilities, students are also expected to compose short essays on their readings.

Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

GUJR 5400 Intermediate Gujarati Part II
This course is designed as a continuation of intermediate Gujarati I. Course objectives are to expand the mastery of sentence patterns and augment vocabulary and its usage through intensive grammar and comprehension exercises. A special emphasis will be placed on greater cultural awareness. Upon completion of this course students should be able to interact socially with added confidence and greater expressiveness. Students should also experience a great improvement in their comprehension of spoken and written language. During the second year of Gujarati, students are introduced to progressively more difficult reading selections, along with additional instructions in the formal grammar of the language. To maintain and develop oral and aural command of the language, readings are discussed in Gujarati. To develop their writing abilities, students are also expected to compose short essays on their readings.

Spring
1 Course Unit

GUJR 5502 Advanced Gujarati
A follow up semester to Advanced Gujarati I, focused on the comprehensive study in reading, writing, speaking, and comprehension to gain advanced knowledge of Gujarati. Instructor may use poetry and/or prose as tools to engage students while having them create their own written works. Contact instructor for details. Prerequisite: Proficiency in Gujarati. Contact instructor if you have questions about your proficiency level.

Spring
1 Course Unit

Health & Societies (HSOC)

HSOC 0000 Free Elective Transfer or Away Credit
For courses from other schools, transfer students and majors taking a course for the major elsewhere.
1 Course Unit

HSOC 0100 Emergence of Modern Science
During the last 500 years, science has emerged as a central and transformative force that continues to reshape everyday life in countless ways. This introductory course will survey the emergence of the scientific world view from the Renaissance through the end of the 20th century. By focusing on the life, work, and cultural contexts of those who created modern science, we will explore their core ideas and techniques, where they came from, what problems they solved, what made them controversial and exciting and how they relate to contemporary religious beliefs, politics, art, literature, and music. The course is organized chronologically and thematically. In short, this is a "Western Civ" course with a difference, open to students at all levels.

Fall
Also Offered As: STSC 0100
1 Course Unit

HSOC 0228 Studying Sex
The concept of "sex" has meant multiple things to science and medicine over the last few hundred years: a way of sorting bodies, a behavior to observe, a driving force behind reproduction and evolution, and a yardstick by which to measure normality. It has been both a binary of male and female, and a spectrum; both separate from gender, and inseparably entwined with it. It has been defined at different moments by anatomy, hormones, chromosomes, and even metabolism. In this course, we will explore how scientists have studied—and perhaps produced—the many-faceted thing called sex, and how historians have come to understand that past. This first-year seminar introduces students to primary source research; historical writing; and methods from both Science and Technology Studies (STS), and queer, trans, and feminist studies. Course materials will focus mainly on the United States in the 19th and 20th centuries.

Fall
Also Offered As: GSWS 0228, STSC 0228
1 Course Unit

HSOC 0283 Medicine, Magic and Miracles
This course explores the nature of disease and the history of medical practice and healing in the medieval period, using methods from intellectual, cultural, and social history, as well as the life sciences, and incorporating material from Indonesia to England. The themes of this course include: 1) the diversity of healing practices and beliefs in this period; 2) specific rationalities of different methods of healing; 3) views of the human body and disease; 4) the wide array of practitioners that people turned to for medical care, including physicians, midwives, family members, herbalists, snake handlers, saints, and surgeons; 5) institutions of medicine, such as the hospital. Students will have their minds blown as they learn to question everything they thought they knew about how science and medicine work.

Fall
Also Offered As: STSC 0283
1 Course Unit
HSOC 0311 Addiction: Understanding how we get hooked and how we recover
We will investigate the evolution of scientific theories and popular beliefs regarding the causes of addiction in the 20th and 21st centuries, and how they have shaped treatment approaches to these disorders. We will examine the crack cocaine epidemic of the 1980s and the current opioid epidemic, and consider sociocultural and political factors that contributed to the onset of and reaction to these crises. Finally, we will discuss research into the neurobiological, psychological, familial, social, and political factors that initiate and sustain addiction, and the efficacy of various treatment approaches.
Fall
1 Course Unit

HSOC 0313 Cane and Able: Disability in America
Disability is a near universal experience, and yet it remains on the margins of most discussions concerning identity, politics, and popular culture. Using the latest works in historical scholarship, this seminar focuses on how disability has been experienced and defined in the past. We will explore various disabilities including those acquired at birth and those sustained by war, those visible to others and those that are invisible. For our purposes, disability will be treated as a cultural and historical phenomenon that has shaped American constructions of race, class, and gender, attitudes toward reproduction and immigration, ideals of technological progress, and notions of the natural and the normal.
Fall
Also Offered As: STSC 0313
1 Course Unit

HSOC 0331 Autism Epidemic
The CDC estimates that 1 in 150 children have autism. Three decades ago, this number was 1 in 5,000. The communities in which these children are identified in ever increasing numbers are ill prepared to meet their needs. Scientists have struggled to understand the causes of this disorder, its treatment, and why it appears to be rapidly increasing. Families, policy makers, schools and the healthcare system have argued bitterly in the press and in the courts about the best way to care for these children and the best ways to pay for this care. In this class, we will use autism as a case study to understand how psychiatric and developmental disorders of childhood come to be defined over time, their biological and environmental causes identified, and treatments developed. We will also discuss the identification and care of these children in the broader context of the American education and healthcare systems.
Not Offered Every Year
1 Course Unit

HSOC 0361 Medical Missionaries and Community Partners
Global health is an increasingly popular goal for many modern leaders. Yet critics see evidence of a new imperialism in various aid programs. We will examine the crack cocaine epidemic of the 1980s and the current opioid epidemic, and consider sociocultural and political factors that contributed to the onset of and reaction to these crises. Finally, we will discuss research into the neurobiological, psychological, familial, social, and political factors that initiate and sustain addiction, and the efficacy of various treatment approaches.
Fall
1 Course Unit

HSOC 0362 First Year Seminar - Bacteria, Bodies, and Empires: A Global History of Medicine and Healing
Bacteria, Bodies, and Empires: A Global History of Medicine and Healing is a seminar on the history of medicine from the early modern period to the present. It addresses major issues and questions about bodies, diseases, epidemics, and medical institutions in the context of major historical developments in world history, with a focus on the Global South. The course examines how medicine, knowledge, and practices about diseases and bodies influenced political and social conditions, as well as how sociopolitical changes shaped and transformed people's perceptions of health, life, and the environment. Scholars have frequently examined the history of medicine as a Western practice and with a focus on Western medical traditions. And, medical and healing practices in the history of the Global South are frequently examined through the lens of religion, culture, and race, or, more recently, in relation to modernization and colonization. By situating the history of medical knowledge and practices in world history with an emphasis on Global South, this course introduces readings and research methods to challenge these fixed paradigms and shed light on questions and research agendas that will unearth the encounters, connections, and mobility of bacteria, bodies, and medical methods among various communities across time from Black Death to contemporary pandemics.
Also Offered As: HIST 0032
1 Course Unit

HSOC 0387 Epidemics in History
The twenty-first century has seen a proliferation of new pandemic threats, including SARS, MERS, Ebola, Zika, and most recently the novel coronavirus called COVID-19. Our responses to these diseases are conditioned by historical experience. From the Black Death to cholera to AIDS, epidemics have wrought profound demographic, social, political, and cultural change all over the world. Through a detailed analysis of selected historical outbreaks, this seminar examines the ways in which different societies in different eras have responded in times of crisis. The class also analyzes present-day pandemic preparedness policy and responses to health threats ranging from influenza to bioterrorism.
Fall
Also Offered As: STSC 0387
1 Course Unit

HSOC 0400 Medicine in History
This course surveys the history of medical knowledge and practice from antiquity to the present. No prior background in the history of science or medicine is required. The course has two principal goals: (1) to give students a practical introduction to the fundamental questions and methods of the history of medicine, and (2) to foster a nuanced, critical understanding of medicine's complex role in contemporary society. The course takes a broadly chronological approach, blending the perspectives of the patient, the physician, and society as a whole—recognizing that medicine has always aspired to "treat" healthy people as well as the sick and infirm. Rather than history "from the top down" or "from the bottom up," this course sets its sights on history from the inside out. This means, first, that medical knowledge and practice is understood through the personal experiences of patients and caregivers. It also means that lectures and discussions will take the long-discredited knowledge and treatments of the past seriously, on their own terms, rather than judging them by today's standards. Required readings consist largely of primary sources, from elite medical texts to patient diaries. Short research assignments will encourage students to adopt the perspectives of a range of actors in various historical eras.
Fall
Also Offered As: HIST 0876, STSC 0400
1 Course Unit
HSOC 0480 Health and Societies
"Two fundamental questions structure this course: (1) What kinds of factors shape population health in various parts of the world in the twenty-first century? and (2) What kinds of intellectual tools are necessary in order to study global health? Grasping the deeper "socialness" of health and health care in a variety of cultures and time periods requires a sustained interdisciplinary approach. "Health and Societies: Global Perspectives" blends the methods of history, sociology, anthropology and related disciplines in order to expose the layers of causation and meaning beneath what we often see as straightforward, common-sense responses to biological phenomena. Assignments throughout the semester provide a hands-on introduction to research strategies in these core disciplines. The course culminates with pragmatic, student-led assessments of global health policies designed to identify creative and cost-effective solutions to the most persistent health problems in the world today." Fall or Spring
1 Course Unit

HSOC 0490 Comparative Medicine
This course explores the medical consequences of the interaction between Europe and the "non-West." It focuses on three parts of the world Europeans colonized: Africa, South Asia, and Latin America. Today's healing practices in these regions grew out of the interaction between the medical traditions of the colonized and those of the European colonizers. We therefore explore the nature of the interactions. What was the history of therapeutic practices that originated in Africa or South Asia? How did European medical practices change in the colonies? What were the effects of colonial racial and gender hierarchies on medical practice? How did practitioners of "non-Western" medicine carve out places for themselves? How did they redefine ancient traditions? How did patients find their way among multiple therapeutic traditions? How does biomedicine take a different shape when it is practiced under conditions of poverty, or of inequalities in power? How do today's medical problems grow out of this history? This is a fascinating history of race and gender, of pathogens and conquerors, of science and the body. It tells about the historical and regional roots of today's problems in international medicine. Fall
Also Offered As: STSC 0490
1 Course Unit

HSOC 0600 Technology & Society
Technology plays an increasing role in our understandings of ourselves, our communities, and our societies, in how we think about politics and war, science and religion, work and play. Humans have made and used technologies, though, for thousands if not millions of years. In this course, we will use this history as a resource to understand how technologies affect social relations, and conversely how the culture of a society shapes the technologies it produces. Do different technologies produce or result from different economic systems like feudalism, capitalism and communism? Can specific technologies promote democratic or authoritarian politics? Do they suggest or enforce different patterns of race, class or gender relations? Among the technologies we'll consider will be large objects like cathedrals, bridges, and airplanes; small ones like guns, clocks and birth control pills; and networks like the electrical grid, the highway system and the internet. Spring
Also Offered As: STSC 0600
1 Course Unit

HSOC 0823 Sport Science in the World
This seminar is designed for first-year students who are interested in some big questions related to the topic of "sport science." Sport science may seem to be just a niche field where teams of physiologists, psychologists, geneticists, engineers and others work to make already very athletic people go "faster, higher, stronger." On the other hand, the work of sport scientists intersects everyday with far-reaching questions about how categories of sex, age, race, disability, and nationality are defined, measured, challenged, or maintained. Sport scientists weigh in on debates over what kinds of physical activity or bodies are "clean," what kinds of performance are "natural" or even human, and what kinds of sporting spaces or equipment are fair. In this class we'll read and discuss historical and contemporary accounts of sport science in the world. My hope is that students will enter the class interested in sports and leave interested in sports and in gendered science, objectivity and standardization, the politics of big data and more. Fall
Also Offered As: STSC 0823
1 Course Unit

HSOC 1120 Science Technology and War
In this survey we explore the relationships between technical knowledge and war in the nineteenth and twentieth centuries. We attend particularly to the centrality of bodily injury in the history of war. Topics include changing interpretations of the machine gun as inhumane or acceptable; the cult of the battleship; banned weaponry; submarines and masculinity; industrialized war and total war; trench warfare and mental breakdown; the atomic bomb and Cold War; chemical warfare in Viet Nam; and "television war" in the 1990s. Not Offered Every Year
Also Offered As: STSC 1120
1 Course Unit

HSOC 1222 Medical Sociology
This course will give the student an introduction to the sociological study of medicine. Medical sociology is a broad field, covering topics as diverse as the institution and profession of medicine, the practice of medical care, and the social factors that contribute to sickness and well-being. Although we will not explore everything, we will attempt to cover as much of the field as possible through four thematic units: (1) the organization and development of the profession of medicine, (2) the delivery of health-care, especially doctor-patient interaction, (3) the social and cultural factors that affect how illness is defined, and (4) the social causes of illness. The class will emphasize empirical research especially but not only quantitative research. Also Offered As: SOCI 1110
1 Course Unit
HSOC 1312 Mental Illness
This course is designed to give a general overview of how sociologists study mental illness. We will be concerned with describing the contributions of sociological research and exploring how these contributions differ from those of psychology, psychiatry, and social work. This overview will be done in three parts: we will discuss (i) what "mental illness" is, (ii) precisely how many Americans are mentally ill, (iii) how social factors (e.g. race, gender, class) and social arrangements (e.g. social networks) lead to mental illness, and (iv) how we as a society respond to and treat the mentally ill. Throughout the course, we will be concerned with uncovering the assumptions behind different definitions of mental health and exploring their political, social, and legal implications.
Fall or Spring
Also Offered As: SOCI 1111
1 Course Unit

HSOC 1330 Bioethics
This course is intended to introduce students to the fundamental principles of bioethics and the many ethical issues that arise in the rapidly changing fields of biomedicine and the life sciences. The first half of the course will provide an overview of the standard philosophical principles of bioethics, using clinical case studies to help illustrate and work through these principles. In the second half of the course we will focus on recent biomedical topics that have engendered much public controversy including diagnostic genetics, reproductive technologies and prenatal screening, abortion, physician assisted suicide, human experiments, and end of life decision making. We will use the principles learned in the first half of the course to systematically think through these ethical issues, many of which affect our everyday lives.
Not Offered Every Year
Also Offered As: SOCI 2971
1 Course Unit

HSOC 1362 Bacteria, Bodies, and Empires: Medicine and Healing in the Eastern Mediterranean (15th-21st c.)
Bacteria, Bodies, and Empires is a survey course about the history of medicine in the Eastern Mediterranean from early modern period to the present. It addresses the major issues and questions concerning bodies, diseases, and medical institutions within the context of major historical developments in the world and region's history. The course looks at how medicine, knowledge, and practices about diseases and bodies shaped American social relations based on race, class, gender, and age. This course is a combination lecture and "SAIL" class. SAIL stands for "Structured, Active, In-Class Learning." During many class periods, students will work in small groups on a specific exercise, followed by a large group discussion and/or brief lecture. Students who choose to take this course, therefore, must be fully committed to adequately preparing for class and to working collaboratively in class.
Fall or Spring
1 Course Unit

HSOC 1382 Introduction to Medical Anthropology
Introduction to Medical Anthropology takes central concepts in anthropology – culture, adaptation, human variation, belief, political economy, the body – and applies them to human health and illness. Students explore key elements of healing systems including healing technologies and healer-patient relationships. Modern day applications for medical anthropology are stressed.
Fall
Also Offered As: ANTH 1238
1 Course Unit

HSOC 1401 The Peoples Health
While the scary threats of the moment in recent years, Ebola, MERS, swine flu, bioterrorism dominate media coverage of public health, most human suffering and death are driven by more mundane causes. This course critically addresses twenty-first-century public health science and policy by examining the long history (beginning with the plague epidemics of Renaissance Italy) that brought us to where we are today. Topics include responses to epidemics; socioeconomic, racial, and other disparities in health; occupational health; the rise of public health as a field of scientific inquiry; sanitary reform; the Bacteriological Revolution; the shift from disease causes to risk factors; and the social determinants of health.
Fall or Spring
1 Course Unit

HSOC 1411 American Health Policy
"American Health Policy" places the success or failure of specific pieces of U.S. health care legislation into social and political context. The course covers the time period from the U.S. Civil War to the 2010 Affordable Care Act (ACA), addressing two central questions: 1) Why was the United States one of the only industrialized nations to, until recently, have a private, non-nationalized, non-federalized health care system? 2) Why has U.S. health insurance historically been a benefit given through places of employment? Some topics addressed include: private health insurance, industrial health and workmen's compensation, the welfare state (in Europe, Canada, and the U.S.), maternal and infant care programs, Medicare and Medicaid. One of the main take-home messages of the course is that 20th-century U.S. health care policies both reflected and shaped American social relations based on race, class, gender, and age. This course is a combination lecture and "SAIL" class. SAIL stands for "Structured, Active, In-Class Learning." During many class periods, students will work in small groups on a specific exercise, followed by a large group discussion and/or brief lecture. Students who choose to take this course, therefore, must be fully committed to adequately preparing for class and to working collaboratively in class.
Fall or Spring
1 Course Unit
HSOC 2002 Sociological Research Methods
One of the defining characteristics of all the social sciences, including sociology, is a commitment to empirical research as the basis for knowledge. This course is designed to provide you with a basic understanding of research in the social sciences and to enable you to think like a social scientist. Through this course students will learn both the logic of sociological inquiry and the nuts and bolts of doing empirical research. We will focus on such issues as the relationship between theory and research, the logic of research design, issues of conceptualization and measurement, basic methods of data collection, and what social scientists do with data once they have collected them. By the end of the course, students will have completed sociological research projects utilizing different empirical methods, be able to evaluate the strengths and weaknesses of various research strategies, and read (with understanding) published accounts of social science research.
Fall or Spring
Also Offered As: SOCI 2000
1 Course Unit

HSOC 2198 Race, Science, and Globalization
Why do racist ideologies persist when a majority of scientists and scholars reject the premises they rely upon? Since the end of WWII, major scientific organizations like UNESCO and the American Anthropological Association have published statements rejecting race as an accurate representation of human biological variation. Yet despite widespread scientific opposition to the validity of race as an object of study, troublesome issues concerning race and racism abound in Western societies. If not an accurate description of human biology then what is race? And is racism an inevitable feature of human societies?
Fall or Spring
Also Offered As: LALS 2198, STSC 2198
1 Course Unit

HSOC 2202 Health of Populations
This course is designed to introduce students to the quantitative study of factors that influence the health of populations. Topics to be addressed include methods for characterizing levels of health in populations, comparative and historical perspectives on population health, health disparities, health policy issues and the effectiveness of interventions for enhancing the health of populations. These topics will be addressed both for developed and developing world populations. The course will focus on specific areas of health and some of the major issues and conclusions pertaining to those domains. Areas singled out for attention include chronic diseases and their major risk factors, such as smoking, physical activity, dietary factors and obesity. Throughout the course, the focus will be on determining the quality of evidence for health policy and understanding the manner in which it was generated.
Fall or Spring
Also Offered As: SOCI 2220
1 Course Unit

HSOC 2211 Sex, Sexuality and Sexual Science in South Asia: Perspectives from the Past and Present
This course will introduce students to the problems of sex, sexuality and sexual science in South Asia over the centuries. Its central problem will be how sex, society and knowledge about sex have been transformed in South Asia under the conditions of colonial and postcolonial modernity. It will consider how a multitude of indigenous practices and knowledges, from the famous Kamasutra and its allied knowledges to the transgender communities, from the Lazzat-un-Nisa to concubinage and the sexual norms of elite households, were framed and reframed during the nineteenth and twentieth centuries through the agency of a variety of institutions, groups and individuals. The course will also show how South Asia played a crucial role in the global evolution of sexual knowledge. Topics will include the varieties and functions of traditional sexual knowledges, colonial sexology, changing sexual identities and practices, the relation of psychiatry and medicine to sex, queer and transgender sexualities, and the complex and shifting role of the state and civil society to all of these topics.
Not Offered Every Year
Also Offered As: SAST 2211
1 Course Unit

HSOC 2213 Herbs and Humors: Medieval and Early Modern Pharmacology
What do gold, mummies, and rhubarb have in common? All were important ingredients in premodern pharmacy! This course surveys the history of pharmacology in the Medieval and Early Modern periods, beginning with the earliest European universities, through the professionalization of the medical field in the High and Late Middle Ages, and into the chymical medicine of the Renaissance. By engaging with a selection of both primary and secondary sources, students will learn about the development of the field of pharmacology and its relation to the broader field of medicine during its formation. Students will also learn how other emerging fields, such as alchemy and chemistry, and new technological advances made the development and advancement of pharmaceuticals possible. By the end of the course, students should expect to be able to address the following questions: How do theory and practice converge in premodern medicine and pharmacology? What is the relationship between the pharmacist and the physician, and how does this relationship shape medical practice? How does the invention of new technology shape the development of pharmacology during this period?
No prior knowledge of medical history is needed for this course.
Also Offered As: STSC 2213
1 Course Unit
HSOC 2254 American Medicine and Technology in War and Peace
War and its effects on the human body are brutal; the carnage of the battlefield and the conditions of camp life have presented special challenges to medicine throughout history. Additionally, the incorporation of new technologies into the military sphere, whether or not they started as civilian technologies, fundamentally changed the ways in which war was conceptualized, fought, and won. But the significance of medicine and technology in a military context extends well beyond the injuries and illnesses of war. Looking more closely at the ways in which physicians, military officers, soldiers, and civilians have interacted with each other both in war and in peace reveals much about the political, cultural, and disciplinary formation of medicine in the modern era and the roles technology in such formations. Understanding historical uses of medicine and technologies sheds light upon notions of localized and globalized warfare, as well as the political machinations in which nations engaged to create ideologies of dominance, threat, and safety. This seminar surveys the history of medicine and technology, principally in an American context, from the seventeenth through the late twentieth centuries. We will look at the ways in which the practices, theories, and tools of military medicine have played, and continue to play, a prominent role in conceptualizations of warfare, health, disease, politics, disability, morality, society, the body, culture, and ethics. We will take an in-depth look at the ways in which military and medical institutions have shaped, and been shaped by, other social and political categories like gender, race, class, and ethics over the last four hundred years and across various (though mostly Western) societies, and the ramifications for both soldiers and civilians alike. Students will be graded on two short essay assignments, an exam, in-class participation, and a final paper (no longer than ten pages in length) based on material covered in the course.

Spring

1 Course Unit

HSOC 2293 From Madness to Mental Health: The History of Psychiatry
Studies show that about a quarter of college students take psychotropic medications, such as anti-depressants and stimulants. This figure has been attacked from both sides – by those who describe American adolescents and young adults today as over-medicated, and by those who point to accessibility gaps to suggest that too many are actually undertreated. Interrogating this question requires a deep dive into the history of one of our most contested disciplines. We'll briefly consider the ancient roots of mental illness to show that concerns about sanity and aberrant behavior have always been with us, but most of the syllabus will focus on the shifting landscape in the United States, as biological theories ceded to psychoanalysis and back again. Specific topics will include somatic therapies (like lobotomy and electroconvulsive therapy), pharmaceutical interventions, and institutionalization/deinstitutionalization. We'll close by examining the current state of the field as represented by the fifth edition of the American Psychiatric Association's Diagnostic and Statistical Manual.

Spring

1 Course Unit

HSOC 2303 Fundamentals of Epidemiology
This course introduces students to the basic tenets of epidemiology and how to quantitatively study health at the population level. Students learn about measures used to describe populations with respect to health outcomes and the inherent limitations in these measures and their underlying sources of data. Analytic methods used to test scientific questions about health outcomes in populations then are covered, again paying particular attention to the strength and weaknesses of the various approaches. Multiple large epidemiologic research and field studies are used as in-class exemplars.

Spring

Also Offered As: STSC 2303

1 Course Unit

HSOC 2304 Insect Epidemiology Pests, Pollinators and Disease Vectors
Malaria, Dengue, Chagas disease, the Plague - some of the most deadly and widespread infectious diseases are carried by insects. The insects are also pernicious pests; bed bugs have returned from obscurity to wreak havoc on communities, invasive species decimate agricultural production, and wood borers are threatening forests across the United States. At the same time declines among the insects on which we depend - the honeybees and other pollinators - threaten our food security and ultimately the political stability of the US and other nations. We will study the areas where the insects and humans cross paths, and explore how our interactions with insects can be cause, consequence or symptom of much broader issues. This is not an entomology course but will cover some fascinating epidemiological theory originally developed for the control of disease vectors. It will cover past epidemics and infestations that have changed the course of the history of cities and reversed advancing armies. HSOC 241. Stem Cells, Science and Society. Gearhart/Zaret.

Fall or Spring

Also Offered As: STSC 2304

1 Course Unit

HSOC 2312 Healthy Schools
This Fox Leadership and academically based community service seminar will use course readings and students' own observations and interviews in their service learning projects in West Philadelphia schools to analyze the causes and impact of school health and educational inequalities and efforts to address them. Course readings will include works by Jonathan Kozol, studies of health inequalities and their causes, and studies of No Child Left Behind, the CDC's School Health Index, recess, school meal, and nutrition education programs. Course speakers will help us examine the history, theories, politics and leadership behind different strategies for addressing school-based inequalities and their outcomes. Service options will focus especially on the West Philadelphia Recess Initiative. Other service options will include work with Community School Student Partnerships and the Urban Nutrition Initiative.

Not Offered Every Year

Also Offered As: PSCI 2203

1 Course Unit
HSOC 2332 Just Futures Seminar II: Health and Healing in Abiayala (the Americas)

Health and Healing in Abiayala (the Americas) will introduce students to ecosocial notions of health, colonialism’s contributions to ill-health, and decolonial action as healing action. Part one of the course introduces general concepts of body, health, and illness in biomedical models. It then pivots to the relational and ecosocial practices of body, health, and wellbeing among many First Peoples of the Abiayala, highlighting “radical relationality.” For many First Peoples, community includes humans, plants, animals, ancestors, and earth beings (such as the land, mountains, rivers, and lakes) that are materially, socially, and spiritually interdependent. These beings work together to maintain a “shared body” through practices of reciprocal care. Part two of the course examines how the shared body has been and is threatened by the colonization of Indigenous lands and bodies through (e.g.) land dispossession, pollution, extractive industry, lack of access to quality education and medical care, forced sterilization, forced removal of children, exploitative economic relations, and political violence. The third part of the course will follow how First Peoples of Abiayala are healing from the physical, social, and spiritual wounds of colonialism through decolonial action. First Peoples are creating their own healing centers and ecological protection agencies, engaging in Land Back movements, in legal and direct-action processes to protect the shared body from extractive industry, and reproductive justice movements. Healing is future oriented, powering the “radical resurgence” of First Peoples. Some questions addressed in this class include, where does the body begin and end? What constitutes personhood? How does continued colonization affect Indigenous peoples’ health—and that of all peoples? How do Indigenous peoples use ancestral knowledges, relation ethics, and local ecologies to help heal historic and contemporary wounds to power their futures? Is there a political dimension to healing? How do autonomy and self-determination figure into healing and wellbeing?

Not Offered Every Year
Also Offered As: ANTH 2978, GSWS 2978, LALS 2978
1 Course Unit

HSOC 2382 Global Health: Anthropological Perspectives

In some parts of the world spending on pharmaceuticals is astronomical. In others, people struggle for survival amid new and reemerging epidemics and have little or no access to basic or life-saving therapies. Treatments for infectious diseases that disproportionately affect the world’s poor remain under-researched and global health disparities are increasing. This interdisciplinary seminar integrates perspectives from the social sciences and the biomedical sciences to explore 1) the development and global flows of medical technologies; 2) how the health of individuals and groups is affected by medical technologies, public policy, and the forces of globalization as each of these impacts local worlds. The seminar is structured to allow us to examine specific case material from around the world (Haiti, South Africa, Brazil, Russia, China, India, for example), and to address the ways in which social, political-economic, and technological factors – which are increasingly global in nature – influence basic biological mechanisms and disease outcomes and distribution. As we analyze each case and gain familiarity with ethnographic methods, we will ask how more effective interventions can be formulated. The course draws from historical and ethnographic accounts, medical journals, ethnical analyses, and films, and familiarizes students with critical debates on globalization and with local responses to globalizing processes.

Fall or Spring
Also Offered As: ANTH 2730
1 Course Unit

HSOC 2401 Social Determinants of Health

Over the last century, we have witnessed dramatic historical change in population health, e.g. rising numbers of obese Americans and dramatic declines in death from stomach cancer. There has also been highly visible social patterning of health and disease, such as socio-economic disparities in AIDS, substance abuse, and asthma in the U.S. to day or the association of breast cancer with afluenza around the world. This course will explore the way researchers and others in past and present have tried to make sense of these patterns and do something about them. The course is historical and sociological. We will examine evidence and theories about how poverty, afluenza and other social factors influence health AND we will examine how social and historical forces shape the ways in which health and disease are understood.

Not Offered Every Year
1 Course Unit

HSOC 2418 Engineering Cultures

Modern engineering, technology, science, and medicine converge with each other in countless places, landscapes, institutions, and households. The profession of the engineer has been distinct from that of the scientist, and the “doctor,” since its inception in the 1880s, however. In our class we trace overlaps and boundaries among engineers and other key experts of modern society, government, and public health, covering spaces in the Americas, Asia, and Europe. We explore rivalries, the roles of management and the state, class status and prestige, and we listen to engineers themselves and their understandings of their roles, functions, and purpose in modern societies. We cover fields such as civil engineering, mining, chemical-industrial engineering (including pharmaceuticals and oil refinery), mechanical engineering and machine design/maintenance, computer science, and the engineering of information technologies. No pre-requisites, no prior knowledge required.

Also Offered As: STSC 2418
1 Course Unit

HSOC 2421 Manufacturing Minds: From Babbage to ChatGPT

When asked to tell its own history, ChatGPT answers literally, describing (vaguely of course) its own training data set. When pressed to describe the longer history of “technology like you,” it mentions early computer science, programs that played chess or solved math problems, before naming deep learning algorithms and big data as the key breakthroughs. This lineage is not untrue, but it ignores the wider context in which individuals and organizations have come to pursue this strange dream of crafting an intelligent object. As an uncannily lucid conversation partner who freely performs all manner of textual tasks, ChatGPT participates in a longstanding tension in the history of information technology between the goals of manufacturing minds and making mindless clerical workers. In this course we historicize that tension in three domains—calculation, knowledge work, and games—all of which directly inform our efforts to imagine what ChatGPT and its ilk might be. Throughout, we will attend to the ways machinery shaped specific tasks’ construction in relation to gender, race, and class identities. We will see how technologies often imagined as disembodied are always material, interacting with human bodies and physical environments.

Not Offered Every Year
Also Offered As: STSC 2421
1 Course Unit
HSOC 2433 Sustainability and Public Health
We know that wild animal populations are only as healthy as their habitats, but what about humans? What is the connection between the health of human populations and the environments we inhabit? This course explores how the goals of the sustainability movement intersect with public health policy. It asks the question, "To what extent is sustainability the most important public health issue of our time?" We will examine issues related to climate change, peak oil, environmental toxins, ecosystem destruction, water availability, and food production through the lens of public health policy and human health. On a more positive note, we will learn about how applications of whole systems thinking are transforming our culture, creating a more sustainable and healthier society, and how these cultural trends will transform health policy in the future.
Summer Term
1 Course Unit

HSOC 2457 History of Bioethics
This course is an introduction to the historical development of medical ethics and to the birth of bioethics in the twentieth-century United States. We will examine how and why medical ethical issues arose in American society at this time. Themes will include human experimentation, organ donation, the rise of medical technology and euthanasia. Finally, this course will examine the contention that the current discipline of bioethics is a purely American phenomenon that has been exported to Great Britain, Canada and Continental Europe.
Fall or Spring
1 Course Unit

HSOC 2483 Health, Politics, and Social Movements
What is the relationship between health and social movements for race, gender, or political justice? How do political, economic, and social struggles intersect with, impede, or give rise to new demands for health, changing medical practice, or intensified or ameliorated experiences of disease? Recently, such questions have animated news headlines and popular media as responses to COVID have occurred simultaneously with popular protest, social mobilizations, and heated debates regarding race, police violence, and social policy. Moreover, convergences of popular protest, health crises, and health action can be observed in historical accounts and in widely disparate geographical examples. This course asks what such instances have to offer our understandings of health politics today. It explores this through two questions: how have questions of health and medicine been taken up or influenced by political and social movements in diverse historical and geographical spaces? And, how have scholars thought about the relationship between social and political mobilizations and health access and practice? Drawing from examples from around the globe, the course will ask students to master conceptual tools and core questions used to analyze the relationship between health, political mobilizations, and social movements. Course materials will include scholarly readings, news media accounts, films, and popular and fictional writing.
Fall or Spring
1 Course Unit

HSOC 2511 Foundations of Public Health
Many factors have shaped, and continue to shape, population health and public health policy. This course covers the foundational knowledge of the science of public health and factors related to human health and wellness. Students will explore contemporary issues in the profession including the ongoing social and cultural reckoning with race and racism.
Spring
1 Course Unit

HSOC 2514 Environments and Public Health
This course explores the relationship between local environmental conditions and health. Using historical case studies, we will consider a variety of questions: What factors (employment, pollution, local flora and fauna, racism, etc.) influence citizens' environment and health? How have insects, landscapes, and diseases shaped cultures or events in history? Was eighteenth-and-nineteenth-century Philadelphia actually a good place to live? What was going on with all those basements and cobblestone streets in Old City? Would you rather work in a coal mine or a uranium mine? You will examine these issues through a mixture of readings, lectures, class discussion, short essays and a research project.
Fall
1 Course Unit

HSOC 2518 Devices, Pills, People: American Medicine in the 20th and 21st Centuries
In this course, we approach some of the most pressing questions in the modern American medical marketplace, attempting to understand why it looks the way it does, how it developed, and what it offers (and takes) from patients. By the end of the course, we will also try to look forward and consider where current trends in American medicine might lead. The course is organized around six topics: 1) demography (changing patterns of health, disease, and death); 2) the growing and changing role of institutions, like hospitals and universities, in medical education and patient care; 3) the development and increasing role of technology in medicine; 4) changes in medical and pharmaceutical research and regulation; 5) patient experiences of health, illness, and patient-practitioner relations; 6) the construction of disease, or the broader social context and cultural representation of health and illness, both in culture and particular groups of patients. You will examine these issues through a mixture of readings, lectures, class discussion, short essays and a research project.
Spring
1 Course Unit

HSOC 2523 Technology and Medicine in Modern America
Medicine as it exists in contemporary America is profoundly technological; we regard it as perfectly normal to be examined with instruments, to expose our bodies to many different machines; and to have knowledge produced by those machines mechanically/electronically processed, interpreted and stored. We are billed technologically, prompted to attend appointments technologically, and often buy technologies to protect, diagnose, or improve our health: consider, for example, HEPA-filtering vacuum cleaners; air-purifiers; fat-reducing grills; bathroom scales; blood pressure cuffs; pregnancy testing kits; blood-sugar monitoring tests; and thermometers. Yet even at the beginning to the twenty-first century, medical technologies were scarce and infrequently used by physicians and medical consumers alike. Over the course of this semester, we will examine how technology came to medicine's center-stage, and what impact this change has had on medical practice, medical institutions and medical consumers - on all of us!
Summer Term
1 Course Unit
HSOC 2537 Gender and Health
Women’s health is a constant refrain of modern life, prompting impassioned debates that speak to the fundamental nature of our society. Women’s bodies are the tableaux across which politicians, physicians, healthcare professional, activists, and women themselves dispute issues as wide-ranging as individual versus collective rights, the legitimacy of scientific and medical knowledge, the role of the government in healthcare, inequalities of care, and the value of experiential knowledge, among many others. Understanding the history of these questions is crucial for informed engagement with contemporary issues.
Not Offered Every Year
Also Offered As: GSWS 2537
1 Course Unit

HSOC 2563 Doing Good?: Humanitarianism and Global Health
This course will explore the current context of health policy, health reform, and health service delivery in the developing world. After examining global economic and political context of health care, students will analyze the role that economic development plays in promoting or undermining health. Students will examine key disease challenges such as tuberculosis, malnutrition, and HIV/AIDS.
Not Offered Every Year
1 Course Unit

HSOC 2583 Law and Medicine: Global Themes
The course will explore the complex relationship between Law and Medicine in the modern world. It will cover a range of themes such as the regulation of quackery, forensic science, medical malpractice, medical patents and biopiracy etc. The course will be historical in its orientation and roughly cover the period from the late seventeenth century to the present. It will also focus particularly on the Majority World, looking especially at case studies from Asia and Africa.
Fall or Spring
1 Course Unit

HSOC 2707 Data and Death
Digital tools and data-driven technologies increasingly permeate twenty-first century life. But how have they affected death? Do we conceive of death differently in a digitally mediated world? How do we mourn in the age of Facebook? How is “big data” put to work in the medical world that seeks to diagnose and treat fatal illness? What new forms of death and violence have been imagined or developed with digital technologies in hand? And what of those who believe that they could live forever, defying death, by uploading "themselves" into some new digital form? This course offers a historical exploration of these questions, looking at different intersections between data and death. We will work with a range of different sources ranging from science fiction to medical journals to the often-controversial death counts that follow natural and political disasters. Our goal will be to map the many contours of death in a digital world, but also to recognize the longer histories of counting, mourning, diagnosing, dreaming, and dying that have shaped them.
Fall
Also Offered As: STSC 2707
1 Course Unit

HSOC 2999 Independent Study
Approved independent study under faculty supervision.
1 Course Unit

HSOC 3028 Normal People
For most of us, what's normal feels downright natural. The normal is our baseline, invisible and unconsidered until something abnormal draws our attention to it. But a little prodding shows the contradictions within bland, boring normality: it's defined by our internal feelings as much as by quantified standards, it describes individuals as well as populations, and it is intensely difficult to describe on its own merits without comparison. So what does it mean to be normal, anyway? This seminar examines "the normal" as a medical and scientific concept from the Renaissance until today. Has the concept of normal always existed? What makes a person or body normal? How has such a thing been assessed? Can the normal exist without deviance – and is this relationship inherently one about power? We will examine how scientific ideas of "the normal" – and its conflation with "the natural" – shaped medical knowledge and ideologies about racial difference, sex and gender, socioeconomic class, anatomical difference and disability, and human behavior. How have the "normals" of the past shaped our current scientific understandings of ourselves and the people around us? Our goal will be to make visible the ways that "normal" gets normalized in order to deepen our critical engagement with modern medicine, wellness culture, and racial and gender politics.
Not Offered Every Year
Also Offered As: STSC 3028
1 Course Unit

HSOC 3097 Indigeneity in Health, Science, and Technology
In recent decades, Indigenous Studies has emerged as a trans-national and interdisciplinary academic discipline that seeks to understand the historical experience, social reality, and political aspirations of Indigenous peoples. This course examines how theories and methods from Indigenous Studies offer new perspectives on core issues in the social study of science and technology and of health and society. Through films, podcasts, literature, and academic articles we will examine the historical role that science, technology, and medicine have played in the colonization of Indigenous people in the Americas, Australia, and New Zealand. We will also examine how Indigenous groups have resisted scientific and technological projects and participated in their development in ways that foster self-governance and territorial sovereignty.
Spring, odd numbered years only
Also Offered As: STSC 3097
1 Course Unit
HSOC 3147 Scientific Instruments and the Making of Knowledge
This course surveys the history of scientific proof and authority through the instruments used to collect and interpret data. In stories of discovery, scientists’ tools often take a back seat to their ideas, but instruments play a crucial role as physical intermediaries. All scientific instruments have been built and used by human beings according to their own ideas of what data are important to collect and how the data should be interpreted. How have the design and function of instruments affected scientists’ perspectives, and vice versa? What intellectual, political, and symbolic roles have instruments played beyond simply collecting data, and how do they continue to do so? We begin by examining the instruments of the “Scientific Revolution” and the ways their owners put them to use constructing not just data sets, but a new scientific authority in describing previously invisible realms of nature. Next, we look at the reciprocal relationship between scientific theory and physical tools, assessing how each has shaped the other, both individually and for entire fields of study in the nineteenth and twentieth centuries. We conclude by expanding the view to include the ways instruments interact with and affect the general public, from doctor-patient interaction to national politics and policy.
Spring
Also Offered As: STSC 3147
1 Course Unit

HSOC 3185 Global Radiation History: Living in the Atomic Age 1945-Present
In this seminar, students will engage with broad experiences of radiation risk since 1945, of Navajo uranium miners, scientists producing and testing nuclear weapons, physicians studying those exposed to radiation, Japanese survivors of the atomic bombings, and of the Fukushima nuclear disaster, and others. We will read novels and poetry relating to the atomic bombings and other radiation incidents, consider the protracted and complex ethical debate about nuclear risk, meet with artists who have contributed to the public debate, participate in meetings with survivors and scientists, museum professionals, activists, and others, and work together to come to understand the impact of the atomic bombs, the rise of nuclear energy, and the continuing legacies of radiation exposure and risk today. This is a Penn Global Seminar that involves travel.
Spring, odd numbered years only
Also Offered As: STSC 3185
1 Course Unit

HSOC 3210 Health in Philly, Past and Present
How have different neighborhood organizations, activist groups, and private and public institutions in Philadelphia tried to understand and address shared health problems? How have Philadelphia organizations, groups, and institutions promoted wellbeing? In this course, students will read about neighborhood- and community-based interventions into health in Philadelphia since the turn of the 20th century. We will start the term reading some of the foundational research of W.E.B. DuBois, who investigated health in South Philly and was the first American sociologist to identify structural racism as a cause of illness. We will then investigate the histories of various health-focused organizations in Philadelphia, which may include: Lutheran Settlement House (1900s-present), the International Institute of Philadelphia/Nationalities Service Center (1920s-present), public FQHCs (1960s-present), Yellow Seeds & the Philadelphia Chinatown Development Cooperation (1960s/1970s-present), the Black Women’s Health Alliance (1980s-present), Philadelphia Community Health Alternatives/the Mazzoni Center (1980s-present), JUNTOS/Puentes de Salud (2000s-present), Philly Thrive (2010s-present), and the Black Doctors COVID Consortium (2020s). When studying the origins of Philadelphia-based health organizations and interventions, students will ask and answer: How was “health” defined at the time and by whom? What were some important health concerns – and for whom – that this group addressed, and how? What are some of the activities of this organization today? Students will practice historical and ethnographic research methods. Assignments will require students to 1) locate, analyze, and share primary sources that shed light on the history of these different organizations and 2) participate in a collaborative research project designed to answer a question relevant to health in Philadelphia today. Training in ethnographic interviewing methods will be provided.
Fall, even numbered years only
1 Course Unit
HSOC 3216 Toxicity in Context
We live amidst a constant stream of messages, practices, and regulations about things, behaviors, or relationships deemed "toxic." Within environmental health in particular, all sorts of actors grapple with complex decisions about what it means to live with materials and anticipate the ways they can interact with human health and the environment - at present through the distant future. What exactly do we mean when we categorize some substances as toxic, and by extension others as safe? Are there other ways of managing uncertainty or conceptualizing harm? How are these concepts built into broader social structures, economics, and regulations? What other work are they used to do? In this course, we will explore major social science approaches to toxicity and apply these theories to our own analysis of examples from the contemporary United States, and in particular, to a robust oral history collection with residents, developers, and government scientists grappling with these questions just outside of Philadelphia. This course grows out of scholarship in the history and anthropology of environmental risk, and health, as well as direct ethnographic, historical, and oral history research at a site outside of Philadelphia grappling with the meaning of materials that remain on site after past industrial manufacturing. In this course, students will gain an introduction to oral history and analysis of in-depth interviews, and introduction to key approaches in theorizing toxicity. By connecting life experiences of residents, government scientists and others, at an actual site, with the literatures we read in class, students will think critically about the ways the literatures we engage do and do not fully encompass the experiences and concerns that are intertwined with toxicity for actual people grappling with making sense of uncertain harms amidst urban planning.
Also Offered As: STSC 3216
1 Course Unit

HSOC 3217 Weird Science
What do we mean by "science"? How did we come to agree on a common definition? Do we agree on a common definition? What about when we don't? This course explores histories of heterodox science and the construction of sciences and pseudosciences. In doing so, we will focus on expertise, authority, and legitimacy in science, as well as public consumption of science. This course will also introduce students to fundamental questions in the philosophy of science, as well as offering instruction in reading and methods of historiography. Topics include: phrenology, parapsychology, cryptozoology, UFOs, climate change denial.
Also Offered As: STSC 3217
1 Course Unit

HSOC 3279 Nutritional Modernities: Food, Science, and Health in Global Context
How has food shaped the global transition to modernity? Columbus' 1492 voyage to the Americas sparked a global process that transformed the eating habits and environments of humans throughout the world. Using approaches from food studies, STS, environmental history and global history, this class examines how the production, consumption, and study of food has been central to the emergence of the modern capitalist system and its discontents. Topics include the role of diet and food in European colonial conquest, the links between racial anxieties and the creation of modern nutritional standards, the rise of dietary 'technologies of the self' such as calorie-counting and the BMI index, and the emergence of microbial regimes of health.
Fall or Spring
Also Offered As: STSC 3279
1 Course Unit

HSOC 3299 CSI Global: History of Forensic Science
Genetics may have transformed criminal detection, but it has built upon a long history of many different types of forensic science. The use of science in the pursuit of criminals has a long, complex and global history, involving diverse forms of knowledge and types of professionals. A range of skills and techniques ranging from trackers who followed traces in the mud to recover stolen cattle to criminal physiognomists who sought to read bodily signs of criminals, from Sherlock Holmes' analysis of types of cigar ash in Victorian Britain to Charles Hardless' chemical analysis of different types of ink in colonial India, have informed and influenced the development of our contemporary forensic modernity. This course will explore a range of different forensic techniques and their histories along with the rich cultural history, in the form of detective fiction and films from across the world.
Fall
Also Offered As: STSC 3299
1 Course Unit

HSOC 3313 Reproductive Medicine: Societal Impact of New Technologies
Reproduction is essential for the survival of species. Adverse events during embryogenesis or pregnancy can not only have an immediate impact on the well-being of the developing embryo but also later in life as adolescents or adults. Startlingly, we are learning that environmental influences on the molecular mechanisms in germ cells over the reproductive lifespan of adults that regulate gene expression in eggs, sperm and embryos can have serious consequences on progeny and their progeny's progeny - over generations. We have long sought to control our fertility, for example, from the timing of a pregnancy in our lives; of overcoming infertility; and of ensuring the health and well-being of our progeny from the very beginning of development. Assisted Reproductive Technologies (ART) are now having a significant impact on fertility and embryo viability and well-being. However, they are not without controversy and society must be involved in important policy issues. For example, embryo selection is being used eliminate or reduce genetic-based diseases, but now genome editing, a powerful tool for effectively and safely modifying our genome in perpetuity presents a viable alternative. Should we do it and for which conditions? Since the lifestyles of parents and even grandparents can affect the future health of offspring, how do we ensure that individuals are aware of lifestyle effects and make the right choices for future generations? We are in an era of many groundbreaking discoveries in reproductive medicine that will lead to more technologies that will continue to raise ethical concerns that affect some of society's most basic social covenants and that will require major societal adjustments. How will society deal with innovations that enable many facing infertility to have genetic offspring; that improve the quality of life or permit life itself for a developing embryo; that ensure successful outcomes of pregnancy by identifying and addressing risk factors in the environment that adversely affect the developing fetus, potentially even the future offspring of a person exposed as a fetus to an adverse environment; and that will enable women to have children at what used to be grandparental ages? Society will also be faced with the possibility of germline interventions and altering our own evolution. How can we manage these technologies to make sure that patients can benefit while also allowing us to be comfortable in our humanity? This course will present the latest in reproductive technologies (and those on the horizon) so as to appreciate their importance for individuals and then focus on how we as a society should manage their use.
Spring
1 Course Unit
HSOC 3326 Medicine and Healing in China
This course explores Chinese medicine and healing culture, its diversity, and its change over time. We will discuss topics including the establishment of canonical medicine, Daoist approaches to healing and longevity, diverse views of the body and disease, the emergence of treatments for women, medical construction of sex difference and imagination of female sexuality, the thriving and decline of female healers, the identity of scholar physicians, the transmission of medical knowledge, domestic and cross-regional drug market, healer-patient relations, and new visions of traditional Chinese medicine in modern China.
Not Offered Every Year
Also Offered As: EALC 3522
1 Course Unit

HSOC 3327 Birth Culture and Medical Technology
How we are born and give birth can vary more than most people realize. For most of history, women only acknowledged their pregnancy when they felt the baby move and they gave birth at home, often surrounded by other women. Now, the majority of Americans learn about pregnancy from an at-home kit you buy at the drugstore and their babies are born in hospitals, often the result of a complex set of processes involving surgical interventions, pharmaceuticals, and plenty of expert advice. How did this shift happen? How has it shaped one of the most foundational and intimate experiences of being human? This course will explore the history of conception, pregnancy, childbirth, and the post-partum period since the 19th century. We will examine the role of medicine, science, and technology, alongside changing ideas about gender, family, and motherhood to better understand this transformation in human reproduction. We will also critically examine the late-20th century emergence of the "natural motherhood" movement that arose as a response to the medicalization of these processes. Our class will examine this history from a critical trans-inclusive feminist perspective. We will also consider the impact of increasingly sophisticated medical technology on reproductive experiences and decisions, including birth control, abortion, conception, pregnancy, in vitro fertilization, surrogate mothers, and more.
Not Offered Every Year
1 Course Unit

HSOC 3328 Women in Medicine
Today in the US almost half of all medical students are women and female physicians comprise roughly one-third of the workforce. However, some statistics are still troubling, including the number of African American women who pursue advanced medical degrees. This course will trace the evolution of women practicing medicine over several centuries, exploring how various cultural, societal, and intellectual norms differed over time while challenging the assumption of linear progress towards equality. While the focus will be on American medicine, including field trips to archives and historical landmarks within Philadelphia, the coursework also includes international case studies and cultural comparisons to help position local issues within a wider and more complicated narrative. Considering both the historical and contemporary contexts for interconnected issues such as bias, motherhood, and burnout, we will analyze challenges and strategize potential solutions for the next generation of women seeking careers in medicine.
Not Offered Every Year
1 Course Unit

HSOC 3326 The Human Subject
In this course, we will consider health and society from the perspective of the human subject. Because medicine is uniquely concerned with human bodies and minds, humans occupy a strange place in the medical landscape as both objects of care, but also of experimentation, and curiosity, and frustration, and agents, acting in a variety of roles (patient, researcher, doctor) and tasked with decision making in a complex technical and moral landscape. This course will explore the difficult ethical, practical, and technical questions that arise at that agent/object boundary by examining case studies from the nineteenth, twentieth, and twenty-first centuries. You will examine these issues through a mixture of readings, lectures, class discussion, short essays and a research project.

1 Course Unit

HSOC 3356 The Human Subject
In this course, we will consider health and society from the perspective of the human subject. Because medicine is uniquely concerned with human bodies and minds, humans occupy a strange place in the medical landscape as both objects of care, but also of experimentation, and curiosity, and frustration, and agents, acting in a variety of roles (patient, researcher, doctor) and tasked with decision making in a complex technical and moral landscape. This course will explore the difficult ethical, practical, and technical questions that arise at that agent/object boundary by examining case studies from the nineteenth, twentieth, and twenty-first centuries. You will examine these issues through a mixture of readings, lectures, class discussion, short essays and a research project.

1 Course Unit

HSOC 3377 Race and Medicine in the Global South
Racialized medical provisions under Apartheid in South Africa, theories of racial immunity to malaria in the Philippines and contemporary investigations of caste-based disease risks in India are some of the topics to be covered in this course. From the more straightforward issues of racial discrimination in medicine, to more complex issues of racial immunity or racial susceptibility to disease, medicine and race have been entangled together in multiple ways. More importantly these issues are far from being matters of the past. Genomic medicine and risk society have combined to make race and medicine one of the most potent contemporary issues. Outside the Western World, in the Global South, these issues are further refracted through local cultural, historical and political concerns. This course will take a long-term view of these contemporary issues.

Fall or Spring
Also Offered As: LALS 3377
1 Course Unit
HSOC 3383 Bioethics and National Security
At least since Augustine proposed a theory of “just war,” armed conflict has been recognized as raising ethical issues. These issues have intensified along with the power and sophistication of weapons of war, and especially with increasing engineering capabilities and basic knowledge of the physical world. The life sciences have had their place in these developments as well, perhaps most vividly with the revelations of horrific experiments conducted by the Naziand Imperial Japanese militaries, but with much greater intensity due to developments in fields like genetics, neuroscience and information science, and the widely recognized convergence of physics, chemistry, biology and engineering. The fields of bioethics and national security studies both developed in the decades following World War II. During the cold war little thought was given to the fact that many national security issues entail bioethical questions, but this intersection has been increasingly evident over the past two decades. In spite of the overlapping domains of bioethics and national security, there has been a remarkable little systematic, institutional response to the challenges presented by these kinds of questions: - What rules should govern the conduct of human experiments when national security is threatened? - Is it permissible to study ways that viruses may be genetically modified in order to defeat available vaccines, even for defensive purposes? - What role may physicians or other health care professionals play in interrogation of suspected terrorists? - Must warfighters accept any and all drugs or devices that are believed to render them more fit for combat, including those that may alter cognition or personality? - What responsibilities do the scientific community have to anticipate possible “dual purpose” uses or other unintended consequences of its work? Deploying the resources of ethics, philosophy, history, sociology and theory, this course will address these and other problems.
Spring
Also Offered As: STSC 3509
1 Course Unit

HSOC 3447 The Future of Disability and the Afterlives of Epidemics
Medical framings of disease focus on “cure” narratives, but what does “getting better” really mean when examined from a patient perspective and how might epidemics challenge or reshape our relationships to concepts of health, illness, and disability? In this course, we will learn to examine stories of epidemics past and present through the lens of disability. In doing so, we will ask how epidemics in the past have shaped our ideas and experiences of disability, muddied our binary thinking about illness and wellness, and challenged the beliefs, epistemologies, and institutions that drive our approaches to caring for the body, the mind, and the spirit. Through an exploration of primary and secondary source readings, we will interrogate how these eras of crisis, and their aftermaths, have historically influenced the ways we think about and experience disability and its relationship to identity, family, culture, religion, society, and citizenship in the days, weeks, months, years, and decades that follow in their wake. Ultimately, we will draw upon the insights of the past to develop better questions about present epidemics, including COVID-19, Monkeypox, as well as the re-emergence of “old” epidemic diseases like measles and polio in order to think in novel and critical ways about how our ideas about wellness, disability, and society both shape and are shaped by our encounters with contagious epidemic diseases.
Fall or Spring
Also Offered As: GSWS 3448
1 Course Unit

HSOC 3488 Current Issues in Global Health
This course examines current world events through the lens of public health. The course will focus on six key questions: 1) What does health infrastructure look like in different parts of the world, and how is it working or failing different groups of people? 2) What public health opportunities and challenges are created by the rise of megacities? 3) What unique public health challenges are created by modern-day proxy wars and refugee flows, and what is the role of health professionals in responding to human disasters? 4) How are fertility patterns and changes in life expectancy impacting different societies? 5) How is climate change altering the global health landscape? 6) What might the next global pandemic look like? We will discuss these questions in class using a mixture of scholarly and popular texts, and you will conduct and present your own secondary research into one of these topics.
Fall
1 Course Unit

HSOC 3524 Medical Mestizaje: Health and Development in Contemporary Latin America
Latin American nations as we know them today emerged in the nineteenth century after violent independence struggles against the Spanish Empire. Since independence, mestizaje has been an influential ideology that seeks to portray the identity of Latin American nations as comprised of a unique cultural and racial fusion between Amerindian, European, and African peoples. Through historical, anthropological, and STS approaches this course examines how concerns with racial fusion and purity have shaped the design and implementation of public health programmes in Latin America after independence and into the 20th century. Topics include: tropical medicine and race; public health and urbanization; toxicity and exposure in industrialized settings; biomedicine and social control; indigenous health; genomics and health; food and nutrition.
Fall or Spring
Also Offered As: LALS 3524
1 Course Unit

HSOC 3528 Public Health & Violence
This course will address two health concerns of long-standing controversy: the role of guns in population health and violence in relationships. We will adopt a healthy skepticism about the assumptions and ideologies that currently dominate formal and informal discourse about these topics. A life span perspective - guns from design through use, and abuse from childhood through late life - will be grounded in a public health injury prevention framework. As a function of this approach, we will examine key aspects of the social context in which guns and abuse exist and within which related policies are formulated. Students are encouraged to examine their perceptions about these issues so that they can become more effective members of a society that appears to maintain a deep ambivalence about guns and about violence in relationships.
Not Offered Every Year
1 Course Unit
HSOC 3803 Bodies and Borders: Health, Place, and Displacement
How are health and wellbeing shaped by place? This course examines the relationship between place, environment, and health, with particular attention to mobility and migration and to the impact of changing climates. Scholars have used the term Anthropocene to characterize this era of fossil-fuel driven climatic changes. This course will ask how new understandings of the relationship between human well-being, particularly health and disease, and place and environment are shaping one another. Drawing from anthropology, history, and related fields, we will ask how humans have shaped health and place over time, about the relationship between health and cities in particular, and about mobility, movement, and displacement and their relationship to health. Students will be asked to conduct independent research and to produce a final project or paper on a case study of their choosing. Please note that the reading load in this course will be intensive.
Fall
1 Course Unit

HSOC 3824 Animals in Science Medicine Technology
This course explores human-animal relationships: the wide range of these relationships, why they originated and how they have changed over time. How have humans classified, valued, utilized, consumed, behaved toward and understood animals? Where is the boundary between humans and other animals, and how do we know, since humans are also animals? How is that boundary been maintained and redefined? Are humans part of the animal “natural” world or apart from it? How are humans similar to and different from other kinds of animals? How do we know about animals and what is it we know? To what extent are questions about animals really questions about humans? How has the meaning of animal changed over time? The course focuses in particular to the roles and relationships of animals within science and medicine, and as biotechnologies.
Fall or Spring
Also Offered As: STSC 3824
1 Course Unit

HSOC 3889 Trans Method
What are the subjects of trans studies? What does “trans” as a category afford us in looking at texts, people, systems, and objects? To what extent is trans an identity? What might it mean to think of it as a methodology? How might the tools of trans studies intervene in conversations and practices beyond the field itself? What are the stakes of such an expansive approach? This course introduces students to “trans” as a still-forming analytic that has emerged out of academic spaces, activist movements, and trans cultural production. We will engage with texts and questions that build on trans studies’ connections to (and divergences from) queer and feminist studies, history, critical race studies, disability studies, and science studies, among other fields, and we will also consider how trans knowledge can act beyond the theoretical.
Not Offered Every Year
Also Offered As: GSW 3500, STSC 3889
Prerequisite: GSW 0002 OR GSW 0003 OR ENGL 1300
1 Course Unit

HSOC 4028 Stories, Science, and Medicine
Since COVID-19 shut down the world in 2020, we have been surrounded by stories about health, medicine, and disease that cut across every aspect of our lives. This seminar explores the relationship between scientific knowledge and narrative: how do we tell stories about science and medicine? How is medical knowledge made culturally meaningful? How can thinking about storytelling as a craft make us better at communicating complex ideas about public health, medical knowledge, and their myriad social dimensions? People enjoy stories about science and medicine whether consumed as a podcast, magazine article, novel, Netflix special, or public talk — however, the popularity and the real-world urgency of this content endows the storyteller with great responsibility. This seminar takes the “story” in history seriously and uses methods from the history of medicine to help students produce compelling, contextually nuanced stories about medicine and culture, health and society. We will learn from sources including science fiction, pandemic journalism, historical scholarship, and popular science media when comparing and contrasting how medical subjects are translated into a story for particular audiences and mediums.
Not Offered Every Year
1 Course Unit

HSOC 4094 Science and Disability
How have ideas about ability and disability shaped the questions we ask about the world and the methods we use to answer them? How do assumptions about who can and ought to be a scientist, engineer, or physician intersect with constructions of disability and difference? How might studying the lived experiences of people with disabilities in the context of STEM(Medicine) help us begin to answer these questions? This course explores the exciting intersection between disability studies and the history and sociology of science and medicine through weekly readings, discussions, and original research. Using materials ranging from archival and online sources to oral history interviews and museum collections, students in this course will learn how scientific ideas and institutions have helped shape 20th- and 21st-century categories and experiences of disability as an embodied and socio-political identity. At the same time, students will learn how to use disability as a critical theoretical lens for investigating the cultures, tools, and institutions behind the creation and application of modern scientific and medical knowledge. Collaborative and analytical writing work throughout the course will build towards the completion of a final original research project.
Fall or Spring
Also Offered As: STSC 4094
1 Course Unit
HSOC 4114 Sports Science Medicine Technology
Why did Lance Armstrong get caught? Why do Kenyans win marathons? Does Gatorade really work? In this course, we won’t answer these questions ourselves but will rely upon the methods of history, sociology, and anthropology to explore the world of the sport scientists who do. Sport scientists produce knowledge about how human bodies work and the intricacies of human performance. They bring elite (world-class) athletes to their laboratories or their labs to the athletes. Through readings, discussions, and original research, we will find out how these scientists determine the boundary between "natural" and "performance-enhanced," work to conquer the problem of fatigue, and establish the limits and potential of human beings. Course themes include: technology in science and sport, the lab vs. the field, genetics and race, the politics of the body, and doping. Course goals include: 1) reading scientific and medical texts critically, and assessing their social, cultural, and political origins and ramifications; 2) pursuing an in-depth The course fulfills the Capstone requirement for the HSOC/STSC majors. Semester-long research projects will focus on "un-black-boxing" the metrics sport scientists and physicians use to categorize athletes' bodies as "normal" or "abnormal." For example, you may investigate the test(s) used to define whether an athlete is male or female, establish whether an athlete's blood is "too" oxygenated, or assess whether an athlete is "too" fast (false start). Requirements therefore include: weekly readings and participation in online and in-class discussions; sequenced research assignments; peer review; and a final 20+page original research paper and presentation.
Not Offered Every Year
Also Offered As: STSC 4114
1 Course Unit

HSOC 4187 Sound in Science, Medicine and Technology
How do listening and knowing relate? This capstone will analyze sound as an object, an instrument, a product and a process of research in science, technology, and medicine. From anthropological field recordings to experiments in acoustics, readings will address the ways in which researchers have isolated and investigated sonic phenomena during the modern period. We will consider sound as a tool for knowing about other phenomena as well: bodily functions, seismic events, animal communication, and the like. Technologies of sound production, reproduction, storage, manipulation, and analysis will be front and center in this course. What can you do with magnetic tape that phonography does not allow? How might the hospital soundscape inform clinical decision-making? Why is Amazon's Alexa female? How has scientific communication changed over time? In addition to wrestling with questions like these, the course will provide undergraduate majors with the opportunity to research and execute an original paper of significant length in the humanistic social sciences. Students must be in their last three semesters for it to fulfill the capstone requirement, but any student may enroll.
Fall
Also Offered As: STSC 4187
1 Course Unit

HSOC 4242 The History & Future of Genetic Medicine
Nearly twenty years after the Human Genome Project was completed, genetic research continues to garner attention and resources. From news coverage to governmental initiatives and commercial investment, genetics is a force in medicine, industry, and society more generally. Using scholarship from diverse disciplines, this capstone seminar focuses on how genetic medicine came into existence. We will explore the field’s early history in eugenics and its transformation via technological advancements like prenatal testing and targeted therapies. Through case studies of select genetic conditions, we will examine scientific innovations alongside the lived experience of those advancements, broaching critical questions about disability, race, and inequality. This will provide students with the opportunity to debate historical changes and continuities, taking on some of the most vexing questions in bioethics.
Spring
Also Offered As: STSC 4242
1 Course Unit

HSOC 4288 Invisible Labor in the Human Sciences
This course looks at those disciplines that take people as their subjects of research—including biology and biomedicine as well as anthropology, linguistics, and sociology—to explore the contributions of a wide range of research participants. We will focus on the sciences of human behavior, information, and medicine to analyze the labors of behind-the-scenes actors including tissue donors, survey respondents, student subjects, patients, translators, activists, ethics review boards, data curators, and archivists. Our job will be to analyze the experiences of these technoscientific laborers with a view to systems of knowledge and power in the production and maintenance of Knowledge about humans and their bodies.
Fall or Spring
Also Offered As: STSC 4288
1 Course Unit

HSOC 4303 Disease & Society
What is disease? In this seminar students will ask and answer this question by analyzing historical documents, scientific reports, and historical scholarship (primarily 19th and 20th century U.S. and European). We will look at disease from multiple perspectives—as a biological process, clinical entity, population phenomenon, historical actor and personal experience. We will pay special attention to how diseases have been recognized, diagnosed, named and classified in different eras, cultures and professional settings.
Fall or Spring
1 Course Unit

HSOC 4324 Medical Activism and the Politics of Health
During the second half of the twentieth century, overlapping waves of social reform movements agitating for civil rights, women's rights, peace, environmentalism, and gay rights reshaped the U.S. political and cultural landscape. Physicians, other health care professionals, and organized patient groups played important roles in all of these movements. This seminar investigates the history of this medical activism, making special use of the Walter Lear Collection in Penn Libraries' Kislak Center. Readings, discussions, and student research projects analyze the relationships between this history and the political dimensions of individual and population health in the late twentieth century.
Fall or Spring
1 Course Unit
HSOC 4327 Seeking Health: Tourism, Medicine in America 1800-2000
Summer camps, spring break, and trips to the beach, mountains, and national parks: vacations are an integral part of American culture. Often we talk and think about traveling for its ability to rejuvenate our tired bodies and spirits. Although tourism only developed over the past 100 years, the tradition of traveling for health has a much deeper history. This course will examine how different people in different times have understood the connections between travel and health, and how technologies have and continue to mediate those experiences. Over the course of the semester students will complete an original research paper through critical reading and step-wise assignments that will culminate in a final project. By the end of the semester, students will have honed their skills in primary and secondary source research, the construction of an academic argument and paper, and will continue to develop skills in critical analysis through weekly reading assignments.
Not Offered Every Year
1 Course Unit

HSOC 4333 Bodies, Gender, Science, and Medicine
Americans’ ideas about gender and sex have changed dramatically since the 19th century—But what roles have science and medicine played in these changes? How have shifting biological, psychological, cultural and political ideas about femininity and masculinity shaped our experiences of health, illness, sex and reproduction? How have these ideas about gender and sexuality influenced the creation of, participation in, institutions, technologies and experiences of our modern healthcare system? Drawing from the history of science, medicine and technology as well as gender studies, bioethics and disability studies, students in this class will examine a wide array of topics that address these questions, exploring how deeply rooted historical, political and social forces have shaped the relationship between gender and medicine.
Fall
1 Course Unit

HSOC 4364 Biopiracy: Medicinal Plants and Global Power
Biopiracy has emerged as the name of conflict between multinational pharmaceutical companies attempting to get genetic patents on medicinal plants and indigenous communities in the Global South who have long known and used these plants for medicinal purposes. Today the story of Biopiracy is an unfolding story of plants, patents and power. The extraction and commercial exploitation of plants and knowledge about them from the Global South however is not new. It has been happening at increasing pace for at least the last two centuries. Both the anti-malarial drug quinine and the cancer drug vincristine for instance have their plant-origins in the Global South where local communities used them medicinally long before their discovery by biomedicine. This course will put the current debates around Biopiracy in context and explore how the entanglements of plants and power have changed or not changed.
Not Offered Every Year
Also Offered As: STSC 4364
1 Course Unit

HSOC 4375 Medicine and Development
This course is devoted to readings and research about medicine and development in resource-poor countries. The focus is on medical institutions and practices as seen within the broader context of development. We try to understand changing interpretations of how development takes place—of its relationship to technical knowledge, power and inequality. The course give students the opportunity to do intensive original research.
Fall or Spring
1 Course Unit

HSOC 4392 Centering the Impaired Mind: Topics in Intellectual and Developmental Disability
Much disability scholarship has focused on physical and sensory disabilities, which better fit the "social model" that locates disability in a mismatch between individuals and their environments. But what about intellectual and developmental disabilities and the cognitive impairments that often, but not always, accompany them? This class will look at some of the more prevalent intellectual and developmental disabilities, including Down syndrome, cerebral palsy, and autism, which has been called “the paradigmatic developmental disability...of the postmodern period.” We will consider how the meaning of these diagnoses—and sometimes the diagnoses themselves—have changed over time, as well as the roles diverse stakeholders, including affected individuals, their families, and physicians, have played and continue to play in these conversations. More broadly, intellectual and developmental disabilities provide a unique lens through which we will interrogate questions of representation, identity, personhood, citizenship, and care. Because this course fulfills the Capstone requirement for HSOC/STSC majors, developing the skills necessary to write an original research paper will be a primary focus—including articulating an argument and supporting it with compelling evidence drawn from both primary and secondary sources in history, sociology, and anthropology.
Fall
1 Course Unit

HSOC 4400 Research Seminar Health and Society
This course is designed to provide HSOC students with the tools necessary to undertake original research, guiding them through the research and writing process. Students will produce either a polished proposal for a senior thesis project, or, if there is room in the course, a completed research paper by the end of term. Students work individually, in small groups and under the close supervision of a faculty member to establish feasible research topics, develop effective research and writing strategies, analyze primary and secondary sources, and provide critiques of classmates’ drafts. Students must apply for this course by December 1.
Spring
1 Course Unit

HSOC 4437 Remembering Epidemics
This seminar challenges students to encounter and interpret the city around them in unconventional ways. During a deadly pandemic that has profoundly disrupted all aspects of society, just as the question of public commemoration has vigorously and sometimes violently re-entered our country’s public discourse, one question has remained surprisingly neglected: How do we remember epidemics? This course confronts this question through an analysis of traumatic epidemics in Philadelphia’s history, and of the broader landscape of public memory. We devote special attention to the yellow fever epidemic of 1793, but we also consider the 1918-1919 influenza, AIDS, and COVID-19, among others. Students conduct archival, documentary, site-based, and other kinds of research in the process of analyzing the origins, course, and consequences of epidemics, as well as the nature of public commemoration.
Fall or Spring
Mutually Exclusive: HSSC 5437
1 Course Unit
HSOC 4517 The Lazaretto, the City, and the World: Public Health, Immigration, and Urban Growth, 18th-21st C.
Philadelphia's Lazaretto quarantine station was built in 1799 to protect the city after a series of catastrophic yellow fever epidemics. In its time, the Lazaretto was a gateway through which goods and people from many regions of the world passed before entering Philadelphia (sometimes after temporary detention). This course uses the Lazaretto as a gateway to the history of American public health, immigration, and urban growth. Our exploration of those histories is not limited to events that happened at the Lazaretto, nor to the period of its quarantine operations (1801-1895), nor even to Philadelphia, but rather uses the very local and very human stories of this unusual site as a point of entry into larger American and global stories. Coursework includes site visits to the Lazaretto and to a variety of local partner institutions, including the Historical Society of Pennsylvania, the Mutter Museum, Puentes de Salud, and Sayre Health Center. Students undertake extensive research projects covering some combination of the course's themes, including discussions of how historical interpretation can facilitate and enhance public engagement and activism.
Not Offered Every Year
1 Course Unit

HSOC 4528 Race and Medicine in America
Race has been, and remains, a central issue to the delivery and experience of healthcare in America. This course will examine a variety of issues and cases studies to examine how the patient-doctor has been negotiated, defined, and contested upon the basis of race. This course is designed to further develop students' research, analytical and writing skills in a collaborative atmosphere. Students will complete an original research paper through critical reading and step-wise assignments that will culminate in a final project. By the end of the course, students will have honed skills in primary and secondary source research, and the construction of an academic, analytical argument and paper. Students will build an argument based on their analysis of primary sources, and appropriately situate their argument within the literature of the core HSOC disciplines (anthropology, sociology, and history). In addition, student will continue to develop skills in critical analysis through weekly reading assignments.
Fall
1 Course Unit

HSOC 4588 Environments and Health
Do classrooms' fluorescent lights give you headaches? Have you ever felt invigorated by a mountain's breeze? Have you ever sought to get a "healthy" tan at the beach? Throughout history people have attributed their health -- good and bad-- to their physical surroundings. In this class we will explore how medical professionals, scientists and the general population have historically understood the ways in which the environment impacts different people, in different places, in different ways. We will interrogate medical theories that underpinned popular practices, like health tourism, public health campaigns, and colonial medical programs. We will also consider how people constructed and understood the physical environment, including farms and factories, cemeteries and cities, to be healthy or not. This course is designed to foster a collaborative atmosphere in which students will complete an original research paper through critical reading and step-wise assignments that will culminate in a final project.
Not Offered Every Year
1 Course Unit

HSOC 4595 Defining Disability
Live long enough, and you are almost certain to experience some kind of disability if you haven't already. What, then, does it mean to be "disabled"? This capstone takes as its premise the idea that disability has meant different things to different stakeholders (e.g. activists, physicians, politicians, families, employers, artists, clergy, engineers) across cultures and over time. We will historicize and analyze these various definitions in order to better understand the complex socio-cultural construct of disability while simultaneously cultivating the research skills necessary for advanced work in the humanistic social sciences. Assignments will be scaffolded to help students write an original research paper of significant length by the end of the semester.
Fall
Also Offered As: STSC 4595
1 Course Unit

HSOC 4980 Honors Thesis
Research and writing of a senior honors thesis under faculty supervision.
Fall or Spring
1 Course Unit

HSOC 4999 Capstone Independent Study
Independent primary research under faculty supervision to fulfill the capstone research requirement.
Fall or Spring
1 Course Unit

Health Care Innovation (HCIN)

HCIN 6000 The American Health Care System
The American health care system is a product of its history and of policy decisions made in doctors’ offices, boardrooms, and congressional committee chambers over many decades—and presents opportunities for innovation. This course examines the structure and economics of the various components of health care financing and delivery in the United States, including private health insurance, Medicare, telehealth, and behavioral health; surveys the present structure of the American health care system and the history of efforts to reform health care at the federal level; and evaluates efforts to reform payment, expand access, and improve the quality of health care services. Lectures and interviews by active experts address successful policy change in health care, being a policy advocate, and proposing innovations to address needs within the health care system.
Fall
1 Course Unit

HCIN 6010 Health Care Operations
The word "operations" derives from the Latin "opus," and opus means work. So by definition, operations is about work. This course offers an introduction to operations management: after completing the course, students will be able to use a systematic approach to analyze and improve their work in health care settings. The course includes an examination of inefficiencies resulting from the three system inhibitors: waste, variability, and inflexibility. And it provides strategies for engaging in the ongoing process of reducing these negative impacts without sacrificing quality of care. Major units also cover health care delivery processes, lean ops, agility, and managing the service organization. Students will practice identifying key performance indicators in health care systems, forecasting demand, predicting utilization and variability, determining staffing levels, and recommending process improvements and innovations to improve client satisfaction.
Fall
1 Course Unit
HCIN 6012 Connected Health Care
Technology has allowed firms to fundamentally change how they connect with their customers. Rather than having occasional, episodic interactions — where customers realize they have an unmet need, then look for ways to fill it — firms are striving to be continuously connected to their customers, providing services and products as the needs arise, even before customers become aware of them. There is probably no other industry for which this development will be as transformative as in health care delivery. Wearable devices, smart pill bottles, digestible sensors, and many other technologies are associated with the promise of improving the quality of care while also making efficient use of resources. This course explores the impact of connected strategies in general, and the opportunities associated with them in health care delivery.
Mutually Exclusive: HCIN 6100
1 Course Unit

HCIN 6013A Addressing Challenges
In this 6-week lab, you will use the skills you have learned throughout the Master of Health Care Innovation so far—as well as your own professional expertise—to investigate, specify, and address an exigent challenge in health care. Together as a class, we will consider why some innovations may fail, examine health care leaders’ perspectives on why some succeed, and learn techniques for ideation and for building an effective business case for an innovative solution. Simultaneously, in small groups, you will work together to design, refine, and pitch your own health care innovation in one of several high priority challenge areas. You will come away from this lab with tools for finding and filling market niches in health care, experience navigating the design process as a team, and an array of deliverables—both team-created and individual—that detail the what, how, and why of a real-world innovation to improve health care. This is a multi-term course. To earn course credit, students must successfully complete both HCIN6013A in the Summer and HCIN6013B in the Fall. Students who complete both parts will receive a single grade and earn 1 CU total.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

HCIN 6013B Addressing Challenges
This lab is a continuation of HCIN6013A, Addressing Challenges. Students will build on work they have already done to produce a suite of deliverables calibrated to inform decision makers and persuade them to adopt their approach. At the end of this lab, students will come away with a suite of work-related materials, including a 1-pager and a second deliverable tailored to their professional setting. Students must successfully complete HCIN6013A in the Summer term before taking this course. Students will receive a single grade and earn 1 CU total for HCIN6013A and 6013B.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: HCIN 6013A
0.5 Course Units

HCIN 6020A Behavioral Economics and Decision Making
Behavioral economics is a relatively new field at the intersection of economics and psychology that builds on the observation that people tend to make predictably irrational decisions, and that those patterns can be used to shape personally and socially beneficial behaviors. This course offers an introduction to behavioral economics and its applications in health and health care. We will examine the underpinnings of the field, then consider: • The structure of choice environments and how people are influenced by how choices are framed. • Strategies for supercharging incentive programs. • The use of social incentives and social comparisons to achieve better physician performance. The course will conclude with an exploration of how behavioral economics can be used to shape health policy, and the important question of when a “nudge” becomes a shove. This is a multi-term course. To earn course credit, students must successfully complete both HCIN6020A in the Fall and HCIN6020B in the Spring. Students who complete both parts will receive a single grade and earn 1 CU total.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

HCIN 6020B Behavioral Economics and Decision Making
This course is a continuation of HCIN6020A, Behavioral Economics and Decision Making. In the final weeks of the course, students will focus on structuring incentive programs, utilizing social forces to shape behavior, and the role of behavioral economics in public policy. Students must successfully complete HCIN6020A in the Fall term before taking this course. Students will receive a single letter grade and earn 1 CU total for HCIN6020A and 6020B.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: HCIN 6020A
0.5 Course Units

HCIN 6022 Digital Health
This course is designed for professionals and graduate students to gain an understanding of the digital health landscape so they might effectively leverage technology for innovation, with consideration of patient-centered care, equity, and ethical issues. Students will explore a range of health care settings, health care data types, the role of patients as sources of data and recipients of information, the role of humans in-the-loop of AI, and the security, privacy, and confidentiality concerns of digital health approaches. There will be discussions of emerging systems still in their infancy, and enabling technologies outside of the hospital: what they can do, what they are unable to do, and which of them have the potential to revolutionize the way we deliver care from birth to old age.
1 Course Unit

HCIN 6023 Pitching Innovation
Students will leverage skills learned throughout the Master of Health Care Innovation to construct a plan for an innovation project that addresses an exigent issue in their professional settings. In the first half of the course, students will match their innovation ideas to stakeholder and organizational needs, build a case for the value and financial viability of ideas, and consider the scope and scale of their work. In the second half of the course, students will create a portfolio of materials designed to build support for their project among colleagues and decision makers in their organizations. At the end of this lab, students will come away with a clear plan for an innovation project, as well as a set of persuasive tools including an elevator pitch, 1-pager, and pitch.
Spring
Mutually Exclusive: HCIN 6190
1 Course Unit
HCIN 6032 Value and Quality in Health Care
Innovations in health care have the potential to achieve efficiency, reduce health care costs, and ensure high-quality patient outcomes. But to achieve these goals, we must determine and adopt standards for health care quality and safety. Through lectures, interviews with national leaders, case studies, and hands-on practice, this course introduces students to quality and measurement tools that make visible the most pressing areas of opportunity for health care innovation. Students will explore how perceptions of value are specific to stakeholder needs. And they will learn how quality improvement initiatives can be leveraged to drive value for stakeholders across the health care system.
1 Course Unit

HCIN 6042 Health Economics
Health economics applies economic principles to the health care sector. By recognizing the importance of scarcity and incentives, it focuses on the critical economic issues in producing, delivering, and financing health care. It analyzes determinants of demand for medical care, the unique role of physicians in resource allocation, the role of health insurance, and competition in medical care markets.
Spring
Mutually Exclusive: HCIN 6040
1 Course Unit

HCIN 6052 Leadership & Legal Issues in Health Care
This course surveys the leadership skills and legal knowledge necessary to navigate the complexities of the health care industry at the highest levels. The first unit focuses on concepts, experience, and skills analysis necessary to develop and synthesize a personal and organizational leadership strategy. The second unit surveys the legal regimes that govern medical care in the United States, including the types of health law formation (cases, statutes, administrative regulations) and the multiple federal, state, and local institutions involved in the creation and application of the law. Throughout, students will reflect on learning, test their knowledge with quizzes, and apply what they have learned to cases.
Spring
Mutually Exclusive: HCIN 6120
1 Course Unit

HCIN 6062 Using Data for Transformation
Whether we are using AI to diagnose lung cancer or machine learning to predict hospitalization risk, algorithms are transforming medicine and health care. Most algorithms are based on routinely collected health care data — claims, electronic health records, and registry data. But too often algorithms are deployed without a full understanding of what we are trying to predict and where the data are coming from. Through a combination of lectures, case studies, and interviews with leaders from across the health care ecosystem, we will discuss how to turn routine health care data into an algorithm, how to evaluate the validity of AI products, and how to understand liability and policy implications around algorithms in health care. This course will help students gain a fuller understanding of how to use routine health care data to transform care delivery and work with technical experts to design or select approaches that are right for their needs.
1 Course Unit

HCIN 6067 Translating Ideas into Outcomes
In this course, students will apply state-of-the-art innovation methodologies to improve health care for patients, clinicians, and organizations. Rooted in design thinking and human-centered design, this course guides students through the development of innovation projects from idea generation, through problem definition, testing, and preparing for delivery. The course asks students to identify unexamined assumptions about their professional environment to gain proficiency in defining strategies for solving health care problems. These strategies include: · Engaging in contextual inquiry to reveal what others have missed. · Reframing problems to enable the development of high-impact solutions. · Practicing intentional divergence to challenge initial, unproductive concepts. · Testing hypotheses to generate data quickly and at low cost. · Designing experiences that catalyze the spread of desirable behaviors. The goal of this course is to provide students with tools to develop innovative solutions to pressing health care problems, and to produce the types of early data that enable organizations to support, promote, and ultimately adopt those solutions at scale.
1 Course Unit

HCIN 6160 Advancing Health Equity
Against a backdrop of policy experimentation and growing evidence of effective practices, this course explores the work of diversity, equity, inclusion, and justice in health care organizations, clinical spaces, and affected communities. Throughout the course, we survey the context of health disparities and health equity—a definition of terms, the state of the evidence, and relevant historical background. We examine opportunities and limitations of ADEI programs. We explore evidence-based frameworks and techniques that promote sustainable implementation of new initiatives. And we reflect on the personal and relational aspects of doing the work: learning to see inequity, interrogating our roles in existing power structures, and changing our perceptions of what types of change are feasible for ourselves and our institutions. Throughout this course, students will be asked to catalogue and analyze opportunities to advance equity in health and health care, and they will come away with a plan for an initiative that can be implemented in their professional context.
Summer Term
1 Course Unit

HCIN 6170 Leading Change in Health Care
There has been no shortage of recommendations from executives, consultants, and self-declared experts on how to improve health care. But the success rate for implementation has been low, and health care systems still struggle with problems of quality, cost, and access—not to mention high employee turnover and provider burnout. However, across the country, there have been pockets of success in improving care delivery. A number of best practices show promise, including open access scheduling, care coordination and standardization, performance measurement and feedback, the expansion of palliative care, community health worker programs, and the integration of behavioral care. Through lectures, case studies presented by multiple expert faculty, and interviews with leaders in the field, you will examine these transformative practices, and the leadership techniques that have led to their success. You will identify organizations that are primed for transformation, potential directions for leading transformation, and ways to direct change within your organization.
1 Course Unit
Health Care Management (HCMG)

**HCMG 0001 Introduction to Health Economics**
HCMG 0001: In Introduction to Health Economics, you will explore the application of economic principles to the health care sector. The course emphasizes the importance of scarcity and incentives in guiding the decision and interactions of key players, including care providers, payers, patients and producers. Course content highlights the critical economic issues in producing, delivering, and financing health care. Through video lectures, synchronous class meetings and discussions with your peers, you will learn to analyze determinants of demand for medical care, the unique role of physicians in resource allocation, the role of health insurance, and competition in medical care markets. The course focuses on the US health care context, but the economic principles applied are relevant to a range of systems.

0.5 Course Units

**HCMG 1010 Health Care Systems**
This introductory course takes a policy and politics angle to health care’s three persistent issues - access, cost and quality. The roles of patients, physicians, hospitals, insurers, and pharmaceutical companies will be established. The interaction between the government and these different groups will also be covered. Current national health care policy initiatives and the interests of class members will steer the specific topics covered in the course. The course aims to provide skills for critical and analytical thought about the U.S. health care system and the people in it.

Fall or Spring

1 Course Unit

**HCMG 2020 The Economics and Financing of Health Care Delivery**
The course provides an application of economic models to demand, supply, and their interaction in the medical economy. Influences on demand, especially health status, insurance coverage, and income will be analyzed. Physician decisions on the pricing and form of their own services, and on the advice they offer about other services, will be considered. Competition in medical care markets, especially for hospital services, will be studied. Special emphasis will be placed on government as demander of medical care services. Changes in Medicare and regulation of managed care are among the public policy issues to be addressed. Prerequisite: If course requirement not met, permission of instructor required.

Fall or Spring

Also Offered As: ECON 0390, ECON 0630
Prerequisite: ECON 0100 OR ECON 0110

1 Course Unit

**HCMG 2040 Comparative Health Care Systems**
This course examines the structure of health care systems in different countries, focusing on financing, reimbursement, delivery systems and adoption of new technologies. We study the relative roles of private sector and public sector insurance and providers, and the effect of system design on cost, quality, efficiency and equity of medical services. Some issues we address are normative: Which systems and which public/private sector mixes are better at achieving efficiency and equity? Other issues are positive: How do these different systems deal with tough choices, such as decisions about new technologies? Our main focus is on the systems in four large, prototypical OECD countries—Germany, Canada, Japan, and the United Kingdom—and then look at other countries with interesting systems—including Italy, Chile, Singapore, Brazil, China and India. We draw lessons for the U.S. from foreign experience and vice versa.

Spring

Mutually Exclusive: HCMG 8590

1 Course Unit

**HCMG 2130 Health Care Strategy and Management: the Business of Health Care**
This course presents an overview of the business of health and how a variety of health care organizations have gained, sustained, and lost competitive advantage amidst intense competition, widespread regulation, high interdependence, and massive technological, economic, social and political changes. Specifically, we evaluate the challenges facing health care organizations using competitive analysis, identify their past responses, and explore the current strategies they are using to manage these challenges (and emerging ones) more effectively. Students will develop generalized skills in competitive analysis and the ability to apply those skills in the specialized analysis of opportunities in producer (e.g. biopharmaceutical, medical product, information technology), purchaser (e.g. insurance), and provider (e.g. hospitals, nursing homes, physician) organizations and industry sectors. The course is organized around a number of readings, cases, presentations, and a required project.

Fall

Prerequisite: HCMG 1010

1 Course Unit
HCMG 2150 Management and Economics of Pharmaceutical and Biotech Industries
This course explores the key phases of the pharmaceutical and biotechnology product lifecycle. The product journey begins in the lab where scientists explore a vast array of compounds against diseases (therapeutic targets). Compounds that perform best enter the capital-intensive clinical trial phase aimed at assessing the product’s safety and efficacy. In parallel, regulatory agencies guide and govern these trials and ultimately decide which products are approved for use in patients. Once approved, launched, and priced, products face many dynamic market forces including competitors trying to steal share, government and private payers placing downward pressure on price, regulatory agencies controlling what manufacturers can and cannot say about their products, generic manufacturers challenging existing patents, and finally patients and physicians who behave both rationally and irrationally when deciding which product to use. While the course perspective is global in nature, the emphasis is on the U.S., the largest and most profitable market. In addition, we will delve into the world of biotech start-ups from company creation and financing, to how they make decisions which compounds to advance. We will also explore how large pharma views the biotech industry to bolster their existing pipelines and drive shareholder value. Through case studies, readings, guest speakers, and in-class exercises, students will learn concepts and analytical frameworks and acquire the tools and skills necessary to become the future leaders of the pharmaceutical and biotech industry.

Spring
Prerequisite: HCMG 1010 OR ECON 0100 OR ECON 0110
1 Course Unit

HCMG 2160 Health Insurance and Health Care Strategy
This course combines the insights of health economics with a strategic perspective on the business of health. The first section will consider the costs and benefits of medical interventions, while the second considers insurance theory and places special emphasis on the challenges facing firms in the face of the rising costs of health benefits as well as opportunities for private insurers operating in publically financed markets. The third section will analyze strategies of vertical and horizontal integration and their effect on the balance of power in local healthcare markets. Finally, the course will cover the effects of reform on firm incentives. The course will be taught using a mix of lectures and cases.

Spring
1 Course Unit

HCMG 2500 Health Care Reform and the Future of the American Health Care System
This course provides students with a rigorous understanding of the current American health care system and how it is likely to evolve over the next decade. The course will focus on six topics: 1) the development of the current health care system; 2) challenges of health care costs, quality, and access; 3) lessons of previous attempts to reform the system including the Affordable Care Act (ACA); 4) analysis of current policies regarding provider payment, technology, and electronic health records and how various sectors (e.g. public health and hospitals) are evolving in the current system; 5) drug pricing and potential strategies for reform, and 6) future megatrends in American health care system. Throughout the course, lessons will integrate basic health economics, history, health policy, and politics to elucidate key principles for understanding the health care system. The course will also examine at least one other country's health system for comparison. The course will end with a consideration of the long term outlook for the structure of the US health system and potential reform. Numerous expert guest speakers will give their perspectives throughout the semester.

Fall
1 Course Unit

HCMG 3020 Economics and Financing of Health Care Delivery
This course provides an application of economic principles to the health care sector. By recognizing the importance of scarcity and incentives, this course will focus on the critical economic issues in producing, delivering, and financing health care. In particular, the course will analyze determinants of demand for medical care, such as health status, insurance coverage, and income; the unique role of physicians in guiding and shaping the allocation of resources in medical care markets; and competition in medical care markets, especially among hospitals. Special emphasis will be placed on the evaluation of policy instruments such as government regulation, antitrust laws, 'sin taxes' on cigarettes and alcohol, and public health programs. Students who take HCMG 302 may also take HCMG 202 (ECON 039) for further credit.; knowledge of calculus and basic microeconomics is recommended.

Fall
Prerequisites: Knowledge of calculus and basic microeconomics is recommended.
1 Course Unit

HCMG 3220 The Health Care Ecosystem: Evolution, Structure and Current Issues
This course provides an application of economic principles to the health care ecosystem, focusing primarily on the US health care sector. By recognizing the importance of scarcity and incentives, this course will focus on the critical economic issues in producing, financing, and delivering efficient and equitable health care. In particular, the course will discuss the tension between cost, access and quality of care; analyze the determinants of demand for medical care; discuss the role of health insurance and the complexities it brings; study the unique role of physicians in guiding and shaping the allocation of resources in medical care markets; and analyze competition in medical care markets, especially among hospitals. Special emphasis will be placed on the evaluation of policy instruments such as government regulation, antitrust laws, and public health programs. Knowledge of calculus and basic microeconomics is highly recommended. Students who take HCMG 3220 may also take HCMG 3520 for further credit.
1 Course Unit
HCMG 3330 Leading the Health Care Workforce
The nature of the healthcare industry presents a unique set of managerial challenges. The health care workforce operates in a complex, fast-paced, uncertain, and interdependent environment. Power dynamics, hierarchy, and specialization make coordination particularly difficult in this setting. The course will provide students with frameworks and tools from management science tailored to the health care setting. At the end of the course, students will: (1) be able to apply evidence-based management principles to health care contexts and (2) have practical skills for leading, managing, and thriving in health care.

Fall
1 Course Unit

HCMG 3520 Health Services Delivery: A Managerial Economic Approach
The purpose of this course is to apply economics to an analysis of the health care industry, with special emphasis on the unique characteristics of the US healthcare markets, from pre-hospital to post-acute care. This course focuses on salient economic features of health care delivery, including: the role of nonprofit providers, the effects of regulation and antitrust activity on hospitals, the degree of input substitutability within hospitals, the nature of competition in home health care, public versus private provision of emergency medical services, the effect of specialty hospitals and ambulatory surgery centers, the economics of direct-to-consumer advertising and its effect on drug safety, defining and improving medical performance in hospitals, specialization and investment in physical and human capital, and shifting of services between inpatient and outpatient settings and its effect on health care costs and quality.

Spring
Mutually Exclusive: HCMG 8520
1 Course Unit

HCMG 3570 Healthcare Data and Analytics
Health care data creates unparalleled opportunities to save lives, improve health, strengthen the health care workforce, reduce costs, and increase efficiency. But it also presents a unique set of challenges ranging from privacy to data consistency. In this course, we begin by surveying the health care data landscape and then turn to how to use this rich data to better manage care and organizations. We will refine the art of asking good questions and gain first-hand experience applying analytics to answer them. We will also examine innovative businesses focused on health care data and analytics. At the end of this course, students will: (1) Understand the topography of the health care data landscape, (2) Have the skills necessary to be thoughtful consumers of evidence on health care, (3) Be able to use data and analytics to improve care and health care management, and (4) Anticipate business opportunities in health care data and analytics.

Fall
Mutually Exclusive: HCMG 8570
0.5-1 Course Unit

HCMG 3910 Health Care Entrepreneurship
Delivering basic health care advances worldwide and continuing to increase lifespan and quality (in an affordable manner) represent some of the major societal challenges of our time. Addressing these challenges will require innovation in both medical technology and the ways in which health services are delivered. Through readings, cases, guest lectures, and your own entrepreneurial work outside of class, we will examine the environment facing prospective health care entrepreneurs: (1) sources of health care innovation; (2) the many "customers" in health care: patients, doctors, hospitals, insurers, and regulators; (3) the powerful established firms with developed clinical and sales expertise; (4) the investing community. Along the way we will develop a framework for thinking about what is different (and what is not) about the challenges of health care entrepreneurship.

Fall
1 Course Unit

HCMG 6530 Health Care Management Field Application Project
This course focuses on leadership and management issues in health care organizations while providing students with a practice setting to examine and develop their own management skills. Each team acts as a consultant to a healthcare organization which has submitted a project proposal to the course. The teams define the issue and negotiate a contract with the client organization. By the end of the semester, teams present assessments and recommendations for action to their clients and share their experience and key lessons learned in a final presentation to their classmates.

Spring
Prerequisite: HCMG 8410
1 Course Unit

HCMG 8410 Introduction to Health Management and Economics
This course provides an introduction to the field of health care economics and management. Using an economic approach, the course will provide an overview of the evolution, structure and current issues in the health care ecosystem. It examines the unique features of health care services, products and markets, with a specific focus on the changing relationships between patients, physicians, hospitals, insurers, employers, communities, and government. In particular, the course focuses on three broad segments of the health care industry: payors, providers, and producers. NOTE: This is a required course for Wharton Graduate Health Care Management majors; it counts as an elective course for all other Wharton Graduate students. It is also open to Law School and Nursing School students with a joint Wharton Program.

Fall
0.5-1 Course Unit
HCMG 8450 US Payer and Provider Strategy
This course, co-taught with Brad Fluegel (former Chief Strategy Officer at Aetna, Anthem, and Walgreens and presently on the boards of several health care firms, including Fitbit and Premera Blue Cross), provides an overview of the challenges facing payers and providers in US healthcare as well as the strategies they use (or should use) to succeed. We cover all major aspects of the healthcare sector as seen from the perspective of payers and providers, starting from their core products and services (consumer preferences and health plan design, provider quality), the market environment they operate in (regulation and the role of public insurers, payment reforms, rising costs, and consolidation), and their strategic and operational responses (new organization models, mergers and acquisitions, and new ventures). The pedagogy is accordingly a mix of faculty lectures and talks by senior industry leaders to balance theory and practice.
Spring
0.5-1 Course Unit

HCMG 8490 Financial Management of Health Institutions
This course focuses on health care organizations' financing and financial decisions in the changing health care landscape. The course involves case analyses and lectures, including presentations by practitioners with extensive real-world experience. Students seeking careers in health care with minimal finance background will obtain a solid introduction to key areas of health care finance and financial decision making. Students with more background will extend and enhance their analytical skills in a variety of important areas.
Fall
Prerequisite: FNCE 6110 OR FNCE 6140
1 Course Unit

HCMG 8500 Health Care Reform and the Future of the American Health Care System
This course provides students with a rigorous understanding of the current American health care system and how it is likely to evolve over the next decade. The course will focus on six topics: 1) the development of the current health care system; 2) challenges of health care costs, quality, and access; 3) lessons of previous attempts to reform the system including the Affordable Care Act (ACA); 4) analysis of current policies regarding provider payment, technology, and electronic health records and how various sectors (e.g. public health and hospitals) are evolving in the current system; 5) drug pricing and potential strategies for reform, and 6) future megatrends in American health care system. Throughout the course, lessons will integrate basic health economics, history, health policy, and politics to elucidate key principles for understanding the health care system. The course will also examine at least one other country’s health system for comparison. The course will end with a consideration of the long-term outlook for the structure of the US health system and potential reform. Numerous expert guest speakers will give their perspectives throughout the semester.
Fall
Also Offered As: BIOE 5750
0.5-1 Course Unit

HCMG 8520 Health Services Delivery: A Managerial Economic Approach
The purpose of this course is to apply economics to an analysis of the health care industry, with special emphasis on the unique characteristics of the US healthcare markets, from pre-hospital to post-acute care. This course focuses on salient economic features of health care delivery, including: the role of nonprofit providers, the effects of regulation and antitrust activity on hospitals, the degree of input substitutability within hospitals, the nature of competition in home health care, public versus private provision of emergency medical services, the effect of specialty hospitals and ambulatory surgery centers, defining and improving medical performance in hospitals, specialization and investment in physical and human capital, shifting of services between inpatient and outpatient settings and its effect on health care costs and quality, and innovation in primary care from retail clinics to patient-centered medical homes and retainer-based medicine.
Spring
Mutually Exclusive: HCMG 3520
0.5-1 Course Unit

HCMG 8530 Management and Strategy in Medical Devices and Technology
Successful medical devices are an amalgamation of creative and innovative thinking, clinical expertise, and engineering know-how that endures intense regulatory and reimbursement scrutiny. This course will provide a foundation for understanding the nuances of the medical device industry. It will cover topics ranging from device design and discovery, regulatory issues, marketing, reimbursement, management, and strategy. Classroom activities will be supplemented with optional tours of hospitals, research and manufacturing facilities, and hands-on demonstrations of devices. Though the course is intended primarily for MBA students, it will be open to medical and engineering students as well as to hospital house staff.
Fall
1 Course Unit

HCMG 8550 Management of Health Care for the Elderly
This mini course is designed to provide students with an appreciation of the good, the bad and the ugly of how our current health care system cares for one of our nation's most precious resources - our seniors! This course will review care provided to seniors within a variety of institutional settings (hospitals, nursing facilities, various senior housing levels) as well as the strategies they use (or should use) to succeed. We cover all major aspects of the healthcare sector as seen from the perspective of payers and providers, starting from their core products and services (consumer preferences and health plan design, provider quality), the market environment they operate in (regulation and the role of public insurers, payment reforms, rising costs, and consolidation), and their strategic and operational responses (new organization models, mergers and acquisitions, and new ventures). The pedagogy is accordingly a mix of faculty lectures and talks by senior industry leaders to balance theory and practice.
Fall
0.5 Course Units
HCMG 8570 Healthcare Data and Analytics
Health care data creates unparalleled opportunities to save lives, improve health, strengthen the health care workforce, reduce costs, and increase efficiency. But it also presents a unique set of challenges ranging from privacy to data consistency. In this course, we begin by surveying the health care data landscape and then turn to how to use this rich data to better manage care and organizations. We will refine the art of asking good questions and gain first-hand experience applying analytics to answer them. We will also examine innovative businesses focused on health care data and analytics. At the end of this course, students will: (1) Understand the topography of the health care data landscape, (2) Have the skills necessary to be thoughtful consumers of evidence on health care, (3) Be able to use data and analytics to improve care and health care management, and (4) Anticipate business opportunities in health care data and analytics.

Fall
Mutually Exclusive: HCMG 3570
0.5-1 Course Unit

HCMG 8590 Comparative Health Care Systems
This course examines the structure of health care systems in different countries, focusing on financing, reimbursement, delivery systems and adoption of new technologies. We study the relative roles of private sector and public sector insurance and providers, and the effect of system design on cost, quality, efficiency and equity of medical services. Some issues we address are normative: Which systems and which public/private sector mixes are better at achieving efficiency and equity? Other issues are positive: How do these different systems deal with the tough choices, such as decisions about new technologies? Our focus first on the systems in four large, prototypical OECD countries-Germany, Canada, Japan, and the United Kingdom -and then look at other developed and emerging countries with interesting systems - including Italy, Chile, Singapore, Brazil, China and India. We will draw lessons for the U.S. from foreign experience and vice versa.

Spring
Mutually Exclusive: HCMG 2040
1 Course Unit

HCMG 8660 The Digital Transformation of Health Care
Healthcare is in the early stages of extraordinary change in the business model of care delivery and financing. This transformation will lead to a system based on the proactive management of health, integration of care across the continuum, blurred boundaries between care providers and purchasers and the placement of the consumer at the center. As has been the case in other industries, this new business model will be based on a foundation of diverse, potent, and well implemented information technology. This course will help prepare students to lead a digital health future. Specifically, the course will cover three major areas. (1)The context of health care information technology: the size, composition and evolution of the digital health market; federal government agencies, and related regulations, that shape the market; leadership roles and factors that enable healthcare organizations to effectively implement and leverage information technology. (2)Emerging technologies that will fuel the transformation of healthcare: artificial intelligence and advanced analytics; interoperability; telehealth; consumer-directed digital health; use of behavioral economics to influence patient and provider decisions. (3)Digital health use by specific sectors of the healthcare industry: healthcare providers; health plans; retail-based primary care; life sciences; wellness and chronic disease management. The course will include lectures from industry leaders who will share their ideas and experiences.

Spring
0.5 Course Units
HCMG 8670 Health Care Entrepreneurship
The course focuses on the creation, funding, and management of digital health, biotech, medtech, and other health services enterprises. The course is designed to supplement other offerings in the Health Care Systems and Management Departments for those students with entrepreneurial interest in such ventures, and will focus on special issues surrounding the conceptualization, planning, diligence, and capitalization of these ventures and also includes management and compensation practices. In addition, course offers methods for self-assessment & development of business models and plans, techniques for technology assessment and strategy, develops foundation for capitalization and partnering strategies, and creates a basis for best practices in company launch and plan execution. Students must apply to take this course. Please see the Health Care Management Department for the application.

Spring
0.5 Course Units

HCMG 8680 Private Sector Role in Global Health
Issues surrounding global health have captivated the attention of the public sector and foundations for many decades. Many of their initiatives are realizing progress on the health-related Millennium Development Goals. The private sector has been less engaged in global health, but has a significant role to play in providing resources and in building infrastructure, human resource capacity and sustainability. This course explores entrepreneurial and other private sector solutions for health services and access to medicines and technologies in the developing world and other underserved areas. The course also encompasses study of creative programs to engage the private sector in development of vaccines and medicines for tropical and neglected diseases. Furthermore, the course addresses novel care systems and therapeutic strategies for the rapidly growing burden of chronic, non-communicable diseases in the developing world. In short, the course builds on the content of conventional global health courses from a managerial and entrepreneurial perspective. Learning is driven through readings, class discussion and a series of guest speakers representing a wide range of global health issues. Evaluation is largely based on a student group project.

Spring
0.5 Course Units

HCMG 8700 The Business of Behavioral Health
This half-credit course will provide an overview of the behavioral health care landscape. There are three modules: (1) delivery, e.g., deinstitutionalization, the provider shortage, collaborative care; (2) financing, e.g., managed care, the shift to value-based care; and (3) recent trends, e.g., digital health, venture capital. Each module will include a guest lecturer with industry expertise.

Fall
0.5 Course Units

HCMG 8900 Advanced Study Project: Management of Health Care Service Businesses
HCMG 8900-001: This course examines issues related to the Services Sector of the health care industry. For those interested in management, investing, or banking in the health care industry, the services sector will likely be the largest and most dynamic sector within all of health care. We will study key management issues related to a number of different health care services businesses with a focus on common challenges related to reimbursement, regulatory, margin, growth, and competitive issues. We will look at a number of different businesses and subsectors that may have been unfamiliar to students prior to taking the course. We will make extensive use of outside speakers, many of whom are true industry leaders within different sectors of the health care services industry. Speakers will address the current management issues they face in running their businesses as well as discuss the career decisions and leadership styles that enables them to reach the top of their profession. Students will be asked to develop a plan to both buy out and manage a specific health care services business of their choosing and will present their final plans to a panel of leading Health Care Private Equity investors who will evaluate their analysis. Prerequisites: HCMG 8410. Health Care Management MBA majors only

Fall
Mutually Exclusive: WH 2170
1 Course Unit

HCMG 8980 Global Modular Course
Global Modular Course (GMC) - see description in section details
0.5 Course Units

HCMG 8990 INDEPENDENT STUDY
Arranged with members of the Faculty of the Health Care Systems Department. For further information contact the Department office, Room 204, Colonial Penn Center, 3641 Locust Walk, 898-6861.
0.5-1 Course Unit

HCMG 9000 Proseminar in Health Economics: Models and Methods
This course is intended to provide entering doctoral students with information on the variety of health economics models, methods, topics, and publication outlets valued and used by faculty in the HCMG doctoral program and outside of it. The course has two main parts: the first, to acquaint students with theoretical modeling tools used frequently by health economists. This part of the course involves a number of lectures coupled with students’ presentations from the health economics, management and operations research community at Penn on a research method or strategy they have found helpful and they think is important for all doctoral students to know.

Fall or Spring
1 Course Unit

HCMG 9010 Proseminar in Health Economics: Health Econometrics
This course will cover empirical methods used in economics research with an emphasis on applications in health care and public economics. The methods covered include linear regression, matching, panel data models, instrumental variables, regression discontinuity, bunching, qualitative and limited dependent variable models, count data, quantile regressions, and duration models. the discussion will be a mix of theory and application, with emphasis on the latter. The readings consist of a blend of classic and recent methodological and empirical papers in economics. Course requirements include several problem sets, paper presentations, an econometric analysis project and a final exam. The course is open to doctoral students from departments other than Health Care Management with permission from the instructor.

Spring
1 Course Unit
HCMG 9020 Special Topics in Health Economics: The Industrial Organization of Health Care
This advanced PhD seminar will explore topics in the industrial organization of health care and structural econometric approaches in health economics. The focus in this course is the development of advanced econometric tools. The (tentative) topics covered include health insurance and hospital demand estimation, the analysis of hospital competition, insurer competition, quality competition, technology adoption, models of entry and exit and dynamic oligopoly games. The readings will focus on recent advances in economics. Students are required to present recent research from the field and write an empirical research paper that broadly based on the topics covered in the course. With the permission of the instructor, the seminar is open to doctoral students from departments other than Health Care Management.
Fall
1 Course Unit

HCMG 9030 Economics of Health Care and Policy
This course applies basic economic concepts to analyze the health care market and evaluate health policies. The course begins with a discussion of productivity in health care and of the theoretical and empirical effects of asymmetric information and market failure. The second part of the course explores several topic areas in the health care economics literature: health insurance and the labor market; health policy interventions; and health as human capital. The third part of the course examines competition and the behavior of health care providers, with emphasis on the impact of policy on competition, behavior, and finally, bringing us full circle, health care productivity.
Spring
1 Course Unit

HCMG 9040 Doctoral Seminar in Organizational Behavior and Theory in Health Care
This course introduces students to organizational behavior and theory (OBT) by examining key issues in OBT, different perspectives on key issues, and how OBT informs health services research and practice. This course examines "micro" theories (i.e., social psychological theories of organizational behavior) and "macro" theories (i.e., theories focused on the structural and environmental aspects of organizations). We will examine the strengths and weaknesses of various theories, how they can be used as a foundation for research, methods used to study them, and the implications for health policy and management. Examples of published health services research grounded in OBT will be discussed so that students become familiar with the theories-in-use and various publication outlets for health care management (HCM) research.
Fall
1 Course Unit

Health Policy Research (HPR)

HPR 5010 Economics of Health Care Delivery
This course examines how medical care is produced and financed in private and public sectors, economic models of consumer and producer behavior, applications of economic theory to health care. Prerequisite: Course only open to Masters of Science in Heath Policy Research students unless by special request.
Spring
1 Course Unit

HPR 5030 Qualitative Methods in Health Research
The purpose of this course is to expose students to a variety of qualitative approaches/methodologies that may be used in health services/policy research. In didactics we will discuss the pros and cons of a range of qualitative Methods, how the method is actually implemented (with multiple experts presenting approaches), and pair the presentation with a broader discussion in which students compare and contrast health oriented articles in which the method was used. Students will have the opportunity to apply the theoretical approaches to their own research interests with direct input from the faculty and their peers. Prerequisite: Permission needed from Instructor.
Summer Term
1 Course Unit

HPR 5500 Clinical Economics and Decision Making
This course focuses on the application of decision analysis and economic analysis to clinical and policy research. It provides an introduction to the general tools for decision analysis, including decision trees and Markov models, assessment of costs and patient preferences, and assessment of cost-effectiveness. Special emphasis is placed on second-order Monte Carlo analysis and its use in the construction of measures of sampling uncertainty for cost-effectiveness analysis. Seminars will include didactic material, practical exercises that include problem solving, critically analyzing published articles and learning to use computer software that facilitates decision and economic analyses.
Spring
Also Offered As: EPID 5500
1 Course Unit

HPR 5800 Outcomes Research
This course is divided into two main parts. The first part addresses issues related to the measurement of quality in health care. Included is a review of the classical structure-process-outcome quality paradigm. The paradigm's strengths and limitations are addressed. This part especially focuses on outcome measures of quality, and examines the validity of alternative measures. The second part deals with observational, or quasi-experimental, research studies. It addresses the advantages and limitations of alternative designs, and covers the role of clinical risk adjustment in observational studies of medical interventions. It focuses on the problem of selection bias, and reviews recent methods for dealing with this bias, such as instrumental variables. Prerequisite: Introductory course in statistics including regression methods. Permission of instructor if prerequisite is not met.
Fall
Also Offered As: EPID 5800
1 Course Unit

University of Pennsylvania Undergraduate Catalog 2023-24 Catalog | Generated 08/02/23
HPR 5880 Advanced Leadership Skills in Community Health
Grounded in a social justice perspective, this course aims to provide the student with a foundational overview of the field of community health and leadership skills in public health advocacy. The course encourages critical thinking about health outcomes framed by the broad context of the political and social environment. This course analyzes the range of roles and functions carried out by leaders in healthcare advocacy for marginalized communities; integrates knowledge of health policy and the key influence of government and financing on health outcomes; explores community-based participatory research and interventions as tools for change; and discusses ways to develop respectful partnerships with community organizations. An assets-based approach that draws upon the strengths of communities and their leaders provides a foundation for community-engagement skill building. The course emphasizes the development of skills and techniques to lead effective, collaborative, health-focused interventions for disenfranchised groups, including residents of urban neighborhoods. Prerequisite: Undergraduates with permission of the instructor
Spring
Also Offered As: NURS 5870, PUBH 5880
1 Course Unit

HPR 5940 Critical Multimodal Qualitative Research Across the Professions
Created in collaboration with Schools of Design and Law, this course is designed to introduce professional school students to critical, multimodal and experimental ethnographic qualitative research methods. The coverage of the course includes both theoretical and applied components. The course is divided into five modules. The first module explores the theory of critical ethnographic qualitative research and the ethical issues that arise when undertaking collaborative research around the "everyday culture" of communities and institutions with which practitioners in the students' chosen areas of study typically interact. The second module allows students to analyze qualitative research in professional fields of study and in dialogue with Penn faculty whose qualitative research addresses significant issues of importance to practitioners in law, business, medicine and planning. This module will also begin a discussion of the tasks of formulating critical qualitative research projects and analyzing data. The third module is devoted to qualitative data collection methods (participant observation, oral histories and in-depth interviews) and the modes and tools used in collecting qualitative data and reporting results (traditional or text-based, multimodal, and experimental). The final module considers in greater depth the role of aesthetics, advocacy and activism in utilizing multimodal approaches for sharing research findings with audiences consisting of academics, collaborators, fellow professionals, and the general population.
Fall or Spring
1 Course Unit

HPR 6000 Health Services Research and Innovation Science
This course will provide students with an introduction to health services and health policy research. First, faculty representing various departments and and schools at the University of Pennsylvania will introduce students to a number of “hot topics,” including health disparities, medical decision making, neighborhoods and health, quality of care, access to care, behavioral incentives, and cost effectiveness research. Second, the course will offer an introduction to various career paths in the research and policy domains. Third, the course will provide a brief overview of practical issues such as grant opportunities, data options, publishing, and dissemination. Prerequisite: This course is only open to Masters of Science in Health Policy Research students.
Summer Term
1 Course Unit

HPR 6030 Health Services and Policy Research Methods I: Primary Data Design and Collection
This course will introduce students to commonly used primary data collection methods and provide multiple examples of how they have been used in health services research. Through the course students will define a primary data collection research project and develop the methods necessary to conduct the project. To get the full benefit of this course, students should use this course to develop the methods they plan to employ in their primary data collection project. Prerequisite: Permission needed from instructor.
Fall
1 Course Unit

HPR 6040 Introduction to Statistics for Health Policy
This is the first semester of a two-semester sequence. It is an introductory statistics course covering descriptive statistics, probability, random variables, estimation, hypothesis testing, and confidence intervals for normally distributed and binary data. The second semester stresses regression models. Permission needed from instructor to enroll.
Summer Term
1 Course Unit

HPR 6050 Fundamentals of Health Policy
While academic researchers often think of health policy in terms of research evidence and outcomes, politics and political processes also play important roles. The purpose of this course is to provide those pursuing careers in health services research and health policy with an understanding of the political context from which U.S. health policy emerges. This understanding is important for researchers who hope to ask and answer questions relevant to health policy and position their findings for policy translation. This understanding is important as well to policy leaders seeking to use evidence to create change. The class provides an overview of the U.S. health care system and then moves on to more comprehensive understanding of politics and government, including the economics of the public sector, the nature of persuasion, and techniques and formats for communication. The course emphasizes reading, discussion and applied policy analysis skills in both written and oral forms. Concepts will be reinforced with case studies, written assignments and a final policy simulation exercise where students will be placed in the position of political advisors and policy researchers.
Prerequisite: Permission needed from Instructor.
Fall
1 Course Unit
HPR 6070 Health Services and Policy Research Methods II: Causal Inference Using Secondary Data
Empirical research for health care policy frequently involves the analysis of observational data—information that is not primarily collected for research purposes. With the rapid increase in U.S. health information technology capacity, future opportunities for research using these “secondary data” appear promising. The objective of this course is to teach the skills necessary to conduct quality health policy research using secondary data. These skills include formulating research aims and applying appropriate study designs for achieving these aims. The course will also include a survey of the content and structure of several commonly used administrative and public databases available to researchers and workshops to develop the skills to access and manipulate these valuable resources. Prerequisite: Permission needed from Instructor.
Spring
1 Course Unit

HPR 6080 Applied Regression Analysis for Health Policy Research
This course deals with the work-horse of quantitative research in health policy research—the single outcome, multiple predictor regression model. Students will learn how to 1) select an appropriate regression model for a given set of research questions/hypotheses, 2) assess how adequately a given model fits a particular set of observed data, and 3) how to correctly interpret the results from the model fitting procedure. After a brief review of fundamental statistical concepts, we will cover analysis of variance, ordinary least squares, and regression models for categorical outcomes, time to event data, longitudinal and clustered data. We will also introduce the concepts of mediation, interaction, confounding and causal inference. Prerequisite: Permission needed from Instructor.
Fall
1 Course Unit

HPR 6110 Implementation Science Institute
The Penn Implementation Science Institute is a virtual 4-day intensive course that introduces learners to the fundamentals of implementation science, including theories, models, frameworks, strategies, and outcomes. Course content is delivered synchronously through didactic presentations and small group work, with course faculty available for consultation during office hours before and after each day.
Summer Term
0.5-1 Course Unit

HPR 6200 Implementation Science in Health and Health Care
This course presents a survey of the field of implementation science in health. The structure of the course will include two parts. In the first part, we will introduce the field of implementation science, with an emphasis on theory, design and measurement. In the second part, we will focus on applied implementation science which will include examples of research programs in implementation science as well as applying insights of implementation science to practical implementation. An emphasis on qualitative and mixed methods approaches is included. Prerequisite: permission needed from Instructor.
Fall
1 Course Unit

HPR 6210 Advanced Topics in Implementation Science in Health
This seminar course offers an opportunity for students to advance their understanding of the thorniest methodological challenges in implementation science. Broadly, topics include study design, study execution, and tensions in the field. The intention will be for attendees to directly apply their learnings to their ongoing or proposed implementation research. This half credit course is intended for those who have already been exposed to the foundational content of implementation science. This can be achieved via HPR 611, the Penn Implementation Science Institute, or other training opportunities such as the NIH TIDIRH/TIDIRC or mentored K awards. Instructor permission is required for enrollment. Additional prerequisites: the Penn Implementation Science Institute, or other training opportunities such as the NIH TIDIRH/TIDIRC or mentored K awards.
Summer Term
Prerequisite: HPR 6110 AND HPR 6200
0.5 Course Units

HPR 6250 Pragmatic Clinical Trials in Healthcare
This seminar course offers an opportunity for students to understand what a pragmatic randomized controlled trial (RCT) is, how it differs from explanatory RCTs, why it is relevant, and key methodological and analytic issues that arise in the conduct of pragmatic trials. The student will also learn about ethical issues in pragmatic trials, nesting relevant studies within a trial, and trial reporting requirements. The intention will be for attendees to be able to directly apply their learnings to their ongoing or future clinical research.
0.5 Course Units

HPR 6370 Advocacy & Public Health: Turning Knowledge into Action
This course is designed to provide the foundational context and practical skills necessary to effectively identify public health problems, craft evidence-based solutions and advocate for those solutions in furtherance of public health objectives. The class will be interactive in nature and will require participation in public health advocacy exercises in order to hone advocacy skills. There will also be a focus on persuasive communication, both oral and written. We will explore the entire advocacy process from the identification of a problem and evaluation of possible public health policy solutions to utilizing the full range of advocacy tools to promote policy change. We will be using real-time examples of public health challenges affecting the health, safety and well-being of children and families here in Philadelphia and in communities across the country. Students will apply advocacy skills during an Injury & Violence Prevention Hill Day in Washington, D.C. with national partners. Not Offered Every Year
Also Offered As: NURS 5650, PUBH 6370
Prerequisite: PUBH 5050 OR PUBH 5070
1 Course Unit
HPR 6600 Applied Predictive Modeling for Health Services Research
The course offers an introduction to the principles and applications of predictive modeling. It is geared toward health services researchers with an emphasis on clinical and policy scenarios and the use of electronic health record and administrative claims data. The primary goals of this course are to help each student understand (1) the fundamental concepts of predictive modeling and what distinguishes it from traditional causal inference approaches in statistics, (2) the different evaluation metrics for model performance and their appropriate use and (3) the role of domain knowledge in developing a statistical plan for model development with the end-user in mind. Students will be building their own predictive models by the end of the course and may elect to use R, STATA or Python for coding exercises. No prior programming experience is required. A background in basic statistical principles would be helpful. Prerequisite: Permission needed from Instructor.
Summer Term
1 Course Unit

HPR 6700 Health Care Strategic Leadership and Business Acumen
The weeklong intensive course aims at developing essential business acumen and leadership skills required to thrive in a constantly changing health care ecosystem. Taught by invited faculty who have experience working with health care leaders, this course will focus on actionable knowledge in financial acumen, strategic decision making, innovation and building high-performance teams. Through interactive mixed-mode delivery methods, faculty will share tools and frameworks, always with a focus on how to apply them, both personally and within an organizational context. Prerequisite: Permission needed from Instructor.
Summer Term
1 Course Unit

HPR 7140 Grant Writing/Review
This course will assist students in the design of an NIH grant (F-32, K, R21 or R01) for submission by enhancing their appreciation of the specifics of the grant writing process and in understanding the grant review process. This course is designed to provide background, training, and practice with the writing and submitting of NIH style grants. As a minimum all students who enroll will be expected to write and submit a reasonable draft of a full NIH style grant proposal by the end of the term. During the process, the portions of each proposal will be reviewed as a group by the other students in the course. In response to each review, students are expected to revise their grant sections. Prerequisite: If course requirement not met, permission of instructor required.
Summer Term
Also Offered As: EPID 7140
Prerequisite: EPID 5100 AND EPID 5260 AND EPID 5600 AND EPID 5700
0.5 Course Units

HPR 7990 Independent Study
This course is designed to provide the student with an opportunity to gain or enhance knowledge and to explore an area of interest related to health policy research under the guidance of a faculty member. Prerequisite: Permission of Program Director and Faculty Member.
Fall, Spring, and Summer Terms
0.5-1 Course Unit

HPR 9900 Health Policy Research Thesis I
Each student completes a mentored research project that includes a thesis proposal and a thesis committee and results in a publishable scholarly product. Prerequisite: Course only open to Masters of Science in Health Policy Research students.
Fall or Spring
1 Course Unit

HPR 9901 Health Policy Research Thesis II
Each student completes a mentored research project that includes a thesis proposal and a thesis committee and results in a publishable scholarly product. Prerequisite: Course only open to Masters of Science in Health Policy Research students.
Fall or Spring
1 Course Unit

Healthcare Quality and Safety (HQS)

HQS 6010 Healthcare Quality: Landscape, Standards, and Measurement
This week-long hybrid course (in person + virtual online) provides a national perspective on the history and evolution of the US healthcare quality movement and the six components for high quality healthcare: safe, timely, effective, equitable, efficient, and patient-centered. Using a mix of local and national leaders in the field, the complexities of quality and the scientific basis for understanding the measurement of quality will be explored, including exposure to quality measures from a variety of organizations and measure comparison sites and the merging of quality outcomes with evolving reimbursement paradigms and models. The association between quality and safety and healthcare economics, regulation, accreditation, information technology, and population health will also be covered.
Summer Term
1 Course Unit

HQS 6020 Learning Health System Seminar Series
This seminar series will provide students with knowledge and skills in the learning healthcare system. Through lecture and interactive discussions with leaders across the University of Pennsylvania, students will expand their network of resources and collaborators for the learning health care system where they work.
Spring
0.5 Course Units

HQS 6030 Evaluating Quality Improvement and Patient Safety Programs
This course provides an overview of quantitative and qualitative methods for evaluating quality improvement and patient safety (QI/PS) efforts in healthcare. Through the use of assigned readings, discussion, and assignments, students will develop skills to critique evaluations of existing QI/PS projects and design a robust evaluation of a healthcare improvement initiative. Topics include the principles of good measurement, development of performance measures, intermediate and advanced concepts in statistical process control, and the research methods used in the evaluation of QI/PS interventions.
Fall
1 Course Unit
HQS 6060 Applied Clinical Informatics in Quality Improvement
This four-day intensive graduate institute applies core clinical informatics concepts in the context of quality improvement and patient safety initiatives. Content covered addresses foundational theories, frameworks, and policies of clinical informatics relevant to quality improvement and patient safety as well as practical application of informatics tools relevant to quality improvement efforts and local governance structure. Learners will be exposed to a variety of informatics leaders from across both the University of Pennsylvania Health System and Children's Hospital of Philadelphia. A hybrid structure of two full, in-person days with two half, virtual days with optional offers hours is intended to allow flexibility for learners while maximizing beneficial interactions between learner, instructors, and building the UPHS/CHOP informatics community Spring
Also Offered As: BMIN 6060
0.5 Course Units

HQS 6070 Safety and Quality Leadership in Healthcare Systems
This six week hybrid course will help develop core skills for emerging leaders of safety and quality in healthcare systems. The course will include a combination of self-assessments, encounters with exemplary leaders, group exercises, individual activities and readings that will provide the participants with a range of experiences designed to further student's own leadership journey. Summer Term
1 Course Unit

HQS 6080 Using Quality Improvement to Achieve Health Equity
This course provides learners with the tools to address health and health care inequities using quality improvement methods. Learners will be able to explore the upstream causes of health and healthcare inequities including historical and current day practices routed in racism, sexism, classism, and queer-and-transphobia, among other practices of oppression. This course explores different methods for the purposes of using them in conjunction with quality improvement (QI) frameworks to ensure health equity as a positive outcome of QI efforts. Common QI frameworks and outcome measures will be reviewed with a focus on how to use them in health equity QI work. In addition, the course includes topics of leadership and change management in order to support successful collaborations resulting in health equity. Learners will apply these themes in a final project, engaging an example of an inequitable processes or care to design a QI project with the goal of improving health equity. Spring
1 Course Unit

HQS 6120 Principles and Practice of Healthcare Quality Improvement
Healthcare delivery is complex and constantly changing. A primary mission of leading healthcare organizations is to advance the quality of patient care by striving to deliver care that is safe, effective, efficient, timely, cost effective, and patient-centered. The goal of this inter professional course is to provide students with a broad overview of the principles and tools of quality improvement and patient safety in healthcare while also guiding them through the steps of developing a quality improvement project. It will provide a foundation for students or practicing clinicians who are interested in quality improvement and patient safety research, administration, or clinical applications. As part of this course, students will design and plan for a real quality improvement project in their area of interest within healthcare using the methods and tools taught in the course. Fall
Also Offered As: NURS 6120
1 Course Unit

HQS 6400 Coaching in Quality Improvement Work
The purpose of this course is to provide participants with the skills and tools to successfully guide learners in experiential quality improvement (QI) work in healthcare while developing a network of educators with similar roles. Students will be placed into groups based upon their level of experience and confidence in teaching and advising learners in this field. Both groups will discuss topics such as QI project selection, using QI frameworks to structure teaching sessions, key organizational and team factors, providing feedback, common teacher and learner pitfalls in QI, and many others. This will be a blended course with three in-person workshops and monthly asynchronous online educational components with assignments. Fall
0.5 Course Units

HQS 6500 Systems Thinking in Patient Safety
This blended online/in-classroom graduate level course integrates principles of systems thinking with foundational concepts in patient safety. Utilizing complexity theories, students assess healthcare practices and identify factors that contribute to medical errors and impact patient safety. Using a clinical microsystem framework, learners assess a potential patient safety issue and create preventive systems. Lessons learned from the science of safety are utilized in developing strategies to enhance safe system redesign. Core competencies for all healthcare professionals are emphasized, content is applicable for all healthcare providers including, but not limited to, nurses, pharmacists, physicians, social workers and healthcare administrators, and may be taken as an elective by non-majors. Spring
Also Offered As: NURS 6500
1 Course Unit

HQS 6900 Quality Improvement Capstone I
The purpose of the quality improvement capstone is to provide a culminating experience in the program that requires the integration and application of knowledge attained in pre- and co-requisite coursework. The Capstone will build upon prior coursework that provided a broad overview of the principles and tools of quality improvement and patient safety in healthcare with a focus on implementation and sustainment of change. Students will apply this knowledge through completion of a mentored quality improvement project in a healthcare organization. In collaboration with faculty and health organization advisors, students will identify a quality improvement opportunity and use improvement methodology to describe the extent of the problem, analyze the current system, design tests of change (countermeasures), implement at least two plan-do-study-act cycles, and measure results. Students will also reflect on lessons learned and process of change. This is a hybrid course with virtual and in person components. Spring
Also Offered As: NURS 6950
1 Course Unit
HQS 9910 Quality Improvement Capstone II
The purpose of the quality improvement capstone II course is to provide a culminating experience in the master's program that requires the integration and application of knowledge attained in prior coursework. Students will build on the skills obtained throughout the master's program and specifically in Quality Improvement in Healthcare Capstone I (HQS990/NURS695) while continuing to lead and experience cycles of improvement work while measuring their results. Students will be required to write a final report and deliver an oral presentation for this course.
Fall, Spring, and Summer Terms
Also Offered As: NURS 6960
1 Course Unit

Hebrew (HEBR)

HEBR 0100 Elementary Modern Hebrew I
An introduction to the skills of reading, writing, and conversing in modern Hebrew. This course assumes no previous knowledge of Hebrew. A grade of B- or higher is needed to continue in the language.
Fall or Spring
Also Offered As: JWST 0100
1 Course Unit

HEBR 0200 Elementary Modern Hebrew II
A continuation of first semester Elementary Modern Hebrew, which assumes basic skills of reading and speaking and the use of the present tense. Open to all students who have completed one semester of Hebrew at Penn with a grade of B- or above and new students with equivalent competency.
Fall or Spring
Also Offered As: JWST 0200
Prerequisite: HEBR 0100
1 Course Unit

HEBR 0250 Elementary Biblical Hebrew II
A continued introduction to the grammar of Biblical Hebrew, focusing on the verbal system, with an emphasis on developing language skills in handling Biblical texts. A suitable entry point for students who have had some Modern Hebrew.
Spring
Also Offered As: JWST 0250
Prerequisite: HEBR 0150
1 Course Unit

HEBR 0300 Intermediate Modern Hebrew III
Development of the skills of reading, writing, and conversing in modern Hebrew on an intermediate level. Open to all students who have completed two semesters of Hebrew at Penn with a grade of B- or above and new students with equivalent competency.
Fall or Spring
Also Offered As: JWST 0300
Prerequisite: HEBR 0200
1 Course Unit

HEBR 0350 Intermediate Biblical Hebrew I
This course will focus on using the grammar and vocabulary learned at the introductory level to enable students to read Biblical texts independently and take advanced Bible exegesis courses. We will also work on getting comfortable with the standard dictionaries, concordances, and grammars used by scholars of the Bible. We will concentrate on prose this semester, closely reading Ruth, Jonah, and other prose selections. We will begin to translate from English into Biblical Hebrew, and there will also be a unit on the punctuation marks used in the Bible. This is a suitable entry point for students who already have strong Hebrew skills.
Fall
Also Offered As: JWST 0350
Prerequisite: HEBR 0250
1 Course Unit

HEBR 0400 Intermediate Modern Hebrew IV
This course constitutes the final semester of Intermediate Modern Hebrew. Hence, one of the main goals of the course is to prepare the students for the proficiency exam in Hebrew. Emphasis will be placed on grammar skills and ability to read literary texts. Open to all students who have completed three semesters of Hebrew at Penn with a grade of B- or above and new students with equivalent competency.
Fall or Spring
Also Offered As: JWST 0400
Prerequisite: HEBR 0300
1 Course Unit

HEBR 0450 Intermediate Biblical Hebrew II
This course is a continuation of the fall semester's Intermediate Biblical Hebrew I. No one will be admitted into the course who has not taken the fall semester. It will continue to focus on using the grammar and vocabulary learned at the introductory level to enable students to read biblical texts independently and take advanced Bible exegesis courses. We will concentrate this semester on various selections of Biblical poetry, including Exodus 15 and Job 28. We will also continue to translate English prose into Biblical Hebrew.
Spring
Also Offered As: JWST 0450
Prerequisite: HEBR 0350
1 Course Unit

HEBR 1000 Advanced Modern Hebrew: Conversation & Writing
In this course students are introduced to the vibrant world of contemporary Israeli culture by reading some of the best plays, poems, short stories and journalism published in Israel today. They also watch and analyze some of Israel's most popular films, TV programs, and videos. Themes include Jewish-Arab relations, the founding of the State, family ties and intergenerational conflict, war and society, and the recent dynamic changes in Israeli society. Students must have taken four semesters of Hebrew at Penn or permission of instructor. Since the content of this course may change from year to year, students may take it more than once (but only once for credit).
Fall or Spring
Also Offered As: JWST 1000
Prerequisite: HEBR 0400
1 Course Unit
HEBR 4000 Rabbinic Writers on Rabbinic Culture
This course traces reflections on rabbinic culture produced within Jewish legal literature of the classic rabbinic period - Midrash, Mishna, and Talmud - and in later juridical genres - Talmudic commentary, codes and responses. Attention will be paid to the mechanics of different genres, the role of the underlying proof text, the inclusion or exclusion of variant opinions, the presence of non-legal information, the balance between precedent and innovation. Reading knowledge of Hebrew is required.
Not Offered Every Year
Also Offered As: JWST 4000, RELS 4300
1 Course Unit

HEBR 5100 Elementary Modern Hebrew I
An introduction to the skills of reading, writing, and conversing in modern Hebrew. This course assumes no previous knowledge of Hebrew. A grade of B- or higher is needed to proceed to the next level.
Fall or Spring
1 Course Unit

HEBR 5200 Elementary Modern Hebrew II
A continuation of Elementary Modern Hebrew I, which assumes basic skills of reading and speaking and the use of the present tense. Open to all students who have completed one semester of Hebrew at Penn with a grade of B- or above and new students with equivalent competency.
Prerequisite: HEBR 5100
1 Course Unit

HEBR 5250 Elementary Biblical Hebrew II
A continued introduction to the grammar of Biblical Hebrew, focusing on the verbal system, with an emphasis on developing language skills in handling Biblical texts. A suitable entry point for students who have had some Modern Hebrew. Prerequisite: If course requirement not met, permission of instructor required.
Spring
Prerequisite: HEBR 5150
1 Course Unit

HEBR 5300 Intermediate Modern Hebrew III
Development of the skills of reading, writing, and conversing in modern Hebrew on an intermediate level. Open to all students who have completed two semesters of Hebrew at Penn with a grade of B- or above and new students with equivalent competency.
Fall or Spring
Prerequisite: HEBR 5200
1 Course Unit

HEBR 5350 Intermediate Biblical Hebrew I
This course will focus on using the grammar and vocabulary learned at the introductory level to enable students to read Biblical texts independently and take advanced Bible exegesis courses. We will also work on getting comfortable with the standard dictionaries, concordances, and grammars used by scholars of the Bible. We will concentrate on prose this semester, closely reading Ruth, Jonah, and other prose selections. We will begin to translate from English into Biblical Hebrew, and there will also be a unit on the punctuation marks used in the Bible. This is a suitable entry point for students who already have strong Hebrew skills.
Fall
Prerequisite: HEBR 0250
1 Course Unit

HEBR 5400 Intermediate Modern Hebrew IV
This course constitutes the final semester of Intermediate Modern Hebrew. Hence, one of the main goals of the course is to prepare the students for the proficiency exam in Hebrew. Emphasis will be placed on grammar skills and ability to read literary texts. Open to all students who have completed three semesters of Hebrew at Penn with a grade of B- or above and new students with equivalent competency.
Fall or Spring
Prerequisite: HEBR 5300
1 Course Unit

HEBR 5450 Intermediate Biblical Hebrew II
This course is a continuation of the fall semester’s Intermediate Biblical Hebrew I. No one will be admitted into the course who has not taken the fall semester. It will continue to focus on using the grammar and vocabulary learned at the introductory level to enable students to read biblical texts independently and take advanced Bible exegesis courses. We will concentrate this semester on various selections of Biblical poetry, including Exodus 15 and Job 28. We will also continue to translate English prose into Biblical Hebrew.
Spring
Prerequisite: HEBR 0350
1 Course Unit

HEBR 6000 Advanced Modern Hebrew: Conversation & Writing
After four semesters of language study, it’s time to enter the vibrant world of contemporary Israeli culture. In this course students read some of the best plays, poems, short stories, and journalism published in Israel today. They also watch and analyze some of Israel’s most popular films, TV programs, and videos. Themes include Jewish-Arab relations, the founding of the State, family ties and intergenerational conflict, war and society, and the recent dynamic changes in Israeli society. HEBR 054 or permission of instructor. Since the content of this course may change from year to year, students may take it more than once (but only once for credit).
Fall or Spring
Prerequisite: HEBR 0400
1 Course Unit

HEBR 6100 Seminar in Rabbinic Literature
Most of the foundational writings of rabbinic Judaism corpora of Midrash, Mishna, and the two Talmuds were in existence by the end of the sixth century CE. Yet, for several centuries thereafter, there is little evidence attesting to the lived nature of rabbinic culture and society. Course will focus on writings by Jews and about Jews, produced between the 7th and 10th centuries, complemented by secondary sources. Texts will include selections from archaeological inscriptions; Midrash; liturgical poetry; Targum; Masora; geonic responsa, writings by Muslims and by Church Fathers. While students must be able to read Hebrew, much class time will be devoted to the improvement of reading and comprehension skills. Undergraduates should seek permission of the instructor.
Spring
Also Offered As: JWST 5300, NELC 5300
1 Course Unit
HEBR 6200 Studies in Medieval Jewish Culture
Through close reading of primary sources in the original Hebrew, participants in this seminar will explore historical circumstances that engaged and shaped medieval Jews in both Christian and Muslim lands, along with the enduring cultural projects that Jews themselves produced. Topics will include Geonica, Karaism, the encounter of Reason and Revelation; the Christian “Other”: the Muslim “Other”; legal codification; the Tosafist project; Rhineland Pietism; Minhag (custom); family life; the aesthetic dimension; Kabbalah; conversos; messianism. Students should be able to comfortably read unpointed Hebrew.
Fall
Also Offered As: JWST 6200, RELS 6200
1 Course Unit

HEBR 9999 Independent Study
An independent study in Hebrew language for PhD students
1 Course Unit

Hindi (HIND)

HIND 0100 Beginning Hindi-Urdu Part I
In this course, students learn the fundamentals of Hindi-Urdu through hands-on practice using the language. Classes are interactive and there is a strong emphasis on the acquisition of speaking skills with attention to reading and writing to support this goal. Topics include: introductions; talking about yourself, your friends and your family; describing physical spaces such as the home and the city; daily life and daily routines; and likes, needs, wants, and interests. Students will also engage with level-appropriate authentic materials from the Hindi-Urdu speaking world. Beginning Hindi-Urdu I assumes no previous knowledge of Hindi-Urdu. Students with listening abilities but no speaking abilities are also welcome to enroll. The course teaches a single core spoken language style that is common to both Hindi and Urdu. All written materials are provided in both scripts, and students learn one script of their choosing.
Fall
Also Offered As: URDU 0100
Mutually Exclusive: HIND 5100
1 Course Unit

HIND 0200 Beginning Hindi-Urdu Part II
Beginning Hindi-Urdu II is the second part of the first-year Hindi-Urdu sequence. In this course, students continue to learn the fundamentals of Hindi-Urdu through hands-on practice using the language. Classes are interactive and there is a strong emphasis on the acquisition of speaking skills; students also continue to improve literacy skills in the script of their choice (Hindi or Urdu – all materials are provided in both scripts). New topics include but are not limited to: future plans, recounting past events, traveling in South Asia, and navigating shopping and travel-related situations. Students will also engage with level-appropriate authentic materials from the Hindi-Urdu speaking world. After completing this course, students will be able to interact successfully with native speakers in a variety of everyday communication contexts. Beginning Hindi-Urdu II assumes one prior semester of classroom study or the equivalent proficiency. Students with some speaking ability but no reading-writing abilities may place into the course but should contact the instructor a few weeks before the beginning of the semester to ensure that this is the appropriate level.
Spring
Also Offered As: URDU 0200
Mutually Exclusive: HIND 5200, URDU 5200
Prerequisite: HIND 0100 OR HIND 5100 OR URDU 0100 OR URDU 5100
1 Course Unit

HIND 0300 Intermediate Hindi Part I
Intermediate Hindi I is the first part of the second-year Hindi sequence. In this course, we review and refine first-year language skills while also significantly expanding those skills. The course provides students with the tools needed to engage confidently and substantively with other Hindi speakers and with authentic materials in Hindi. Course materials include Bollywood film clips, folk tales and mythology, and short flash fiction pieces about current societal issues. The materials are carefully selected for students of this level, they engage a mix of reading and listening skills, and they present core vocabulary which students will find useful in real-world communication contexts. In-class activities emphasize speaking through structured, form-focused practice; pair and group discussions; and a variety of additional engaging topics. The course assumes the prior successful completion of Beginning Hindi-Urdu I or the equivalent proficiency. Students who can speak Hindi but are unable to read or write may place into this course but should contact the instructor a few weeks before the beginning of the semester to ensure that this is the appropriate level.
Fall
Prerequisite: HIND 0100 OR HIND 5100 OR HIND 0200 OR HIND 5200
1 Course Unit

HIND 0400 Intermediate Hindi Part II
Intermediate Hindi II is the second part of the second-year Hindi sequence. The course refines and expands students’ incoming language skills. It provides students with the tools needed to engage confidently and substantively with other Hindi speakers and with authentic materials in Hindi. Course materials include Bollywood film clips, folk tales and mythology, news media, and additional materials addressing topics of relevance in current north Indian society. The materials are carefully selected for students of this level, they engage a mix of reading and listening skills, and they present core vocabulary which students will find useful in real-world communication contexts. In-class activities emphasize speaking through structured, form-focused practice; pair and group discussions based on assigned materials; and a variety of additional engaging topics. The course assumes the prior successful completion of Intermediate Hindi I. Students who have not previously taken Hindi should contact the instructor for placement into the appropriate level. This course fulfills the College’s language requirement.
Spring
Prerequisite: HIND 0300 OR HIND 5300
1 Course Unit
HIND 1500 Advanced Hindi
This is an advanced course designed to expand students' language abilities while also deepening their understanding of the Hindi-speaking world. The course is organized around the following three areas of focus: 1) Surveying Hindi – We survey a range of Hindi sources – literary, journalistic, contemporary, historical, print, video – that provide diverse viewpoints on the social and cultural life of South Asia and Hindi-speaking communities. 2) Situating Hindi – The course places course materials in historical context and explores Hindi's place in the language politics of South Asia. 3) Using Hindi – We devote time to understanding the linguistic structure of Hindi and its vocabulary to enable students to speak and write Hindi with greater confidence and precision. Classes are interactive. Prerequisite: Intermediate Hindi II or the equivalent proficiency. Please contact the instructor for placement. This course fulfills the College's cross-cultural analysis requirement. Topics vary by semester and the course may be repeated for credit. Students who complete two semesters may earn a Hindi Language Certificate, which will be noted on their transcript.
Fall
Prerequisite: HIND 0300 OR HIND 5300 OR HIND 0400 OR HIND 5400
1 Course Unit

HIND 5100 Beginning Hindi-Urdu Part I
This introductory course core proficiency in Hindi-Urdu up to the intermediate level. It is designed for students with little or no prior exposure to Hindi or Urdu. The course covers all four language skills (speaking, listening, reading, and writing) and all three models of communication (interpersonal, presentational, interpretive). Students will develop literacy skills in the primary script of their choice (Hindi or Urdu script). All written materials will be provided in both scripts. All meetings are interactive and students acquire the language by using it in realistic contexts. Culture is embedded in the activities and is also introduced through various authentic materials.
Fall
Also Offered As: URDU 5100
Mutually Exclusive: HIND 0100
1 Course Unit

HIND 5200 Beginning Hindi-Urdu Part II
This introductory course core proficiency in Hindi-Urdu up to the intermediate level. It is designed for students with little or no prior exposure to Hindi or Urdu. The course covers all four language skills (speaking, listening, reading, and writing) and all three models of communication (interpersonal, presentational, interpretive). Students will develop literacy skills in the primary script of their choice (Hindi or Urdu script). All written materials will be provided in both scripts. All meetings are interactive and students acquire the language by using it in realistic contexts. Culture is embedded in the activities and is also introduced through various authentic materials.
Spring
Also Offered As: URDU 5200
Mutually Exclusive: HIND 0200
1 Course Unit

HIND 5300 Intermediate Hindi Part I
In Intermediate Hindi the student continues to develop the four language skills, with an emphasis on real-life situations--through hearing and practicing conversation on everyday topics, reading a variety of authentic texts ranging from advertisements to short stories, watching segments of current films, and carrying out short research projects using Hindi sources. There is a strong emphasis on vocabulary development and on using contextually appropriate styles of spoken and written Hindi.
Fall
1 Course Unit

HIND 5400 Intermediate Hindi Part II
In Intermediate Hindi the student continues to develop the four language skills, with an emphasis on real-life situations--through hearing and practicing conversation on everyday topics, reading a variety of authentic texts ranging from advertisements to short stories, watching segments of current films, and carrying out short research projects using Hindi sources. There is a strong emphasis on vocabulary development and on using contextually appropriate styles of spoken and written Hindi.
Spring
1 Course Unit

HIND 5500 Advanced Hindi
Advanced Hindi aims at systematically developing higher level linguistic functions and cultural nuances. Students learn to describe, narrate and support opinions in informal and formal styles. The objective of the course is to promote a meaningful interaction with written literature and with native speakers in a socially acceptable manner in a variety of simple and complicated situations. A variety of authentic materials are used, such as short stories, plays, newspapers, magazines, videos, television and radio broadcasts, and interviews. Every semester the course materials and foci vary depending on the needs and interests of students in the class.
Fall
1 Course Unit

Historic Preservation (HSPV)

HSPV 5210 American Architecture
This course is a survey of architecture in the United States. The organization, while broadly chronological, emphasizes themes around which important scholarship has gathered. The central purpose is to acquaint you with major cultural, economic, technological, and environmental forces that have shaped buildings and settlements in North America for the last 400 years. To that end, we will study a mix of "high-style" and "vernacular" architectures while encouraging you to think critically about these categories. Throughout the semester, you will be asked to grapple with both the content of assigned readings (the subject) and the manner in which authors present their arguments (the method). Louis Sullivan, for instance, gives us the tall office building "artistically considered" while Carol Willis presents it as a financial and legal artifact. What do you make of the difference? Finally, you will learn how to describe buildings. While mastery of architectural vocabulary is a necessary part of that endeavor, it is only a starting point. Rich or "thick" description is more than accurate prose. It is integral to understanding the built environment - indeed, to seeing it at all.
Fall
1 Course Unit
HSPV 5310 American Domestic Interiors
This course will examine the American domestic interior from the
seventeenth through the twentieth centuries with emphasis on the
cultural, economic, and technological forces that determined the
decoration and furnishing of the American home. Topics covered include
the evolution of floor plans; changes in finish details and hardware; the
decorative arts; floor, wall, and window treatments; and developments
in lighting, heating, plumbing, food preparation and service, as well as
communication and home entertainment technologies. In addition to
identifying period forms and materials, the course will offer special emphasis on historic finishes. The final project will involve re-creation of
a historic interior based on in-depth documentary household inventory
analysis, archival research, and study. Students will create a believable
house interior and practice making design and furnishing choices based on evidence. Several class periods will be devoted to off-site field trips.
Spring
1 Course Unit

HSPV 5340 Public History - Theory and Practice
This seminar is required for students wishing to concentrate on the
Public History of the Built Environment while pursuing an MS in Historic Preservation. It builds on skills developed in HSPV 5210 (American Architecture), HSPV 6000 (Documentation), and HSPV 6060 (Site Management); only HSPV 6000 is a prerequisite. Unlike many public history courses, this one focuses on interpretation of the built environment. While proficiency in archival research is required, an understanding of form and chronology in American architecture is helpful. Fundamentally, this course is about community, memory, and their relationship to built form. As such, it examines oral history methodology and includes readings in sociology and ethnography. It acknowledges that while buildings and landscapes are in one sense simply larger forms of material culture than furniture or other movable objects, they also "work" differently by dint of being inhabited, occupied, and publicly encountered, forming de facto frameworks for private and public life. More than other courses, this one grapples with interpretation and dissemination - everything from signage and monuments to websites and exhibits. It is not, however, a tutorial in the use of those media so much as a chance to reflect critically on their strengths and weaknesses in different contexts.
Spring
Prerequisite: HSPV 6000
1 Course Unit

HSPV 5380 Cultural Landscapes and Landscape Preservation
The course surveys and critically engages the field of cultural landscape studies. Over the semester, we will explore cultural landscape as a concept, theory and model of preservation and design practice; we will read cultural landscape historiography and creative non-fiction; we will examine a range of types (national parks, community gardens, designed landscapes, informal public spaces), and we will map the alternative preservation, planning and design methods that ground cultural landscape studies practically. Readings, class discussions, and projects will draw on cultural geography, environmental history, vernacular architecture, ecology, art, and writing.
Not Offered Every Year
Also Offered As: LARP 7380
1 Course Unit

HSPV 5510 Building Pathology
This course addresses the subject of deterioration of buildings, their
materials, assemblies and systems, with the emphasis on the technical aspects of the mechanisms of deterioration and their enabling factors, material durability and longevity of assemblies. Details of construction and assemblies are analyzed relative to functional and performance characteristics. Lectures cover: concepts in durability; climate; psychometric, soils & hydrologic; conditions; physics of moisture in buildings; enclosure, wall and roof systems; structural systems; and building services systems with attention to performance, deterioration, and approaches to evaluation of remedial interventions.
Spring
Prerequisite: HSPV 5550
1 Course Unit

HSPV 5520 Building Diagnostics and Monitoring
Building diagnostics pertain to the determination of the nature of a building's condition or performance and the identification of the corresponding causative pathologies by a careful observation and investigation of its history, context and use, resulting in a formal opinion by the professional. Monitoring, a building diagnostic tool, is the consistent observation and recordation of a selected condition or attribute, by qualitative and/or quantitative measures over a period of time in order to generate useful information or data for analysis and presentation. Building diagnostics and monitoring allow the building professional to identify the causes and enabling factors of past or potential pathologies in a building and building systems, thus informing the development appropriate interventions or corrective measures. In the case of heritage buildings, the process informs the selection of interventions that satisfy the stewardship goals for the cultural resource. In the case of recently constructed buildings, the process informs the identification of envelope and systems interventions for improved performance and energy efficiency.
Fall
1 Course Unit

HSPV 5550 Architectural Conservation
Architectural Conservation is an introduction to the technical study of traditional building materials. This knowledge is essential preparation for any professional engaged in the conservation and adaptive reuse of structures built before the mid 20th century. The course focuses on these materials' properties, performance, and especially weathering, and the basic laboratory-based methods that can be employed for their study, characterization, and specification for restoration. Lectures and coordinated laboratory sessions introduce the history of use, composition, and deterioration mechanisms of a wide array of traditional building materials including earth, stone, brick, terra cotta, concrete, mortars and plasters, metals, wood, and paints. The course provides a basic knowledge of the major building materials in use before the Second World War in industrialized as well as pre-industrial traditional contexts. Undergraduate level students may enroll. Basic undergraduate level understanding of chemistry recommended.
Spring
1 Course Unit
HSPV 5720 Preservation Through Public Policy
This course explores the intersection between historic preservation, design and public policy, as it exists and as it is evolving. That exploration is based on the recognition that a challenging and challenging network of law and policy at the federal, state and local level has direct and profound impact on the ability to manage cultural resources, and that the pieces of that network, while interconnected, are not necessarily mutually supportive. The fundamental assumption of the course is that the preservation professional must understand the capabilities, deficiencies, and ongoing evolution of this network in order to be effective. The course will look at a range of relevant and exemplary laws and policies existing at all levels of government, examining them through case studies and in-depth analyses of pertinent programs and agencies at the local, state and federal level.

Fall or Spring
1 Course Unit

HSPV 5840 World Heritage in Global Conflict
Heritage is always political. Such a statement might refer to the everyday politics of local stakeholder interests on one end of the spectrum, or the volatile politics of destruction and erasure of heritage during conflict, on the other. If heritage is always political then one might expect that the workings of World Heritage might be especially fraught given the international dimension. In particular, the intergovernmental system of UNESCO World Heritage must navigate the inherent tension between state sovereignty and nationalist interests and the wider concerns of a universal regime. The World Heritage List has almost 1200 properties has many such contentious examples, including sites in Iraq, Mali, Syria, Crimea, Palestine, Armenia and Cambodia. As an organization UNESCO was born of war with an explicit mission to end global conflict and help the world rebuild materially and morally yet has found its own history increasingly entwined with that of international politics and violence.

Fall or Spring
Also Offered As: ANTH 5840
1 Course Unit

HSPV 5850 Ruins and Reconstruction
This class examines our enduring fascination with ruins coupled with our commitments to reconstruction from theoretical, ethical, socio-political and practical perspectives. This includes analyzing international conventions and principles, to the work of heritage agencies and NGOs, to the implications for specific local communities and development trajectories. We will explore global case studies featuring archaeological and monumental sites with an attention to context and communities, as well as the construction of expertise and implications of international intervention. Issues of conservation from the material to the digital will also be examined. Throughout the course we will be asking what a future in ruins holds for a variety of fields and disciplines, as well as those who have most to win or lose in the preservation of the past.

Also Offered As: ANTH 5805, CLST 7317, NELC 5950
1 Course Unit

HSPV 5880 What’s at Stake? Heritage Conservation in Asia
This course is a broad introduction to Heritage Conservation in Asia. Origin of many of the world’s oldest civilizations and five major religions, Asia today is also the most rapidly urbanizing region with the fastest-growing economy. What happens in Asia impacts the globe. Born of an historical construct and variously defined, Asia is home to vast cultural, religious, political, and geographic diversity. Through an assortment of case studies, we will examine the diversity of Asian heritage – culturally, geographically, typologically, and historically. We will ask how heritage has been conceptualised, by whom and to what effect, and consider the conditions that have structured those heritage constructs. To that end, we will delve into perceptions and values of authenticity, sovereignty, belief systems, ideas of the communal self, materials and construction technologies, regimes of expertise, and histories of heritage administration; all of which have informed local conservation practices. Where technical conservation capacity has been limited and governance weak, conservation has been dominated by transnational actors. Which raises ethical questions: what are the implications of these relationships and how have they shaped the built environment and the communities that live within them? Asian heritage professionals contend with deep histories of culture-defining empires, supra-national religious geographies, legacies of colonialism, modern independence movements, regional alliance-building, and the concomitant contemporary pressures of rapid urbanisation and climate change. What can we learn from what is happening in Asia and what is at stake? This course elaborates on conservation best practices discourses and methodological approaches and contributes to a global perspective on heritage.

Fall
1 Course Unit

HSPV 5940 Critical Multimodal Qualitative Research Across the Professions
Created in collaboration with Schools of Design and Law, this course is designed to introduce professional school students to critical, multimodal and experimental ethnographic qualitative research methods. The coverage of the course includes both theoretical and applied components. The course is divided into five modules. The first module explores the theory of critical ethnographic qualitative research and the ethical issues that arise when undertaking collaborative research around the “everyday culture” of communities and institutions with which practitioners in the students’ chosen areas of study typically interact. The second module allows students to analyze qualitative research in professional fields of study and engage in dialogue with Penn faculty whose qualitative research addresses significant issues of importance to practitioners in law, business, medicine and planning. This module will also begin a discussion of the tasks of formulating critical qualitative research projects and analyzing data. The third module is devoted to qualitative data collection methods (participant observation, oral histories and in-depth interviews) and the modes and tools used in collecting qualitative data and reporting results (traditional or text-based, multimodal, and experimental). The final module considers in greater depth the role of aesthetics, advocacy and activism in utilizing multimodal approaches for sharing research findings with audiences consisting of academics, collaborators, fellow professionals, and the general population.

Fall or Spring
1 Course Unit
**HSPV 6000 Documentation, Research, Recording I**
The goal of this course is to help students learn to research and contextualize the history of buildings and sites. In order to gain first-hand exposure to the actual materials of building histories, we will visit our neighborhood research sites and several key archival repositories. Students will work directly with historical evidence, including maps, deeds, the census, city directories, insurance surveys, photographs, and many other kinds of archival materials. After discussing each type of document in terms of its nature and the motives for its creation, students will complete a series of projects that develop their facility for putting these materials to effective use. Philadelphia is more our laboratory than a primary focus in terms of content, as the city is rich in institutions that hold over three centuries of such materials; students will find here both an exposure to primary documents of most of the types they might find elsewhere, as well as a sense of the culture of such institutions and of the kinds of research strategies that can be most effective. The final project is the completion of an historic register nomination.

Fall
2 Course Units

**HSPV 6010 Documentation, Research, Recording II**
Documentation, Research, Recording II. This course provides an introduction to the survey and recording of historic buildings and sites. Techniques of recording include traditional as well as digitally-based methods including field survey, measured drawings, photography and rectified photography. Emphasis is placed on the use of appropriate recording tools in the context of a thorough understanding of the historical significance, form and function of sites. Required for first-year MSHP students; others by permission.

Spring
1 Course Unit

**HSPV 6060 Historic Site Management**
This course focuses on management, planning, decision making, and interpretation for heritage sites, from individual buildings and historic sites to whole landscapes and historic objects. Class projects ask students to analyze historic site operations and interpret objects. Course material will draw on model approaches to management, as well as a series of domestic and international case studies, with the goal of understanding the practicalities and particularities of site management. Topics to be examined in greater detail might include histories of historic sites, collections and conservation policies, interpretation, tourism, social justice, community engagement, strategic planning, in addition to fundraising and financial management. The course emphasizes making historic sites meaningful, relevant and sustainable in the present.

Fall, odd numbered years only
1 Course Unit

**HSPV 6200 Celebrations in the Contingent City**
This seminar will explore the impact of Philadelphia’s 1876 Centennial Exhibition on the subsequent histories of the neighborhoods adjacent to the West Fairmount Park exhibition site.

Spring
1 Course Unit

**HSPV 6210 Heritage and Social Justice**
This course will explore connections between heritage, historic preservation (and related design, planning and artistic practices) and the pursuit of social justice. How do historic preservation and other design and humanities professionals contribute to more equitable and just societies? How can our work be organized to result in greater equity, access and social justice? The course will focus on conceptual and theoretical work (how we think about built heritage and social change; how we conceptualize social justice) and practical examples of advancing social outcomes through preservation and design (how social justice concerns reorganize projects, practices, and organizations). We’ll draw on work by: designers; historians; public intellectuals; geographers, anthropologists and other social scientists; heritage organizations; artists; entrepreneurs; and more. Subjects will include traditional preservation, reparative practices, creative placemaking, public art, memorialization, and organizational-managerial social innovation. Cases will be drawn from the US and abroad. The course will progress through a series of weekly topics, often including guest practitioners and scholars. Students will have significant agency in helping flesh out the topics and cases; final projects (individual and group) will be envisioned as a statement (in the form of an exhibition or publication) of how social justice concerns have reshaped practice and how they could reshape our fields in the future.

Spring
1 Course Unit

**HSPV 6220 Revolutionary Approaches to Philadelphia’s Black Heritage**
Surveying Black heritage sites in Philadelphia as the city celebrates its 250th birthday.

Spring
1 Course Unit

**HSPV 6240 Digital Media for Historic Preservation I**
A required praxis course designed to introduce students to the techniques and application of digital media for visual and textual communication. Techniques will be discussed for preservation use including survey, documentation, relational databases, and digital imaging and modeling. This course requires a weekly laboratory period (1.5 hours).

Fall
.5 Course Units

**HSPV 6250 Preservation Economics**
The primary objective is to prepare the student, as a practicing preservationist, to understand the language of the development community, to make the case through feasibility analysis why a preservation project should be undertaken, and to be able to quantify the need for public/non-profit intervention in the development process. A second objective is to acquaint the student with the measurements of the economic impact of historic preservation and to critically evaluate "economic hardship" claims made to regulatory bodies by private owners.

Spring
1 Course Unit

**HSPV 6270 Digital Media for Historic Preservation II**
A required praxis course designed for students to further explore the techniques and applications of digital media for visual and textual communication. Techniques will be discussed for preservation use including survey, documentation, relational databases, and digital imaging and modeling. Must enroll in both lecture and lab sections HSPV 6270-001 and HSPV 6270-101.

Spring
.5 Course Units
HSPV 6380 Topics in Historic Preservation
This seminar concentrates on a selected topic in the social and cultural history of the built environment. Past themes have included photography and the American city and the relationship between cities and sound. For our current offering, please visit: https://www.design.upenn.edu/historic-preservation/courses
Spring
Also Offered As: CPLN 6870
1 Course Unit

HSPV 6400 Contemporary Design in Historic Settings
Contemporary design can contribute value and meaning to historic settings of any age or scale, from individual landmarks to landscapes and neighborhoods. In turn, engaging in a rigorous dialogue with history and context enriches contemporary design. This seminar immerses designers, planners and preservationists in the challenges of designing amid existing structures and sites of varying size and significance. Readings of source materials, lectures and discussions explore how design and preservation theory, physical and intangible conditions, and time have all shaped the particular realm of design response to historic context, as well as the political, cultural, and aesthetic environments that influence its regulation. Through sketch analytical exercises set in Philadelphia and outstanding case studies from around the world, students will learn to communicate their understanding of historic places, critique propositions for design intervention, and conceptualize a range of potential design responses. No prerequisites.
Fall
1 Course Unit

HSPV 6500 Material Histories and Ethnographic Methods
What does it mean for students in the spatial disciplines (outside of anthropology, sociology, and history) to engage human subjects as primary sources of evidence? How can students in design, planning, and preservation both learn from the social sciences and transform classic ethnographic and historical methods to address the unique contexts of buildings, landscapes, and cities? This class focuses on how to conduct built environment research that views human subjects as repositories of knowledge and critical sources of primary evidence. We will explore research on the history of the built environment (dependent on maps, plats, documentation of sites) and human centered research as we design—collectively—best practices and spatially oriented interview and observation techniques. We will address multiple scales (sidewalks, commercial store fronts, post offices, neighborhoods) as we problematize human experience, perception, and knowledge of the built world.
Fall
Also Offered As: CPLN 6830
1 Course Unit

HSPV 6600 Theories of Historic Preservation
Theories of historic preservation serve as models for practice, integrating the humanistic, artistic, design, scientific and political understandings of the field. This course examines the historical evolution of historic preservation, reviews theoretical frameworks and issues, and explores current modes of practice. Emphasis is placed on literacy in the standard preservation works and critical assessment of common preservation concepts. In addition to readings and lectures, case studies from contemporary practice will form the basis for short assignments. Professional ethics are reviewed and debated. The instructor’s permission is required for any student not registered in the Graduate Program in Historic Preservation. Note that the course is organized in two parts; the first half, on the basics of preservation theory, is taught in the fall semester (HSPV660) while the second half (HSPV661) takes place in the spring semester and engages advanced topics. Note: This course continues in the second half of the spring semester for another 0.5 CU. Prerequisite: Instructor’s permission required for any student not registered in the Graduate Program in Historic Preservation.
Fall
0.5 Course Units

HSPV 6610 Theories of Historic Preservation II
Theories of historic preservation serve as models for practice, integrating the humanistic, artistic, design, scientific and political understandings of the field. HSPV 6610 builds on HSPV 6600, which examines the historical evolution of historic preservation, reviews theoretical frameworks and issues, and explores current modes of practice. HSPV 6610 engages advanced topics such as cultural landscape theory, economics of preservation, sustainability and environmental conservation, social justice, and urban design. In addition to readings and lectures, case studies from contemporary practice will be used to examine theories in practice. Students from outside the Graduate Program in Historic Preservation are welcome; instructor’s permission is required for any non-HSPV student. (Note that the course is the second of two parts; the first half, on the basics of preservation theory is taught in the fall semester.)
Spring
0.5 Course Units

HSPV 6710 Historic Preservation Law
Introduction to the legal framework of urban planning and historic preservation, with special emphasis on key constitutional issues, zoning, historic districts, growth management, and state and local laws for conserving historic buildings.
Spring
1 Course Unit

HSPV 6741 Curricular Practical Training: Academic Year
Course Description This course provides international Master of Historic Preservation students the opportunity for practical training in architecture in the United States (CPT). The course develops critical thinking about the organization, operation, and ethics of professional practice in city planning. This course will allow international HSPV students to work in an internship in the United States during the academic year without shortening their limited OPT time. The course is offered for .20 course units. The employment must relate to the major and the experience must be part of the program of study. Course enrollment is by permit only.
0.2 Course Units
**HSPV 7010 Historic Preservation Studio**
The Preservation Studio is a practical course making architectural, urban and landscape conservation operations, bringing to bear the wide range of skills and ideas at play in the field of historic preservation. As part of the core MSHP curriculum the Studio experience builds on professional skills learned in the first-year core. The work requires intense collaboration as well as individual projects. The Preservation Studio centers on common conflicts between historic preservation, social forces, economic interests, and politics. Recognizing that heritage sites are complex entities where communities, cultural and socio-economic realities, land use, building types, and legal and institutional settings are all closely interrelated, the main goals of the studio are (1) understanding and communicating the cultural significance of the built environment, (2) analyzing its relation to other economic, social, political and aesthetic values, and (3) exploring the creative possibilities for design, conservation and interpretation prompted by cultural significance. Studio teams undertake documentation, planning and design exercises for heritage sites and their communities, working variously on research, stakeholder consultation, comparables analysis, writing policies and designing solutions. Students work in teams as well as on individual projects. Study sites will be announced in the fall before the semester starts.

**Fall**
2 Course Units

**HSPV 7030 Preservation and Development of Urban Heritage in the Americas**
This advanced topic seminar will focus on the challenges confronted by the conservation and urban planning professions in turning the urban heritage into a social and economic development resource for cities in developing countries. The preservation of the urban heritage is moving to a new paradigm of intervention responding to: a growing interest in communities for preserving their intangible and tangible urban heritage; rising development pressures on historic neighborhoods; the generalization of adaptive rehabilitation as a conservation strategy; and recent international agreements calling for expanding the role of the urban heritage in the social and economic development of the communities. This is a problem that is in the cutting edge of the research and practice of heritage conservation and urban planning and has conservation, planning and design implications making it ideally suited to a multi-discipline seminar approach. The course will combine seminar and field study methodologies in ways that they support each other. The knowledge acquired through the seminar work will be put to use in a field study exercise whose objective is to allow the students to work on topics of their interest and pursue research or urban development and heritage conservation interventions related to the semester’s specific studio site. For the current site offering, please visit: https://www.design.upenn.edu/historic-preservation/courses.

**Spring**
odd numbered years only
Also Offered As: CPLN 7730
1 Course Unit

**HSPV 7050 Advanced Preservation Studio**
The Advanced Preservation Studio is designed to allow students to integrate knowledge from their core and concentration courses, to gain insight into the meanings of professionalism and professional practice, and to reflect on the norms of a discipline and a profession. Studio topics are selected based on faculty research and contemporary issues and therefore offer a range of subjects and methodologies. By focusing on the unique set of issues and problems associated with specific case studies and a project site, advanced students have the opportunity to learn and apply the knowledge and skills required for their documentation, assessment and evaluation, and intervention and interpretation as an integrated activity. For our current offering, please visit: https://www.design.upenn.edu/historic-preservation/courses.

**Spring**
1-2 Course Units

**HSPV 7070 Historic Preservation Post-Professional Studio**
Master of Design Capstone Studio. This intensive on-site studio will explore advanced topics in preservation theory, planning and design as applied to the challenges of a landmark historic site. Readings will focus on background research completed for the site as well as theoretical and local approaches to preservation and site management, supplemented by lectures, workshops, field trips and on-site investigations. Students will prepare a written report as well as design studies. Permission of department required to enroll. Course usually offered in summer term.

**Summer Term**
2 Course Units

**HSPV 7100 Thesis I**
The Graduate Program in Historic Preservation's Thesis course is a two semester 2 CU capstone. The goal of the Thesis is demonstrated mastery of the research process by exploring a question of academic/professional relevance to the preservation field and presenting the results of the study in accordance with the highest standards of scholarly publishing. The Thesis spans the academic year, beginning with HSPV 710/Thesis I in the fall semester and continues in the spring with HSPV 711/Thesis II. Students are required to successfully complete 9-10 CUs (the first year of the curriculum) to qualify for Thesis. Dual degree students are expected to enroll in HSPV 710 before undertaking thesis studio in their respective dual program in their final year.

**Fall**
1 Course Unit
HSPV 7110 Thesis II
The Historic Preservation’s Thesis course is a two-semester 2 CU capstone required of all MSHP candidates. The goal of the individual Thesis is to demonstrate mastery of the research process by exploring a question of academic/professional relevance to the preservation field and presenting the results of the study in accordance with the highest standards of scholarly publishing. The Thesis spans the academic year, beginning with HSPV 7100/Thesis I in the fall semester and pending successful completion, continues in the spring with HSPV 7110/Thesis II. Students are required to successfully complete 9-10 CUs (the first year of the curriculum before beginning the Thesis process. Dual degree students are required to enroll in HSPV 7100 only before undertaking thesis studio in their respective dual program in their final year. Thesis II follows Thesis I with a focus on writing and developing the research methods explored in Thesis I. During Thesis II, students work with their individual academic advisors and come together periodically to present their progress and participate in advanced workshops on publishing and publication, peer-review, and specific methods related to each concentration. Successful completion of HSPV 7100 Thesis I in the fall is required to enroll.
Spring
1 Course Unit

HSPV 7200 Seminar on Parks
Professor Randall Mason’s new course on parks. Full description to be uploaded by July 31.
Spring, odd numbered years only
1 Course Unit

HSPV 7210 Historic Preservation Capstone Studio
The Graduate Program in Historic Preservation’s Capstone Studio course is a one-semester 2 CU course taken instead of HSPV 710/711 Thesis to fulfill the MSHP capstone requirement. This is a research studio that builds on the core curriculum completed in the first year. The work requires intense collaboration as well as individual projects. A studio topic will be chosen and announced each year.
Spring
1-2 Course Units

HSPV 7380 Conservation Seminar: Wood
Prior to the twentieth century, most structures found in the built environment relied upon wood as a primary material for both structural members and decorative features. An understanding of the physical properties as well as the historic application of this organic material provides the basis for formulating solutions for a wide spectrum of conversation issues. As the scope of preserving wooden structures and wooden architectural elements is continually broadened, new methods and technology available to the conservator together allow for an evolving program - one that is dependent upon both consistent review of treatments and more in-depth study of craft traditions. This course seeks to illustrate and address material problems typically encountered by stewards of wooden cultural heritage - among them structural assessment, bio-degradation, stabilization and replication techniques. Through a series of lectures and hands-on workshops given by representative professionals from the fields of wood science, conservation, entomology, engineering, and archaeology, theoretical and practical approaches to retaining wooden materials will be examined with the goal to inform the decision-making process of future practicing professionals.
Spring
Prerequisite: HSPV 5550
1 Course Unit

HSPV 7390 Conservation Seminar: Masonry
This seminar will offer an in-depth study of the conservation of masonry buildings and monuments. Technical and aesthetic issues will be discussed as they pertain to the understanding required for conservation practice. Part 1 will address a broad range of materials and masonry construction technologies, and deterioration phenomena; Part 2 will concentrate on conservation methodology as well as past and current approaches for the treatment of masonry structures. The subject will be examined through published literature and case studies. Students will gain practical experience through lab and field exercises and demonstrations. The subject matter is relevant to interested students of conservation and preservation, architecture, landscape architecture, architectural history, and archaeology.
Fall
Prerequisite: HSPV 5550
1 Course Unit

HSPV 7400 Conservation Seminar: Finishes
This seminar will advance students’ knowledge of and skills at researching, analyzing and interpreting historic architectural finishes. Lectures, demonstrations, hands-on exercises, case studies, and site visits will consider the history, technology, analysis, deterioration, and treatment of historic finishes. Guest lecturers will enlarge the subject with discussion and demonstrations of archival research of finishes, advanced methods of scientific analysis and presentation of a long-term project to analyze and conserve historic finishes at the US Treasury Building (Robert Mills). The course will also address historic plaster with a guest lecture and demonstration of plaster materials, application, and casting for ornamental plaster. We will make and apply paints and other finishes in class. A visit to the decorative arts studio and Philadelphia sites displaying decorative painting will complement lectures and assignments. Bartram’s Garden, the eighteenth-century home of botanist John Bartram in West Philadelphia, will serve as a case study and subject for the final assignment.
Spring
Prerequisite: HSPV 5550
1 Course Unit

HSPV 7410 Topics in Architectural Conservation
This course explores a topic in Architectural Conservation/Preservation Technology. Details for our current offering can be found at: https://www.design.upenn.edu/historic-preservation/courses
Spring, even numbered years only
1 Course Unit

HSPV 7470 Conservation of Archaeological Sites and Landscapes
This seminar will address the history, theories, principles, and practices of the preservation and interpretation of archaeological sites and landscapes. The course will draw from a wide range of published material and experiences representing both national and international contexts. Topics will include site and landscape documentation and recording; site formation and degradation; intervention strategies including interpretation and display, legislation, policy, and contemporary issues of descendant community ownership and global heritage. Depending on the site, students will study specific issues leading toward the critique or development of a conservation and management program in accordance with guidelines established by ICOMOS/ ICAHM and other official agencies.
Fall or Spring
Also Offered As: ANTH 5080
1 Course Unit
HSPV 7500 Architectural Conservation Praxis: Traditional Buildings / Traditional Practice
Architectural Conservation Praxis is an intensive 3-week summer course designed for students pursuing studies in architectural conservation and builds on Penn Preservation’s core curriculum and the first-year conservation courses. The syllabus is organized around project fieldwork supplemented by lectures, demonstrations, exercises, and site visits that will allow students to experience firsthand the design and construction of vernacular buildings and the application of traditional craft- based methods to preserve them.
Summer Term
Prerequisite: HSPV 5400 AND HSPV 5410 AND HSPV 5550
1 Course Unit

HSPV 7600 Preservation Planning Praxis
Hong Kong will be the venue for this year’s HSPV 760-901 Heritage Praxis. Collaborators in Hong Kong have already been signed on including iDiscover, an innovative firm that has been doing citizen-based, bottom-up mapping of heritage precincts throughout Southeast Asia. Other university, NGO, and government collaborators are currently being recruited. The course will run from May 27 through June 6, 2019 and students should plan to arrive on May 25 or May 26 and depart on June 7. The first week will be lectures and tours. During the second week all participants will work in teams to conduct original research in under-recognized historic neighborhoods in Hong Kong. Through individual interviews, focus groups, and other social research tools, participants will first identify the “values” assigned by local residents, business and property owners, and others to the neighborhood. This qualitative information will then be matched with GIS-based quantitative data. Using this qualitative + quantitative approach, participants will attempt to estimate the economic values of non-economic value components. Each of the teams will be made up of PennDesign graduate students, PennDesign alumni, and young professionals from Hong Kong. Course is open to all PennDesign graduate students.
Summer Term
1 Course Unit

HSPV 7900 Historic Preservation Summer Institute
The Summer Institute is a required orientation course designed to prepare incoming, first-year graduate students for the intense coursework of their first semester. Generally, the institute orientates students to the issues and methods of the core MSHP curriculum, begins familiarizing students to the resources of Philadelphia, and begins skill-building exercises, especially in the area of digital media. This non-credit course employs lectures, exercises, and field trips to introduce some of the important skills, questions, and issues that will be at the center of first year’s work in the Program. The Summer Institute also constitutes an extended introduction to the Program’s faculty and the students in first-year and second-year cohorts. Course enrollment is by permit only.
Summer Term
1 Course Unit

HSPV 8200 Readings in Urban Planning & History
Reading and discussion course on selected topics in urban and planning history, with an emphasis on the United States, 1820-2000. We will sample both canonical and more recent scholarship. Interested doctoral students from across the university are particularly welcome. Masters students interested in an intensive reading course are also welcome. All students will read at least one book per week, and the final written assignment can be tailored to individual student interests and needs.
Spring, odd numbered years only
Also Offered As: CPLN 8200
1 Course Unit

HSPV 9901 Masters Thesis II
Historic Preservation Masters Thesis
Fall, Spring, and Summer Terms
0 Course Units

HSPV 9990 Independent Study
An opportunity for a student to work on a special project under the guidance of a faculty member.
Fall or Spring
0.5-2 Course Units

History & Sociology of Science (HSSC)

HSSC 5008 Current Issues in Science & Technology Studies
A graduate-level reading seminar in STS, this course will survey major themes and readings as well as recent work in STS.
Fall
1 Course Unit

HSSC 5020 Public History
Public history, long marginalized and stigmatized in the scholarly world, is undergoing rehabilitation. The continuing, prodigious public demand for history in various media and manifestations, together with many historians’ desire for greater relevance and the persistently disappointing academic job market for new Ph.D.s., has reawakened interest in public history within the academy. This seminar examines the many varieties of public history while giving students hands-on experience, focusing on museums and historic sites.
Not Offered Every Year
1 Course Unit

HSSC 5050 Seminar in the History and Sociology of Science
Seminar for first-year graduate students, undergraduate majors, and advanced undergraduates. Reading will introduce the student to current work concerning the effect of social context on science, technology, and medicine.
Fall
1 Course Unit

HSSC 5100 READING SEM STS
This course will review major developments in biomolecular sciences and Many historians of science, technology and medicine have embraced the study of popular culture in recent years. They have drawn on a rich literature in mainstream history, on the history of reading, of the book, of museums, of oral culture, journalism, theater, and of the mass media including radio and television. Some have even proposed that popular culture provides insights into elite knowledge systems that are not accessible in other kinds of sources, thus privileging what is publicly known over the traditional private textual, visual and material records of the archive or museum. In this graduate research seminar we will be exploring the relevance of the study of popular culture to the history of science, technology and medicine. Participants will write an original research paper in which they draw on popular culture as a resource for the interpretation of practices, theories and material resources in natural knowledge systems. Readings will generally focus on surveys that explicitly discuss methods, though we will also read some primary sources possibly including science fiction texts, memoirs of patients, engineers, physicians and scientists, gee-whiz popular science books, and didactic books intended for children.
Fall or Spring
1 Course Unit
**HSSC 5108 Knowledge in Motion**
This course provides a broad, interdisciplinary introduction to the movement of knowledge across space and time. In particular, we will be focusing on the economic models of knowledge movement, on comparative and trans-cultural views on science, on translation, and finally, on the global turn in the history of science. Since the movement of knowledge is inseparable from the production of knowledge, we will also start our discussion by looking back at some of the literature that constitutes the intellectual foundations of the history and sociology of science.
Not Offered Every Year
1 Course Unit

**HSSC 5181 BOTANIC EMPIRE: Plants and Colonialism 1700 to 1950**
Tea, rubber, cinchona, sugar and myriad other plants that have and continue to shape our contemporary world have been moved, altered and exploited by modern empires. With the rise of new forms of Biopiracy, older connections between plants and imperialism are being rethought not just academically but in multiple new practical, commercial and political arenas. Looking back from this contemporary vantage point, this course will explore the sites, sciences and instruments through which plants and empire came to be so intimately entangled. Topics shall range from the histories of botanic gardens to botanic illustrations and agricultural experimental stations to botanic horror fiction.
Not Offered Every Year
1 Course Unit

**HSSC 5199 Other Reasons**
This course seeks to destabilize a monolithic vision of science as a singular, homogenous body of knowledge by revisiting its plural, heterogeneous histories. This course is particularly interested in exploring the historical entanglements between the sciences and the enchanted world of intangible entities such as spirits, ghosts and gods. The course will look at the theoretical critiques of "Enlightenment Rationality" and "Science" in post colonial theory; at a detailed and loosely chronological examination of the multifaceted entanglements of science and technology with the paranormal in the 19th and 20th centuries; and at the performative aspects of scientific rationality in colonial and postcolonial contexts in a bid to understand the background that led to postcolonial theorization.
Not Offered Every Year
1 Course Unit

**HSSC 5203 Periodization and Science**
Who invented the Scientific Revolution? Does the term "modern science" tell us about the subject under discussion, how we should evaluate that subject, or something else? How are historical periodization and the historiography of science related? This course will explore the concept of historical epochs, or periods, and the role of science and technology in defining historical epochs (and vice-versa). Readings will be taken from philosophy of history, history and philosophy of science, STS, classical studies, and history of art.
Not Offered Every Year
1 Course Unit

**HSSC 5207 Readings in Race & Science**
What accounts for the persistence and resilience of racial conceptions in science? In this course we will look for answers to this and other questions by examining the historiography of race, colonialism, and science. The standard historiography has focused on the rise and fall of racial typologies in the north Atlantic and their contributions to troublesome political projects such as the Atlantic slave trade, Jim Crow policies, the eugenics movement, and the Holocaust. More recent histories have taken inspiration from postcolonial studies, standpoint theories, and indigenous studies to insist on a more global reckoning of race and science. If we focus on the southern hemisphere, for instance, we can see scientific racial conceptions enrolled for a different though not necessarily less innocent set of projects: the dispossession of indigenous lands and effacement of indigenous peoples, the glorification of race-mixing as a tool of nation building, and the cultivation of whiteness as a means to modernity. By examining classic and recent approaches to race and science we will grapple with the following questions: Is 'race' a product of 18th century French and English science? Or can we find earlier iterations in the idioms of conquest of Spanish America during the early modern period? Do the standard narratives concerning the history of racial conceptions in science change when looked at from the frame of the global south? Does race get 'buried alive' after WWII? And do recent developments in human genomics bring "race" back from the dead, albeit in an anti-racist form?
Fall
1 Course Unit

**HSSC 5251 Darwin and Evolution: New Perspectives**
In this graduate reading seminar, we consider evolution as a cluster of sometimes mismatched theories about nature and time, a political resource in emerging debates about human difference and social order, and a theological conundrum that persists into the twenty-first century. We consider primary source materials by Lamarck, Chambers, Darwin, Wallace, Mayr, and other naturalists; and explore the contexts of their production and their meanings through the work of scholars including Browne, Secord, Keller, Richards (both Robert and Eveleen), Smocovitis, Graham and many others. Our goal is to develop new perspectives on "the Darwin Industry" and think critically about how to move the field forward drawing on the most exciting new scholarly work in this area.
Fall or Spring
1 Course Unit

**HSSC 5288 Gender and Science**
With a special focus on methods, this course explores the rich literature on gender and technical knowledge.
Not Offered Every Year
1 Course Unit

**HSSC 5300 Current Issues in the History of Medicine**
This seminar surveys a variety of popular and scholarly approaches to the study of medicine and its history, ranging from traditional physician-centered narratives to more recent cultural and epistemological methodologies. The potential values of journalistic, sociological, anthropological, geographical and other approaches to the historical study of health, disease, and health care will be explored.
Not Offered Every Year
1 Course Unit
HSSC 5400 Reading Seminar in History of Science
Survey of major themes and figures in the history of western science, technology, and medicine since the Renaissance, through reading and discussion of selected primary and secondary sources. Topics include: Kepler, Galileo, Bacon, Newtonainism, Pasteur, the Industrial Revolution, the rise of German science, etc. Concurrent attendance at STSC 1 lectures is recommended.
Fall
1 Course Unit

HSSC 5431 Visualizing Science
This seminar focuses on the intersection of visualization and natural knowledge in the pre-modern world. It is open to graduate students and undergraduate students with permission of the instructor.
Also Offered As: ARTH 5431
1 Course Unit

HSSC 5437 Remembering Epidemics
This seminar challenges students to encounter and interpret the city around them in unconventional ways. During a deadly pandemic that has profoundly disrupted all aspects of society, just as the question of public commemoration has vigorously and sometimes violently re-entered our country’s public discourse, one question has remained surprisingly neglected: How do we remember epidemics? This course confronts this question through an analysis of traumatic epidemics in Philadelphia’s history, and of the broader landscape of public memory. We devote special attention to the yellow fever epidemic of 1793, but we also consider the 1918-1919 influenza, AIDS, and COVID-19, among others. Students conduct archival, documentary, site-based, and other kinds of research in the process of analyzing the origins, course, and consequences of epidemics, as well as the nature of public commemoration
Not Offered Every Year
Mutually Exclusive: HSOC 4437
1 Course Unit

HSSC 5588 Disability: History and Theory
Disability is the “next academic frontier,” argues historian Douglas Baynton, “an analytic category with the transformative potential of race, class, sexuality, and gender.” The purpose of this course will be explore recent literature on the history and theory of disability, focusing primarily on the history of physical disability. Throughout the semester, we will approach this literature with an eye to how disability studies relates to the fields of the history of science, medicine, and technology. Topics will include: the sociology of deviance, the medical vs. social model of disability, chronic illness and disease, genetics and disability, the role of disability in health care policy, as well as the politics of design and assistive technologies.
Not Offered Every Year
1 Course Unit

HSSC 5640 History of Technology
In this course we read influential classic and recent works in the history and the philosophy of technology, tackling the ways in which the fields are analytically structured as well as their relation to each other. We also discuss approaches and methodological questions in general history and general philosophy. We start with Karl Marx, arguably the most influential historian and philosopher of technology of the modern era, and discuss him in relation to what has been one of the most visible debates in the historiography of technology - the question of technological determinism. We then travel in a roughly chronological order through key periods and methodological issues in the fields. During our journey we encounter the Middle Ages and historical theoreticians of the Annales School, the early modern period and questions about gender and microhistory, and the so-called Industrial Revolution and the questions it raises about what’s modern about modern technology. Mid-way through the class, we discuss two classics in the philosophy of technology, Martin Heidegger and Jürgen Habermas, who grapple precisely with the question about the modern element in industrial technology. As we enter the nineteenth and twentieth centuries, we expand our methodological horizon to include examples from the cultural history of technology and applications of the social constructivism debate to the history of technology. We end the class with works on the recently emerging fields of biotechnology and nanotechnology and with a set of monographs written in the nascent sub-discipline in the history and philosophy of technology, engineering studies.
Not Offered Every Year
1 Course Unit

This seminar will challenge students to encounter and interpret the city around around them in unconventional ways. At a time when public commemoration has vigorously and sometimes violently re-entered our country’s public discourse, we wish to re-examine how monuments, memory, politics, and our senses shape our understandings of Philadelphia’s past, present, and possible futures. Our focus is on two intertwined themes: How we remember and What we remember. Treating monuments, memory, politics, and our senses shape our understandings of Philadelphia’s past, present, and possible futures. Our focus is on two intertwined themes: How we remember and What we remember. Treating monuments, memory, politics, and our senses shape our understandings of Philadelphia’s past, present, and possible futures. Our focus is on two intertwined themes: How we remember and What we remember. Treating monuments, memory, politics, and our senses shape our understandings of Philadelphia’s past, present, and possible futures. Our focus is on two intertwined themes: How we remember and What we remember. Treating monuments, memory, politics, and our senses shape our understandings of Philadelphia’s past, present, and possible futures. Our focus is on two intertwined themes: How we remember and What we remember. Treating
HSSC 5687 Minds and Machines
There is a plaque at Dartmouth College that reads: "In this building during the summer of 1956 John McCarthy (Dartmouth College), Marvin L. Minsky (MIT), Nathaniel Rochester (IBM), and Claude Shannon (Bell Laboratories) conducted the Dartmouth Summer Research Project on Artificial Intelligence as a research discipline to proceed on the basis of the conjecture that every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to simulate it." The plaque was hung in 2006, in conjunction with a conference commemorating the 50th anniversary of the Summer Research Project, and it enshrines the standard myth that Artificial Intelligence was born in 1955 when these veterans of early military computing applied to the Rockefeller Foundation for a summer grant to fund the workshop that in turn shaped the field. However, like so many myths, this one obfuscates the long-entangled histories that have come together in contemporary Artificial Intelligence research – including histories of labor, histories of automation, histories of intelligence, histories of mathematics, and histories of technology. This course surveys the historical scholarship that has investigated the intersections of minds and machines.
Not Offered Every Year
1 Course Unit

HSSC 5707 Gender and Technical Knowledge
In this graduate reading seminar, we explore how technical knowledge systems have historically intersected with identity and social order. The materials emphasize gender, but our discussions and readings will also engage at times with disability, race, class and other social categories that have shaped envisioning in technical endeavors and been the focus of technical study. Our goal is to understand how embodiment and expertise intersect. We will explore why certain kinds of people have been understood to be unreliable knowers, pathologically embodied, untrustworthy, or dangerously linked to emotion, incompetence or confusion, while other kinds of people have been socially marked as embodying reliability, trustworthiness, or epistemological neutrality. These embodiments bear on the historical development of technical knowledge as a social system for the establishment of consensus about the nature of reliable truth. They are also relevant at many different levels to embodied social experiences of scientific information, personal health, reproduction and everyday technology. This course will give students the tools and insights needed to draw on feminist/gender/queer theory when it is useful to their research. That is the purpose of all of our readings. We begin with an exploration of some key ideas in feminist scholarship of the last few decades. Then we turn to three broad, interconnected queries, relating to the social organization of science, technology and medicine (who has been excluded, who favored? What kinds of work have been understood to belong to different kinds of people?); to the intellectual content of expertise (how have experts made technical sense of social and bodily difference? How have technologies expressed and performed gender?); and to the philosophical debate about the nature of technical knowledge, particularly science, as a fundamentally gendered (masculine) endeavor which privileges hierarchical explanations in ways that mimic the social order.
Not Offered Every Year
1 Course Unit

HSSC 5757 Industrial and Post Industrial Ages
In this course we are concerned with phenomena surrounding industrialization and de-industrialization, and with post-industrial types of technologies and labor. We start with recent reconceptualizations of the archetypal British "Industrial Revolution" and its close relations to Indian industry and economy, move to the US American South as an example of a global agricultural economy in the industrial age, take North American and Western Europe as lenses for transitions from industrial to post-industrial eras, and discuss the nuclear and computer age of the Cold War from a number of perspectives: the Global South and cybernetics, medicine and isotopes, the recent climate debate and underlying computing, an anthropology of post-industrial labor, and gene-patenting and biological manufacturing in the twenty-first century.
Not Offered Every Year
1 Course Unit

HSSC 5800 Environmental History
A survey of recent and influential works in environmental history, including works from both within and outside the American environmental history canon. The focus is on situating emerging historiographical trends within the long-term development of the field and in relation to other closely allied fields, including the history of science, technology, and medicine, social and cultural history, urban history, agricultural history, world history, historical ecology, environmental anthropology, and ecocriticism.
Not Offered Every Year
1 Course Unit

HSSC 5888 Humanities Beyond the Human
The humanities are once again influx as scholars experiment with a variety of new techniques and conceptual frameworks. In recent years many of these experiments have involved turning away from longstanding questions of representation, language, epistemology, and human exceptionalism and toward questions of enactment, materiality, ontology, and the nonhuman. In this seminar we will examine a variety of manifestations of this turn as they have emerged in history, anthropology, literary studies, and philosophy under names such as new materialism, multi-naturalism, big/deep history, multispecies ethnography, and object-oriented ontology. We will try to situate these recent turns in longer intellectual genealogies, drawing especially on works in science studies and the history of science that seek to provide contingent, situated accounts of what exists and what we can know about it. Objects of inquiry will include dogs, mushrooms, cyborgs, seeds, mosquitoes, bacteria, stones, jugs, pictures, hormone disruptors, and the cosmos.
Not Offered Every Year
1 Course Unit

HSSC 6097 Feminist STS As Theory, Method, Practice: Relations And Their Limits
Drawing from historical, anthropological, and ethnographic texts, this course draws from core readings in feminist theory and feminist STS as well as from decolonial and postcolonial perspectives. We will examine feminist ethnographic, historical, and science studies approaches to science, knowledge production, and governance. Course readings will be organized around themes or cases and key questions will include the politics and limits of relation as an organizing analytical, methodological, and political concept.
Not Offered Every Year
1 Course Unit
HSSC 6100 Research Seminar in History of Human Sciences
This concentrated research seminar provides graduate students with time, support, and space to hone their writing skills. Thematically, the seminar closely examines historiographic trends within the history of human sciences - namely the stylistic, methodological, and investigative strategies adopted by prize-winning articles in the field. By carefully dissecting the architecture of these articles, our aim is to identify models that we can use in our own scholarly endeavors and to draft an article with these in mind. Accordingly, a significant portion of the course is devoted to examining archival and primary source resources in the region, to discussing research strategies, and to workingshopping our work-in-progress. Students can use the course to significantly revise an already written paper or to draft a new paper. The course's overarching purpose is to create the scaffolding necessary for students to produce a substantial research paper in the history of human sciences (broadly conceived) that is potentially publishable as a journal article.
Fall or Spring
1 Course Unit

HSSC 6199 Other Reasons
Postcolonial Theories, building largely on Frankfurt School theorists, have critiqued the totalizing aspirations of what it calls 'Enlightenment Rationality'. Such critiques have also fed a range of critiques of Science. At the heart of such critiques is a rather restricted and plastic idea of Science as a singular, homogenous body of knowledge that has steadily promoted the disenchantment of the world. In this course we seek to destabilize this monolithic vision of science by revisiting its plural, heterogeneous histories. The course is particularly interested in exploring the historical entanglements between the sciences and the enchanted world of intangible entities such as spirits, ghosts and gods. The course will be divided into three broad sections. The first will deal with the theoretical critiques of 'Enlightenment Rationality' and 'Science' in postcolonial theory. The second will undertake a detailed and loosely chronological examination of the multifaceted entanglements of science and technology with the paranormal in the 19th and 20th centuries. Finally, the last section will explore the performative aspects of scientific rationality in colonial and postcolonial contexts in a bid to understand the background that led to the postcolonial theorization.
1 Course Unit

HSSC 6188 Cold War Science
In this research seminar we will work through some of the literature on the history of science, technology and medicine in the Cold War and explore together relevant archival collections in the Philadelphia region, and digital collections online (particularly oral histories but other sources as well). All history begins with the availability of sources though we want to think creatively about what counts as a source (for example buildings, landscapes, artifacts, museum displays, film, other visual sources). All history begins with the availability of sources though we want to think creatively about what counts as a source (for example buildings, landscapes, artifacts, museum displays, film, other visual sources).
Not Offered Every Year
1 Course Unit

HSSC 6200 Archives and Ethnography: Research Methods in History and Anthropology of Science
This seminar introduces graduate students working on topics in the history and anthropology of science, medicine, technology, and related areas to core research methods in the field. These include locating, accessing, and working with archival documents from diverse historical periods; engaging and analyzing historical and contemporary material texts and objects; historical and ethnographic interviewing; ethnographic research and participant observation. Drawing from current readings in the history and anthropology of science, we will examine how researchers design and describe their methodological practice, make use of evidence to support their claims, and navigate practical, epistemological, and ethical challenges in historical and ethnographic research. Additionally, the course will support students in identifying funding sources and writing fellowship proposals with particular attention to articulating research questions, designing a research plan, and justifying methodological choices. The course is oriented towards graduate students in History and Sociology of Science and is open to students from other fields interested in historical, ethnographic, or social analysis of science, technology, and medicine.
Not Offered Every Year
1 Course Unit

HSSC 6247 Experience and Experiment
This seminar introduces graduate students working on topics in the history and anthropology of science, medicine, technology, and related areas to core research methods in the field. These include locating, accessing, and working with archival documents from diverse historical periods; engaging and analyzing historical and contemporary material texts and objects; historical and ethnographic interviewing; ethnographic research and participant observation. Drawing from current readings in the history and anthropology of science, we will examine how researchers design and describe their methodological practice, make use of evidence to support their claims, and navigate practical, epistemological, and ethical challenges in historical and ethnographic research. Additionally, the course will support students in identifying funding sources and writing fellowship proposals with particular attention to articulating research questions, designing a research plan, and justifying methodological choices. The course is oriented towards graduate students in History and Sociology of Science and is open to students from other fields interested in historical, ethnographic, or social analysis of science, technology, and medicine.
Not Offered Every Year
1 Course Unit

HSSC 6288 Capitalism: Theorizing economy in sci & med
What are the relationships between capitalism and the practice and experience and medicine? How have historians and anthropologists theorized capitalism and political economy in accounts of health and medicine? What do such theories account for and what is foreclosed? This research seminar examines theories of capitalism as they are taken up in historical and ethnographic accounts of science, health, healing, and medicine. Exploring how contemporary and classic accounts have sought to analyze and unpack the relationship between economy and health, we will examine how political economic approaches to health and medicine have informed historical and ethnographic accounts of health and illness -- asking, for instance, how theories of neoliberalism have been used to explain health inequalities (and vice versa) -- and will analyze how scholars have linked practices of financialization, speculation, and investment to changing dynamics of health, medicine, healing, and the generation of medical knowledge. Course time will also be devoted to independent research through which students will develop and write up a research paper on an area of interest related to the course theme.
Not Offered Every Year
1 Course Unit
HSSC 6299 Genetics and Genomics
This course is called "Genetics and Genomics," but we are defining those terms broadly to potentially encompass historical studies of biomedicine, evolution, race theory, biological anthropology, reproduction, agriculture, animal breeding, psychiatry, social sciences, and so on. We are thinking about knowledges of embodiment and what they teach us about social and technical order—about systems, institutions, technologies, hierarchies, theories, practices, networks, and so on. The goal of the semester will be for each student to produce a first draft of a publishable research paper. Many of our readings are calibrated to complement the available archival collections at the American Philosophical Library, the University of Pennsylvania archives, the Academy of Natural History collections, the Chemical Heritage Foundation, Wagner Free Institute of Science, College of Physicians of Philadelphia, Hagley Museum and Library, and collections held in striking distance of Philadelphia, in New York, Princeton, Baltimore, and Washington DC. While APS will be a special of focus of attention, given the remarkable collections there, students should make a special effort to become familiar with the many other resources that are available in the region, some of which have not been the focus of significant historical attention.
Fall or Spring
1 Course Unit

HSSC 6500 Research Seminar in the History of Medicine
This course is focused on comparing and contrasting ethnographic and historical approaches to health and medicine. We will engage ethnographic and historical approaches to health and medicine to explore the methodological, empirical, and theoretical stakes of thinking medicine, disease, and the body across and within disciplines. Taking a methodological and comparative approach, the course will explore ethnographic and historical approaches to such themes as the body, disease, pharmaceuticals, and biomedical knowledge-production in global and historical context. We aim to develop skills and knowledge for critically reading anthropological, historical, and sociological literatures on medicine, the body, and disease. As such, students will develop a research project, which may be in either the history or anthropology of medicine and/or science, or a project, which combines such approaches, utilizing the comparative and methodological frameworks of the course to develop an original analysis on a topic of their choosing.
Not Offered Every Year
1 Course Unit

HSSC 6517 The Lazaretto, the City, and the World: Public Health, Immigration, and Urban Growth, 18th-21st C.
Philadelphia’s Lazaretto quarantine station was built in 1799 to protect the city after a series of catastrophic yellow fever epidemics. In its time, the Lazaretto was a gateway through which goods and people from many regions of the world passed before entering Philadelphia (sometimes after temporary detention). This course uses the Lazaretto as a gateway to the history of American public health, immigration, and urban growth. Our exploration of those histories is not limited to events that happened at the Lazaretto, nor to the period of its quarantine operations (1801-1895), nor even to Philadelphia, but rather uses the very local and very human stories of this unusual site as a point of entry into larger American and global stories. Coursework includes site visits to the Lazaretto and to a variety of local partner institutions, including the Historical Society of Pennsylvania, the Mutter Museum, Puentes de Salud, and Sayre Health Center. Students undertake extensive research projects covering some combination of the course’s themes, including discussions of how historical interpretation can facilitate and enhance public engagement and activism.
Spring
1 Course Unit

HSSC 6700 Research Seminar in History of Technology
This graduate seminar provides a structured environment in which each student executes an independent research project. Early class meetings focus on the craft of researching and writing scholarly articles. Later meetings are devoted to discussion of students progress on their research projects. Each student defines their own research topic in the history of technology, subject to the Professor’s approval.
Fall or Spring
1 Course Unit

HSSC 9999 Graduate Independent Study
Available to doctoral students only.
Fall or Spring
1-4 Course Units

History (HIST)

HIST 0001 Making of the Modern World
This course examines the political, economic, social, cultural and intellectual foundations of the world in which we live. We will cover the full scope of the human experience—empire, war, religion, revolution, industrialization, climate, globalization—over a vast geographic range, exploring key parallels and contrasts: in power and access to resources; modes of production and value systems; religious and ethnic traditions; identities and cultural practice, and in political systems and social formations. We will examine both human and non-human actors and personal and systemic changes and explore trajectories that are never predetermined. This course serves as a gateway to the discipline of History and to the Department of History at Penn. It fulfills both the Sector II (History and Tradition) and Cross-Cultural Analysis requirement and, depending on the faculty member in charge, may examine the world through ONE specific theme or highlight developments over two hundred or over two thousand years.
Fall or Spring
1 Course Unit

HIST 0010 First-Year Books that Changed Modern America
Why have some books had a profound impact on their times? How have they articulated an issue, focused debate, captured public attention, and spurred action? In this seminar, we will read a group of books that changed the modern United States. The Jungle, Silent Spring, The Common Sense Book of Baby and Child Care, The Feminine Mystique, The Grapes of Wrath, Conscience of a Conservative: These are among the books that mobilized Americans to demand food safety and a safer environment, adopt new childrearing practices, redefine traditional gender roles, develop greater awareness of poverty, and rethink their politics. We will do close readings of these and other texts, and examine the history of each book as a book: its place within the author’s life and work, its publishing history, critical reception, and readers’ responses. Finally, we will consider the broader historical contexts in which the work was written, to assess its impact on American culture, society, and politics.
Fall or Spring
1 Course Unit
HIST 0012 First-Year Seminar: Why College? Historical and Contemporary Perspectives
This course will explore controversies and dilemmas surrounding American colleges, from their birth into the present. What is the purpose of "college"? How have these goals and objectives changed, across time and space? What should college do, and for whom? And how can colleges be reformed to meet their diverse purposes and constituencies? Topics of discussion will include affirmative action, "political correctness," fraternities and sororities, sexual assault and safety, online education, and the recent trend towards "college for all." For first-year students only.
Fall or Spring
1 Course Unit

HIST 0013 First-Year Seminar: American Pasts in American Places
All around you are traces of America's past. Some of them, like Independence Hall, are easy to see. Others are more obscure. The long-disappeared Philadelphia house where Cyrus Bustill, a free Black baker of the Revolutionary era, opened his school for Black children is visible only because of a recently erected historic marker. This course introduces you to the skills and techniques necessary to read America's past in the landscape around you. Even a place like Independence Hall has had many meanings and uses since it was built in 1732 as each generation has projected their understanding of its significance onto its bricks and mortar. We will explore a variety of places – extant and long gone, local and farther afield – to uncover what they can tell us about the American past and its connections to the American present. Meetings will include field trips to places discussed in the course.
1 Course Unit

HIST 0020 First-Year Seminar: Reading the Classics
In this seminar we will study the early roots of Western culture—the Biblical, Greek and Roman traditions—as well as how sixteenth- and seventeenth-century Europeans reproduced, rethought and reshaped these early traditions. Instead of reading and discussing the required texts according to the date when they were written (first the early traditions and then the Renaissance views), we will focus our attention on a few themes that were central concerns to those living in Classic and Renaissance times and that continue to influence modern ways of thinking and acting in Western societies: conceptions of God and place of religion in society; nature of power and authority, and individuals' rights and duties; good and evil; views on women, their nature and roles in society; ethnography and the perception of other cultures and societies. In addition to reading and discussing several biblical books—Genesis, Exodus, The Book of Revelation—we will work with other seminal classical works—Sophocles' Antigone, Aristotle's Politics and Ethics, Herodotus' The Histories, Plato's Apology—and works by Michel de Montaigne, Maria de Zayas y Sotomayor, Marie de Gournay, Christopher Marlowe, William Shakespeare, Blaise Pascal, and several others. We will also work with books published in the last decades, analyzing the impact of these works in various periods of history, but also books that analyze the impact of these books and ideas today—Dreyfus and Kelly's All Things Shinning: Reading the Western Classics to Find Meaning in a Secular Age, Anthony Grafton's Bring Out Your Dead: The Past as Revelation, James Miller's Examined Lives, from Socrates to Nietzsche, and Sarah Bakewell's How to Live: Or A Life of Montaigne in One Question and Twenty Attempts at an Answer.
Fall or Spring
1 Course Unit

HIST 0021 First-Year Seminar: Inquisitors, Heretics and Witches
When and why did medieval European Christians develop anxieties about the beliefs of others, and what did they do to grapple with this anxiety? This course will explore the development of ideas of right and wrong belief in medieval Europe, and the various concerns and practical reactions that developed in response. We will begin by examining how notions of orthodoxy and its concomitant devolved from late Antiquity to the medieval period. We will then turn to the criminalization of the latter and development of the "inquisitors of heretical depravity," individuals assigned by the pope to inquire into heresy, and the various methods they used to identify and punish those they considered to hold wrong belief. Combining the zeal of faith with the power of law, inquisition was Europe's most infamous institution and co-opted judicial procedure in the fight against heresy. Ultimately the course aims to provide a deeper understanding of the development of orthodoxy, dissent, intolerance and persecution.
Fall or Spring
1 Course Unit

HIST 0022 First-Year Seminar: A Tale of Two Cities: London and Paris 1750-present
"Paris is the capital of the nineteenth century," wrote Walter Benjamin. "When a man is tired of London, he is tired of life," quipped Samuel Johnson. These two great cities have captivated authors and artists, politicians and philosophers, tourists and traders for centuries. They share many things in common, and they both helped set a paradigm for the "modern city" that has shaped urban centers around the world. And yet, many have also remarked on the differences between them. Examining novels, maps, stories, paintings, plays, political writings, and statistical inquiries, we'll study the characters, companies, and crimes that have made each city tick. What does it mean to be a Londoner or a Parisian? How have both cities changed over the last 250 years? Can the study of these two metropolises tell us something about modern urban life in general?
Fall or Spring
1 Course Unit

HIST 0023 First-Year: Russia in the Age of Anna Karenina
Leo Tolstoy's Anna Karenina is an epic tale of passion, intrigue, tragedy and redemption. It is also a penetrating portrayal of Russian life and society in the period following the Great Reforms of the 1860s. This period, the third quarter of the nineteenth century, was both the time of the flowering of the Russian novel as well as the age of Russia's imperial glory. In this course we will use Anna Karenina as the starting point for a multifaceted exploration of nineteenth century Russian history and culture. Among the topics we will discuss are family life, social relations, modernization and industrialization, gender and sexuality, revolutionary movements, imperialism, and political power. We will enhance our reading of the novel with a wide range of supplementary materials including memoirs, travel accounts, historical analysis, and art. This course will be organized in a seminar format. No prior knowledge of Russian history or literature is required. All readings are in English.
Fall or Spring
1 Course Unit
HIST 0030 First-Year Seminar: Africa in World History
This seminar examines Africa's connections—economic, political, intellectual, and cultural—with the wider world from ancient times to the 21st century, drawing on a diverse sample of historical sources. It also explores Africa's place in the imaginations of outsiders, from ancient Greeks to modern-day development "experts." Whether you know a lot or almost nothing about the continent, the course will get you to rethink your stereotypes and to question your assumptions about the importance of Africa in world history. First-year students only.
Fall or Spring
Also Offered As: AFRC 0030
1 Course Unit

HIST 0031 Gender, Sexuality, and Social Change in the Middle East
This first year seminar introduces basic concepts, debates, and narratives pertaining to the histories of gender and sexuality in the Middle East by covering the period from the late eighteenth century until the present day. In an engagement with global historical contexts, the course aims to engage students with the history of women, gender, and sexuality as they informed and shaped political and social change in the Middle East and vice versa. This course will concentrate on selected themes such as modernity, nationalism, and colonization to encourage students to challenge preconceived assumptions about Middle Eastern women, discuss some of the many roles they have played in social change, and think comparatively and transnationally about gender, history, and social life. In doing so, the class provides a historical context pertaining to the region's history by presenting a chronologically and thematically organized analysis to scrutinize the decline of the Ottomans, the rise of nationalisms, the implications of Islamist reformism, colonial rules before and after World War I and their impact on shaping women's lives, gender dynamics and sexual politics, the age of decolonization and rise of state feminisms under colonial and authoritarian regimes, an historical inquiry of same-sex desire and the political activism organized around LGBTQI+ movements, and finally contemporary political movements such as the Iranian Revolution and Arab Uprisings in shaping present discourses and practices informing individual and collective social and political status along with gendered and sexual politics in contemporary Middle Eastern societies.
Also Offered As: GSWS 0031
1 Course Unit

HIST 0032 First Year Seminar - Bacteria, Bodies, and Empires: A Global History of Medicine and Healing
Bacteria, Bodies, and Empires: A Global History of Medicine and Healing is a seminar on the history of medicine from the early modern period to the present. It addresses major issues and questions about bodies, diseases, epidemics, and medical institutions in the context of major historical developments in world history, with a focus on the Global South. The course examines how medicine, knowledge, and practices about diseases and bodies influenced political and social conditions, as well as how sociopolitical changes shaped and transformed people's perceptions of health, life, and the environment. Scholars have frequently examined the history of medicine as a Western practice and with a focus on Western medical traditions. And, medical and healing practices in the history of the Global South are frequently examined through the lens of religion, culture, and race, or, more recently, in relation to modernization and colonization. By situating the history of medical knowledge and practices in world history with an emphasis on Global South, this course introduces readings and research methods to challenge these fixed paradigms and shed light on questions and research agendas that will unearth the encounters, connections, and mobility of bacteria, bodies, and medical methods among various communities across time from Black Death to contemporary pandemics.
Also Offered As: HSOC 0362
1 Course Unit

HIST 0040 First-Year Seminar: Coca and Cocaine
This seminar compares a set of practices that center on coca leaf production in indigenous communities, where coca cultivation has been sustained over long centuries, on the one hand, with a set of unsustainable practices linked to the “drug war” in the Americas, on the other. Participants will read scholarly work in history and anthropology, support one another through a research process, and explore what historians and other scholars might contribute to discussions about drug policy. First-year students only.
Fall or Spring
Also Offered As: LALS 0040
1 Course Unit

HIST 0060 First-Year Seminar: Epidemic Disease in Modern History
In this seminar, we look at how human societies have grappled with epidemic disease across the modern world. From cholera, to bubonic plague, to yellow fever, SARS, ebola, and flu, we'll explore how outbreaks disrupt and devastate communities but also how they can be linked to state growth, medical reform, and cultural change. By looking at specific societies around the world at moments of acute distress, we'll be able to ask questions about the role of government, about fault lines of class and race, and about how human beings have grappled with fear and systemic collapse at different moments in time and space. Yet we will also examine global trends and consider what the study of past epidemics can tell us about the world we live in today. Sources we will consider include medical treatises, diaries, novels, films, and cartoons. Hypochondriacs and germophobes are welcome. We'll study epidemics from a very safe distance and (hopefully) without first-hand experience!
Fall or Spring
1 Course Unit
HIST 0061 First-Year Seminar: Of Horses, Bows and Fermented Milk: The Silk Roads in 10 Objects
The empires of the Turkic and Turkish peoples have stretched across much of Eurasia since before the Common Era until the twentieth century. We first hear of them in Chinese chroniclers’ tales of a powerful people in the wilderness. Greek historians, Byzantine writers, and Arab polymaths write about the empires of the steppes. Centuries later, the heirs of the heroes of these empires move south and west, establishing empires and tribal confederations beyond the steppe, in Central Asia, Anatolia, and the Middle East. The Turkic empires seem to appear in the periphery of many civilizations, challenging, and, one could say, enriching their borders. But looking at a map, is really more than a half of Eurasia a periphery? If we flip the map, could we say these historians were writing from the margins of the Turkish empires? This course introduces the student to the history of empire by following the various histories of Turkic and Turkish people through 15 objects. It discusses the questions of periphery, borders, and the divide between agrarian, pastoral, and nomadic societies. The student will learn to derive historical questions and hypothesis through the intensive study of material culture, literature, and historical writing tracing the long and diverse history of the bow, the saddle, dumplings, and fermented milk (among others) across Eurasia.
Fall or Spring
Also Offered As: NELC 0460
1 Course Unit

HIST 0100 Deciphering America
This course examines American history from the first contacts of the indigenous peoples of North America with European settlers to our own times by focusing on several telling moments in this history. The course treats thirteen of these moments and each unit begins with a specific primary document, historical figure, image, or cultural artifact to commence the delving into the American past. Some of these icons are familiar, but the ensuing deciphering will render them as more complicated; some are unfamiliar, but they will emerge as absolutely telling. The course meets for two in-person lectures each week and a required recitation. Course requirements include: student’s choice of ten “before” journal entries (1-2 sentences) and ten end of the week “after” journal entries (300-word maximum per entry); a take home mid-term exam; a part take home and part in-class final exam; and recitation attendance and participation. All course readings can be accessed online on the course’s CANVAS website; no books have been ordered or placed on reserve. Instructions for the journal entry exercise are posted on the course’s CANVAS website as “Protocol for Journal Entries.” Students should post all journal entries on CANVAS Assignments.
Fall or Spring
1 Course Unit

HIST 0108 American Origins
The United States was not inevitable. With that assumption as its starting point, this course surveys North American history from about 1500 to about 1850, with the continent’s many peoples and cultures in view. The unpredictable emergence of the U.S. as a nation is a focus, but always in the context of wider developments: global struggles among European empires; conflicts between indigenous peoples and settler-colonists; exploitation of enslaved African labor; evolution of distinctive colonial societies; and, finally, independence movements inspired by a transatlantic revolutionary age.
Fall or Spring
1 Course Unit

HIST 0200 The Emergence of Modern Europe
This course examines the period in European history from the Black Death until the French Revolution (roughly 1348 to 1789). During this period of Renaissance, Reformation, and Enlightenment, early modern Europe experienced a series of crises in authority that ushered in the modern world. The course will explore how new discoveries (both geographical and intellectual) challenged existing worldviews; movements of religious reform challenged the authority of the Church and the unity of Europe; and new political doctrines, accompanied by a series of striking rebellions, challenged the foundations of traditional rule. Our aim will be to excavate the changing social, political, intellectual, and cultural experiences of men and women during this time of renaissance, reformation, enlightenment, and revolution. We will follow the encounter between Europeans and the peoples of the Americas, Africa, and Asia, as well as the “discovery” of new ways to read old books, the “discovery” of new technologies in communications and combat, and the “discovery” of new sciences, arts, and philosophies as they impacted the way Europeans related to the wider world and their place within it.
Fall or Spring
1 Course Unit

HIST 0205 Europe: From Fall of Rome to Age of Exploration
This course offers a broad introduction to the history of Europe from around the fourth to sixteenth century CE. We begin with Roman civilization facing a series of crises that led to its eventual fall in the West and the great migrations that resulted in ‘barbarian’ kingdoms. We then explore European history as it developed afterwards through key questions that capture its essence: what was ‘barbarian’ about these kingdoms and what exactly were the ‘dark ages’? How did political power transform throughout the period to produce nascent nation states in the end? What did it mean to be a medieval knight? In what ways were women powerless or powerful? What was city life like as these began to be rebuilt? What roles did faith and knowledge play in this world? What were the first universities like? How did European culture in this period handle difference, and how is this similar or different to modern approaches? How do we even know this history from centuries to over a millennium ago? Students will discover a Europe that is fascinating in its contradictions: both dark and bright, both closed and open, both strikingly different and yet often surprisingly familiar.
Fall or Spring
1 Course Unit

HIST 0210 Early Modern Europe, 1450-1750
This course examines those European developments which contributed to the world we understand as modern. Special emphasis will be placed on the transformation of Europe through the advent of new technologies, the creation of a global economy, the consolidation of territorial states, the rise of effective, central governments, the dissolution of religious unity, and the dialect between modern and traditional world views.
Not Offered Every Year
1 Course Unit
HIST 0220 England and the British Isles to 1707
The subject of this course is the history of the British Isles from the Roman Conquest in 43AD to the creation of the United Kingdom in 1707. Between these two dates the various societies and cultures in the British Isles were brought into the orbit of the Roman Empire, converted to Latin Christianity, and developed distinctive cultures and strong ties with the Continent. From the twelfth century on, the kingdom of England began to exert its power over Wales, Ireland, and Scotland, although English power waxed and waned in these areas between the twelfth and the seventeenth centuries. The Anglo-Norman continental empire of the Plantagenet dynasty also played a large part in shaping the English monarchy, as did the playing out of the Hundred Years War, the internal divisions in fifteenth-century English society, and the rise of the Tudor-Stuart dynasty.
Not Offered Every Year
1 Course Unit

HIST 0240 The Rise and Fall of the Russian Empire, 1552-1917
How and why did Russia become the center of the world’s largest empire, a single state encompassing eleven time zones and over a hundred ethnic groups? To answer this question, we will explore the rise of a distinct political culture beginning in medieval Muscovy, its transformation under the impact of a prolonged encounter with European civilization, and the various attempts to re-form Russia from above and below prior to the Revolution of 1917. Main themes include the facade vs. the reality of central authority, the intersection of foreign and domestic issues, the development of a radical intelligentsia, and the tension between empire and nation.
Not Offered Every Year
Also Offered As: REES 0310
Mutually Exclusive: HIST 5240
1 Course Unit

HIST 0250 Making and Breaking European Hegemony
This course will trace the dramatic rise and fall of Europe’s global hegemony during the period roughly from 1450 to 1950. Among the major themes we will examine are: states and power, borders and resistance, race and genocide, economies and oppression, ideas and revolution, the building and change of hierarchies of gender and power. Truly, a dramatic story. The objectives of the course are: 1) To serve as an introduction to the study of history for majors and non-majors alike, and to teach the critical analysis of historical sources; 2) to teach substantive knowledge of European history; 3) to provide a foundation for further study of the European past. No previous background in European or World history is required.
Fall or Spring
1 Course Unit

HIST 0255 Modern Europe, 1789-1919
It’s old, it’s new. It’s unfamiliar, it’s recognizable. This course investigates the collapse of the "old regime" and the birth of something like the Europe we recognize. The long nineteenth century witnessed the development of political, economic, and cultural phenomena we often see as characteristic of modern society. Topics considered include political revolution, industrialization, liberalism, imperialism, and new ideologies of gender, race, and class. Our focus will be consistently transnational. Where did Europe begin and end? How did borders and boundaries operate at the edge of nations, but also within societies? We will investigate these questions as we follow European history from the violence and optimism of the French Revolution to the chaos of the First World War.
Fall or Spring
1 Course Unit

HIST 0270 Modern Britain, 1700-present: Empire, Industry and Democracy
In this course, we will investigate the extraordinary story of Britain’s rise to global predominance and the question of its “decline” in the twentieth century. Our readings and discussions will engage with dominant ideas, social processes, and popular beliefs; we will look at the structure of government and the texture of everyday lives. We will encounter Britons in all corners of the world even as we explore the complexities of metropolitan British history. Big ideas were born there: industrial capitalism, political liberalism, and scientific racism. Britain’s political system, with its early form of (limited) democracy, gave shape to party politics around the world. We begin in the early eighteenth century—focusing on the agricultural and social changes that accompanied the onset of the Industrial Revolution. We’ll examine the rise of the Hanoverian fiscal-military state, and its consolidation and transformation in the course of the Napoleonic Wars. We end in the present day, looking at a Britain which may have lost an Empire, but which retains a strong welfare state, a global cultural presence, and a permanent seat on the UN Security Council. Should we understand its rise and subsequent retraction as a store of an ascent and a decline? We will interrogate that narrative throughout the semester. The course moves roughly chronologically, but by way of discrete units that provide different perspectives on British politics, economics, and culture.
Spring
1 Course Unit

Out of an obscure, backward empire, the Soviet Union emerged to become the great political laboratory of the twentieth century. This course will trace the roots of the world’s first socialist society and its attempts to recast human relations and human nature itself. Topics include the origins of the Revolution of 1917, the role of ideology in state policy and everyday life, the Soviet Union as the center of world communism, the challenge of ethnic diversity, and the reasons for the USSR’s sudden implosion at the end of the century. Focusing on politics, society, culture, and their interaction, we will examine the rulers (from Lenin to Gorbachev) as well as the ruled (peasants, workers, intellectuals; Russians and non-Russians). The course will feature discussions of selected texts, including primary sources in translation.
Not Offered Every Year
Also Offered As: REES 0311
1 Course Unit

HIST 0300 Africa Before 1800
Survey of major themes and issues in African history before 1800. Topics include: early civilizations, African kingdoms and empires, population movements, the spread of Islam, and the slave trade. Also, emphasis on how historians use archaeology, linguistics, and oral traditions to reconstruct Africa’s early history.
Spring
Also Offered As: AFRC 0300
1 Course Unit
HIST 0310 Warriors, Concubines & Converts: the Ottoman Empire in the Middle East & Europe
For almost six hundred years, the Ottomans ruled most of the Balkans and the Middle East. From their bases in Anatolia, Ottoman armies advanced into the Balkans, Syria, Egypt, and Iraq, constantly challenging the borders of neighboring European and Islamicate empires. By the end of the seventeenth century, Constantinople, Jerusalem, Cairo, Baghdad, Sarajevo, Budapest, and nearly Vienna came under Ottoman rule. As the empire expanded into Europe and the Middle East, the balance of imperial power shifted from warriors to converts, concubines, and intellectuals. This course examines the expansion of the Ottoman sultanate from a local principality into a sprawling empire with a sophisticated bureaucracy; it also investigates the social, cultural, and intellectual developments that accompanied the long arc of the empire's rise and fall. By the end of the course, students will be able to identify and discuss major currents of change in the Ottoman Empire and the Middle East. The student will have a better understanding of the roles of power, ideology, diplomacy, and gender in the construction of empire and a refined appreciation for diverse techniques of historical analysis.
Fall
Also Offered As: AFRC 0350
1 Course Unit

HIST 0350 Africa Since 1800
Survey of major themes, events, and personalities in African history from the early nineteenth century through the 1960s. Topics include abolition of the slave trade, European imperialism, impact of colonial rule, African resistance, religious and cultural movements, rise of naturalism and pan-Africanism, issues of ethnicity and "tribalism" in modern Africa.
Fall
Also Offered As: AFRC 0350
1 Course Unit

HIST 0360 History of the Middle East Since 1800
A survey of the modern Middle East with special emphasis on the experiences of ordinary men and women as articulated in biographies, novels, and regional case studies. Issues covered include the collapse of empires and the rise of a new state system following WWI, and the roots and consequences of the Palestinian-Israeli conflict, the Iranian revolution and the U.S.-Iraq War. Themes include: the colonial encounter with Europe and the emergence of nationalist movements, the relationship between state and society, economic development and international relations, and religion and cultural identity.
Fall
Also Offered As: NE/LC 0650
1 Course Unit

HIST 0400 Colonial Latin America
The year 1492 was pivotal in the history of the world. It precipitated huge population movements within the Americas and across the Atlantic - a majority of them involuntary as in the case of indigenous and African people who were kidnapped and enslaved. It led to cataclysmic cultural upheavals, including the formation of new cultures in spaces inhabited by people of African, European and indigenous descent. This course explores the processes of destruction and creation in the region known today as Latin America in the period 1400 - 1800. Class readings are primary sources and provide opportunities to learn methods of source analysis in contexts marked by radically asymmetrical power relationships.
Fall
Also Offered As: AFRC 0400, LALS 0400
1 Course Unit

HIST 0450 Modern Latin America 1808-Present
This course examines central themes of Latin American history, from independence to the present. It engages a hemispheric and global approach to understand the economic and social transformations of the region. We will explore the anti-imperial struggles, revolutions, social movements, and global economic crises that have given rise to new national projects for development, or have frustrated the realization of such goals. Taking a historical perspective, we will ask: What triggers imperial breakdown? How did slaves navigate the boundary between freedom and bondage? Was the Mexican Revolution revolutionary? How did the Great Depression lead to the rise of state-led development? In what ways have citizens mobilized for equality, a decent standard of living, and cultural inclusion? And what future paths will the region take given uneasy export markets and current political uncertainty?
Spring
Also Offered As: LALS 0450
1 Course Unit

HIST 0500 Late Imperial China
This lecture course – the first of a two-part sequence – examines the history of late imperial China through the early 19th century. We begin with the Song dynasty transformation: the rise of gentry society and imperial absolutism, the institution of Confucian orthodoxy, the shift of the population and the economic center of gravity to the south, the commercialization of the economy, and change in the relative status of women and men. We then trace China's subsequent political and social history, including the following themes: inner vs. outer court politics; law, government, and society; intellectuals and political dissent; gender, family, and kinship practices; patterns of peasant life and rebellion; traditional foreign relations and first contacts with the West; internal sources of the decline of imperial order.
Fall or Spring
Also Offered As: EALC 1720
1 Course Unit

HIST 0550 History of Modern China
From an empire to a republic, from communism to socialist-style capitalism, few countries have ever witnessed so much change in a hundred year period as China during the twentieth century. How are we to make sense out of this seeming chaos? This course will offer an overview of the upheavals that China has experienced from the late Qing to the Post-Mao era, interspersed with personal perspectives revealed in primary source readings such as memoirs, novels, and oral accounts. We will start with an analysis of the painful transition from the last empire, the Qing Dynasty (1644-1911), to a modern nation state, followed by exploration of a century-long tale of incessant reform and revolution. The survey will focus on three main themes: 1) the repositioning of China in the new East Asian and world orders; 2) the emergence of a modern Chinese state and nationalistic identity shaped and reshaped by a series of cultural crises; and finally, 3) the development and transformation of Chinese modernity. Major historical developments include: the Opium War and drug trade in the age of imperialism, reform and revolution, the Nationalist regime, Mao's China, the Cultural Revolution, and the ongoing efforts of post-Mao China to move beyond Communism. We will conclude with a critical review of the concept of "Greater China" that takes into account Taiwan, Hong Kong, and the Chinese diaspora in order to attain a more comprehensive understanding of modern China, however defined, at the end of the last century.
Spring
Also Offered As: EALC 0730
1 Course Unit
HIST 0560 Modern Japanese History
This course will survey the major political, economic, social and intellectual trends in the making of modern Japan. Special emphasis will be given to the turbulent relationship between state and society from 1800 to the present.
Fall or Spring
Also Offered As: EALC 0750
1 Course Unit

HIST 0570 Colonial South Asia, 1700 - 1950
The East India Company established its first trading outpost in India in 1612 and by 1765, was granted the right to collect revenue in eastern India on behalf of the Mughal Emperor. By 1858, Queen Victoria was Empress of India and by 1947, two independent nation states had emerged upon decolonization, India and Pakistan. The course will familiarize students with the outlines of the history of colonial South Asia, while exploring the following themes: How do we know what we know as historians, about the colonial era? What new institutions emerged in India under the British and, more importantly, what older institutions did they replace or modify? What kinds of modernity did South Asians begin to embrace, and what was the role of colonial rule in shaping and constraining these changes? How did different groups of South Asians perceive and respond to colonial rule, and how did this shape the emergence of new political movements in the early twentieth century?
Also Offered As: SAST 0570
1 Course Unit

HIST 0600 The Foundations of the Early Modern Atlantic World 1450-1800
The purpose of this course is to provide students with a solid knowledge of Atlantic history during the early modern period (XV-XVIII centuries). Through readings of primary and secondary texts we will discuss the cultural, religious, intellectual, and economic developments of Europe, Africa, and the Americas, as well as the connections, struggles, and mutual influences between the peoples of these three continents. Throughout the semester we will study several important topics: medieval precedents of early modern expansion; theories of empire; ideologies and systems of conquest and colonialization; the relevance of race and slavery to the understanding of the early modern Atlantic world; how different peoples perceived others and themselves; how European imperialism and colonization affected the internal development of Africa and America; the role played by religion in the Atlantic world; persistence and continuity of Native cultures and beliefs during an age of expansion; the creation of new identities; the role played by African nations in the creation of the Atlantic world; and the creation of an Atlantic economy.
Not Offered Every Year
Also Offered As: LALS 0600
1 Course Unit

HIST 0710 African American Life and Culture in Slavery
This course will examine the lives of enslaved Africans in the United States, both in the North and the South. We will engage historiographical debates, and tackle questions that have long concerned historians. For example, if slaves were wrenched from families and traded, could they sustain family relationships? If slaves worked from sun-up until sun-down, how could they create music? We will engage with primary and secondary sources to expand our understandings of values, cultural practices, and daily life among enslaved people. Topics will include: literacy, family, labor, food, music and dance, hair and clothing, religion, material culture, resistance, and memories of slavery. Several disciplines including History, Archaeology, Literature, and Music, will help us in our explorations. Written, oral, and artistic texts for the course will provide us with rich sources for exploring the nuances of slave life, and students will have opportunities to delve deeply into topics that are of particular interest to them.
Not Offered Every Year
Also Offered As: AFRC 2760
1 Course Unit

HIST 0720 Ancient Greece
The Greeks enjoy a special place in the construction of western culture and identity, and yet many of us have only the vaguest notion of what their culture was like. A few Greek myths at bedtime when we are kids, maybe a Greek tragedy like Sophokles’ Oidipous when we are at school: these are often the only contact we have with the world of the ancient Mediterranean. The story of the Greeks, however, deserves a wider audience, because so much of what we esteem in our own culture derives from them: democracy, epic poetry, lyric poetry, tragedy, history writing, philosophy, aesthetic taste, all of these and many other features of cultural life enter the West from Greece. The oracle of Apollo at Delphi had inscribed over the temple, “Know Thyself.” For us, that also means knowing the Greeks. We will cover the period from the Late Bronze Age, c. 1500 BC, down to the time of Alexander the Great, concentrating on the two hundred year interval from 600-400 BC.
Fall
Also Offered As: ANCH 0101, CLST 0101
1 Course Unit

HIST 0721 Ancient Rome
At its furthest extent during the second century CE, the Roman Empire was truly a “world empire”, stretching from northern Britain to North Africa and Egypt, encompassing the whole of Asia Minor, and bordering the Danube in its route from the Black Forest region of Germany to the Black Sea. But in its earliest history it comprised a few small hamlets on a collection of hills adjacent to the Tiber river in central Italy. Over a period of nearly 1500 years, the Roman state transformed from a mythical Kingdom to a Republic dominated by a heterogeneous, competitive aristocracy to an Empire ruled, at least notionally, by one man. It developed complex legal and administrative structures, supported a sophisticated and highly successful military machine, and sustained elaborate systems of economic production and exchange. It was, above all, a society characterized both by a willingness to include newly conquered peoples in the project of empire, and by fundamental, deep-seated practices of social exclusion and domination. This course focuses in particular upon the history of the Roman state between the fifth century BCE and the third century CE, exploring its religious and cultural practices, political, social and economic structures. It also scrutinizes the fundamental tensions and enduring conflicts that characterized this society throughout this 800-year period.
Spring
Also Offered As: ANCH 0102, CLST 0102
1 Course Unit
HIST 0722 The Novel and Marriage
The content of the course will vary from semester to semester. All works read in English. Please check the department's website for a description. Not Offered Every Year
Also Offered As: COML 2500, ENGL 0575, ENGL 2799, FREN 2500
1 Course Unit

HIST 0723 The Enlightenment
Topics vary. For current course description, please see the department's webpage: https://www.sas.upenn.edu/french/pc
Not Offered Every Year
Also Offered As: FREN 3600
1 Course Unit

HIST 0724 Portraits of Old Rus: Myth, Icon, Chronicle
Three modern-day nation-states – Russia, Ukraine, and Belarus – share and dispute the cultural heritage of Old Rus, and their political relationships revolve around interpretations of the past. Has the medieval Rus state been established by the Vikings or by the local Slavs? Is early Rus a mother state of Russia or of Ukraine, and, therefore, should it be spelled 'Kyivan Rus,' or 'Kievan Rus' in English? Has the culture of Russian political despotism been inherited from the Mongols, or is it an autochthonous ideology? The constructed past has a continuing importance in modern Russia, Ukraine, and Belarus, and it is keenly referenced, often manipulatively, in contemporary social and political discourse. For example, President Putin invaded Ukraine under a pretense that its territory has "always" been an integral part of Russia and its history. The course covers eight centuries of cultural, political, and social history of the lands that are now within the borders of Russia, Ukraine, and Belarus, from early historical records through the 18th century, a period that laid the foundation for the Russian Empire and the formation of modern nations. Students gain knowledge about formative events and prominent figures, as well as social and cultural developments during this period. The course takes multidisciplinary approach by combining the study of textual sources, objects of art and architecture, music, ritual, and film in their social and historical contexts. Students learn to analyze and interpret primary sources (historical documents and literary texts), identify their intellectual issues, and understand the historical, cultural, and social contexts in which these sources emerged. While working with these primary sources students learn to pose questions about their value and reliability as historical evidence. By exposing students to the critical examination of "the uses of the past," the course aims to teach them to appreciate the authoritative nature of historical interpretation and its practical application in contemporary social and political rhetoric. The study of pre-modern cultural and political history through the prism of nationalism theories explains many aspects of modern Belarusian, Russian, and Ukrainian societies, as well as political aspirations of their leaders. At the end of the course, students should develop understanding of the continuity and change in the history of Russia, Ukraine and Belarus, their belief systems, and nationalistic ideologies, and will be able to speak and write about these issues with competence and confidence. Fall
Also Offered As: REES 0100
Mutually Exclusive: REES 6100
1 Course Unit

HIST 0725 National Antiquities: Genealogies, Hagiographies, Holy Objects
Human societies have always wanted to know about their origins, the reasons for their customs, the foundations of their social institutions and religious beliefs, and the justification of their power structures. They have conceived of creation myths and of origins stories for their communities in order to position themselves within the past and present of the natural and human worlds. The newly Christianized kingdoms of Medieval Europe faced the challenge of securing a place in the new vision of universal Providential history, and they inscribed their own histories into the narratives they knew from the authoritative sources of the time - biblical genealogies and heroic stories inherited from the poets of classical antiquity. The deeds and virtues of saintly kings and church hierarchs provided a continuity of historical narrative on the sacred map of time and space. In the 19th century, while interest in medieval antiquity as a source of inspiration for political and cultural renewal brought about a critical study of evidence, it also effected reinterpretation and repurposing of this evidence vis-a-vis a new political concept - that of a nation. This seminar will focus on central, eastern and southeast European nations and explore three categories of "national antiquities" that have been prominent in the workings of their modern nationalisms: (1) stories of ethnogenesis (so-called, origo gentis) that narrate and explain the beginnings and genealogy of peoples and states, as they are recorded in medieval and early modern chronicles, (2) narratives about holy people, who are seen as national patron-saints, and (3) material objects of sacred significance (manuscripts, religious ceremony objects, crowns, icons) that act as symbols of political, cultural and national identities. Our approach will be two-fold: On the one hand, we will read medieval sources and ask the question of what they tell us about the mindset of the authors and societies that created them. We will think about how the knowledge of the past helped medieval societies legitimize the present and provide a model for the future. On the other hand, we will observe how medieval narratives and artifacts have been interpreted in modern times and how they became repurposed - first, during the "Romantic" stage of national awakening, then in the post-imperial era of independent nation-states, and, finally, in the post-Soviet context of reimagined Europe. We will observe how the study of nationalistic mentality enhances our understanding of how the past is represented and repurposed in scholarship and politics. Also Offered As: REES 1174
1 Course Unit
HIST 0730 Introduction to the Ancient Near East
The great pyramids and mysterious mummies of Egypt, the fabled Tower of Babel, and the laws of the Babylonian king Hammurabi are some of the things that might come to mind when you think of the ancient Near East. Yet these are only a very few of the many fascinating – and at time perplexing – aspects of the civilizations that flourished there c. 3300-300 BCE. This is where writing first developed, where people thought that the gods wrote down what would happen in the future on the lungs and livers of sacrificed sheep, and where people knew how to determine the length of hypotenuse a thousand years before the Greek Pythagoras was born. During this course, we will learn more about these other matters and discover their place in the cultures and civilizations of that area. This is an interdisciplinary survey of the history, society and culture of the ancient Near East, in particular Egypt and Mesopotamia, utilizing extensive readings from ancient texts in translation (including the Epic of Gilgamesh, "one of the great masterpieces of world literature"), but also making use of archaeological and art historical materials. The goal of the course is to gain an appreciation of the various societies of the time, to understand some of their great achievements, to become acquainted with some of the fascinating individuals of the time (such as Hatshepsut, "the women pharaoh," and Akhenaten, "the heretic king"), and to appreciate the rich heritage that they have left us.
Fall
Also Offered As: ANCH 0100, NELC 0001
1 Course Unit

HIST 0750 From Shamans to Shoguns: The Texts that Made Pre-Modern Japanese History
This course tackles about a millennium of pre-modern Japanese political, social, and cultural history (roughly, 700-1700). Instead of attempting to cover the period chronologically, as an introductory survey might, this class is structured as a series of case studies. Each of these will take a primary source as its point of departure and explore one or more facets of Japanese history and writing. In the course of each case study, lectures and discussions will branch out from the main source to examine its historical context as well as the (political, cultural, textual) traditions that informed that source's composition. In general, students will read the entire texts of the main sources (or significant portions of them), along with scholarly articles and shorter excerpts from other sources, composed at the same time or in the same vein/genre. During lectures and discussions alike, students will be asked to engage the readings, so as to grasp the specifics of Japanese history and practice the analytical skills required of historical discourse.
Not Offered Every Year
Also Offered As: EALC 1742
1 Course Unit

HIST 0775 City & Citizenship: Samurai Politics and Commoner Culture in Early Modern Japan
In the early modern period (1600-1867), Japan underwent a staggering urban transformation. Edo, the shogunal capital, grew in barely a century from a new settlement to a sprawling metropolis of over a million. Indeed, most of Japan's current urban centers descend directly from the castle towns built by regional warlords in the late sixteenth and early seventeenth centuries in an effort keep the peace after over a hundred years of civil war. As a result, Japanese cities in the early modern period became a central component of what historians have called a "re-feudalization" of society, and retained strong vestiges of their military origins. At the same time the samurai-centered space of the new samurai, while introducing some of the defining texts that have shaped our imagination of this age (from laws to epic poems, from codes of conduct to autobiographies).
Not Offered Every Year
Also Offered As: EALC 1746
1 Course Unit

HIST 0751 Japan: The Age of the Samurai
Who (or what) where the samurai? What does it mean to say that Japan had an "Age of the Samurai"? In popular imagination, pre-modern Japan has long been associated with its hereditary warrior class. Countless movies have explored the character and martial prowess of these men. Yet warriors constituted but a tiny portion of the societies they inhabited and ruled, and historians researching medieval Japan have turned their attentions to a great range of subjects and to other classes (elite and commoner alike). This class is designed to acquaint students with the complex and diverse centuries that have been called the "Age of the Samurai"-roughly, the years between ca. 1110 and 1850. In the course of the semester, we will explore the central themes in the historiography of warrior society, while introducing some of the defining texts that have shaped our imagination of this age (from laws to epic poems, from codes of conduct to autobiographies).
Not Offered Every Year
Also Offered As: EALC 1746
1 Course Unit

HIST 0752 Knights with Katanas: Medieval Japan and Europe Compared
This course aims to provide an overview of some of the main themes and problems in the history and historiography of medieval Japan by drawing comparisons with European counterparts and interpretive models. To this end, each week's readings on Japan are paired with one or more works on medieval Europe dealing with a similar theme. The primary purpose is not only to draw comparisons between the two civilizations and their development but also to use the great riches of scholarship on the European Middle Ages to shed light on possible new avenues of inquiry and perspectives on Japan.
Not Offered Every Year
Also Offered As: EALC 2711
1 Course Unit

HIST 0753 City & Citizenship: Samurai Politics and Commoner Culture in Early Modern Japan
In the early modern period (1600-1867), Japan underwent a staggering urban transformation. Edo, the shogunal capital, grew in barely a century from a new settlement to a sprawling metropolis of over a million. Indeed, most of Japan's current urban centers descend directly from the castle towns built by regional warlords in the late sixteenth and early seventeenth centuries in an effort keep the peace after over a hundred years of civil war. As a result, Japanese cities in the early modern period became a central component of what historians have called a "re-feudalization" of society, and retained strong vestiges of their military origins. At the same time the samurai-centered space of the new cities created opportunities for the development of alternative cultural practices and values by urban commoners. The juxtaposition of the regimented, honor-driven society designed and longed for by samurai and the fluid, money-driven society that grew out of the burgeoning cities' commoner quarters is one of the animating forces of the early modern period. Through study of scholarship and contemporary sources (laws and sumptuary regulations, codes of conduct, but also diaries, novels, plays), this course will explore the many facets of early modern urban society, its medieval antecedents, and its legacies in contemporary Japan.
Fall or Spring
Also Offered As: EALC 3742
1 Course Unit
HIST 0754 Law and Violence in Pre-Modern Japan
This course will be an exploration of premodern Japanese history through the lens of violence. The centuries under consideration (roughly, the eighth through nineteenth) were characterized by greatly varying levels of violence, both of the state-sanctioned variety (war, punishments for law-breakers and political losers) and of the non-sanctioned variety (piracy, banditry, warrior and peasant rebellions). Examining a wide variety of translated sources, from diaries to chronicles, from legal codes to fiction, we shall examine the changing social, political, economic, and cultural contexts of violence, in order to interrogate not only why certain periods were remarkably peaceful while others were not, but also why violence took different forms in relation to different circumstances. We shall consider how contemporaries made sense of the violence that surrounded them (or didn't) and how they divided the acceptable use of force from the wanton and society-threatening abuse of it. The course will feature presentations and several (very short) papers.
Not Offered Every Year
Also Offered As: EALC 3744
1 Course Unit

HIST 0755 History, Culture, and Religion in Early India
This course surveys the culture, religion and history of India from 2500 BCE to 1200 CE. The course examines the major cultural, religious and social factors that shaped the course of early Indian history. The following themes will be covered: the rise and fall of Harappan civilization, the “Aryan Invasion” and Vedic India, the rise of cities, states and the religions of Buddhism and Jainism, the historical context of the growth of classical Hinduism, including the Mahabharata, Ramayana and the development of the theistic temple cults of Saivism and Vaisnavism, processes of medieval agrarian expansion and cultic incorporation as well as the spread of early Indian cultural ideas in Southeast Asia. In addition to assigned secondary readings students will read select primary sources on the history of religion and culture of early India, including Vedic and Buddhist texts, Puranas and medieval temple inscriptions. Major objectives of the course will be to draw attention to India’s early cultural and religious past and to assess contemporary concerns and ideologies in influencing our understanding and representation of that past.
Fall or Spring
Also Offered As: RELS 0003, SAST 0003
1 Course Unit

HIST 0756 Gender and Sexuality in Chinese History
This course examines gender and sexuality in Chinese history from ancient to contemporary times. It focuses on historiographical developments and methods of studying gender and sexuality in history as well as in Chinese history. The readings will include, but not be limited to, works by Robin Wang, Paul Goldin, Jen-dee Lee, Patricia Ebrey, Beverly Bossier, Charlotte Furth, Susan Mann, Dorothy Ko, Francesca Bray, Yi-Li Wu, Matthew Sommer, Janet Theiss, Siyen Fei, Judith Zeitlin, Keith McMahon, Nicole Barnes, Gail Hershatter, Tani Barlow, and Lisa Rofel.
Fall or Spring
Also Offered As: EALC 3424
1 Course Unit

HIST 0757 Mongolian Civilization: Nomadic and Sedentary
This course will explore how two intertwined ways of life - pastoral nomadism and settling down for religious, educational, and economic reasons - have shaped the cultural, artistic, and intellectual traditions of Mongolia. In this course students will learn about Mongolian pastoral nomadism, and how the Mongolian economy, literature, and steppe empires were built on grass and livestock. We will also explore how Mongolians have also just as consistently used the foundations of empire to build sedentary monuments and buildings, whether funerary complexes, Buddhist monasteries, socialist boarding schools, and modern capitals. Over time, these cities have changed shape, location, and ideology, all while remaining linked to the mobile pastoralists in the countryside. We will also explore how these traditions of mobile pastoralism and urbanism were transformed in the 20th century, by urbanization, communist ideology, and the new reality of free-market democracy, ideological pluralism, and a new mining dependent economy. We will meet modern painters and musicians who interweave Mongolian nomadic traditions with contemporary world trends, and consider the future of rural traditions in a modern world.
Spring, odd numbered years only
Also Offered As: EALC 0080
1 Course Unit

HIST 0810 The City
Course will focus on Baltimore using The Wire and its sequel, We Own This City, as core texts. Following the trajectory of The Wire, the course will explore the history and development of the city and its institutions with a thematic focus on the impacts of the War on Drugs and policing on Baltimore’s African American community, urban revitalization, violence and community trauma, and the role of the carceral state in American cities.
Spring
Also Offered As: URBS 0210
1 Course Unit

HIST 0811 Faculty-Student Collaborative Action Seminar in Urban University-Community Rltn
This seminar helps students develop their capacity to solve strategic, real-world problems by working collaboratively in the classroom, on campus, and in the West Philadelphia community. Students develop proposals that demonstrate how a Penn undergraduate education might better empower students to produce, not simply “consume,” societally-useful knowledge, as well as to function as caring, contributing citizens of a democratic society. Their proposals help contribute to the improvement of education on campus and in the community, as well as to the improvement of university-community relations. Additionally, students provide college access support at Paul Robeson High School for one hour each week.
Fall or Spring
Also Offered As: AFRC 1780, URBS 1780
1 Course Unit
HIST 0812 Perspectives on Urban Poverty
This course provides an interdisciplinary introduction to 20th century urban poverty, and 20th century urban poverty knowledge. In addition to providing an historical overview of American poverty, the course is primarily concerned with the ways in which historical, cultural, political, racial, social, spatial/geographical, and economic forces have either shaped or been left out of contemporary debates on urban poverty. Of great importance, the course will evaluate competing analytic trends in the social sciences and their respective implications in terms of the question of what can be known about urban poverty in the contexts of social policy and practice, academic research, and the broader social imaginary. We will critically analyze a wide body of literature that theorizes and explains urban poverty. Course readings span the disciplines of sociology, anthropology, urban studies, history, and social welfare. Primacy will be granted to critical analysis and deconstruction of course texts, particularly with regard to the ways in which poverty knowledge creates, sustains, and constricts meaningful channels of action in urban poverty policy and practice interventions.
Fall
Also Offered As: SOCI 2944, URBS 4200
1 Course Unit

HIST 0814 American Slavery and the Law
In this course, we will work both chronologically and thematically to examine laws, constitutional provisions, and local and federal court decisions that established, regulated, and perpetuated slavery in the American colonies and states. We will concern ourselves both with change over time in the construction and application of the law, and the persistence of the desire to control and sublimate enslaved people. Our work will include engagement with secondary sources as well as immersion in the actual legal documents. Students will spend some time working with Mississippi murder cases from the 19th century. They will decipher and transcribe handwritten trial transcripts, and will historicize and analyze the cases with attention to procedural due process as well as what the testimony can tell us about the social history of the counties in which the murders occurred. The course will end with an examination of Black Codes that southern states enacted when slavery ended.
Spring
Also Offered As: AFRC 3500
1 Course Unit

HIST 0816 Undergraduate Research Seminar: The 1963 March on Washington
In this course, students will examine the origins of the March on Washington movement in the 1940s, biographies of the March organizers, and the ways the March has been memorialized over the past six decades. By exploring the dynamics that contributed to the demonstrations, students will delve into primary source documents, read secondary literature, and write their own article-length research papers based on the course material. The course will also examine the ways documentary film footage, photography, music, and media coverage of the March has contributed to understandings and misreadings of this moment in Civil Rights history.
Fall
Also Offered As: AFRC 3455
1 Course Unit

HIST 0817 Black Feminist Approaches to History and Memory
Topics vary: Black Feminist Approaches to History & Memory - The term black feminism emerged in public discourse amid the social, political, and cultural turbulence of the 1960s. The roots of black feminism, however, are much older, easily reaching back to the work of black women abolitionists and social critics of the nineteenth century. The concept continued to grow and evolve in the work of twentieth century black women writers, journalists, activists, and educators as they sought to document black women's lives. Collectively, their work established black feminism as a political practice dedicated to the equality of all people. More recently, black feminism has been deployed as a tool for theoretical and scholarly analysis that is characterized by an understanding that race, class, gender, and sexuality are inextricably interconnected. Using materials such as slave narratives, social criticism, and archival sources, this course will explore the theoretical and practical applications of black feminist thought in nineteenth and twentieth century North American culture and politics. In particular, we will consider the symbols and practices (storytelling, myth-making, art, archival research) that black women use to document lives. We will ask: how do these methods of documentation inform our understanding of the past and the production of historical knowledge? How can we understand black feminism as both theory and practice? And what are the implications of black feminist approaches for current research and scholarship? We will give particular attention to concepts such as gender, race, memory, the archive, and embodied knowledge to complicate our understanding of historical documentation, epistemology, and authenticity. The course material will include scholarship by Harriet Jacobs, Audre Lorde, Saidiya Hartman, Hazel Carby, Hershini Young, Evelyn Brooks Higginbotham, Toni Morrison, and others. (Image: From In Praise of Shadows, Kara Walker (2009). See the Africana Studies Department's website at https://africana.sas.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: AFRC 4387, GSWS 4387, LALS 4387
1 Course Unit

HIST 0818 Sex, Love, and Race in African American Life and History
This course discusses the political and social implications of sex, race and personal relationships in U.S. political and social history. In this class, we examine how so-called 'emotional,' human experiences such as falling in love, engaging in a sexual relationship, marriage, coming out of the closet, and other deeply personal events over the course of a lifetime are shaped by political, legal and historical forces. This course will examine the history of marriage rights, claims to ethnic and racial identity, activism among multiracial people in the United States, sex education in public schools, and debates about marriage and family rights in the 20th and 21st centuries.
Fall
Also Offered As: AFRC 2545, GSWS 2545
1 Course Unit

HIST 0819 Queer Life in U.S. History
Queerness has held a variety of meanings and queer life has looked different over the past several centuries of United States history, but it certainly isn’t new. This course traces queer existence—in terms of both gender and sexuality—from the seventeenth century through the present, and foregrounds lived experience, identity formation, community development, and political consciousness. We will attend closely to how race, class, immigration status, and ability shape and are shaped by queer life, and engage with current topics of concern in the field of queer history, like the rural/urban divide, capitalism and neoliberalism, and queer memory.
Also Offered As: GSWS 2320
1 Course Unit
HIST 0820 Freud: The Invention of Psychoanalysis
No other person of the twentieth century has probably influenced scientific thought, humanistic scholarship, medical therapy, and popular culture as much as Sigmund Freud. This course will study his work, its cultural background, and its impact on us today. In the first part of the course, we will learn about Freud’s life and the Viennese culture of his time. We will then move to a discussion of seminal texts, such as excerpts from his Interpretation of Dreams, case studies, as well as essays on psychoanalytic practice, human development, definitions of gender and sex, neuroses, and culture in general. In the final part of the course, we will discuss the impact of Freud’s work. Guest lecturers from the medical field, history of science, psychology, and the humanities will offer insights into the reception of Freud’s work, and its consequences for various fields of study and therapy.
Not Offered Every Year
Also Offered As: COML 1010, GRMN 1010, GSWS 1010
1 Course Unit

HIST 0821 Berlin: History, Politics, Culture
What do you know about Berlin’s history, architecture, culture, and political life? The present course will offer a survey of the history of Prussia, beginning with the seventeenth century, and the unification of the small towns of Berlin and Koelln to establish a new capital for this country. It will tell the story of Berlin’s rising political prominence in the eighteenth century, and its position as a center of the German and Jewish Enlightenment. It will follow Berlin’s transformation into an industrial city in the nineteenth century, its rise to metropolis in the early twentieth century, its history during the Third Reich, and the post-war cold war period. The course will conclude its historical survey with a consideration of Berlin’s position as a capital in reunified Germany. The historical survey will be supplemented by a study of Berlin’s urban structure, its significant architecture from the eighteenth century (i.e. Schinkel) to the nineteenth (new worker’s housing, garden suburbs) and twentieth centuries (Bauhaus, Speer designs, postwar rebuilding, GDR housing projects, post-unification building boom). In addition, we will read literary texts about the city, and consider the visual art and music created in and about Berlin, and focus on Berlin’s Jewish history. The course will be interdisciplinary with the fields of German Studies, history, history of art, urban studies, and German-Jewish studies. It is also designed as a preparation for undergraduate students who are considering spending a junior semester with the Penn Abroad Program in Berlin.
Not Offered Every Year
Also Offered As: ARTH 2370, COML 1040, GRMN 1040, URBS 1070
1 Course Unit

HIST 0822 Universal Language: From the Tower of Babel to Artificial Intelligence
This is a course in European intellectual history. It explores the historical trajectory, from antiquity to the present day, of the idea that there once was, and again could be, a universal and perfect language among the human race. If recovered, it can explain the origins and meaning of human experience, and can enable universal understanding and world peace. The tantalizing question of the possibility of a universal language have been vital and thought-provoking throughout the history of humanity. The idea that the language spoken by Adam and Eve was a language which perfectly expressed the nature of all earthly objects and concepts has occupied the minds of intellectuals for almost two millennia. In defiance of the Christian biblical myth of the confusion of languages and nations at the Tower of Babel, they have over and over tried to overcome divine punishment and discover the path back to harmonious existence. By recovering or recreating a universal language, theologians hoped to be able to experience the divine; philosophers believed that it would enable apprehension of the laws of nature, while mystic cabalists saw in it direct access to hidden knowledge. In reconstructing a proto-language, 19th-century Indo-Europeanist philologists saw the means to study the early stages of human development. Even in the 20th century, romantic idealists, such as the inventor of Esperanto Ludwik Zamenhof, strived to construct languages to enable understanding among estranged nations. For writers and poets of all times, from Cyrano de Bergerac to Velimir Khlebnikov, the idea of a universal and perfect language has been an inexhaustible source of inspiration. Today, this idea echoes in theories of universal and generative grammars, in approaching English as a global tongue, and in various attempts to create artificial languages, even a language for cosmic communication. Each week we address a particular period and set of theories to learn about universal language projects, but above all, the course examines fundamental questions of what language is and how it functions in human society.
Fall or Spring
Also Offered As: COML 0095, ENGL 1445, REES 1177
1 Course Unit

HIST 0823 Portraits of Russian Society: Art, Fiction, Drama
This course covers 19C Russian cultural and social history. Each week-long unit is organized around a single medium-length text (novella, play, memoir) which opens up a single scene of social history birth, death, duel, courtship, tsar, and so on. Each of these main texts is accompanied by a set of supplementary materials paintings, historical readings, cultural-analytical readings, excerpts from other literary works, etc. The object of the course is to understand the social codes and rituals that informed nineteenth-century Russian life, and to apply this knowledge in interpreting literary texts, other cultural objects, and even historical and social documents (letters, memoranda, etc.). We will attempt to understand social history and literary interpretation as separate disciplines yet also as disciplines that can inform one another. In short: we will read the social history through the text, and read the text against the social history.
Not Offered Every Year
Also Offered As: REES 0110
1 Course Unit
HIST 0824 Russia and the West
This course will explore the representations of the West in eighteenth- and nineteenth-century Russian literature and philosophy. We will consider the Russian visions of various events and aspects of Western political and social life: Revolutions, educational system, public executions, resorts, etc. within the context of Russian intellectual history. We will examine how images of the West reflect Russia's own cultural concerns, anticipations, and biases, as well as aesthetic preoccupations and interests of Russian writers. The discussion will include literary works by Karamzin, Pushkin, Gogol, Dostoevsky, Leskov, and Tolstoy, as well as non-fictional documents, such as travelers' letters, diaries, and historiosophical treatises of Russian Freemasons, Romantic and Positivist thinkers, and Russian social philosophers of the late Nineteenth century. A basic knowledge of nineteenth-century European history is desirable. The class will consist of lectures, discussion, short writing assignments, and two in-class tests.
Not Offered Every Year
Also Offered As: COML 2020, REES 0190
1 Course Unit

HIST 0825 Portraits of Soviet Society: Literature, Film, Drama
How can art and literature open a window on Russian lives lived over the course of the tumultuous twentieth century? This course adopts a unique approach to questions of cultural and social history. Each week-long unit is organized around a medium-length film, text or set of texts by some of the most important cultural figures of the era (novella, play, memoir, film, short stories) which opens up a single scene of social history: work, village, avant-garde, war, Gulag, and so on. Each cultural work is accompanied by a set of supplementary materials: historical readings, paintings, cultural-analytical readings, excerpts from other literary works, etc. We will read social history through culture and culture through history.
Spring
Also Offered As: REES 0130
1 Course Unit

HIST 0830 Introduction to the Middle East
This is the second half of the Near East sequence. This course surveys Islamic civilization from circa 600 (the rise of Islam) to the start of the modern era and concentrates on political, social, and cultural trends. Although the emphasis will be on Middle Eastern societies, we will occasionally consider developments in other parts of the world, such as sub-Saharan Africa, Central Asia, and Spain, where Islamic civilization was or has been influential. Our goal is to understand the shared features that have distinguished Islamic civilization as well as the varieties of experience that have endowed it with so much diversity.
Spring
Also Offered As: NELC 0002
1 Course Unit

HIST 0835 North Africa: History, Culture, Society
This interdisciplinary seminar aims to introduce students to the countries of North Africa, with a focus on the Maghreb and Libya (1830-present). It does so while examining the region's close economic and cultural connections to sub-Saharan Africa, Europe, and the Middle East. Readings will include histories, political analyses, anthropological studies, and novels, and will cover a wide range of topics such as colonial and postcolonial experiences, developments in Islamic thought and practice, and labor migration. This class is intended for juniors, seniors, and graduate students.
Not Offered Every Year
Also Offered As: AFRC 1600, NELC 1600
1 Course Unit

HIST 0836 Muslims, Christians, and Jews in the Middle East: Historical Perspectives
A reading- and discussion-intensive seminar that addresses several recurring questions with regard to the Middle East and North Africa. How have Islam, Judaism, and Christianity influenced each other in these regions historically? How have Jews, Christians, and Muslims fared as religious minorities? To what extent have communal relations been characterized by harmony and cooperation, or by strife and discord, and how have these relations changed in different contexts over time? To what extent and under what circumstances have members of these communities converted, intermarried, formed business alliances, and adopted or developed similar customs? How has the emergence of the modern nation-state system affected communal relations as well as the legal or social status of religious minorities in particular countries? How important has religion been as one variable in social identity (along with sect, ethnicity, class, gender, etc.), and to what extent has religious identity figured into regional conflicts and wars? The focus of the class will be on the modern period (c. 1800-present) although we will read about some relevant trends in the early and middle Islamic periods as well. Students will also pursue individually tailored research to produce final papers. Prior background in Islamic studies and Middle Eastern history is required. Middle Eastern history is required. This class is intended for juniors, seniors, and graduate students.
Fall or Spring
Also Offered As: JWST 1605, NELC 1605, RELS 1605
1 Course Unit

HIST 0837 Religion and Society in Africa
In recent decades, many African countries have perennially ranked very high among the most religious. This course serves as an introduction to major forms of religiosity in sub-Saharan Africa. Emphasis will be devoted to the indigenous religious traditions, Christianity and Islam, as they are practiced on the continent. We will examine how these religious traditions intersect with various aspects of life on the continent. The aim of this class is to help students to better understand various aspects of African cultures by dismantling stereotypes and assumptions that have long characterized the study of religions in Africa. The readings and lectures will be drawn from historical and a few anthropological, and literary sources.
Also Offered As: AFRC 2870, RELS 2870
1 Course Unit

HIST 0838 Medicine, Health and Healing in Africa
This seminar course will examine how sub-Saharan Africans have interpreted and dealt with issues of health, healing, and medicine under colonial and postcolonial regimes. It will also look at how various social, economic, religious, and political factors have impacted health and healing on the continent and shaped African responses. Class discussions will center around both general themes affecting health and healing in Africa as well as case studies drawn from historical and anthropological works.
Fall or Spring
Also Offered As: AFRC 3110
1 Course Unit
HIST 0840 Love, Anger, Madness: History and Silences in Modern Haiti
On the stage of modern world history, Haiti plays the unique role as both the exceptionally victorious and tragic character. This course interrogates archival documents, oral histories, historical texts, and prose created within the nation and her diaspora in order to establish a nuanced image of the projection of Haiti’s modern history. Using two classic Haitian texts, Marie Vieux-Chauvet’s Love, Anger, Madness (1968) and Michel-Rolph Trouillot’s Silencing the Past: Power and the Production of History (1995), this course examines how, why, and to what end Haiti’s history and popular narratives about the country have served to construct and dismantle global movements, popular culture, and meanings of race, gender, and citizenship in the Americas. In our historical examination, we will question some of the iconic representations of Haiti through literature that deepen the affective historical profile of Haiti with interrogations of culture, sexuality, political, and media performance. Students will become familiar with the post-colonial history of Haiti and the region, meanings of race, and the production of history. The course is a research and historical methods seminar. Students will conduct archival research and write narratives from primary source material. This course qualifies as a “methods” course for Africana Studies undergraduate majors and minors.
Spring
Also Offered As: AFRC 3510, GSWS 3510, LALS 3510
1 Course Unit

HIST 0850 Introduction to Modern India
This introductory course will provide an outline of major events and themes in Indian history, from the Mughal Empire in the 16th century to the re-emergence of India as a global player in the 21st century. The course will discuss the following themes: society and economy in Mughal India; global trade between India and the West in the 17th century; the rise of the English East India Company’s control over Indian subcontinent in the 18th century; its emergence and transformation of India into a colonial economy; social and religious reform movements in the 19th century; the emergence of elite and popular anti-colonial nationalisms; independence and the partition of the subcontinent; the emergence of the world’s largest democracy; the making of an Indian middle class; and the nuclearization of South Asia.
Fall or Spring
Also Offered As: SAST 0001
1 Course Unit

HIST 0851 India: Culture and Society
What makes India INDIA? Religion and Philosophy? Architectural splendor? Kingdoms? Caste? The position of women? This course will introduce students to India by studying a range of social and cultural institutions that have historically assumed to be definitive India. Through primary texts, novels and historical sociological analysis, we will ask how these institutions have been reproduced and transformed, and assess their significance for contemporary Indian society.
Fall or Spring
Also Offered As: RELS 0008, SAST 0008
1 Course Unit

HIST 0853 Adivasis/Indigenous Peoples & British Colonialism in India
Modern Western colonialism impacted the world in many ways. However, each country and community has had a different encounter and experience with colonialism. For the Adivasis (indigenous peoples) of India, it was catastrophic and marked a new phase in their history. The pre-colonial symbolizes a period of freedom in the hills and forest, whereas the colonial era symbolizes state coercion, eviction from land and the end of free movement in the forest. The proposed course discusses Adivasis’ encounters with the British colonial state. The course examines Indian history from the perspectives of Adivasis and contrasts these with dominant paradigms of Indian history. In this way, the course allows students to understand India from a different perspective. Under British colonialism, the diverse ethnic self-governing communities were imagined as primitive, uncivilized, barbaric, violent, backward and childlike people. The course discusses how such constructions impacted Adivasi social life and development. It traces how the expansion of the colonial state in forests and hills put an end to self-rule and induced massive migration from the plains of India and asked how Adivasi areas were integrated into the colonial economy. How did the colonial state use revenue and forest policies and regulations to bring these areas under its control? How did commercialization of agriculture and forest conservation work to further marginalize Adivasis? The course also examines how Adivasi knowledge of cultivation and forest conservation were viewed by the colonial state and asks why the colonial state encouraged caste-Hindu peasant migration into Adivasi areas. Finally, it traces the ways that colonial intervention has resulted in a series of contestations, acts of resistance, and insurgencies by Adivasi groups? Tracing forms of Adivasi resistance, the course puts these into conversation with intellectual history, emphasizing the role of rumours, myths, and orality, which provided the basis for the new insurgent consciousness that spread throughout Adivasi communities. Adivasi resistance movements have been documented and analyzed by colonial rulers and anthropologists. Colonial discourses were successful in criminalizing Adivasi politics. Ironically, many colonial-era discourses concerning Adivasis have been perpetuated within the post-colonial academy. The anti-colonial struggles of Adivasis were constructed as sporadic, spontaneous, unorganized and apolitical. The inauguration of the Subaltern Studies Project has reversed such arguments and attempted to provide ideological integrity to Adivasi politics. Students will be introduced to important literature on Adivasi anti-colonial insurgent consciousness and will be encouraged to think critically about the concepts and theories of subaltern politics. Assigned readings include texts by James Scott, Ranajit Guha, David Arnold, David Hardiman, Ajay Skaria, Dhanagare, Ramachandra Guha, Biswamoy Pati, Alpa Shah, Crispin Bates, Jangkhomang Guite and Bangya Bhukya. One aim of the course is to sensitize the students to how the political and cultural mobilizations by subalterns have contributed to the shaping of democracy.
Spring
Also Offered As: ANTH 2109, SAST 2239, SOCI 2974
Mutually Exclusive: SAST 5239
1 Course Unit
HIST 0860 Introduction to Korean Civilization
What is Korean civilization—is it a singular notion, or are there many that became what we know as South and North Korea today? How have Koreans interpreted and represented their own cultures, traditions, and history through the years? This introductory course offers a broad chronological survey of Korean history, arts, and culture from its early days to the present moment. Our readings will include a selection of literature—from foundation myths, poetry, to modern fiction—as well as royal edicts and political manifestoes and op-eds. Alongside the readings, we will also engage with multimedia resources including various artwork, film, and music. Through these cultural texts, we will explore the political, economic, and social order of different historical eras and identify major currents and events on the Korean peninsula such as shifting political climates, class struggles, gender dynamics, and complex relations with its East Asian neighbors and the West. We will also be treated to guest lectures from the interdisciplinary Korean studies scholars affiliated with the James Joo-Jin Kim Center for Korean Studies at Penn. By the end of the semester, students will become familiar with the many continuities and breaks that constitute Korean culture from ancient to modern times and gain good insight into where it might be headed in the future. No prior knowledge of Korea or the Korean language is required.
Spring
Also Offered As: EALC 0060
1 Course Unit

HIST 0867 Divinities, Diviners and Divinations: Religions of the African Diaspora
This undergraduate course is designed to provide students with a broad introduction to major themes within African Diasporic Religions. This is an interdisciplinary course. We will be drawing upon various theoretical methods, i.e. historical, ethnographical, and autobiographical. Additionally, we will be examining visual media to understand the presence and value of African Diasporic Religions in the 20th/21st century. Special attention will be given to Vodou, Santeria, and Candomble in the Americas. Thematically, we will work through concepts of the diaspora; memory, myth and authenticity; ritual and material practices; borders, migration, gender and sexuality, religious commodities and exchange. As we traverse through these various religious traditions, it is through the readings, lectures, invited speakers, films and class discussions that we will develop a complex understanding of integrative religious worldviews that impacts every aspect of life: family structure, gender relations, education, healing, economics, politics, arts, and so on. It is with the hopes that we can apprehend how these traditions are indeed an American Religion.
Fall or Spring
Also Offered As: AFRC 1201, GSWS 1202
1 Course Unit

HIST 0870 Introduction to Digital Humanities
This course provides an introduction to foundational skills common in digital humanities (DH). It covers a range of new technologies and methods and will empower scholars in literary studies and across humanities disciplines to take advantage of established and emerging digital research tools. Students will learn basic coding techniques that will enable them to work with a range data including literary texts and utilize techniques such as text mining, network analysis, and other computational approaches. See the English Department’s website at www/english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: COML 1650, ENGL 1650
1 Course Unit

HIST 0871 The Material Past in a Digital World
The material remains of the human past -objects and spaces- provide tangible evidence of past people’s lives. Today’s information technologies improve our ability to document, study, and present these materials. But what does it mean to deal with material evidence in a virtual context? In this class, students will learn basic digital methods for studying the past while working with objects, including those in the collections of the Penn Museum. This class will teach relational database design and 3D object modeling. As we learn about acquiring and managing data, we will gain valuable experience in the evaluation and use of digital tools. The digital humanities are a platform both for learning the basic digital literacy students need to succeed in today’s world and for discussing the human consequences of these new technologies and data. We will discuss information technology’s impact on the study and presentation of the past, including topics such as public participation in archaeological projects, educational technologies in museum galleries, and the issues raised by digitizing and disseminating historic texts and objects. Finally, we will touch on technology’s role in the preservation of the past in today’s turbulent world. No prior technical experience is required, but we hope students will share an enthusiasm for the past.
Also Offered As: ANTH 1303, ARTH 0127, CLST 1303
1 Course Unit

HIST 0872 Liquid Histories and Floating Archives
Climate change transforms the natural and built environments, and it is re-shaping how we understand, make sense, and care for our past. Climate changes history. This course explores the Anthropocene, the age when humans are remaking earth’s systems, from an on-water perspective. In on-line dialogue and video conferences with research teams in port cities on four continents, this undergraduate course focuses on Philadelphia as one case study of how rising waters are transfiguring urban history, as well as its present and future. Students projects take them into the archives at the Independence Seaport Museum and at Bartram’s Garden. Field trips by boat on the Schuylkill and Delaware Rivers and on land to the Port of Philadelphia and to the John Heinz National Wildlife Refuge invite transhistorical dialogues about how colonial and then industrial-era energy and port infrastructure transformed the region’s vast tidal marshlands wetlands. Excursions also help document how extreme rain events, storms, and rising waters are re-making the built environment, redrawing lines that had demarcated land from water. In dialogue with one another and invited guest artists, writers, and landscape architects, students final projects consider how our waters might themselves be read and investigated as archives. What do rising seas subsume and hold? Whose stories do they tell? What floats to the surface?
Not Offered Every Year
Also Offered As: ANTH 1440, COML 1140, ENGL 1589, ENVS 1440, GRMN 1140
1 Course Unit
HIST 0873 Existence in Black
Racial, colonial, and other political formations have encumbered Black existence since at least the fifteenth-century. Black experiences of and reflections on these matters have been the subject of existential writings and artistic expressions ranging from the blues to reggae, fiction and non-fiction. Reading some of these texts alongside canonical texts in European existential philosophy, this class will examine how issues of freedom self, alienation, finitude, absurdity, race, and gender shape and are shaped by the global Black experience. Since Black aliveness is literally critical to Black existential philosophy, we shall also engage questions of Black flourishing amidst the potential for pessimism and nihilism.

Spring
Also Offered As: AFRC 4406, PHIL 4515
1 Course Unit

HIST 0874 The Inclusive City: Participatory Design at Taller Puertorriqueno
The Inclusive City: Participatory Design at Taller Puertorriqueno seminar will provide students in and beyond the Architecture department with the opportunity to learn from and with Taller Puertorriqueno about community, spacemaking, and memorialization in the built environment. Students will learn about a neighborhood and engage in collaborative participatory design, engaging primary sources in the Taller archives, and working on a collaborative design project. Starting from a general (region-urban) to particular (neighborhood) methodology research on site across several categories, and engaging primary sources in the Taller archives, the students will generate relational territorial cartographies and mappings, allowing them to develop a master architectural plan that includes urban strategies, as well as dynamic processes of community development. As a truly interdisciplinary course, students will utilize design concepts, historical methods, and ethnoracial lenses of analysis to collaborate with Taller Puertorriqueno to develop targeted architectural solutions that align with the organization's programmatic goals.

Not Offered Every Year
Also Offered As: AFRC 4920, LALS 4910, URBS 4910
1 Course Unit

HIST 0875 Classicism in the Black Atlantic, 1776-1968
During the eighteenth century, Britain, France, and the other imperial powers embraced the classical aesthetic to broadcast their genealogical connections with ancient Greece and Rome. As they expanded across the Atlantic, they brought with them an aesthetic of white marble, symmetry, restraint, and cultivated ‘taste’ that served to aestheticize the dependence of the imperial system on enslaved labor. This course explores how freed slaves and their descendants negotiated with the ideology of classicism during the long battle for civil rights in the Atlantic world. Beginning with the work of Phillis Wheatley, Olaudah Equiano, Ignatius Sancho, and Ottobah Cugoano, we will investigate how participants in the world of the work of Phillis Wheatley, Olaudah Equiano, Ignatius Sancho, and during the long battle for civil rights in the Atlantic world. Beginning with the work of Phillis Wheatley, Olaudah Equiano, Ignatius Sancho, and Ottobah Cugoano, we will investigate how participants in the world of

HIST 0876 Medicine in History
This course surveys the history of medical knowledge and practice from antiquity to the present. No prior background in the history of science or medicine is required. The course has two principal goals: (1) to give students a practical introduction to the fundamental questions and methods of the history of medicine, and (2) to foster a nuanced, critical understanding of medicine's complex role in contemporary society. The course takes a broadly chronological approach, blending the perspectives of the patient, the physician, and society as a whole—recognizing that medicine has always aspired to "treat" healthy people as well as the sick and infirm. Rather than history "from the top down" or "from the bottom up," this course sets its sights on history from the inside out. This means, first, that medical knowledge and practice is understood through the personal experiences of patients and caregivers. It also means that lectures and discussions will take the long-discredited knowledge and treatments of the past seriously, on their own terms, rather than judging them by today's standards. Required readings consist largely of primary sources, from elite medical texts to patient diaries. Short research assignments will encourage students to adopt the perspectives of a range of actors in various historical eras.

Fall
Also Offered As: HSOC 0400, STSC 0400
1 Course Unit

HIST 0877 Modern Biology and Social Implications
This course covers the history of biology in the 19th and 20th centuries, giving equal consideration to three dominant themes: evolutionary biology, classical genetics, and molecular biology. The course is intended for students with some background in the history of science as well as in biology, although no specific knowledge of either subject is required. We will have three main goals: first, to delineate the content of the leading biological theories and experimental practices of the past two centuries; second, to situate these theories and practices in their historical context, noting the complex interplay between them and the dominant social, political, and economic trends; and, third, to critically evaluate various methodological approaches to the history of science.

Fall or Spring
Also Offered As: STSC 1151
1 Course Unit

HIST 0878 Science, Labor and Capital
This course looks at the intertwined history of science, labor and capital since the fifteenth century. Starting with the surge of patents for labor-saving devices in fifteenth century Italy and coming all the way down to the contemporary neoliberal university, the culture of science and the cultures of labor and capital have always remained in intense conversation. The first half of the course will focus on the early relations between science, labor and capital. We will discuss patterns of employment for scientists, the relationship between manual work and intellectual work, the scientific aspects of commercial capitalism as well as the debates on the transition to capitalism. The second half of the course will focus on the period from the nineteenth century to the present. We will talk about colonialism and science, the social ascendance of the scientist in relation to the technician, as well as the political economy of contemporary science and of the contemporary university. This is a seminar course and will require regular participation. Some knowledge of the existing literature on capitalism, especially the writings of Ellen Wood and E.P Thompson, are recommended but not required.

Also Offered As: STSC 3088
1 Course Unit
HIST 0879 Global Queer History
Sexuality has a history that is both geographically and culturally specific. For this reason, this course aims to destabilize familiar sexual categories and identities by exploring how it was (and is) to be queer in different parts of the world. We will historicize sexual orientation as a category anchored in Western medical and legal discourses; we will link the history of sexuality with that of capitalism, colonialism, and racism; and we will evaluate the idea of “Gay Imperialism” and how it is resisted around the world. The course is not comprehensive either chronologically or geographically. Instead, it considers some key topics in the history of queer sexualities; it provides a general historiographical background; and it introduces a toolbox for doing critical queer history with a global perspective. Finally, we will address how contemporary LBGTQ+ issues around the world can be put into historical perspective, and why queer history is essential for achieving the goals of social justice.
Also Offered As: GSWS 2879
1 Course Unit

HIST 1100 North American Colonial History
A survey of the development of American colonial society, 1607-1750, with emphasis on the regional differences between life in early New England, the Mid-Atlantic, and the South, as well as the relationships between British colonists, Native Americans, and African Americans.
Fall
1 Course Unit

HIST 1110 Hamilton's America: US History 1776-1804
In this course, students will learn about the political, constitutional, and social history of the United States from 1776 (the year the colonies declared their independence from Great Britain) to 1800 (the year Thomas Jefferson won the presidency in a heated partisan election for the presidency). Alexander Hamilton, an influential American statesman during this time, will be our guide to the many events and transformations that occurred during these years. The course is not, however, a biographical course about Hamilton. Topics covered include: the politics of independence, the Revolutionary War, the development of state and national republics, the creation of the U.S. Constitution, the role of ordinary people in the politics of the time period, the problem of slavery in the new nation, Native American power and loss, diplomatic affairs, and the rise of partisan politics.
Spring
1 Course Unit

HIST 1119 History of American Law to 1877
This course is designed to explore major themes and events in early American legal history. Because of the richness of the subject matter and the wealth of sources available, we will be selective in our focus. The course will emphasize several core areas of legal development that run throughout colonial and early national history: 1) the state: including topics such as war and other military or police action, insurrection, revolution, regulation, courts, economic policy, and public health; 2) labor: including race and racially-based slavery, varied forms of servitude and labor coercion, household labor, industrialization, unionization, and market development; 3) property: including property in persons, land, and business, and the role of lawyers in promoting the creation of wealth; 4) private spaces: including family, individual rights, sexuality, gender, and private relations of authority; 5) constitutionalism: various methods of setting norms (rules, principles, values) that create, structure, and define the limits of government power and authority in colonial/imperial, state, and national contexts; 6) democracy and belonging: including questions of citizenship, voting rights, and participation in public life. By placing primary sources within historical context, the course will expose students to the ways that legal change has affected the course of American history and contemporary life. The course will be conducted primarily in lecture format, but I invite student questions and participation. In the end, the central aim of this course is to acquaint students with a keen sense of the ways that law has operated to liberate, constrain, and organize Americans. Ideally, students will come away with sharper critical thinking and reading skills, as well. *This course is a core requirement for the Legal Studies and History Minor (LSHM).*
Fall
Also Offered As: AFRC 1119
1 Course Unit

HIST 1121 The American South
Southern culture and history from 1607-1860, from Jamestown to secession. Traces the rise of slavery and plantation society, the growth of Southern sectionalism and its explosion into Civil War.
Two Term Class, Student may enter either term; credit given for either
Also Offered As: AFRC 1121
1 Course Unit

HIST 1122 Witches, Rebels, and Prophets: People on the Margins in Early America
This course explores the lost worlds of witches, sexual offenders, rebellious enslaved people, rebellious colonists, and Native American leaders from the seventeenth to the nineteenth centuries. Using the life stories of unusual individuals from the past, we try to make sense of their contentious relationships with their societies. By following the careers of the troublemakers, the criminals, the rebels, and other non-conformists, we also learn about the foundations of social order and the impulse to reform that rocked American society during the nineteenth century. The lives of these unique “movers and shakers” help us to understand the issues that Americans debated in the years leading up to the Civil War.
Fall
Also Offered As: AFRC 1122, GSWS 1122
1 Course Unit
HIST 1127 African American History 1550-1876
This course examines the experiences of Africans and African Americans in colonial America and in the United States to 1865. We will explore a variety of themes through the use of primary and secondary sources. Topics include: the development of racial slavery, labor, community, gender, religion, education, law, protest, resistance, and abolition.
Fall
Also Offered As: AFRC 1176
1 Course Unit

HIST 1150 American Jewish Experience
This course offers a comprehensive survey of American Jewish history from the colonial period to the present. It will cover the different waves of Jewish immigration to the United States and examine the construction of Jewish political, cultural, and religious life in America. Topics will include: American Judaism, the Jewish labor movement, Jewish politics and popular culture, and the responses of American Jews to the Holocaust and the State of Israel.
Fall or Spring
Also Offered As: JWST 1150, RELS 1150
1 Course Unit

HIST 1151 Race, Space and Place in American History
This course provides with a historical introduction to America’s racial and ethnic groupings by examining the social, spatial and historical forces that have defined these groups. Weekly lectures and readings trace American racial formations, identities and experiences from the age of Columbus to the present day. Following the work of historians and geographers who emphasize the importance of space and place in constructions of racial and ethnic identity, most of the class readings chart the evolution of such identities within specific regions or communities. Early readings illuminate the origins of categories such as “white,” black, “Native American” and “Asian” by exploring the colonial encounters in which these identities first took shape; while later readings trace how these identities have been maintained and/or changed over time. Less a product of racial attitudes than of economic and political interests, early American conceptions of race first took shape amidst contests over land and labor that pitted European immigrants against the indigenous peoples of North America, and ultimately led to the development of racial slavery. Colonial legal distinctions between Christians and Heathens were supplanted by legislation that defined people by race and ethnicity. Over time these distinctions were reinforced by a variety of other forces. Distinctive from place to place, America’s racial and ethnic groupings have been shaped and reshaped by regional economies such as the slave South, political initiatives such as Indian Removal and Chinese Exclusion Acts, a changing national immigration policy, and sexual and social intermixture and assimilation. Course readings will examine the links between race, region, labor, law, immigration, politics, sexuality and the construction and character of racialized spaces and places in America.
Also Offered As: AFRC 1151
1 Course Unit

HIST 1153 Transformations of Urban America: Making the Unequal Metropolis, 1945 to Today
The course traces the economic, social, and political history of American cities after World War II. It focuses on how the economic problems of the industrial city were compounded by the racial conflicts of the 1950s and 1960s and the fiscal crises of the 1970s. The last part of the course examines the forces that have led to the revitalization and stark inequality of cities in recent years.
Fall or Spring
Also Offered As: URBS 1153
1 Course Unit

HIST 1154 Philadelphia, 1700-2000
Using Philadelphia as a lens, this course will examine the transformation of American cities from the colonial period to the present. Through readings, lectures, and tours, we will consider urbanization and suburbanization, race, class, and ethnicity, economic development, poverty and inequality, housing and neighborhood change, urban institutions, and politics and public policy.
Fall or Spring
Also Offered As: URBS 1154
1 Course Unit

HIST 1155 Introduction to Asian American History
This course will provide an introduction to the history of Asian Pacific Americans, focusing on the wide diversity of migrant experiences, as well as the continuing legacies of Orientalism on American-born APA’s. Issues of race, class, gender, and sexuality will also be examined.
Spring
Also Offered As: ASAM 0102
1 Course Unit

HIST 1161 American Capitalism
A broad overview of American economic history will be provided by focusing on the following topics: colonial trade patterns, the growth of the market economy, the political economy of slavery, industrial expansion, segmentation in the labor force and changes in work, technological and organizational innovations, business cycles, the rise of the corporate welfare state, the growth of monopoly capitalism, and current economic problems in historical perspective.
Fall or Spring
Also Offered As: ECON 0610
1 Course Unit

HIST 1162 The American West
This lecture course surveys that vast and varied region now known as the American West, and the earlier “wests” that preceded it. The U.S. West contains a distinctive mixture of mountains and deserts; wide-open spaces and sprawling cities; Natives and newcomers. This region functions as an emblematic space in U.S. pop culture and national mythology (think “cowboys and Indians,” Yellowstone and Grand Canyon, Hollywood and Vegas). It also figures prominently in environmental history, political history, and the histories of religion, race, war, and diplomacy. Today, the West is where the United States faces China across the Pacific; and where the republic meets its neighbor Mexico along a 2,000-mile border, some of it barricaded. From Great Plains Indigenous equestrian innovators in the eighteenth century to Bay Area tech entrepreneurs in the contemporary moment, this course gives the West and all its peoples their due.
Spring
1 Course Unit
**HIST 1163 Modern American Culture**

Through the twentieth century, American culture took on new forms and meanings, spurred by technological innovation, commerce, and institutions, and shaped by an ever-changing population. In the process, American culture became self-consciously "modern"-embraced, contested, repudiated, and continually redefined. This course explores the history of American culture from the 1890s to the 1990s, with a focus on the following questions: Why did culture become such an important part of American economic, social, and political life in the twentieth century? How has culture been created, understood, and mobilized by different groups in American society at different times? What have been the politics of culture over the twentieth century? Topics include the rise of "culture industries" and mass entertainment, including amusement parks, film, radio, and television; the growth of consumer culture; the impact of gender in such arenas as sports and fashion; the role of working-class peoples, African Americans, and immigrants in American culture; the cultural response to the Depression and World War II; and popular activism. The course emphasizes the study of primary documents—journalism, fiction, letters and diaries, music, photographs, and film—as a means of understanding the past.

Fall or Spring
1 Course Unit

**HIST 1164 American Monuments: Designs for the Future**

Recent protests about monuments have exposed this truth: arguments over the past are arguments about the future. This place-based course examines U.S. public memory in relation to the built environment. Students will learn about the making of the nation's memorial landscape in the long nineteenth century, its remaking in the twentieth century, and its possible futures in the (un)making. Lectures and readings will cover a variety of commemorative structures and practices, from the permanent to the ephemeral and the virtual. Working in teams, students will create proposals for innovative monuments of their own design. While contextualized in national and international history, student projects will be grounded in present-day Philadelphia, with the goal of joining the academic and the civic.

1 Course Unit

**HIST 1165 History of American Education**

This course will examine the growth and development of American schools, from the birth of the republic into the present. By 1850, the United States sent a greater fraction of its children to school than any other nation on earth. Why? What did young people learn there? And, most of all, how did these institutions both reflect and shape our evolving conceptions of "America" itself? In an irreducibly diverse society, the answers were never simple. Americans have always defined their nation in a myriad of contrasting and often contradictory ways. So they have also clashed vehemently over their schools, which remain our central public vehicle for deliberating and disseminating the values that we wish to transmit to our young. Our course will pay close attention to these education-related debates, especially in the realms of race, class, and religion. When immigrants came here from other shores, would they have to relinquish their old cultures and languages? When African-Americans won their freedom from bondage, what status would they assume? And as different religious denominations fanned out across the country, how would they balance the uncompromising demands of faith with the pluralistic imperatives of democracy? All of these questions came into relief at school, where the answers changed dramatically over time. Early American teachers blithely assumed that newcomers would abandon their old-world habits and tongues; today, "multicultural education" seeks to preserve or even to celebrate these distinctive patterns. Post-emancipation white philanthropists designed vocational curricula for freed African-Americans, imagining blacks as loyal serfs; but blacks themselves demanded a more academic education, which would set them on the road to equality. Protestants and Catholics both used the public schools to teach their faith systems until the early 1960s, when the courts barred them from doing so; but religious controversies continue to hound the schools, especially on matters like evolution and sex education. How should our public schools address such dilemmas? How can the schools provide a "common" education, as Horace Mann called it, melding us into an integrated whole while still respecting our inevitable differences?

Spring
Mutually Exclusive: EDUC 5453
1 Course Unit

**HIST 1169 History of American Law Since 1877**

This course introduces students to major themes in U.S. legal history from 1877 to the present. Topics include (but are not limited to) citizenship and immigration, federalism, public regulation of economic activity, lawyers and the legal profession, criminalization, social welfare provision, and rights-claiming. Prominent through-lines include the relationship between law and politics; the struggles of marginalized groups for recognition and inclusion; and shifting, competing understandings of liberty, equality, and justice. Judicial decisions figure prominently in this course, but so, too, do other sources of law, including statutes, administrative decisions, and provisions of the U.S. Constitution. Students will leave this course with a better grasp of how the U.S. legal system operates and how it has channeled power, resources, and opportunity over time. *This course fulfills a core requirement for the Legal Studies and History Minor.*

Spring
Also Offered As: AFRC 1169
1 Course Unit
HIST 1170 The American Civil War and Reconstruction
This course will cover the nature of American slavery, the causes of the Civil War, how the aims of the war changed over time, and the emergence and destruction of bi-racial democracy during Reconstruction. This is not a military history course, but we will discuss the course of the war and explore why Americans in the mid-nineteenth century came to believe that they could only settle their political disagreements through violence. We will examine how the revolutionary social and political changes that the war made possible were undermined and how the promise and shortcomings of Reconstruction continue to shape the nation today. Students will be graded on class participation in lecture and three written assignments. No prior knowledge required.
1 Course Unit

HIST 1171 The American South 1860-Present
This course will trace the history of the American South from the end of the Civil War to the present. It will investigate Reconstruction, the New South, Populism, racial disfranchisement and the rise of Jim Crow, the politics of the One-Party South, the South in the Progressive era and its role in the New Deal and World War II, the Civil Rights Movement of the 1950s and 1960s, and the rise of the Republican South. While following the narrative of politics and economic development, we will pay particular attention to race relations and will be more than casually interested in gender roles. In addition, we will take frequent peeks at the evolving Southern identity as reflected in popular culture and literature as well as in other corners of the public sphere.
Two Term Class, Student may enter either term; credit given for either
1 Course Unit

HIST 1172 Bodies, Race and Rights: Sex and Citizenship in Modern American History
What did it mean to be a man or woman in the post-Civil War United States? Was being a man the same as being a citizen? If African-American men were to be fully embraced as both men and citizens in the aftermath of slavery, where did that leave women, white and black? Why did a nation built on immigration become so hostile to certain groups of immigrants during this period? In this course, we consider how the meanings and experiences of womanhood, manhood, citizenship, and equality before the law changed from the period immediately after the Civil War until the present day. We look at political battles over the meaning of citizenship, the use of terror to subdue African Americans politically and economically, and the fears of white Americans that they would lose their political and economic dominance to immigrant groups they deemed irreconcilably different from themselves. We also consider the repercussions of these conflicts for medical, legal, and economic efforts to regulate the bodies of women, children, poor people, immigrants, working class laborers, military men, and African Americans. Throughout the course, we will follow the state’s changing use of racial, sexual, and economic categories to assess the bodily and intellectual capacities of different groups of citizens. We will also note some of the popular cultural expressions of manhood, womanhood, and citizenship. The lectures and reading assignments are organized around a series of historical problems, dynamic leaders, and controversies that illuminate these issues.
Spring
Also Offered As: AFRC 1172, GSWS 1172
1 Course Unit

HIST 1173 History of Sexuality in the U.S.
This course introduces students to a relatively new field of inquiry, the history of sexuality in the U.S. It explores the past to consider why sexuality has been so central to American identities, culture, and politics. Primary documents and other readings focus on the history of sexual ideology and regulation; popular culture and changing sexual practices; the emergence of distinct sexual identities and communities; the politics of sexuality; and the relationship between sexual and other forms of social difference, such as gender, race, ethnicity, age, and class. Topics include many with continuing relevance to contemporary public debate: among them, sexual representation and censorship, sexual violence, adolescent sexuality, the politics of reproduction, gay and lesbian sexualities and sexually transmitted diseases.
Fall or Spring
Also Offered As: GSWS 1173
1 Course Unit

HIST 1177 African American History 1876 to Present
A study of the major events, issues, and personalities in Afro-American history from Reconstruction to the present. The course will also examine the different slave experiences and the methods of black resistance and rebellion in the various slave systems.
Spring
Also Offered As: AFRC 1177
1 Course Unit

HIST 1179 Precious Lord, Take My Hand: America in the Sixties
The Sixties are mythologized in American memory. From social movements to hippies, the Sixties are often portrayed as a decade of unfettered idealism, chaos, and revolution. The Sixties were indeed a dramatic era of conflict and change, but the experiences of Americans who lived during the Sixties were also remarkably diverse and complex in ways that transcend stereotypes of the decade. More than merely a series of conflicts between activists and racists or hawks and doves, the Sixties represented a turning point in American life. The society that emerged in the wake of this profound decade was completely different than anything that had ever existed before. Through a variety of themes—especially gender, race, foreign policy, and consumer culture—this class will move beyond generic Sixties narratives to offer a multi-faceted examination of American life during the Sixties and explore how the decade has shaped the contemporary United States.
1 Course Unit
HIST 1180 U.S. Politics and Society since the 1960s: From Civil Rights to the Trump Right
This course explores significant political and social developments that shaped the late twentieth and early twenty-first centuries in the United States, an era of declining faith in political institutions, ideological and partisan polarization, and accelerating inequality. The course will consider a variety of perspectives, developments, and movements across the political spectrum as well as others that defy easy ideological or partisan categorization. Topics will include the evolution of the post-1960s civil rights movement and the rise of mass incarceration; the rise and transformation of the religious right and the emergence of the populist right from the 1970s through the Tea Party and MAGA movements; the evolution of liberalism and the Democratic Party and its relationship to the left; the AIDS crisis and the LGBTQ movement; 9/11 and the war on terror; the financialization of the global economy and the causes and effects of the mortgage crisis of 2008; and bipartisan paths toward the emergence of "neoliberalism" and the concept of the "free market" as ways of reordering not just social and political commitments but perhaps even society itself.
Spring
1 Course Unit

HIST 1190 American Diplomatic History Since 1776
Survey course tracing the origins and evolution of the great traditions of U.S. foreign policy, including Exceptionalism, Unilateralism, Manifest Destiny, Wilsonianism, etc., by which Americans have tried to define their place in the world. Three hours of lecture per week, extensive reading, no recitations.
Fall or Spring
1 Course Unit

HIST 1191 The U.S. and the World since 1898
This class examines the emergence of the U.S. as a world power since 1898, and considers both the international and domestic consequences of U.S. foreign relations. In one respect, the twentieth century was a strange time to become a global empire: it was the period when colonial systems centered in Europe, Russia, Japan, and Turkey collapsed, and new nations emerged throughout Africa and Asia. This class explores the changing strategies of military, economic, and political intervention that the U.S. pursued as colonization lost legitimacy. Within that framework, the class invites students to think about several questions: How did the idea and practice of empire change over the twentieth century? How did the United States relate to new visions of independence emerging in Africa, Asia, and Latin America? How did global interactions both inform and reflect racial ideology in the United States? Finally, how did international affairs transform U.S. politics and social movements?
Spring
Also Offered As: LALS 1191
1 Course Unit

HIST 1200 Foundations of European Thought: from Rome to the Renaissance
This course offers an introduction to the world of thought and learning at the heart of European culture, from the Romans through the Renaissance. We begin with the ancient Mediterranean and the formation of Christianity and trace its transformation into European society. Along the way we will examine the rise of universities and institutions for learning, and follow the humanist movement in rediscovering and redefining the ancients in the modern world.
Fall or Spring
Also Offered As: COML 1201
1 Course Unit

HIST 1201 Foundations of Law
This course explores the history and conceptual underpinnings of modern law in the West. What exactly is law? What is its relationship with politics and religion? Where do our notions of constitutionalism come from? How have we come to think in terms of rights? Using a historical and comparative approach, we will examine legal thought and culture in the European West from the Greek concept of nomos to the main categories of law developed in Roman antiquity, concepts of constitutionalism and rights crafted in medieval Europe, the development of the two main legal traditions of Europe (Common Law and Civil Law), and the emergence of intellectual property, human rights discourse and modern international law. The course will blend intellectual, political and social history. We will study concepts and intellectual categories such as crime, proof, punishment and the public/private distinction alongside illustrative cases that either exemplified the law or pushed it forward, foundational documents such as Magna Carta, and political developments such as the Peace of Westphalia, credited with the birth of modern state sovereignty and modern international law. Together, these subjects form core foundations of how we think and do law today.
1 Course Unit

HIST 1203 Economic History of Europe I
This course concentrates on the economy of Europe in the Early Modern Period, 1450-1750. It was a time of great transition. Europe developed from an agriculturally-based to an industrially-based economy, with attendant changes in society and culture. From subsistence-level productivity, the European economy expanded to create great surfeits of goods, with attendant changes in consumption and expectation. Europe grew from a regional economic system to become part--some would say the heart--of a global economy, with attendant changes in worldview and identity. Economic intensification, expansion, globalizaton, and industrialization are our topics, therefore. Beginning with economic organizations and practices, we will consider how these changed over time and influenced society and culture. The course takes as its point of departure the experience of individual, working men and women: peasants and artisans, merchants and landlords, entrepreneurs and financiers. Yet, it argues outward: from the particular to the general, from the individual to the social, from the local to the global. It will suggest ways in which the economy influenced developments or changes that were not in themselves economic, shaped, and deflected economic life and practice.
Fall or Spring
1 Course Unit
HIST 1205 Reading the Classics
In this course we will study the early roots of Western culture—the Biblical, Greek and Roman traditions—as well as how sixteenth- and seventeenth-century European authors reproduced, rethought and reshaped these early traditions. Instead of reading and discussing several of the biblical books—Genesis, Exodus, the Book on Revelation—we will study other seminal classical works—Sophocles' Antigone, Aristotle's Politics and Ethics, Herodotus’ The Histories; Plato’s Apology— and works by Michel de Montaigne, Maria de Zayas y Sotomayor, Marie de Gournay, Christopher Marlowe, William Shakespeare, and several others. We will also work with books published in the last decades, analyzing the classics and their reception in various periods of history, but also books that analyze what the classics tell us today—Dreyfus and Kelly's All Things Shining, Reading the Western Classics to find meaning in a secular Age; Anthony Grafton's Bring Out Your Dead: the Past as Revelation; James Miller, Examined Lives, from Socrates to Nietzsche; and Sarah Bakewell, How to Live: Or a Life of Montaigne in One Question and Twenty Attempts at an Answer.
1 Course Unit

HIST 1210 The Vikings
The Vikings were the terror of Europe from the late eight to the eleventh century. Norwegians, Danes and Swedes left their homeland to trade, raid and pillage; leaving survivors praying "Oh Lord, deliver us from the fury of the Norsemen!" While commonly associated with violent barbarism, the Norse were also farmers, craftsmen, and merchants. As their dragon ships sailed the waterways of Europe and beyond, they also transformed from raiders to explorers, discoverers and settlers of found and conquered lands. This course will introduce students to various facets of the culture and society of the Viking world ranging from honor culture, gender roles, political culture, mythology, and burial practices. We will also explore the range of Viking activity abroad from Kiev and Constantinople to Greenland and Vineland, the Viking settlement in North America. We will use material and archeological sources as well as literary and historical ones in order to think about how we know history and what questions we can ask from different sorts of sources. Notably, we will be reading Icelandic sagas that relate oral histories of heroes, outlaws, raiders and sailors that will lead us to question the lines between fact and fiction, and myth and history.
Fall or Spring
Also Offered As: GRMN 1305
1 Course Unit

HIST 1215 LOVE, LUST AND VIOLENCE IN THE MIDDLE AGES
Medieval Europe was undoubtedly gruff and violent but it also gave birth to courtly culture - raw worries transformed into knights who performed heroic deeds, troubadours wrote epics in their honor and love songs about their ladies, women of the elite carved out a place in public discourse as patrons of the arts, and princely courts were increasingly defined by pageantry from jousting tournaments to royal coronations. This course will trace the development of this courtly culture from the eleventh to the sixteenth century, from its roots in Southern France to its spread to Northern France and then to various kingdoms in Europe. Central themes will include the transformation of the warrior into the knight, the relationship between violence and courtliness, courtly love, cultural production and the patronage, and the development of court pageantry and ceremonial. This is a class cultural history and, as such, will rely on the interpretation of objects of art and material culture, literature as well as historical accounts.
Fall or Spring
Also Offered As: COML 1215, GSWS 1215
1 Course Unit

HIST 1220 The Tudors
This course examines the history of England from the accession of Henry (VII) Tudor in 1485 to the death of Elizabeth I in 1603, with emphases on the political and personal history of this colorful dynasty, the religious revolution known as the Protestant Reformation, the arts and literature known as the English Renaissance, imperial and trade ventures overseas, and aspects of popular culture including the witch craze. Unlike most English histories of the period, we will also look closely at the other realms of the British Isles, Scotland, Wales, and Ireland. Readings consist of a textbook with a British scope, and an array of primary sources, some in book form and others (marked with an asterisk on the syllabus) attached to Blackboard or distributed in class. Books are available at the Penn Book Center, except for biographies associated with film critiques. Most of the films noted in the syllabus will be available on PVN; otherwise, they can be viewed at the library or through Netflix. Assignments in square brackets are optional.
Spring
1 Course Unit

HIST 1221 Britain's Century of Revolution
England, Ireland, Wales and Scotland experienced revolutions in the first half of the seventeenth century that abolished monarchy and hereditary aristocracy, and carried out the first judicial execution of a monarch in European history. England was re-constructed as a republic, then with Scotland became the United Commonwealth of Great Britain, then declined into a military dictatorship, and finally invited the king back. In 1688, however, the Glorious Revolution deposed that king and declared Britain a strictly constitutional monarchy. This course will explore what motivated ordinarily obedient British subjects to take up arms against their rulers. The works of Milton and Marvell, Cromwell, Hobbes and Locke, and many lesser-known writers of diaries, autobiographies, sermons, statutes, and letters will illuminate the issues. The focus will be on how law, politics and religion interacted in the onset of war and defining of settlement, but with an eye to the larger social and cultural setting in which revolutions happened: this is also an era of both witchcraze and scientific revolution, puritanism and the slave trade, the near-destruction of London by fire and plague and its re-birth as the capital of a commercial empire.
Fall or Spring
1 Course Unit
HIST 1230 The French Revolution and the Origins of Modern Politics
This course will examine the social, cultural, intellectual, economic, and especially political history of France and its Empire from the end of the Old Regime through the Napoleonic period. The origins, development, and outcome of the French Revolution, followed by the Haitian Revolution and the Napoleonic Wars, will be our main focus. Particular attention will be paid to the global legacy of these late 18th and early 19th century revolutions in terms of such key modern political concepts as human rights, nationalism, social welfare, feminism, democracy, terrorism, abolitionism, capitalism, and revolution itself. Throughout the course, we will also emphasize the different and often conflicting ways in which historians have interpreted the meaning and consequences of this critical moment of upheaval. Readings will be a mixture of primary and secondary sources, and classes will combine lecture and discussion. Requirements will be one mid-term examination (15%), one short paper (15%), one final paper (30%), and one final examination (30%), as well as class participation (10%).
Not Offered Every Year
1 Course Unit

HIST 1250 Belief and Unbelief in Modern Thought
"God is dead," declared Friedrich Nietzsche, "and we have killed him." Nietzsche's words came as a climax of a longer history of criticism of, and dissent toward, the religious foundations of European society and politics. The critique of religion had vast implications for the meaning of human life, the nature of the person, and the conception of political and social existence. The course will explore the intensifying debate over religion in the intellectual history of Europe, reaching from the Renaissance, through the Scientific Revolution and the Enlightenment, to the twentieth century. Rousseau, Voltaire, Marx, Nietzsche, and Freud. These thinkers allow us to trace the varieties of irreligious experience that have emerged in modern European thought and their implications for both historical and philosophical understanding. Rather than drawing a straight line from belief to non-belief, however, we will also consider whether religion lingers even in secular thought and culture.
Not Offered Every Year
Also Offered As: COML 1250
1 Course Unit

HIST 1260 Tolstoy's War and Peace and the Age of Napoleon
In this course we will read what many consider to be the greatest book in world literature. This work, Tolstoy's War and Peace, is devoted to one of the most momentous periods in world history, the Napoleonic Era (1789-1815). We will study both the book and the era of the Napoleonic Wars: the military campaigns of Napoleon and his opponents, the grand strategies of the age, political intrigues and diplomatic betrayals, the ideologies and human dramas, the relationship between art and history. How does literature help us to understand this era? How does history help us to understand this great book? Because we will read War and Peace over the course of the entire semester, readings will be manageable and very enjoyable.
Fall or Spring
Also Offered As: COML 1262, REES 1380
1 Course Unit

HIST 1265 Victorian Britain: Spaces, Places, and Pests
In this course, we will examine the nooks and crannies of Victorian society. It was a period of squalor, but also innovation, devastating diseases, and crucial advances in public health and medical science. Its cities featured depressing slums and lurid crimes, but also new kinds of spectacles, entertainments, and commodities. It was, in many ways, as one of its greatest authors wrote, "the best of times, and the worst of times." Units under study will include "The Docks," "The Germs," "The Empire," "The Church," and "the Museum." We'll investigate killer diseases like cholera and typhus, dazzling buildings like the Crystal Palace, imperial wars and crises, and new scientific movements like Darwinism and mesmerism. Along the way, we will encounter proper and eminent Victorians as well as scandalous and marginalized ones. The aim will be to understand Victorian mentalities and ideas by looking at a diverse array of institutions and inventions. Readings will include novels, stories, pamphlets, essays, and cartoons as well as secondary literature. Classes will be a mixture of lecture and discussion, and no previous experience in British history is necessary.
Not Offered Every Year
1 Course Unit

HIST 1270 World War I
This survey course examines the outbreak, conduct, and aftermath of the First World War. The First World War put an end to the world of the 19th century and laid the foundations of the 20th century, the age of destruction and devastation. This course will examine the war in three components: the long-term and immediate causes of the First World War, the war's catastrophic conduct, on the battlefield and on the home front; and the war's devastating aftermath. While we will discuss military operations and certain battles, this course is not a military history of the war; it covers the social, economic, political and diplomatic aspects that contributed to the war's outbreak and made possible its execution over four devastating years. No preliminary knowledge or coursework is required.
Two Term Class, Student may enter either term; credit given for either
1 Course Unit

HIST 1280 Origins of Nazism: From Democracy to Race War and Genocide
Where did the Nazis come from? Was the Weimar Republic bound to fail? Did the Treaty of Versailles or the Great Depression catapult the Nazis into power? What was the role of racism, of Anti-Semitism? How did the regime consolidate itself? What was the role of ordinary people? How do we explain the Holocaust and what kind of a war was the Second World War? Grappling with these and more questions, the first half of the course focuses on Germany's first democracy, the Weimar Republic and its vibrant political culture. In the second half, we study on the Nazi regime, how it consolidated its power and remade society based on the concepts of race and struggle. Discussions of race and race-making are crucial throughout the course. In the name of the "racial purity," the Nazi state moved ruthlessly against Germany's Jewish population and cleansed German society of all "undesirable" elements. These ideas and practices didn't originate with the Nazis and they didn't operate in a geopolitical vacuum. Thinking about Nazi racism and genocide in both its particular specifics and in a larger global historical context is the main goal of this course.
Fall or Spring
Also Offered As: GRMN 1306
1 Course Unit
HIST 1300 Gunpowder, Art and Diplomacy: Islamic Empires in the Early Modern World
In the sixteenth century, the political landscape of the Middle East, Central Asia, and India changed with the expansion and consolidation of new Islamic empires. Gunpowder had transformed the modes of warfare. Diplomacy followed new rules and forms of legitimation. The widespread use of Persian, Arabic and Turkish languages across the region allowed for an interconnected world of scholars, merchants, and diplomats. And each imperial court, those of the Ottomans, the Safavids, and the Mughals, found innovative and original forms of expression in art and literature. The expansion of these Islamic empires, each of them military giants and behemoths of bureaucracy, marked a new phase in world history. The course is divided into four sections. The first section introduces the student to major debates about the so-called gunpowder empires of the Islamic world as well as to comparative approaches to study them. The second section focuses on the transformations of modes of warfare and military organization. The third section considers the cultural history and artistic production of the imperial courts of the Ottomans, the Mughals, and the Safavids. The fourth and final section investigates the social histories of these empires, their subjects, and the configuration of a world both connected and divided by commerce, expansion, and diplomacy.
Spring
Also Offered As: NELC 3560
1 Course Unit

HIST 1310 Africa and the Transatlantic Slave Trade
This course focuses on the history of selected African societies from the sixteenth through the mid-nineteenth centuries. The primary goal is to study the political, economic, social, and cultural history of a number of peoples who participated in the Atlantic slave trade or were touched by it during the era of their involvement. The course is designed to serve as an introduction to the history and culture of African peoples who entered the diaspora during the era of the slave trade. Its audience is students interested in the history of Africa, the African diaspora, and the Atlantic world, as well as those who want to learn about the history of the slave trade. Case studies will include the Yoruba, Akan, and Fon, as well as Senegambian and West-central African peoples.
Fall or Spring
Also Offered As: AFRC 1310, LALS 1310
1 Course Unit

HIST 1350 Faces of Jihad in African Islam
This course is designed to provide the students with a broad understanding of the history of Islam in Africa. The focus will be mostly on West Africa, but we will also look at developments in other regions of the continent. We will explore Islam not only as religious practice but also as ideology and an instrument of social change. We will examine the process of islamization in Africa and the different uses of Jihad. Topics include prophetic jihad, jihad of the pen and the different varieties of jihad of the sword throughout the history in Islam in sub-Saharan Africa.
Fall or Spring
Also Offered As: AFRC 1350
1 Course Unit

HIST 1358 Histories of Egypt
This course will explore Egypt’s impact on the world in several historical eras – the ancient past and its unparalleled legacy; the nineteenth century and nationalism; the twentieth century’s wars, peace and music and the twenty-first centuries lessons in revolution. We will examine European Egyptomania and Orientalism in the 19th century, Afrocentrism’s ambitions for Egypt, and Egypt’s centrality to pan-Arabism and pan-Africanism. And we will explore the history as Egypt’s writers, filmmakers, musicians and poets have imagined it from the nineteenth century to the present.
Also Offered As: AFRC 1358, CIMS 1358
1 Course Unit

HIST 1359 Filming the Middle East
This course will take us through the history of the modern Middle East as told by the region’s many film-makers. We will explore how cinema developed and grew throughout countries like Egypt, Iran, Syria, Turkey, Lebanon, Israel and Palestine. Unusually for a typical course on the Middle East, we will also pay close attention to North Africa’s film industry, with a deep exploration of the cinema of Algeria, Tunisia and Morocco. Sudanese films will be an important part of our study as well. What does it mean to have a national cinema? Many of these countries’ film industries grew under European occupation and colonialism. With independence, were more markets available to Middle Eastern films? Where did directors and screenwriters train? Who were the intended audiences for these films? We will watch canonical films from the region, many of which focus on or reflect the political turmoil and aftermath of wars. But we will also examine the lightness of comedies, which were usually much more popular with Middle Eastern audiences, and which reveal every bit as much about the region’s histories. And we will watch and discuss a phenomenon not found in Western cinema - the Ramadan soap operas and historical reenactments that are unique to the Middle East.
Also Offered As: CIMS 1359, NELC 1970
1 Course Unit

HIST 1360 Arab/Israeli Conflict in Literature and Film
This course will explore the origins, the history and, most importantly, the literary and cinematic art of the struggle that has endured for a century over the region that some call the Holy Land, some call Eretz Israel and others call Palestine. We will also consider religious motivations and interpretations that have inspired many involved in this conflict as well as the political consequences of world wars that contributed so greatly to the reconfiguration of the Middle East after the fall of the Ottoman Empire, and after the revelations of the Holocaust in Western Europe. While we will rely on a textbook for historical grounding, the most significant material we will use to learn this history will be films, novels, and short stories. Can the arts lead us to a different understanding of the lives lived through what seems like unending crisis?
Fall or Spring
Also Offered As: CIMS 1360, NELC 0675
1 Course Unit
HIST 1361 Sex Matters: Politics of Sex in the Modern Middle East
The course concentrates on the history of sexuality as it informed and shaped political and social change in the Middle East, and vice versa, in an engagement with global historical contexts. What does sexuality have to do with power, political rule, and mass movements in the modern Middle East? What can the study of sexuality and body politics teach us about colonialism and state formation over centuries of imperial rules and colonial regimes, as well as in the contemporary context of neoliberal capitalism? What is the relationship between studying LGBTIQ/A+ movements alongside with feminism and the use of sex and sexuality as an analytical category? This course will investigate selected themes such as modernity, nationalism, and colonization and connect them to harem lives, politics of veiling/unveiling, reproductive rights, race, polygamy, masculinity, and early modern concepts of same-sex desire in connection with modern queer thought and activism to ask questions about the preconceived notions about "Middle Eastern sexualities." The course focuses on discussing on some of the many roles that sex and gender politics have played in social and political change in the Middle East, while thinking about gender, history, and society comparatively and transnationally.
Not Offered Every Year
Also Offered As: GSWS 1361
1 Course Unit

HIST 1362 The Making of Modern Israel and Palestine
This course analyzes the making of a modern Jewish state in the land of Israel/Palestine and the role of Zionism, Palestinian nationalism, and global politics in that process. Beginning in 19th-century Europe and the Middle East, we will study the ideas, movements, and people that shaped what has come to be known as the Arab-Israeli conflict. Students will explore the impact of international factors on the struggles that resulted from the Zionist project in Israel/Palestine and Arab reactions to it across three periods: imperialism and world wars (1860s-1940s), cold war (late 1940s-1990), and multi-polarity (1990s-present).
Also Offered As: JWST 1362, PSCI 1141
1 Course Unit

HIST 1365 Bacteria, Bodies, and Empires: Medicine and Healing in the Eastern Mediterranean (15th-21st c.)
Bacteria, Bodies, and Empires is a survey course about the history of medicine in the Eastern Mediterranean from early modern period to the present. It addresses the major issues and questions concerning bodies, diseases, and medical institutions within the context of major historical developments in the world and region's history. The course looks at how medicine, knowledge, and practices about diseases and bodies changed political and social conditions, as well as how socio-political changes defined and transformed people's perceptions of health, life, and the environment. Scholars have frequently examined the history of medicine in Eastern Mediterranean societies, either in relation to Islamic culture in the early modern period or, more recently, in relation to Westernization and modernization. By situating the history of medical knowledge and practices in the Eastern Mediterranean within global history, this course seeks to challenge these fixed paradigms and shed light on questions and research agendas that will unearth the encounters, connections, and mobility of bacteria, bodies, and medical methods among various communities.
Also Offered As: HSOC 1362
1 Course Unit

HIST 1370 African Environmental History
This new course will explore multiple dimensions of Africa's environmental history, drawing upon literature in the natural sciences, social sciences, and the humanities. It is one component of a pilot project supported by Penn Global and directed by the instructor on "Local Histories of Climate Change in the Horn of Africa", though we will cover topics and case studies from the entire continent. The course takes an historical perspective on environmental change in Africa, with an eye to engaging current debates on climate change and its impact on contemporary urban and rural communities. Students will read and discuss key works on the African environment, conduct their own literature reviews on selected topics, and prepare case studies of communities which have been impacted by severe climate events in the past half-century. The format combines lectures and seminar-style discussions, and we will draw upon the expertise of guest lecturers in a variety of disciplines which have contributed to the study of environmental change.
Also Offered As: AFRC 1370
1 Course Unit

HIST 1382 Modern Iran
"Iran" acquired its current appellation through a process of national and international negotiation. To understand its modern history requires a retrospective analysis of international processes, which have guided Iran's political and cultural transformations in the contemporary period. Iran's engagement with its neighbors and with other transnational communities, from the nineteenth to the 21st century, has remained a source of conflict and cultural flux, especially along its volatile boundaries. Its past has become embedded in the broad histories of the Middle East and thus cannot be studied in isolation. This course will traverse the history of Iran from the monarchic era to the Islamic Republic. It will offer readings of primary accounts, historical newspapers, archival documents, and unpublished manuscript sources to show the breadth of the Persianate world and the significance of Iran's involvement in the contemporary Middle East, from social issues to arms build-up.
1 Course Unit
HIST 1388 From Oil Fields to Soccer Fields: The Middle East in the 20th Century
How did the Middle East become modern? Life changed in spectacular ways for the people of the Middle East in the span of a century. Oil – once considered a scarce natural commodity – was discovered in many countries and exported in substantial quantities that altered the economic landscape of the world. Movie theaters, sewage systems, and public housing projects changed the urban backdrop of Middle Eastern cities and towns. Soccer, swimming, and volleyball became some of the new-fangled sports embraced by Middle Eastern communities. This course will traverse these fascinating and fraught cultural transformations of the Middle East in the twentieth century. Although inclusive of the military battles and conflicts that have affected the region, this class will move beyond the cliches of war to show the range of issues and ideas with which intellectuals and communities grappled. The cultural politics and economic value of oil as well as the formation of a vibrant cultural life will be among the topics covered. By considering illustrative moments that shed light on the political history of the period, this course will develop a nuanced framework to approach the history of the U.S. involvement in the region, the Iran-Iraq war, the Arab/Israeli conflict, and the current crises in the Persian Gulf. Students are required to participate in every lecture and/or recitation, as on Thursdays, part of the class time will be devoted to discussing select documents provided by the instructor. Please keep in mind that lectures do not duplicate readings, but rather supplement them. We will also watch video clips during some lectures. In addition, students are expected to complete each week’s readings before class. Course requirements include satisfactory performance on a Powerpoint presentation related to the weekly readings, 2 short factual quizzes, and 7-page paper. The paper can be on a topic of contemporary interest that is placed in the proper historical context.
Also Offered As: NELC 0690
1 Course Unit

HIST 1400 Silver and Gold in the Americas from pre-history to the present
Precious metals have shaped pre-Colombian economies and socio-cultural processes in the Americas for thousands of years. After 1492, gold and silver sent from the "New World" to the "Old World" played a key role in changing economies all over the world. Locally, mining centers were places marked by forced labor, conspicuous consumption, and the destruction of ecosystems. Internationally, gold and silver prices have long had outsized effects on monetary and trade policies. This course uses case studies to delve into the fascinating history of precious metals and mining in North and South America. We will analyze documents describing the gold objects ransacked by Spanish conquistadors, examine 17th Century proto-industrial silver mining at Potosi, trace the impact and human cost of the huge gold strikes in Minas Gerais, in colonial Brazil, read new work on the California and Yukon moments of "rush" and their long-term impact on US monetary policy, and follow new reports about the conflicts at the heart of transnational gold mining in the present. Students will gain experience working with primary sources and will produce an in-depth research paper.
Spring
Also Offered As: LALS 1400
1 Course Unit

HIST 1405 Indigenous Latin America 1400-1800
In 1492 Europeans began to colonize the Americas. Many colonizers sought to dispossess Indigenous people of their labor, land, and, sometimes, their lives, and often tried to impose their religion and cultural practices. Nonetheless, throughout Latin America Indigenous communities not only survived but adapted in creative, vigorous ways to the new social and ecological circumstances. In this course we will look at the diverse ways that Indigenous individuals and collectives avoided or adapted to colonial rule in Latin America between 1492 and 1800. We will particularly focus on Arawakan, Carib, Tupinamba, Nahua, and Andean histories. Readings will include both primary and secondary sources.
Also Offered As: LALS 1405
1 Course Unit

HIST 1455 Independence and Revolution in Latin America: Crises and Crossroads
Was it inevitable that the countries in Latin America would become independent, republican nations? What was the impact of revolutions throughout the region from Mexico to Buenos Aires? This course studies the main social, political, economic, and cultural tensions that shook Spanish and Portuguese America during the first decades of the nineteenth century. Through close readings of primary and secondary sources, we will reflect on the meanings and implications of independence and the rise of new republican nations throughout the region. The course is expansive across time and space as we explore topics including the Tupac Amaru Rebellion in Perú, the Comunero Revolt in New Granada, and how the French and Haitian Revolutions, as well as U.S. independence, were perceived throughout Spanish and Portuguese America. We will also delve deeply into the diversity of independence movements. Why did a monarch hold onto power for years after independence was proclaimed in Brazil? How were societies divided during the struggle and who fought on which side? The course culminates with a study of the impact and legacy of independence and revolutions on the region in the mid-19th century and thereafter.
Not Offered Every Year
Also Offered As: LALS 1455
1 Course Unit
HIST 1475 History of Brazil: Slavery, Inequality, Development
In the past decade, Brazil has emerged a leading global power. As the world’s fifth-largest country, by size and population, and the ninth-largest by GDP, Brazil exerts tremendous influence on international politics and the global economy, seen in its position as an emerging BRIC nation and a regional heavyweight in South America. Brazil is often in the news for its strides in social welfare, leading investments in the Global South, as host of the World Cup and Olympics, and, most recently, for its political instability. It is also a nation of deep contradictions, in which myth of racial democracy – the longstanding creed that Brazilian society has escaped racial discrimination – functions alongside pervasive social inequality, state violence, political corruption, and an unforgiving penal system. This course examines six centuries of Brazilian history. It highlights the interplay between global events – colonialism, slavery and emancipation, capitalism, and democratization – and the local geographies, popular cultures, and social movements that have shaped this multi-ethnic and expansive nation. In particular, the readings will highlight Brazil’s place in Latin America and the Lusophone World, as well as the ways in which Brazil stands as a counterpoint to the United States, especially in terms of the legacy of slavery and race relation. In this lecture, we will also follow the current political and economic crises unfolding in Brazil, at a moment when it has become all the more important to evaluate just how South America’s largest nation has shaped and been shaped by global events.
Not Offered Every Year
Also Offered As: AFRC 1475, LALS 1475
1 Course Unit

HIST 1550 East Asian Diplomacy
Home to four of the five most populous states and four of the five largest economies, the Asia/Pacific is arguably the most dynamic region in the twenty-first century. At the same time, Cold War remnants (a divided Korea and China) and major geopolitical shifts (the rise of China and India, decline of the US and Japan) contribute significantly to the volatility of our world. This course will examine the political, economic, and geopolitical dynamism of the region through a survey of relations among the great powers in Asia from the sixteenth century to the present. Special emphasis will be given to regional and global developments from the perspective of the three principal East Asian states—China, Japan and Korea. We will explore the many informal, as well as formal, means of intercourse that have made East Asia what it is today. Graduate students should consult graduate syllabus for graduate reading list, special recitation time and graduate requirements.
Fall
Also Offered As: EALC 1711
Mutually Exclusive: HIST 5550
1 Course Unit

HIST 1591 The Vietnam War
A thorough historical, military, and social history of the Vietnam war, which lasted in one form or another from the end of WWII in 1945 to 1975, in which occurred the longest and most humiliating defeat in our history. Since that time the Vietnamese have published hundreds of documents, some in English, which provide an entirely new perspective on what we believed during the war. These, supplemented by other primary and secondary materials, as much as possible written by Vietnamese or by Americans having first-hand knowledge, will form the backbone of the course. The various American and Vietnamese strategies will be scrutinized carefully, and a good deal said about the home front in America. The actual fighting, that determined the outcome, will not be slighted. We expect at least some guest speakers having long diplomatic or military experience in Vietnam. The present will be our conclusion. Lectures TTH 12:1-3; midterm in class, short paper, an irregular final. If you want to understand the world you now live in, this coursea good place to start.
Fall or Spring
Also Offered As: EALC 1790
1 Course Unit

HIST 1593 20th Century China: Democracy, Constitutions, and States
Since 1900 four types of states have ruled China: dynastic, elective parliamentary, authoritarian nationalist, and communist. We will trace each from its intellectual origins to conclusion. By doing so we will present a solid and wide-ranging narrative of China's past century, introducing newly discovered material, some controversial. Above all we will dig into the issues raised by the century's mixture of regimes. Right now China is a dictatorship but once it was an imperfect democracy. Does this prove that Chinese are somehow incapable of creating democracy? That sadly it is just not in their DNA? Or only that the task is very difficult in a country nearly forty times the size of England and developing rapidly? That without dictatorship the Chinese almost inevitably collapse into chaos? Or only that blood and iron have been used regularly with harsh effectiveness? You will be given a solid grounding in events, and also in how they are interpreted, right up to the present. Readings will be mostly by Chinese authors (translated), everything from primary sources to narrative to fiction. We will also use wartime documentary films. Two lectures per week, regular mid-term and final exams, and a paper on a topic of your own choice. No prerequisites.
Fall
Also Offered As: EALC 1731
1 Course Unit
HIST 1594 China and the World: Modern Times
History 1594 is a comprehensive introduction to the last hundred years of China's relations with the world, with emphasis on American-Chinese relations, but within the necessary context of China's relations with other countries from Asia to Europe to Africa and elsewhere (as well as Washington's changing relations with Beijing). China's role in the world can be understood only when the full background and international context is made clear. This course has no prerequisites: first year and other students lacking background will find it manageable and interesting. Students who have successfully completed this course will be well positioned to understand some of the most important of current events, and if they like, pursue the topics as careers (there will be no shortage, I assure you). Although much will be said about diplomacy, and Chinese diplomatic strategy in particular, the mile-posts of the course will be a series of wars: World War I and its effects on China; the heroic Chinese war of resistance against Japan (1937-1945) in which, effectively without allies, the Chinese avoided defeat; the bitter Civil War that followed almost immediately (1946-1949) and brought Mao Zedong and his Communists to power while the predecessor Nationalist government fled to the island of Taiwan; then the Korean War (1950-1953) and the close Chinese-Soviet alliance that followed; The Taiwan Straits Crises (1954-1955, 1958, 1996); the Chinese-Indian war (1962) the origin of a situation now heating up; the Sino-Soviet border conflicts (1969); the Vietnam War (1955-1975) which changed the United States profoundly while reorienting China internationally; the (at the time) little noticed Chinese invasion of Vietnam (1979) - and finally the increasingly tense situation today, between China and India, and China and her maritime neighbors from Japan to Indonesia, many U.S. allies.
Also Offered As: EALC 1732
1 Course Unit

HIST 1600 Jews and Judaism in Antiquity
A broad introduction to the history of Jewish civilization from its Biblical beginnings to the Middle Ages, with the main focus on the formative period of classical rabbinic Judaism and on the symbiotic relationship between Judaism, Christianity, and Islam.
Spring
Also Offered As: JWST 1600, NELC 0350, RELS 1600
1 Course Unit

HIST 1610 Medieval and Early Modern Jewry
Exploration of intellectual, social, and cultural developments in Jewish civilization from the rise of Islam in the seventh century to the assault on established conceptions of faith and religious authority in 17th century Europe, that is, from the age of Mohammed to that of Spinoza. Particular attention will be paid to the interaction of Jewish culture with those of Christianity and Islam.
Fall
Also Offered As: JWST 1610, NELC 0355, RELS 1610
1 Course Unit

HIST 1620 The Rise and Fall of the Spanish Empire 1450-1700
This course will provide students with a solid knowledge of the history of early modern Spain (1450-1700). Through readings of primary and secondary texts that offer a complex vision of the cultural, religious, intellectual, and economic contexts and processes, students will be able to appreciate the intricacies of Spain's historical evolution. The course focuses on the rise and decline of the Spanish monarchy: the conditions that enabled Spain to become the most powerful monarchy in early modern times, and the conditions that led to its decline. This course also touches upon other important aspects critical to understanding early modern Spain: relationships among Christians, Muslims, and Jews in the Iberian Peninsula; the conquest and colonization of the New World; and early modern debates about Spain's rights to occupy America and the so-called "destruction of the Indies."
Fall or Spring
Also Offered As: LALS 1620
1 Course Unit

HIST 1625 Era of Revolutions in the Atlantic World
This class examines the global ramifications of the era of Atlantic revolutions from the 1770s through the 1820s. With a particular focus on French Saint Domingue and Latin America, it provides an overview of key events and individuals from the period. Along the way, it assesses the impact of the American and French revolutions on the breakdown of colonial regimes across the Americas. Students will learn how to think critically about citizenship, constitutional power, and independence movements throughout the Atlantic world. Slavery and the transatlantic slave trade were seriously challenged in places such as Haiti, and the class investigates the appropriation and circulation of revolutionary ideas by enslaved people and other subaltern groups.
Also Offered As: AFRC 1625, LALS 1625
1 Course Unit

HIST 1630 Witchcraft and Possession
This course explores world witchcraft and possession from the persecutions of the early seventeenth century through the rise of Wicca in the twentieth century. The mere mention of these terms, or of such close cousins as demonology, sorcery, exorcism, magic, and the witches Sabbath, raises clear ethno-graphic and historical challenges. How can the analysis of witchcraft-- including beliefs, patterns of accusation, the general social position of victims, the intensity and timing of witch hunts, and its relation to religious practice, law, language, gender, social marginalization, and property--lead us to a more humane understanding of belief and action? Films such as The Exorcist, The Blair Witch Project, The Crucible, and Three Sovereigns for Sarah will focus discussion.
Fall or Spring
Also Offered As: ANTH 1630, GSWS 1630, RELS 1630
1 Course Unit
HIST 1650 Human-Animal Relationships in Historical Perspective
We live in a paradoxical moment in the history of people's relationships with animals. Certain species suffer today more than ever due to environmental degradation and modern food production practices. Yet other mammalian species are subject to a degree of sentimental attention (perhaps) unprecedented in history. This paradox is related to an unresolved tension in Western cultures: do the commonalities that bind humans to other animals unite them more or less than the differences that divide them? The course is organized around three main segments: animal domestication; modes of interaction (hunting, husbandry, pets, science) in early modern Europe; and contemporary science. We will conclude with a consideration of current philosophical and ethical perspectives of our treatment of non-human animals. By considering a variety of disciplinary approaches but with an emphasis on historians' methodologies, we will investigate these questions through careful reading of primary sources as well as secondary sources.
Spring
1 Course Unit

HIST 1690 Modern Jewish Intellectual and Cultural History
An overview of Jewish intellectual and cultural history from the late 18th century until the present. The course considers the Jewish enlightenment Reform, Conservative and Neo-Orthodox Judaism, Zionist and Jewish Socialist thought, and Jewish thought in the 20th century, particularly in the context of the Holocaust. Readings of primary sources including Mendelsohn, Geiger, Hirsch, Herzl, Achad-ha-Am, Baeck, Buber, Kaplan, and others. No previous background is required.
Fall or Spring
Also Offered As: JWST 1690, RELS 1690
1 Course Unit

HIST 1700 The African Diaspora: Global Dimensions
This class examines the cultural and social ramifications of the African diaspora on a global level. It is divided into two major sections. The first section provides the historical background to the African diaspora by focusing on the forced migration of Africans to Spanish and Portuguese colonies in the Americas. We will then delve into the black experience in French and British colonial spaces. In this section, we will also endeavor to move beyond the Atlantic-centric paradigm in studies of the African diaspora by examining free and unfree migrations of African people across the Indian Ocean to places as far away as India and the Philippines. The second half of the class devotes significant attention to the historical legacy of slavery and colonialism in places like Brazil, Cuba and the United States. In this section, we will discuss such issues as race relations, the struggle for civil rights for African-descent people as well as the emergence and the implementation of affirmative action policies in places like Brazil and the US.
Spring
Also Offered As: AFRC 1700, LALS 1700
1 Course Unit

HIST 1702 Introduction to Latin American and Latino Studies
Designed to introduce students to the interdisciplinary field of Latin American and Latino Studies, this is a seminar oriented toward first and second year students. Readings will range widely, from scholarly work on the colonial world that followed from and pushed back against the "conquest"; to literary and artistic explorations of Latin American identities; to social scientists' explorations of how Latinos are changing the United States in the current generation.
Spring
Also Offered As: LALS 0720
1 Course Unit

HIST 1706 Global Environmental History from Paleolithic to the Present
This course explores the changing relationships between human beings and the natural world from early history to the present. We will consider the various ways humans across the globe have interacted with and modified the natural world by using fire, domesticating plants and animals, extracting minerals and energy, designing petrochemicals, splitting atoms and leaving behind wastes of all sorts. Together we consider the impacts, ranging from population expansion to species extinctions and climate change. We examine how human interactions with the natural world relate to broader cultural processes such as religion, colonialism and capitalism, and why it is important to understand the past, even the deep past, in order to rise to the challenges of the present.
Also Offered As: ENVS 1400
1 Course Unit

HIST 1710 Jews in the Modern World
This course offers an intensive survey of the major currents in Jewish culture and society from the late middle ages to the present. Focusing upon the different societies in which Jews have lived, the course explores Jewish responses to the political, socio-economic, and cultural challenges of modernity. Topics to be covered include the political emancipation of Jews, the creation of new religious movements within Judaism, Jewish socialism, Zionism, the Holocaust, and the emergence of new Jewish communities in Israel and the United States. No prior background in Jewish history is expected.
Spring
Also Offered As: JWST 1710, NELC 0360, RELS 1710
1 Course Unit

HIST 1731 Financial Meltdown, Past and Present
Economic history is increasingly recognized as a crucial source of policy advice and is invoked with growing frequency in public debates. In particular, the subprime crisis in 2008 and after has generated a demand for "historical perspective" that would improve the understanding of the causes of financial turmoil and facilitate the prevention of comparable catastrophes. This course begins with a review of the principal features of the subprime crisis of 2008 and asks, so to speak, "how did we get there?" It answers by providing historical insights that shed light on crucial aspects of financial disasters. This is a history course, engaging with topics pertaining to economics, law and politics (national and international). Students with diverse backgrounds are expected to benefit from this course through acquiring a concrete knowledge of the historical evolution of fundamental institutions of financial capitalism. Ultimately, students enrolling in this course are expected to achieve proficiency in historically informed discussion of the mechanisms that were played out in the subprime crisis and beyond.
Not Offered Every Year
Also Offered As: ECON 0620
1 Course Unit
HIST 1733 Free Speech and Censorship
This course will explore the idea of free speech - its justification, its relationship to various forms of censorship, and its proper limits - as a historical, philosophical, legal, and ultimately, political question. In the first half of the course, we will explore the long history across the West of the regulation of various kinds of ideas and their expression, from malicious gossip to heresies, and read classic arguments for and against censorship, copyright protections, and standards of taste and decency and of truth. In the second part of the seminar, after looking at how the idea of freedom of speech came to seem an existential prerequisite for democracy as well as individual liberty, we will take up the historical and philosophical questions posed by such recent dilemmas as whether or not hate speech deserves the protection of the First Amendment, the distinction between art and pornography from the perspective of freedom of expression, speech during wartime, and the transformative effects of the internet on the circulation and regulation of ideas. We will end the semester by thinking about the globalization of the idea of free speech as a human right and its implications, both positive and negative. Readings will range from Robert Darnton’s The Forbidden Best-Sellers of Pre-Revolutionary France, to D. H. Lawrence’s Lady Chatterley’s Lover, to documents concerning the cartoons of Charlie Hebdo and law review articles about Citizens United v. FEC. We will also make considerable use of local resources, from museums to the library.
Fall or Spring
1 Course Unit

HIST 1735 Cold War: Global History
The Cold War was more than simply a military confrontation between the United States and the Soviet Union; it was the frame within which the entire world developed (for better or worse) for nearly five decades. This course will examine the cold War as a global phenomenon, covering not only the military and diplomatic history of the period, but also examining the social and cultural impact of the superpower confrontation. We will cover the origins of the conflict, the interplay between periods of tension and detente, the relative significance of disagreements within the opposing blocs, and the relationship between the "center" of the conflict in the North Atlantic/European area and the global "periphery".
Fall or Spring
Also Offered As: REES 1370
1 Course Unit

HIST 1740 Capitalism, Socialism, and Crisis in the 20th Century Americas
From the crisis of the Great Depression through the 1970s, the United States and Latin America produced remarkable efforts to remake society and political economy. This course analyzes the Cuban and Guatemalan revolutions, as well as social movements that transformed the United States: the black freedom movement, the labor movement, and changing forms of Latinx politics. In all three countries, Americans looked for ways to reform capitalism or build socialism; address entrenched patterns of racism; define and realize democracy; and achieve national independence. They conceived of these challenges in dramatically different ways. Together, we'll compare national histories and analyze the relationships between national upheavals.
Fall
Also Offered As: LALS 1740
1 Course Unit

HIST 1741 American Expansion in the Pacific
This course examines America's expansion into the Pacific with a focus on the colonization of Hawai'i and the Philippines. The class deals with various issues, including the meaning of "frontier" imperialism, development of capitalist economies and trade relations in the region, diplomacy and militarism, migration and racism, and colonial histories of the US West, the Pacific Islands, and East Asia.
Fall or Spring
Also Offered As: ASAM 3100
1 Course Unit

HIST 1759 Technology, Policy & War
Comparative and interdisciplinary examination of successful and failed uses of force in international relations, from ancient to modern times, using case studies. Readings will include Sun Tzu, and a variety of primary and secondary sources for the wars considered each year. Issues of war's fundamental origins, and its many impacts on society, will also be considered.
Fall or Spring
1 Course Unit

HIST 1760 Strategy, Policy and War
Analysis of the political use of force, both in theory and in practice, through analytical readings and study of selected wars. Readings include Sun Zi, Kautiya, Machiavelli, Clausewitz and other strategists. Case studies vary but may include the Peloponnesian War, the Mongol conquests, the Crusades, the Crimean War, Russo-Japanese War, World War II, Korea, or the Falklands, among others, with focus on initiation, strategic alternatives, decision and termination. Some discussion of the law of war and international attempts to limit it.
Fall or Spring
1 Course Unit

HIST 1770 1947-49: British Empire and the Partitions of South Asia and Palestine
The partitions of South Asia and Palestine marked the end of the British Empire in those regions. British colonial rule in India ended in 1947 with the emergence of not one, but two nation states, India and Pakistan. Decolonization was marked by mass migration and ethnic cleansing along their borders. An estimated million people died in the violence in less than a year, and 12.5 million people migrated from their homes. The British Empire also gave up its claims to Palestine in 1947, exhausted by the two nationalisms of Zionists and Palestinians. This partition set up the declaration of the state of Israel, and the War for Palestine. By 1949, almost a million Palestinians found themselves displaced over many borders, some also within the borders of Israel. This comparative course is organized around three themes - the prehistories of these cataclysmic events, the role of Empire in catalyzing them, and the afterlives of these events that continue to haunt us into the present, seventy-five years later. It explores the political history - and the collapse of politics - that led to violence on a scale that was without precedent in the history of the Indian subcontinent. It examines the political, social and cultural events that led to decades of war and exile, and shaped the lives of generations of Palestinians, Israelis and the wider Middle East. Primary sources will help to explore the perspectives of ordinary people whose lives were turned upside down in both places.
Also Offered As: NELC 1650, SAST 1770
1 Course Unit

HIST 1775 Technology, Policy & War
Comparative and interdisciplinary examination of successful and failed uses of force in international relations, from ancient to modern times, using case studies. Readings will include Sun Tzu, and a variety of primary and secondary sources for the wars considered each year. Issues of war's fundamental origins, and its many impacts on society, will also be considered.
Fall or Spring
1 Course Unit

HIST 1785 American Expansion in the Pacific
This course examines America's expansion into the Pacific with a focus on the colonization of Hawai'i and the Philippines. The class deals with various issues, including the meaning of "frontier" imperialism, development of capitalist economies and trade relations in the region, diplomacy and militarism, migration and racism, and colonial histories of the US West, the Pacific Islands, and East Asia.
Fall or Spring
Also Offered As: ASAM 3100
1 Course Unit
HIST 1788 Civilizations at odds? The United States and the Middle East
Foe or friend, Satan or saint - America has often been depicted in the Middle East either as a benevolent superpower or an ill-meaning enemy. In America, too, stereotypes of the Middle East abound as the home of terrorists, falafels, and fanatics. This undergraduate lecture course will explore the relationship between the United States and the Middle East by moving beyond such facile stereotypes. Our goal is to understand why a century of interaction has done little to foster greater understanding between these two societies. By reading novels, memoirs, and historical accounts, we will examine the origins of this cultural and diplomatic encounter in the twentieth century. The readings will shed light on America's political and economic involvement in the Middle East after the Second World War. We will consider the impact of oil diplomacy on U.S.-Middle East relations, as well as the role of ideology and religion, in our effort to comprehend the current challenges that face these societies.
Fall or Spring
Also Offered As: NELC 0680
1 Course Unit

HIST 1790 China & USSR Compared
A comprehensive and multi-faceted survey of China and Russia, mostly in the twentieth century, through examining preludes and postludes, but focusing above all on their time as Communist states and sometimes quarreling Cold War allies. Of course we will cover the history, the geography, the economics, the leaders (Stalin, Mao), and the great events - not least the Second World War in each - always comparing, contrasting, and drawing linkages. We will also examine, however, daily life and work for ordinary people, developments in society, and not least their common attempts at revolution, at somehow creating new and unprecedented polities, having populations of radically transformed new people. This informative, fascinating quest will take us from folklore to literature and the arts to dissent and religion and ecology, among other topics. As far as possible we will let their people speak for themselves, by assigning mostly translations of original sources including novels and memoirs, even poetry. A comprehensive assessment of the strategically critical Asian heartland - which at over 14 million square miles is larger than Canada, the United States, and Western Europe combined. Lectures, readings, midterm, short paper, and in-class final.
Spring
Also Offered As: EALC 1712, REES 1580
1 Course Unit

HIST 2000 History Workshop
This course introduces newly declared History Majors to the History Department and lays the foundation for future coursework, including research seminars, in History. Students will be introduced to various methods used to reconstruct and explain the past in different eras and places. Drawing on the rich resources available at Penn and in the Philadelphia region, students will also learn how to research and write history themselves. Throughout the semester, small research and writing assignments will allow students to try out different approaches and hone their skills as both analysts and writers of history.
1 Course Unit

HIST 2104 American Books/Books in America
This course investigates book histories and the worlds of readers, printers, publishers, and libraries in the Americas, from the colonial period through the nineteenth century. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2604
1 Course Unit

HIST 2150 Patriots, Parties, and Progressives: The U.S. 1776-1906
This course examines the history of the "long" nineteenth century in the United States. We will begin with the formation of the republic in the aftermath of the American Revolution and end in the Progressive Era. Particular emphasis will be placed on political and social history. Topics include: the formation and destruction of political party systems, reform movements, religious revivalism and identity, Indian removal, continental expansion, the Civil War and Reconstruction, Jim Crow, labor movements, immigration, and transformations in transportation, communication, and consumption.
Fall or Spring
1 Course Unit

HIST 2151 History of Baseball, 1840 to the present
This course explores the history of baseball in the United States. It covers, among other topics, the first amateur clubs in the urban North, the professionalization and nationalization of the sport during and after the Civil War era, the rise of fandom, baseball's relationship to anxieties about manhood and democracy, tensions between labor and management, the Negro Leagues, the All-American Girls Professional Baseball League, Nisei baseball during World War Two, Jackie Robinson and desegregation, and the Latinization of baseball. The history of baseball is, in many respects, the history of the United States writ large as well as the history of the myths that Americans tell about themselves.
Fall or Spring
1 Course Unit

HIST 2152 Work and Workers in America
The subjects to be examined in this seminar on work and workers in the United States, include: industrialization and working-class protests movements in the nineteenth century; transformations of work under corporate capitalism; women, African Americans, immigrants and work; the rise of mass production unionism in the 1930s; deindustrialization and the eclipse of trade unionism; workers in contemporary America and blue color blues; and the future of work and new avenues for labor organizing. A number of films will be shown during the course of the semester and two field trips are planned. Requirements for the seminar include: the leading of discussions; three paper assignments; and engaged participation.
Fall or Spring
1 Course Unit

HIST 2153 History Behind the Headlines: Contemporary U.S. Politics and Policy
History Behind the Headlines offers students the opportunity to explore the historical roots and development of current, pressing questions of U.S. politics and public policy. Drawing upon historical methodologies and scholarship as well recent work in political science and sociology, this reading seminar offers deep context for understanding some of the most important contemporary issues in American public life. Topics will likely include political polarization, the incarceration crisis, immigration, lobbying (that is, the role of money in democracy), and, perhaps, impeachment. In addition to a number of short response and op-ed style writing assignments, students will write and present a final project on a contemporary political or policy issue of their choosing. These final projects might take a variety of forms, including traditional historical research essays, policy white papers, long form investigative journalism, or projects using digital media.
Fall or Spring
1 Course Unit
HIST 2154 The State of the Union is not Good: The US in Crisis in the 1970s
Vietnam. Watergate. Deindustrialization. Inflation. Disco. These events and forces only begin to scratch the surface of the social, cultural, political, and economic transmutations that remade American life in the 1970s and which, by 1975, forced President Gerald Ford to concede “that the state of the union is not good.” Beyond these familiar topics, this reading seminar will explore a range of developments that are crucial for understanding why the 1970s was perhaps the pivotal decade in making modern American politics, economics, and culture. Topics will include the fate of the Civil Rights movement and the war on crime; the rise and impact of second wave feminism; the rise of the modern conservative coalition (e.g., its religious, economic, and white working-class components); the emergence of the finance economy; the reorientation of organized labor and the remaking of the Democratic Party; the explosion of “therapeutic” cultures of self-help, individualism, and entrepreneurialism; and the rise of the Sunbelt as the nation’s dominant cultural, political, and economic region.
Fall or Spring
1 Course Unit

Also Offered As: CIMS 2155, GSWS 2155

HIST 2155 Gender History and American Film
More than any other medium, the motion pictures fostered new ideals and images of modern womanhood and manhood in the United States. Throughout the twentieth century, gender representations on the screen bore a complex relationship to the social, economic, and political transformations marking the lives and consciousness of American men and women. This course explores the history of American gender through film. It treats the motion pictures as a primary source that, juxtaposed with other kinds of historical evidence, opens a window onto gendered work, leisure, sexuality, family life, and politics. We will view a wide range of Hollywood motion pictures since 1900, as well as films by blacklist artists, feminists, and independent producers.
Spring
Also Offered As: CIMS 2155, GSWS 2155
1 Course Unit

HIST 2156 Life Stories in Early America, 1730-1830
This seminar explores the social and cultural history of early America by focusing on the lives of specific individuals, ranging from Jesuit priests in early Quebec to Philadelphia politicians to Saramaka slaves to Maine midwives. As we critically examine biography and autobiography as two of history’s most powerful narrative frames, we will concentrate on the spaces and places in the social landscape that shaped individual understandings of work, sense of self, gender, beliefs, and political power, and why.
Fall or Spring
1 Course Unit

HIST 2157 Petrosylvania: Reckoning with Fossil Fuel
Fossil fuel powered the making—now the unmaking—of the modern world. As the first fossil fuel state, Pennsylvania led the United States toward an energy-intensive economy, a technological pathway with planetary consequences. The purpose of this seminar is to perform a historical accounting—and an ethical reckoning—of coal, oil, and natural gas. Specifically, students will investigate the histories and legacies of fossil fuel in connection to three entities: the Commonwealth of Pennsylvania, the City of Philadelphia, and the University of Pennsylvania. Under instructor guidance, students will do original research, some of it online, much the rest of it in archives, on and off campus, in and around Philadelphia. Philly-based research may also involve fieldwork. While based in historical sources and methods, this course intersects with business, finance, policy, environmental science, environmental engineering, urban and regional planning, public health, and social justice. Student projects may take multiple forms, individual and collaborative, from traditional papers to data visualizations prepared with assistance from the Price Lab for Digital Humanities. Through their research, students will contribute to a multi-year project that will ultimately be made available to the public.
Also Offered As: ENV 2400
1 Course Unit

HIST 2158 News, Media and American Democracy
At separate moments, Thomas Jefferson famously declared both that newspapers were crucial to sustain a nation and that a person who never looked at a newspaper was better informed than a regular reader of the press. The ideal of an informed citizenry occupies a central spot in our understanding of the democratic project in the United States, and, consequently, the news and media play a vital role. But news may inform or distort, empower or control. As Americans on both the Left and Right wonder today what is happening to our democratic prospects, how does access to public information and the media support or undermine democracy? In this class we will consider the history of news — reliable and fake news — and media systems in the United States and their implications for democracy. We will dig into an array of moments that highlight the contested nature of the news, media and democratic citizenship, from the colonial era to the 21st century. We will explore the importance of the different media that conveyed news in the past — and think about what that means for us in the present moment as news travels through new channels. How we know about our world — including through the media — shapes how we inhabit it. Throughout, we will explore what it means to think historically: to understand how to draw our own conclusions from historical sources, to understand perspectives other than our own, and to bring the past to bear to better understand the present.
1 Course Unit

HIST 2159 The History of Family Separation
This course examines the socio-legal history of family separation in the United States. From the period of slavery to the present-day, the United States has a long history of separating and remaking families. Black, Indigenous, poor, disabled, and immigrant communities have navigated the precarious nature of family separation and the legal regime of local, state, and federal law that substantiated it. In this course, we will trace how families have navigated domains of family separation and the reasoning that compelled such separation in the first place. Through an intersectional focus that embraces race, class, disability, and gender, we will underline who has endured family separation and how such separation has remade the very definition of family in the United States.
Also Offered As: ASAM 2159, GSWS 2159
1 Course Unit
HIST 2200 Florence in History
Florence is justly famous for its art and learning, especially during the era of the Renaissance. It was also one of the most literate states in Europe during this era; thanks to the city's abundant records, it is one of the best-studied cities in Europe from the late Middle Ages through the early modern era. Our course readings present a mix of major primary sources, synthetic summaries, and important modern scholarship. Most of our class time will focus on the information and issues they raise.
Fall or Spring
Also Offered As: ITAL 2200
1 Course Unit

HIST 2201 The City of Rome: From Constantine to the Borgias
The great city of Rome outlived its empire and its emperors. What happened to the Eternal City after "the fall of the Roman Empire in the West?" In this course, we will follow the story of this great city, its people, its buildings old and new, and its legacy across Italy, Europe, and beyond. Rome rebuilt and reshaped itself through the Middle Ages: home for popes, destination for pilgrims, power broker for Italy. It became a great Renaissance and early modern city, a center of art and architecture, of religion, and of politics. We will be reading a mix of primary sources and modern scholarship. All required texts are in English, though students who take this course for Italian Studies credit may choose to read some works in Italian.
Fall or Spring
Also Offered As: ITAL 2201
1 Course Unit

HIST 2202 Taking Things: A History of Property and Law
This course looks at the history of the idea of property from antiquity to contemporary society though various specific themes and problems. We will begin with early development of the idea of property in Roman law. How was the idea of property explained, and what were the basic legal concepts associated with taking, using and owning? How did people lay claim to things wild or unowned? We will then move through medieval, early modern and modern periods to examine specific questions. How were people made into things? How do we create rights in intangibles? What are the limits of rights of property? Property is in many ways a central concept in relations between people in their everyday life. It is also a cornerstone of political ideology. This class will explore the history behind how we make and distinguish between 'mine' and 'yours'.
Fall or Spring
Also Offered As: JWST 2225
1 Course Unit

HIST 2203 Introduction to Print Culture
This course examines the writing, printing, dissemination, interpretation, and censorship of specific works in Early modern England, France, Italy, Spain and America. The course is an introduction to the history of authorship, publishing, and reading at the age of print culture from Gutenberg to Franklin. All the texts analyzed in the course (the Bible, Montaigne's Essays, Shakespeare's plays, Don Quixote, Pamela among them) are available in English but the course pays particular attention to the massive range of translations in early modern period. Its main focus are the relation between the "printing revolution" and scribal culture, censorship and transgression, the birth of the author and collaborative writing, and reading practices from humanist techniques to reading of the novels. The course is based on the exceptional collections of rare books and manuscripts at Penn and in Philadelphia and it is taught in the Van Pelt Library.
Fall or Spring
Also Offered As: ENGL 1609
1 Course Unit

HIST 2204 Food and Diet in Early Europe: Farm to Table in the Renaissance
What did medieval and Renaissance Europeans choose to eat? What did they have to eat? Before the age of mass transportation, was all food locally sourced? In an era when most medicines were plant based, what did it mean to eat a balanced diet? "Feed a cold, starve a fever." Why? In this course we will examine food, foodways, and diet in European culture, thought, and society with a focus on the later Middle Ages and Renaissance, and with a mix of primary sources and modern scholarship on food, cuisine, religion, and diet.
Fall or Spring
Also Offered As: ITAL 2204
1 Course Unit

HIST 2205 Religious Conflict and Coexistence in Early Modern Europe
Europe's early modern period (roughly 1450-1750) has been described as an "age of religious wars," with the Reformation and contact with the New World prompting the formation of new fault lines, new collectives, and the reshaping of old animosities in new expressions. It was a period of bloody riots between Catholics and Protestants, expulsions of Jews and Muslims, prosecution of heretics, martyrdoms of saints, andquisitions of witches. But it was also an age of living together, of pragmatism, and of coexistence. This seminar explores the complexities and curiosities of religious intellectual, political, social, and daily life as people across religious lines clashed, cooperated, communicated, and carried-on. We will explore the experiences both of influential thinkers but also ordinary people, and ask how and why people were willing, in the name of religion, to persecute, prosecute, fight, kill, and die, and how others traded and traveled together, defended each other, and even married across religious lines.
Also Offered As: JWST 2225
1 Course Unit

HIST 2206 Neighbors and Strangers: Jews and Christians in Premodern Europe
The history of Christians and Jews—and of Judaism and Christianity—is an entangled one. From antiquity the two groups gained understandings of themselves in relation to the other, and that story defined much of the lives of each throughout the Middle Ages and into the modern period. At times this relationship was a hostile one, but it was also a force for creativity and a basic fact of life. This course approaches the history of relations between Christians and Jews in Medieval and Early Modern Europe (ca. 1000-1800), exploring both the bases of hatred and the possibilities of coexistence. We will look at episodes of crusader violence, mass expulsion, and religious polemic alongside exchanges in taverns, shared child-rearing, and sexual encounters. We will examine sources from both Christians and Jews, recovering voices from across this seeming divide, encountering both the ideals imagined by elites and intellectuals, and the messy—and more interesting!—realities of living side-by-side for centuries. Class meetings will involve dedicated discussion of a combination of primary and secondary sources, and assessment will be based on writing assignments.
Also Offered As: JWST 2206
1 Course Unit
HIST 2250 History, Memory, and Nostalgia in Modern Europe
Karl Marx compared history to a nightmare weighing on the brains of the living, but it can also be a refuge, a source of inspiration, and a constant companion. In this course, we will consider our own relationship to the past as we navigate the boundaries and intersections of history, memory, and nostalgia. Reading will consist of plays, novels, music, film, television, and painting. From the traumas of the Holocaust and of Stalinism to the conflicted memory of empire, from preservation to imagination, we will consider a wide array of methods through which Europeans have engaged their past over the last two hundred and fifty years. How does the academic study of the past relate to individual and collective memories of it? If "living in the past" seems often seems counterproductive, and yearning for it often seems reactionary, in what ways can nostalgia be a force of progress? We will consider these questions as we study topics such as the birth of heritage movements in the nineteenth century, the formation of national museums, representations of war and violence, legacies of imperialism, and the history of memory after the cataclysms of the twentieth century.
Fall or Spring

1 Course Unit

HIST 2251 Machiavelli and Modern Political Thought
Niccolo Machiavelli, the Renaissance author best known for The Prince, is frequently regarded as a consummate cynic. Yet he has been not only a provocation but an inspiration throughout the subsequent history of political thought. This was true for the entire twentieth century, which witnessed an ever-growing interest in the Florentine thinker among historians and philosophers alike. One of the most surprising dimensions of this modern engagement with Machiavelli is surely his recurring presence as figure and motif within left-wing philosophical discourse. In light of the failure of the twentieth-century’s revolutionary experiments, as well as its own entanglements with those experiments, how could radical theory understand its past and imagine its future? What vision could supplant the dimming of utopia? Such questions have frequently led recent theorists into melancholic resignation, but they have also provoked innovative and rigorous attempts to rethink the project of radical politics as radical democracy. How is it that Machiavelli, a thinker indelibly associated with the cynical and amoral manipulation of politics, could become an inspiration for theorists of a robust democratic life? This course will examine this curious history of influence and transformation. Starting with an examination of key texts by Machiavelli himself, we will then trace his reception in European intellectual history, focusing upon the twentieth century. Among authors we will consider will be Jean-Jacques Rousseau, Hannah Arendt, Leo Strauss, John Pocock, Quentin Skinner, Antonio Gramsci, Louis Althusser, John McCormick, and Antonio Negri.
Fall or Spring
Also Offered As: COML 2251
1 Course Unit

HIST 2252 European Intellectual History since 1945
This course concentrates on French intellectual history after 1945, with some excursions into Germany. We will explore changing conceptions of the intellectual, from Sartre's concept of the 'engagement' to Foucault's idea of the 'specific intellectual'; the rise and fall of existentialism; structuralism and poststructuralism; and the debate over 'postmodernity'.
Spring
Also Offered As: COML 2252
1 Course Unit

HIST 2253 Human Rights and History
The idea of universal, inalienable rights—once dismissed by the philosopher Jeremy Bentham as "nonsense upon stilts"—has become the dominant moral language of our time, the self-evident truth par excellence of our age. Human rights have become a source of inspiration to oppressed individuals and groups across the world, the rallying cry for a global civil society, and not least, a controversial source of legitimation for American foreign policy. This seminar asks: how did all this come to be? We will investigate human rights not only as theories embodied in texts, but as practices embedded in specific historical contexts. Are human rights the product of a peculiarly European heritage, of the Enlightenment and protestantism? How did Americans reconcile inalienable rights with the reality of slavery? Did human rights serve as a "civilizing" mask for colonialism? Can universal rights be reconciled with genuine cultural diversity? Through case studies and close readings, the seminar will work toward a genealogy of human rights.
Fall or Spring
1 Course Unit

HIST 2254 WORLD WAR I
The First World War marks a watershed in European and world history. We will examine the preconditions for the war—such as European imperialism, the arms race, and the rise of international law. We then move to study the outbreak of the war, and the debate over "war guilt." Our seminar covers the key battles and the course of the war on the various fronts (Western Europe, Italian Front, the Eastern Front, the Middle East), and the war on sea and in the air. We close with an examination of the war's outcome—fascism, communism, revolution, the mandate system and postwar European and colonial order. We will read classics and recent works on what many consider to be the foundational moment for the twentieth century. No prior knowledge is assumed.
Fall or Spring
1 Course Unit

HIST 2255 Modern Spain From Civil War to Democracy, 1930-1977
This course will examine the social, cultural, intellectual, economic, and political history of Spain from the 1890s loss of the colonial empire through the end of the Francoist regime (1970s). The history of 20th-century Spain offers the opportunity to study events, processes and ideologies that were and are central to the history of the West in the modern period: imperialism, the rise of communism and fascism, civil war, dictatorship, post-war reconstruction, and wars over cultural memory to control how societies remember their pasts. This course is divided into four parts. Introduction: the loss of the last colonies (1898) and the effect in Spain, and on Spain's participation in the scramble for Africa. First Part: the Spanish Republic and Civil War (1931-1939), focuses on the rise of a democratic system and its demise after three years of violent civil war. Second Part: Post-war Reconstruction (1939-1975), focuses on the reconstruction of Spain led by an authoritarian and anti-democratic dictator, General Franco, the winner of the Civil War. Third Part: Memory Wars, focuses on the period after 1975 with the restoration of a democratic system. In this section, we will study the different and often conflicting ways Spaniards remembered the origins and causes of the Civil War, the victims of the Civil War, and the characteristics of Franco's regime. Course readings will be a mixture of primary and secondary sources, and classes will combine short lectures by the instructor and discussion. Requirements: weekly short papers (reactions to weekly readings), oral presentations, and a final paper of 15 pages. Students can opt to write a research paper (20 pages) using original primary sources, to fulfill the department research requirement.
Fall or Spring
1 Course Unit
HIST 2256 The Russian Revolutions, 1905-1924: Brave New World? Many believe that the 1917 Russian Revolution was the most significant event in the twentieth century, both as a rupture from the past and as a precursor of much that was to come in the twentieth century. The February Revolution of 1917 made the Russian Republic—at one stroke, in the midst of the world war—the world’s most democratic state. The October Revolution of 1917, following it, was the world’s first socialist revolution, and it established the world’s first socialist state—the Soviet Union. Throughout the twentieth century and beyond, people have looked to it with either fear or with hope. It generated great dreams of equality and liberation—and great misery. This course will examine the causes, course and consequences of this crucial period, for the peoples of the Soviet Union and for the world. In some ways, the term “Russian Revolution” is in fact not entirely correct. First, there was not one Russian Revolution—were a series of overlapping revolutions in this period—labor, rural, national, liberalizationist. And second, it was a revolution that was not limited to European Russia, but encompassed the entire space of Russian empire (the Caucasus, the Baltics, Poland, Central Asia), and had worldwide and global significance. How do programs for liberation produce both new possibilities and great misery?
Also Offered As: REES 2770
1 Course Unit

HIST 2258 Existentialism, Structuralism, Poststructuralism: French Thought Since 1945

In no other period, with the possible exception of the European Enlightenment, did French thought enjoy greater international influence than in the decades after the Second World War. From Existentialism, through Structuralism, Poststructuralism, and Postmodernism, French thinkers played a crucial role in shaping the intellectual history of the second half of the twentieth century. This seminar surveys the intellectual movements and some of the key figures of this period. While our discussion will touch on many themes, the core of our inquiry will be the status of the human subject. If late nineteenth and early twentieth-century thinkers were preoccupied by the question of the “death of God,” French philosophical discourse in the late twentieth century was famously obsessed by the death of “Man.” Jean-Paul Sartre opened the post-war era by declaring that the death of God heralded an unprecedented age of Man; soon that proclamation came under attack as rival thinkers of the post-war period subjected the idea of the human “subject” – the “self” or “ego” – to unprecedented criticism. With the waning of Sartrean Existentialism, the unfolding dynamics of that critique came to drive the most creative and influential figures in French intellectual life.
Also Offered As: COML 2258
1 Course Unit

HIST 2290 The Great War in Memoir and Memory (Penn Global Seminar) World War One was the primordial catastrophe of twentieth-century history. For all who passed through it, the Great War was transformative, presenting a profound rupture in personal experience. It was a war that unleashed an unprecedented outpouring of memoirs and poetic and fictional accounts written by participants. In its wake, it also produced new forms of public commemoration and memorialization - tombs to the unknown soldier, great monuments, soldiers' cemeteries, solemn days of remembrance, and the like. One hundred years after World War One, this course will explore the war through the intersection of these processes of personal and public memory. (Please note: This is not a seminar in military or diplomatic history, but rather an exploration of personal experiences of the War, representations of experience, and the cultural and political dimensions of memory.) The course will end with a one week visit to the Western Front region of northern France. Travel to sites in northern France will allow us to consider the scale and topography of some of the major battles, visit cemeteries and ossuaries and reflect on their various forms of secular and sacred organization, various national war monuments, and WWI museums, including the pathbreaking museum in Peronne and the national WWI museum in Meaux.
1 Course Unit

HIST 2350 Migration and Refugees in African History

This seminar will examine the experiences of recent African emigrants and refugees within and from the continent Africa from a historical and comparative perspective. We will look at the relations of overseas Africans with both their home and host societies, drawing on some of the extensive comparative literature on immigration, ethnic diasporas, and transnationalism. Other topics include reasons for leaving Africa, patterns of economic and educational adaptation abroad, changes in gender and generational roles, issues of cultural, religious, and political identity, and the impact of international immigration policies. Students will have the opportunity to conduct focused research on specific African communities in Philadelphia or elsewhere in North America, Europe, or the Middle East. We will employ a variety of sources and methodologies from different disciplines—including newspapers, government and NGOs, literature and film, and diaspora internet sites—to explore the lives, aspirations, and perceptions of Africans abroad. History Majors may complete the research requirement if their paper is based on primary sources. Students not seeking credit for the research requirement may write papers drawing on secondary sources exclusively. Class will consist of a combination of lectures (including several by invited guests), discussions, video screenings, and presentations by students of their research in progress.
Fall or Spring
Also Offered As: AFRC 2350
1 Course Unit
HIST 2351 Silencing: Voices of Dissent in the Middle East
The Middle East boasts a rich and vibrant literary tradition. At the same time, modern Middle Eastern literature has incorporated innovative techniques to produce unique literary forms that give meaning to the contemporary circumstances of the region. This course will survey this literary history as a window through which to observe and understand Middle Eastern society. We will begin by reading excerpts from classical texts, since these works resonate strongly in contemporary Middle Eastern culture. Next, we will read Middle Eastern novels from various countries and different eras. The last part of the course will focus on memoirs that shed light on wars and conflicts through personal reflections. We will use literary works (epic poetry, novels, memoirs) as historical texts and analyze the social milieux in which these works emerged.
Fall or Spring
Also Offered As: NELC 2565
1 Course Unit

HIST 2352 Israel and Iran: Historical Ties, Contemporary Challenges
Israel and Iran have longstanding ties and connections that predate the contemporary feuds in which they are currently engaged. Iranian Jews rank as some of the oldest communities of the Middle East, and their history dovetails with the ancient Iranian past. This course will explore the historical roots of Jewish communities in Iran, with a focus on the post-18th century period, and will end with conversations that contributed to the diplomatic impasses faced by both countries since the 1979 Islamic Revolution. Films, novels, memoirs, and other historical accounts will be incorporated alongside secondary works to give students an opportunity to consider the complexities of this relationship.
Fall or Spring
Also Offered As: NELC 2566
1 Course Unit

HIST 2353 Sex and Power in the Middle East: Unveiling Women's Lives
How did Islamic women really live? What were their attitudes toward veiling and politics? To what extent did family dynamics and sexuality inform social interactions? This course strives to answer these questions by offering a comparative perspective on the lives of women primarily in the Middle East and North Africa. It combines historical accounts with select fictional works to study women's social and cultural milieux under colonialism, as well as the evolution of women's roles in politics and society with the emergence of independent nation-states in the Middle East and North Africa. By crossing national boundaries, this course highlights the diversity of women's experiences. Active participation is critical to the success of this seminar. Every student is required to prepare a Powerpoint presentation on one week's readings. The presentation must be completed before the start of each class meeting and subsequently distributed to the members of the class. The PPT presentation should offer critical reflections on the topics discussed in the text. Rather than providing summaries, or personal commentary, students should attempt to raise questions and explain the arguments presented in the readings. In addition to the PPT presentation, students must complete a term paper (approx. 20-25 pages) by the end of the semester on a subject approved by the instructor. Students may select a primary text and discuss its relevance by drawing on the readings from the seminar. The text MUST be different from the text chosen for the PPT presentation. Required books are available for purchase at the Penn Book Center at 34th and Sansom Streets.
Fall or Spring
Also Offered As: GSWS 2353, NELC 2567
1 Course Unit

HIST 2354 The Body in Middle Eastern History
The body has long been the focus of social and scientific inquiry, as well as the foundation of religious, philosophical, and artistic thought. This seminar examines premodern and modern notions of the body in the Middle East as they intersect with colonialism, nationalism, religion, labor, law, military, gender, race, medicine, and art. Students use the notion of the body as a "useful" historical category to investigate the broader social, cultural, and political transformations occurring in the Ottoman Empire and Qajar Iran, followed by post-empire and colonial modern Middle Eastern contexts. The course addresses diverse views and theories as manifested in the constructions and practices over the body by using literary texts, primary sources, medical recipes, religious orders, and even public monuments to unearth the role of the body in the making of Middle Eastern history.
Also Offered As: GSWS 2354, NELC 2354
1 Course Unit

HIST 2355 Classic Icons, Cinematic Images: Popular Culture in the Middle East
The meaning of culture can sometimes best be understood through a look at its popular traditions and the routines of everyday life. This course will grapple with issues of ethnicity, political conflict, and identity in the Middle East by analyzing the culture produced for and consumed by a wide spectrum of the general public in different countries. Political cartoons, photography, novels, film, music, dance, and other modes of cultural expression will be used to explore the historical roots of the political anxieties and social conventions common to many modern Middle Eastern communities. In this way, we will recast studies of politics through an understanding of identity and culture.
Also Offered As: CIMS 2355
1 Course Unit

HIST 2400 Indigenous History of Mexico from the Aztecs to Present
This course will explore the history of indigenous peoples of Mexico from roughly 1400 to the present. Mesoamerica — the cultural region that encompassed what is today Mexico and much of Central America — in the fifteenth century saw the ascendance of the Aztec Empire in central Mexico (and beyond) and the continued independence of numerous Mayan communities. We will begin by looking at a diverse range of sources produced by the linguistically diverse people in these areas, particularly focusing on the “codices,” as the painted deer hide books that recorded history and ritual knowledge are known. Reading sources (in translation) by both European and indigenous languages (primarily Spanish, Nahuatl, and Maya), we will look at the divergent ways that Native communities and individuals responded to Spanish wars of conquest and how they responded to colonialism. The final part of the will look at the impact of Mexican independence and Revolution in the nineteenth century through the present, as well as the ongoing indigenous Mesoamerican diaspora to locales throughout the United States. In addition to written primary and secondary sources, we will consider a diverse array of visual sources — taking advantage of the spectacular holdings of the Penn museum — and contemporary cinema.
Fall or Spring
Also Offered As: LALS 2400
1 Course Unit
HIST 2401 Indians, Pirates, Rebels and Runaways: Unofficial Histories of the Colonial Caribbean
This seminar considers the early history of the colonial Caribbean, not from the perspective of European colonizing powers but rather from "below." Beginning with European-indigenous contact in the fifteenth century, and ending with the massive slave revolt that became the Haitian Revolution (1791-1804), we will focus on the different ways in which indigenous, African, European and creole men and women experienced European colonization in the Caribbean, as agents, victims and resisters of imperial projects. Each week or so, we will examine the experiences of a different social group and their treatment by historians, as well as anthropologists, archaeologists, sociologists, and novelists. Along the way, we will pay special attention to the question of primary sources: how can we recover the perspectives of people who rarely left their own accounts? How can we use documents and material objects—many of which were produced by colonial officials and elites—to access the experiences of the indigenous, the enslaved, and the poor? We will have some help approaching these questions from the knowledgeable staff at the Penn Museum, the Kislak Center for Special Collections, Rare Books and Manuscripts, and the Van Pelt Library.
Fall or Spring
Also Offered As: AFRC 2401, GSWS 2401, LALS 2401
1 Course Unit

HIST 2402 The Haitian Revolution
In August 1791, enslaved Africans on the northern plain of Saint Domingue (colonial Haiti) rose up in a coordinated attack against their French colonial masters, launching the initial revolt in what would come to be known as the Haitian Revolution. In the years that followed, their actions forced the abolition of racial discrimination and slavery throughout the French Empire. When Napoleon Bonaparte threatened to return slavery to Saint Domingue, they waged a war for independence, declaring Haiti the world's first "Black Republic" in 1804. This seminar will examine some of the major themes and debates surrounding Haiti's colonial and revolutionary history. We will begin by considering the colonial paradox: France's leading role in the intellectual movement called the "Enlightenment" coincided with its ascent as a slaveholding colonial power. The seminar will also explore parallels and points of connection between the revolutionary movements in France and Saint Domingue: how did increasingly radical ideas in France shape events in the Caribbean? Likewise, how did west African traditions and political ideologies influence insurgents and their leaders? And how, in turn, did revolution in the Caribbean impact the revolution in France? Finally, we will ask how the Haitian Revolution influenced ideas about liberty, sovereignty and freedom throughout the Atlantic World. We will read a combination of primary and secondary materials each week. A final research paper will be required of all students.
Fall or Spring
Also Offered As: AFRC 2402, LALS 2402
1 Course Unit

HIST 2403 Animal, Vegetable, Mineral: Culture, Tech, & the Columbian Exchange, 1450-1750
In this course we will explore how Native American technologies shaped the early modern Atlantic World in order to understand the role of culture in what is often called the "Columbian Exchange." Technologies, for the purpose of this course, include animal practices (such as hunting and taming techniques), foraged and domesticated plants (such as maize, potatoes, and annatto), foods (such as cassava and chocolate), drugs (such as tobacco, quinine and coca), textiles (such as hammocks and featherworks), and precious metals and gemstones (such as pearls, emeralds and gold). We will explore technologies' relationships to other aspects of art and culture, and focus particularly on how and why certain technologies - and not others - moved beyond colonial Latin America in the sixteenth and seventeenth centuries. We will read intensively in both primary and secondary sources.
Fall or Spring
Also Offered As: LALS 2403
1 Course Unit

HIST 2450 Coca and Cocaine
This seminar compares practices that center on coca leaf production in indigenous communities, where coca cultivation has been sustained over millennia, on the one hand, with practices linked to the post 1961 "drug war" in the Americas, on the other. Participants will read scholarly work in history and anthropology, support one another through a research process, and explore what historians and other scholars might contribute to discussions about drug policy. Case studies we'll explore include Peruvian Quechua-speakers' ritual use of leaf, the history of Coca-Cola, patterns of violence in Medellín and Northern Mexico, and the evolution of money laundering in 1980-2010. Students will also have the opportunity to define a topic of interest to them and prepare an in-depth literature review.
Fall or Spring
Also Offered As: LALS 2450
1 Course Unit
HIST 2500 History of Private Life in China
Underneath the grandeur of empires, war, revolutions, history eventually is about people's life. This seminar explores how the boundaries of private life in China intersect with the public arena and how such an intersection has significantly re-shaped Chinese private life between the 16th century and the present. The first half of the seminar will explore how the private realm in late imperial China was defined and construed by Confucian discourses, architectural design, moral regulation, cultural consumption, and social network. Moving into the twentieth century, the remaining part of the seminar will examine how the advent of novel concepts such as modernity and revolution restructured the private realm, particularly in regard to the subtopics outlined above. Organizing questions include: How did female chastity become the center of a public cult which then changed the life paths of countless families? How did the practice of female foot-binding intersect with marriage choices, household economy, and social status? How did print culture create a new space for gentility women to negotiate the boundaries between their inner quarters and the outside world? What was the ideal and reality of married life in late imperial China? How did people's life change when the collective pursuit for Chinese modernity placed romantic love, freedom to marry and divorce at the center of public debates? How was "Shanghai modern" related to the emerging middle class lifestyle as evidenced in advertisement posters? How has the ideal of gender equality been re-interpreted and realized under the Communist regime? How have the current market reforms reformulated the contours of private life in China?  
Fall or Spring  
Also Offered As: EALC 2721, GSWS 2500  
1 Course Unit

HIST 2501 Cities in Chinese History
This seminar will study the development of Chinese cities over the past two millennia with respect to their spatial structure, social constitution, economic system, political functions, and cultural representation (including cityscape paintings, maps, and films). As China transitioned from a collection of city-states to a united empire to nation state, Chinese urbanism underwent transformations as drastic as those of the country itself. Cities, which serve as a critical mechanism for the operation of a vast agrarian empire/nation like China, offer a unique vantage point for us to observe and analyze the continuities and discontinuities between dynastic empires as well as the radical transition from empire to modern nation state. Topics include: the city-state system in ancient China; the creation and evolution of imperial capitals; the medieval urban revolution and the subsequent collapse of classic city plans; the development of urban public sphere/public space in late imperial China; the rise of commercial power in urban politics; the negotiation of urban class and gender relations via cultural consumption; the role of cities in the building of a modern Chinese nation state; the anti-city experiment under the communist regime; urban citizenship in the reform era; as well as the expanding urbanization and shifting urbanism of Greater China as reflected in cinematic representations of Shanghai, Hongkong, and Taipei.  
Fall or Spring  
Also Offered As: EALC 2722, URBS 2501  
1 Course Unit

HIST 2551 History of Hong Kong
Hong Kong is almost explosively alive today, as Professor Waldron discovered on a recent trip to prepare for this course. From 1842-1997 the British Colony was a sleepy city having a mostly transient population until 1945; then she swelled with refugees after 1950 to become a rapidly growing economy now richer than Britain. In 1997 she was turned over to China under the "one country two systems" motto. Since then, however, relations with China have proven increasingly fraught. The legislative election of autumn 2016 saw the pro-China candidates crushed in a massive vote that returned a number of young people (Hong Kong politics are generational) to the Legislature who explicitly favor the independence of the city from China—the worst of heresies from Beijing's point of view. Nearly all favor democracy and real law—also anathema to Beijing. As the course is being taught, a new Chief Executive election will be going on. Hong Kong is not simply a fascinating city. She is also a window of sorts into China and her politics. We will read everything from colonial accounts to campaign leaflets, examining the situation in three dimensions, integrated with China and the region. Seminar meets T 1:30-4:30; readings, discussion, and a short paper on a topic of your choice.  
Fall or Spring  
Also Offered As: EALC 2732  
1 Course Unit

HIST 2600 Witches, Whores and Rogues
What should we make of the disorderly people of the past? Were they acting out their dissent against powerful customs and institutions in their lives? Or were they the victims of those customs and institutions? In this course, we consider the lives of these disorderly people: the witches, prostitutes, criminals, escaped servants and slaves, criminals, cross dressers, and rowdies of early modern Europe and the Americas. The course will focus on several case studies featuring people considered to be troublemakers, or at the very least, non-conformist, by their contemporaries. We will use films, primary sources, book-length studies, and works of theory to develop our analyses of the problem of dissent, disorder, and resistance in the early modern past.  
Fall or Spring  
Also Offered As: GSWS 2600  
1 Course Unit

HIST 2602 The Mediterranean World in the Age of Don Quixote
Using as our guides the works of Miguel de Cervantes, Michel de Montaigne, William Shakespeare, Baldassare Castiglione, Antonio de Sosa, Elias al-Musili, and many others, this seminar will analyze the social mutations, religious confrontations, political conflicts, cultural productions and circulation of books, ideas and goods that characterized the Mediterranean world during the sixteenth and seventeenth centuries. Based on close readings of primary and secondary sources, this seminar will focus on the study of the main transformations—political, economic, religious, cultural, and literary—in the early modern Mediterranean world. Students will also be introduced to and learn to analyze original materials from the Library's Kislak Center, where the class will meet, including early modern editions of books we will discuss, maps, ephemera, and manuscript documents. *History Majors will have the opportunity to write a 15-page paper to fulfill the Major research requirement*  
Also Offered As: ENGL 2605  
Mutually Exclusive: HIST 3602  
1 Course Unit
HIST 2605 The Jewish Book from Scroll to Screen
Through much of their history, Jews have been known as a “people of the book” and have, often, prided themselves on such an association. The very definition of a book, what books contained, and who might use them are not so easy to define, and their study opens up new ways to think about the Jewish past. Books are perhaps the most important ways people share ideas and change minds. But they are also commercial goods, collectors’ items, community memories, and cherished heirlooms. This course offers a cultural history of communication and knowledge in Jewish experience through an exploration of the history of the book. It will use primary sources, scholarly articles, and hands-on encounters with books in different shapes and sizes to explore the way people of the past engaged with books both texts and material objects. It will also offer examples of new methods in the study of the book drawn from the digital humanities. Tracing changing conceptions and uses of the book from the ancient world until the present, we will consider the way that books have shaped religion, caused upheaval, and changed over time, even to face their possible obsolescence in our own age.
Also Offered As: JWST 2605
1 Course Unit

HIST 2700 Utopia
Western thinkers from the ancient Greeks to the present have speculated about what the ideal human society would look like. We can study the resultant utopias as works of literature, philosophy, religion, psychology or political science; we must understand them in their historical contexts. This seminar will take a multidisciplinary approach to utopian thought from Plato’s Republic to the ecological utopias of the 1980s. Works to be examined include More’s Utopia; seventeenth century scientific utopias like Bacon’s New Atlantis; the political theory of Rousseau (Social Contract); essays of the French utopian socialists and Hawthorne’s version of the Brook Farm experiment; Morris’ News from Nowhere; its American counterpart, Bellamy’s Looking Backward; Gilman’s feminist blueprint, Herland; BF Skinner’s psychological utopia, Walden Two; and the utopian science fiction of LeGuin. Huxley’s dystopia, Brave New World, will be set against his later utopia, Island.
Fall or Spring
1 Course Unit

HIST 2702 How to Rule an Empire: Intro to European and American Imperialism
Over the last five centuries, European and American powers developed changing strategies of empire designed to order societies at home and overseas. The practice of empire spurred worldwide debates that continue today: how did imperialism operate, what purposes did it serve, could it come to an end, and what might replace it? Over the course of two hundred years, these questions inspired some of the world’s great historical writing, and this seminar introduces students to a sample of it. Together we’ll explore varied forms of political, economic, military, and cultural power involved in imperial expansion; the experience and consequences of empire for both colonized and colonizer; and the emergence of anti-imperialist movements. We will read an average of 150 pages per week. No background is required. The books we’ll read reward slow, careful reading. What you learn in this class, and the quality of our experience together, depends on your reading closely, coming to class with informed questions, and being prepared to help your classmates answer theirs. Active, informed class participation will account for forty percent of your grade.
Fall or Spring
1 Course Unit

HIST 2703 Decades of Extremes: Protectionism, Fascism, Imperialism, 1917-1945
The rise of Fascism in Italy, the Russian Revolution, anti-colonial struggles in India, the New Deal in the United States, the Spanish Civil War, and the emergence of populist Juan Perón in Argentina. These events – as distinct as they are – all responded to the crisis of the global economy following World War I. These were decades of ideological extremes: liberal democracy pitted against fascism, socialism versus capitalism, imperialist expansion in some parts of the world and struggles for self-determination in others. What did the world look like in 1917, and why did it give rise to such revolutionary politics? This course studies the ideological conflicts and economic crises of the interwar decades (1917-1945) through firsthand accounts produced by intellectuals, economists, dictators, and ordinary citizens. We will read from the 1917 Soviet Constitution, George Orwell’s personal account of the Spanish Civil War, and Mussolini’s writings to understand the revolutionary visions at stake. We will debate alongside John M. Keynes and Friedrich Hayek to engage one of the driving questions to arise in these years: what is the role of the state in economic life? We explore the policy experimentation that arose in response to this crippling economic situation, from the New Deal in the United States to the rise of populism in Latin America. Finally, we consider how these interwar struggles explain the outbreak of World War II, an extreme experience of totalitarianism, destruction, and genocide. The key concepts we explore – fascism, imperialism, protectionism, capitalism, socialism, authoritarianism, liberalism – are of enduring relevance. What lessons – if any – can we learn from these interwar decades of extremes?
Fall or Spring
1 Course Unit

HIST 2701 Travel, Trade and War in the Modern Mediterranean
The Mediterranean Sea links together many societies, cultures, cuisines, and economies. Long after the Roman Empire and the Italian Renaissance, the Middle Sea continued to function as a cohesive geographic and cultural space. Contacts and conflicts in the Mediterranean shed light on the major themes of modern history: relations between East and West, encounters among Christians, Muslims, and Jews, brutal wars of imperial expansion, economic migration, catastrophic epidemic disease, and the birth of a globalized economy. We’ll read travel narratives by French scholars who helped Napoleon invade Egypt, and we’ll investigate how the Egyptians responded. We’ll study how Mediterranean nationalism began the First World War. We’ll look at the first massive Mediterranean migrant crises and compare them with the news we’re hearing today. Studying trade, travel, and war in the modern Mediterranean will provide students with a unique lens on European, Middle Eastern, North African, and Global history. **Students can get credit for the Europe or Africa/Middle East requirement depending upon their research paper topic.**
Fall or Spring
1 Course Unit
HIST 2705 Wars and Postwars
This course focuses on the study and analysis of the political and social challenges posed in, and faced by, post-war societies in the modern period, 1800-1950. Casting a large net from the early nineteenth century to the twentieth century it looks at the process of rebuilding after wars, both international and civil wars. The course will be organized thematically – Conducting War; Reconstructions; Vengeance and Justice; Public Memory. Cases will include the Napoleonic Wars, the American Civil War, the Spanish Civil War, and WWII, with references to other conflicts in various world regions.
Fall or Spring
1 Course Unit

HIST 2706 Wastes of War: A Century of Destruction
This seminar examines the human and environmental consequences of violent conflict from the South African War at the beginning of the 20th century to the War on Terror. War violently transforms the social and physical environment. War reshuffles ideologies, reimagines futures and reshapes alliances, destroys bodies, spaces, societies, habitats, ecosystems and cultures. And of course, there's no war that doesn't produce a whole host of wastes, and as a result, inspires a multitude of strategies to combat and eradicate them. In this course, we approach war as an engine of destruction and transformation rather than as politics gone awry. The wastes of war will serve as our focal point as we study the new worlds (technological, social and environmental) that war not merely leaves in its wake but systematically generates. Critically examining two key categories – “waste” and “war” in tandem, we discover how together they fundamentally restructure our social, cultural and natural worlds in unexpected ways.
Fall or Spring
1 Course Unit

HIST 2707 Extreme Heat: White Nationalism in the Age of Climate Change
The Amazon is burning. The glaciers are melting. Heat waves, hurricanes, earthquakes, floods, wildfires, and droughts devastate ever larger swaths of the earth, producing crop failures, air pollution, soil erosion, famine and terrifying individual hardship. At the same time the so-called Western World is literally walling itself off from the millions who are fleeing from disaster and war with what little they can carry. White nationalists chant "blood and soil" and "Jews will not replace us," social media spreads memes and talking points about "white genocide" and "white replacement" and online ideologues fantasize about building white ethnostates. Are these developments connected? Is there a causal relationship? Or are these conditions purely coincidental? Increasingly, arguments about limits to growth, sustainabilty, development and climate change have come to stand in competitive tension with arguments for social and racial equality. Why is that case? What are the claims and underlying anxieties that polarize western societies? How do white nationalist movements relate to populist and fascist movements in the first half of the 20th century? What is new and different about them now? What is the relationship between environmentalism, rightwing populism and the climate crisis? And how have societies responded to the climate crisis, wealth inequality, finite resources and the threat posed by self-radicalizing white nationalist groups?
Also Offered As: ENVS 2440
1 Course Unit

HIST 2708 War and the Arts
War, it is often forgotten, is powerfully reflected in the arts. This highly flexible student-driven seminar will examine the phenomenon. Each student will choose a topic and materials for us all to examine and then discuss after an interval of 1-2 weeks. With benefit of discussion they will write a paper 10pp maximum, summing up topic and reactions, as we seek broader understanding. The material is very rich. Goya (1746-1829) Picasso (1881-1973) both dealt with war in ways that scholars have examined, as did John Singer Sargent (1856-1925) whose immense canvas "gassed" (1919) not yet received monographic treatment. Of musicians, Shostakovich (1906-1975) is very promising; sculptor and artist Käthe Kollwitz (1867-1945) is of an inexpressible profundity that takes us to issues of mourning. Novels of Zola (1840-1902) and Proust (1871-1922) are great literature that deals in places with military issues. Students are of course strongly encouraged to choose their own topics. We will begin with several weeks on Vietnam, our understanding of which has been completely transformed by the pivotal work of Lien-Hang Thuy Nguyen, Penn Grad and Professor at Columbia, who may join us. For the first two classes we should read a short play, "The Columnist" by David Auburn, about Joseph Alsop (1910-1989) a highly influential writer of the Vietnam era, and relative of the professor. That should get things started. Then dig into "The Centurions" (1960) by Jean Laterguy (1920-2011) an absorbing novel.
1 Course Unit

HIST 2709 Pan-Africanism in Global Perspective
This class covers the history of Pan-Africanism from its early inception in the nineteenth century to the present. Pan-Africanism has sparked political struggles and provided a powerful catalyst to artistic endeavors across the globe. The class focuses on the early critiques of the transatlantic slave trade, tracing the development of a unifying sociopolitical movement and the struggle for identity among Africans and African descendants in the diaspora. C. L. R. James posits that people of African descent, no matter where they might live, are linked through ancestral ties to Africa and as victims of structural and historical racism in the West. The class will not only engage with the classics of Pan-Africanism but also explore the movement's influence through the arts (music, movies, and literature) and politics. To stress Pan-Africanism's global ramifications, the class pays significant attention to the movement's impact on Africa and Latin America.
Also Offered As: AFRC 2709, LALS 2709
1 Course Unit
HIST 2710 Inflationary Times: Money, Currency, and Debt in History
What is inflation? What are its causes and consequences? Inflation has become a pressing concern recently, as prices of fuel, food, and consumer goods have ticked upwards at alarming rates. From the ongoing COVID-19 pandemic, war in Ukraine, and climate disasters, current inflationary pressures are inseparable from the major events disrupting the global economy. This is as much the case today as it was following the discovery of silver mines in Potosí (Bolivia), the French Revolution, the breakdown of Bretton Woods, or the 1980s debt crises in Latin America. This course explores the economic and social consequences of inflation across history. It also considers the economic models used to explain the rise and fall of prices—and how economists and policy-makers experiment with new formulas when old ones appear obsolete. By exploring inflationary moments in historical perspective, this seminar explores topics like the political and social meanings of money, how to build trust in a new currency, and what governments can do (or tried to do) to correct financial crisis. Students will be asked to explore past moments of financial and economic crises on their own terms, but also to look for how the past can offer lessons for the present.
Also Offered As: LALS 2710
1 Course Unit

HIST 2711 The Good Fight: Global Decolonization from Chile to China
The conclusion of the Second World War precipitated independence movements that put an end to colonialism in many countries of the Global South, especially Asia and Africa. How did people with different political backgrounds, ideologies, as well as divergent and historical experiences of imperialism, take part in shaping their communities after WWII? The rise of the Cold War and expressions of Third Worldism complicated the identities and alliances of many newly formed countries that were previously colonized or in relationships of political dependency with the West. This course will survey case studies that speak to issues of social inequality, in particular poverty, gender, and race. At the same time, the class will consider the role and impact of new international organizations and non-state actors in the struggle for decolonization. Special attention will be paid to civil rights movements and political resistance to new forms of state control.
1 Course Unit

HIST 2715 The Wartime Incarceration of Japanese Americans
This research seminar will consist of a review of representative studies on the Japanese American internment, and a discussion of how social scientists and historians have attempted to explain its complex backgrounds and causes. Through the careful reading of academic works, primary source materials, and visualized narratives (film productions), students will learn the basic historiography of internment studies, research methodologies, and the politics of interpretation pertaining to this particular historical subject. Students will also examine how Japanese Americans and others have attempted to reclaim a history of the wartime internment from the realm of “detached” academia in the interest of their lives in the “real” world, and for a goal of “social justice” in general. The class will critically probe the political use of history and memories of selected pasts in both Asian American community and contemporary American society through the controversial issue of the Japanese American internment.
Fall or Spring
Also Offered As: ASAM 2100
1 Course Unit

HIST 3151 The Civil Rights Movement
This course traces the history of the Civil Rights Movement from its earliest stirrings in the 1st half of the twentieth-century to the boycotts, sit-ins, school desegregation struggles, freedom rides and marches of the 1950s and 1960s, and beyond. Among the question we will consider are: What inspired the Civil Rights movement, when does it begin and end, and how did it change American life? Readings will include both historical works and first-hand accounts of the movement by participants.
Fall or Spring
Also Offered As: AFRC 3151
1 Course Unit

HIST 3152 Law and Social Change
This is a course in the history of law and social change. Discussion of assigned readings and papers will focus on the role law, lawyers, judges, other public officials and policy advocates and social movements and networks have played in proposing solutions to specific problems. The course will focus on evaluating the importance or lack thereof of historical perspective and legal expertise in making social change. Assigned readings will be discussed in class. Each student will submit a paper based on primary and secondary material on a topic of her choosing within the overall subject matter of the course. Paper drafts will be discussed in class. The Final Paper is due at the beginning of the final examination period.
Fall or Spring
Also Offered As: AFRC 3152
1 Course Unit

HIST 3153 American Feminist and LGBT Movements, 1960s-1980s
This seminar explores the history of the feminist and LGBT movements from the mid-1960s to mid-1980s in Philadelphia. Although there will be some attention to national organizations, we will focus on social and political activism as it was made in local groups and spaces. We will explore the social and cultural web that fostered activism, for example, in gay and lesbian coffee houses, campus women’s centers, bookstores, and radio shows. We will also pay attention to groups and actions that may not have been self-consciously defined as "feminist" or "gay liberationist," but had important effects on social change related to gender and sexuality; these include African American, Latino/a, and working-class organizations. This is a hands-on research seminar, with students exploring local archives and special collections to document and analyze these complex movements. Each student will conduct an oral history, analyze a set of published and printed sources, and write a paper based on archival research.
Not Offered Every Year
Also Offered As: GSWS 3153
1 Course Unit
HIST 3154 Performing History
This seminar concentrates on the ways that various peoples in the world make their history by means other than relying on written texts alone. Over the course of the semester, we therefore may be examining such different public events and civic rituals as parades, political and religious processions, local historical pageants, carnivals, historic preservation, museums, military reenactments, and history theme parks. The emphasis in each of these forms, places, and semiotic processes will be on their identity and function as key performances that transform consciousness, shift individuals alternately into both actors and spectators, reframe the everyday as the metaphysical, and intensify the status of cultural values in the histories they present to view. Course requirements: a seminar paper, the topic of which you will discuss with me no later than week five of the course; and a working annotated bibliography and statement of your paper’s main thesis. I will say more about these assignments as they approach.
Not Offered Every Year
Also Offered As: ANTH 2154, ARTH 3790
1 Course Unit

HIST 3155 Fake News and American Democracy
At separate moments, Thomas Jefferson famously declared both that newspapers were crucial to sustain a nation and that a person who never looked at a newspaper was better informed than a regular reader of the press. The ideal of an informed citizenry occupies a central spot in our understanding of the democratic project in the United States, and, consequently, the news and the news media play a vital role. But the news may also be a means to manipulate and distort, not simply inform. As Americans on both the Left and Right wonder today, what happens to our democratic prospects when public information and the media are unreliable? In this class we will consider the history of fake news in the United States and its implications for democracy and citizenship. We will dig into an array of episodes – from the Jefferson-Hamilton debates in the press to battles over what could be printed about slavery; from McCarthyism to the ways in which different racial and ethnic groups often engaged with different accounts of the news. We will examine in depth the moment of a global rise in fascism and America’s best-known news hoax, the “War of the Worlds” radio program. Throughout, we will explore the importance of the different media that conveyed news in the past – and think about what that means for us in the present moment as news travels through new channels.
Fall or Spring
1 Course Unit

HIST 3156 Liberalism in the 20th Century
At a moment when American liberalism is embattled and in a profound state of flux, this research seminar explores the development of the political ideology of the Democratic Party since its first modern articulation in Franklin Roosevelt’s New Deal. In addition to examining key moments of reform, expansion, and reimagining through the Cold War, Lyndon Johnson’s Great Society, and under Bill Clinton’s New Democrats, students will explore the ways in which liberals and liberalism have both succeeded and often failed to meaningfully incorporate the interests of a diverse array of Americans including women, organized labor, African Americans, immigrants, rural constituencies, immigrants, and LGBTQ citizens. Over the course of the semester, students will develop a significant piece of original, primary source-based, historical research on a theme of their choosing within the modern history of liberalism, broadly construed.
Fall or Spring
1 Course Unit

HIST 3157 ¡Huele! The Farmworker Movement in the United States
This intensive research seminar invites students to explore the history of farmworkers in the United States during the twentieth century. Research will primarily but not necessarily exclusively focus on the west coast, a region in which many archival sources have been digitized. Students may explore a wide variety of topics, including but not limited to: farmworker unions; the relationship between farmworker mobilizations and other movements in the US and abroad; the experiences of workers from the Philippines and Latin America and the role of US imperial and immigration policies in the lives of farmworkers; farmworkers’ confrontations with and participation in systems of racism; the Great Depression in rural communities; the history of gender and family in farmworker communities; the history of environment and health; struggles over citizenship and social rights; counter-mobilizations of growers and the right; religion in farmworker communities; legislative and legal strategies to obtain rights denied agricultural workers in federal law; artistic, musical, and cultural production; or the relationship between consumers and the workers who produced their food.
Also Offered As: LALS 3158
1 Course Unit

HIST 3173 Penn Slavery Project Research Seminar
This research seminar provides students with instruction in basic historical methods and an opportunity to conduct collaborative primary source research into the University of Pennsylvania’s historic connections to slavery. After an initial orientation to archival research, students will plunge in to doing actual research at the Kislak Center, the University Archives, the Historical Society of Pennsylvania, the American Philosophical Society, the Library Company, and various online sources. During the final month of the semester, students will begin drafting research reports and preparing for a public presentation of the work. During the semester, there will be opportunities to collaborate with a certified genealogist, a data management and website expert, a consultant on public programming, and a Penn graduate whose research has been integral to the Penn Slavery Project.
Fall or Spring
Also Offered As: AFRC 3173
1 Course Unit

HIST 3174 Free State Slavery and Bound Labor Research Seminar
This seminar invites students to do original research into the stories of Black refugees – including escaped, kidnapped, sojourning, and other temporary or permanent residents of Pennsylvania. Their stories unfolded through contentious freedom suits, daring escapes on the Underground Railroad, newspaper wars, gun fights and thuggery, treason cases, and more. We have assembled an archive of statutes, legal cases, testimony, judicial and administrative decisions, newspaper stories, images, memoirs, maps, and more to help students get started with their research. In addition, students will have opportunities to pursue additional research at the Historical Society of Pennsylvania, a co-sponsor of this course. Many of these materials have never been the subject of sustained study or placed in their historical context. Students will choose their topics in consultation with the professors and will produce research reports in written or digital or cinematic formats. Students are expected to contribute to the course website, a platform that will be available to the public as well as to the Penn community, and we aim to provide new information and venues for research. The course therefore will involve considerations of how best to convey what we learn, as well as explorations of historical methods and collaborating archives.
Also Offered As: AFRC 3174
1 Course Unit
HIST 3200 War and Conquest in Medieval Europe
This course will focus on wars of conquest in the medieval period. The code of chivalry demanded that knights not only display great prowess in battle, but also adhere to Christian virtue. How did these square in practice? What constitutes acceptable violence and military intervention? We will seek to understand the medieval mentality of warfare in order to think about the place of war in society, how war was justified, why war was fought, and how it was fought. War, however, cannot be separated from its goals. We will thus go beyond the battlefield to look at how conquest of territories was cemented with the establishment and enforcement of a new order. Themes will include the rise of knighthood, ideas of just war, crusade, laws of war, territorial control and colonization. The course will also include two fabulous field trips to visit Penn’s manuscript collection and the arms and armor collection at the Philadelphia Museum of Art.
Fall or Spring
1 Course Unit

HIST 3201 Capitalism and Charity: The Long, Complicated Connection
Capitalism and charity seldom appear in the same sentence, much less the same title. They seem diametrically opposed. While capitalism is commonly understood as “an economic system based on the private ownership of the means of production and their operation for profit”, according to Merriam-Webster, charity refers to “generosity and helpfulness especially toward the needy or suffering, also aid given to those in need”. The former implies self-interest, while the other breathes common interest. Yet, the two are closely, dynamically connected.
As capitalism has emerged and evolved historically, so has charity changed to meet new circumstances and find new legitimations. From simple charity in the form of indiscriminate alms-giving have emerged “poor relief”, “work relief”, “social welfare” and, more recently “effective altruism” to name but a few permutations. Charity as a personal, face-to-face interaction between rich and poor has become cloaked in varieties of impersonal programs and institutions. This research seminar will explore the tensions (and synergies) between capitalism and charity over time. Through readings and discussions of primary sources, students will come to understand something of this historical dynamic. By completing independent research projects, they will contribute to that understanding as well.
Fall or Spring
1 Course Unit

HIST 3202 Medieval Justice
What exactly is justice? What is its relationship to law? To what extent is it culturally contingent? How do ideas about justice change over time? This course will examine different theories and representation of justice in European Middle Ages (ca. 500-1500). We will begin by looking at aspects of dispute resolution in the early middle ages, when there was little centralized government. This was the heyday of feud, ordeal, and the law of talion, when law was largely unwritten and disputes were resolved informally by the community. We will then look at how law professionalized and how ideas of justice changed as formal legal institutions and centralized governments developed. Readings will be drawn from a variety of sources, including the so-called barbarian codes, stories of feud, accounts of crime, charters of rights, lawbooks, and trial records.
1 Course Unit

HIST 3250 Great War in Memoir and Memory
World War One was the primordial catastrophe of twentieth-century history. For all who passed through it, the Great War was transformative, presenting a profound rupture in personal experience. It was a war that unleashed an unprecedented outpouring of memoirs and poetic and fictional accounts written by participants. In its wake, it also produced new forms of public commemoration and memorialization – tombs to the unknown soldier, great monuments, soldiers’ cemeteries, solemn days of remembrance, and the like. On the centenary of World War One’s outbreak, this course will explore the war through the intersection of these processes of personal and public memory. The first ten weeks will be devoted to shared readings on these themes. In the remaining weeks, students will pursue independent research projects investigating the literature of the Great War or aspects of public or private commemoration. Please note: This is not a seminar in military or diplomatic history, but rather an exploration of personal experiences of the war, representations of experience, and the cultural and political dimensions of memory.
Fall or Spring
1 Course Unit

HIST 3251 Modern Spain: Civil War and Postwar, 1930-1970
This RESEARCH SEMINAR is divided into three parts. Part I centers on the Spanish CIVIL WAR, 1930-1939. The beginnings of the conflict, the main causes and motivations, the debates in the international arena, the main events and ideologies, some of the main characters, personal experiences (men and women) during the war, violence and repression. Part II focuses on the consequences of the Civil War (1939-1970), both from internal and international perspectives - the constitution of the Francoist regime and its internal politics; the repression of political dissidence; the situation of the Francoist regime during WWII and during the Cold War, how political and cultural dissidence started under Franco’s regime, the social history of Spain, and the construction of the historical memory of the Civil War. Part III, Research and Writing: this course is designed to model the research and writing process professional historians use, beginning with a paper proposal and bibliography of primary documents and secondary sources. It then proceeds through the various stages of the research process to produce drafts of the essay and finally the finished essay. All written work is for peer review.
Not Offered Every Year
Also Offered As: LALS 3251
1 Course Unit
HIST 3252 Marx, Nietzsche, Freud: Masters of Suspicion
In his influential book Freud & Philosophy, the French philosopher Paul Ricoeur identified three master thinkers whose influence on the twentieth century was inestimable. What these figures shared was what Ricoeur called a “hermeneutics of suspicion”; that is, in their different ways, each developed a style of interpretation aimed at unmasking, demystifying, and exposing the real from the apparent. “Three masters, seemingly mutually exclusive, dominate the school of suspicion: Marx, Nietzsche, and Freud.”
Taking its inspiration from Ricoeur, this seminar will explore some of the key writings of Marx, Nietzsche, and Freud. We will encounter the hermeneutics of suspicion above all in these authors’ attempts to unmask religion and reveal its true origin and function. And we shall also pursue the hermeneutics of suspicion in the specific concerns that form the core of each thinker’s work: Marx’s critique of capitalism, Nietzsche’s genealogy of Judaeo-Christian morality, skepticism about ‘truth’, and proto-deconstruction of the human self, and Freud’s theory of the unconscious. The final weeks of the course will be devoted to independent research and writing of an original essay in intellectual history.
Also Offered As: COML 3252
1 Course Unit

HIST 3350 Religion and Colonial Rule in Africa
This course is designed to introduce students to the religious experiences of Africans and to the politics of culture. We will examine how traditional African religious ideas and practices interacted with Christianity and Islam. We will look specifically at religious expressions among the Yoruba, Southern African independent churches and millenarist movements, and the variety of Muslim organizations that developed during the colonial era. The purpose of this course is threefold. First, to develop in students an awareness of the wide range of meanings of conversion and people’s motives in creating and adhering to religious institutions; Second, to examine the political, cultural, and psychological dimensions in the expansion of religious social movements; And third, to investigate the role of religion as counterculture and instrument of resistance to European hegemony. Topics include: Mau Mau and Maji Maji movements in Kenya and Tanzania, Chimurenga in Mozambique, Watchtower churches in Southern Africa, anti-colonial Jihads in Sudan and Somalia and mystical Muslim orders in Senegal.
Fall or Spring
Also Offered As: AFRC 3350
1 Course Unit

HIST 3351 Africa and the Mid-East
This seminar will explore the historical relationship between these two regions from the early modern age to the present. We will examine the history of trade, particularly the slave trade, and its cultural and political legacy. We will compare the experiences of European imperialism–how the scramble for Africa dovetailed with the last decades of the Ottoman Empire–with an eye to how this shaped nationalist movements in both regions. The course will also explore the decades of independence with a special eye towards pan-Africanism and pan-Arabism. We will also study the ramifications of the Arab-Israeli conflict on the relationship between African and Middle-Eastern countries, from OPEC to Darfur. The course will pay close attention to migrations through the regions, whether forced or economic or religious. Whenever possible we will explore, through film and literature, how people in Africa and the Middle East see their connections, and their differences.
Fall or Spring
Also Offered As: AFRC 3351, NELC 3550
1 Course Unit

HIST 3405 The Conquest of Mexico
The Conquest of Mexico is one of the most famous episodes of global history. Often told as a story of European technological and military superiority, scholarship of the last thirty years has started to change our understanding of what really happened. In the first half of this course we will examine the history of both Spain and Mesoamerica from approximately 1300 to the fateful meeting of the two civilizations in 1519 that led to war in 1520-21. We will ask questions about sources, actors, and intentions such as, should we even call the events “The Conquest of Mexico”? The second half of the course will focus on the first century of Spanish colonial control of what was now called New Spain to roughly 1650. We will ask questions like, how much control did the Spanish have over their Mesoamerican colonies? What role did the Catholic Church play? How did Indigenous people and Africans adapt to living under colonialism? In what ways did the lives of women change? How was the environment impacted? How did epidemic disease alter daily life and communities? And, finally, what role did China and the Philippines play in the maintenance of a Spanish colony in the Americas?
Throughout the course we will read translated primary sources produced by both Spaniards and Indigenous people, as well as selections from recently published scholarship. By the end of the course, each student will have written an original historical analysis based on a theme or event discussed with and approved by the instructor.
Also Offered As: GSWS 2601, SAST 2260
1 Course Unit

HIST 3500 Women and the Making of Modern South Asia
This course on women in South Asian history has four objectives - 1. To acquaint ourselves with the historiography on South Asian women. 2. To gain an understanding of evolving institutions and practices shaping women’s lives, such as the family, law and religious traditions. 3. To understand the impact of historical processes - the formation and breakdown of empire, colonialism, nationalism and decolonization - upon South Asian women between the sixteenth and twentieth centuries. 4. To become familiar with some of the significant texts written about and by women in this period. We will read a wide variety of primary sources including a Mughal princess’ account, devotional verse authored by women, conduct books, tracts, autobiographies and novels.
Spring
Also Offered As: GSWS 2601, SAST 2260
1 Course Unit

HIST 3550 Chinese Foreign Policy
An examination of China’s policies since 1950 not so much in general terms, but rather by looking at policies toward specific countries, such as Korea 1950-53, Taiwan 1958, India 1962, Japan 1963, USSR 1969, US recognition 1971-79 and failure of Kissinger policies. Vietnam both wars: i.e. we cover the ongoing conflict that began in 1979 as well as the war that ended in 1975, toward Cambodia, and not least the South China Sea and the whole world today. We will also examine China’s immense military build up (for what purpose?) the concept that China is rising, the US declining, and Beijing is foreordained lord of the East. The goal is to start from empirical information then build some sense of whether policy has continuity, common features etc. or not, and to what extent it is domestically driven or not. Lots of political background but little theory or grand generalization. A serious research paper will be required.
Fall or Spring
Also Offered As: EIALC 1733
1 Course Unit
HIST 3551 Pacific World
Following ongoing attempts by historians to move beyond the confines of national and imperial histories, this research seminar highlights the interaction of peoples and cultures across what may be described as the most dynamic world region of the twenty-first century. While discussions of Mediterranean, Atlantic and Indian Ocean Worlds are now commonplace, scholars have, to date, paid less attention to the idea of a Pacific World. How useful is it to identify a “Pacific World” before and after the Age of Discovery—that is, to locate distinctive patterns of human, material and cultural exchange across the Pacific before and after the flood of European power from the fifteenth century? What has been the effect of the rise of the nation-state, modern empires, modern war and globalization? How critical are national and/or imperial legacies to enduring patterns of human interaction and exchange in the twenty-first century Pacific? As global economics, politics and culture increasingly tilt toward the Pacific, we will attempt to uncover the source of the region's extraordinary energy.
Fall or Spring
Also Offered As: EALC 1792
1 Course Unit

HIST 3552 Constitutionalism and Democracy in China: 1900-present
Research on constitutional thought in China from the late Qing to the present, as well as the political and practical aspects of attempts at implementation. A presentation and a research paper of moderate length are expected. Chinese language is not necessary, though if you have it, that will be useful.
Also Offered As: EALC 3532
1 Course Unit

HIST 3600 Human Rights in the Age of Revolutions
This seminar is designed as both an introduction to the question of the origins of the idea of human rights and as an opportunity to develop a sustained research project related to the Age of Revolutions in Europe, the Americas (North or South), or Caribbean, mid-18th century to 1848. Topics to be discussed include: the relationship and tension in Enlightenment thought between equality and liberty, the idea of “the rights of man” and its exclusions, the emergence of abolitionism in the context of slave societies, the roots of feminism, the problem of the poor and the question of social and economic rights, rights and national self-determination, and left- and right-wing critiques of rights language. Primary source readings will range from the Declaration of the Rights of Man and Citizen, to 18th-century slave codes, to the writings of Mary Wollstonecraft and Jeremy Bentham. Secondary source readings will introduce students to interpretative problems in thinking about human rights in the context of the American, French, Haitian, and Latin American revolutions. Throughout the seminar, emphasis will also be placed on the development of a historical research project, including framing a question, building a bibliography, analyzing various kinds of sources, constructing an effective outline, and writing an argument-driven and well substantiated seminar paper. **Note for History Majors and Minors: if your research paper addresses a Latin American/Caribbean or US topic, then you may use this course to fulfill that particular geographic requirement.
Fall or Spring
1 Course Unit

HIST 3601 The Horse in World History
Around 8000 years ago, communities in the western part of the Eurasian steppe began to breed and ride horses. This process of domestication made horses central participants in human history. The domestication of the horse transformed military tactics, human mobility and communication, agriculture, and entertainment. Humans have transformed the horse as well, producing about 200 breeds with unique characteristics matched to human goals. This course traces the history of equine-human relations across the globe, using the horse as a focal point to think about animal-human relations in societies ranging from prehistoric Europe to the Spanish conquests of Latin America. Our inquiry will address not only the place of horses in these particular phases of world history, but also by extension the debates about human-animal relations in our society today. The Major or Minor geographic requirement fulfilled by this course will be determined by an individual student's research paper topic.
Fall or Spring
1 Course Unit

HIST 3602 The Mediterranean and the World, 1450-1700
Using as our guides the works of Miguel de Cervantes, Michael de Montaigne, William Shakespeare, Baldassare Castiglione, Antonio de Sosa, Elias al-Musili, Ogier Ghiselin de Busbecq, Aḥmad ibn Qāsim Ibn al-ʿajaʿf, María de Zayas y Sotomayor, and many others, this seminar will analyze the social mutations, religious confrontations, political conflicts, cultural productions and circulation of books and ideas that characterized the Mediterranean world during the sixteenth and seventeenth centuries. Based on a close reading of the authors mentioned above, this seminar will focus on the study of the central transformations – political, religious, cultural, and literary – in the early modern Mediterranean world. Students will also be introduced to original materials belonging to the Rare Books and Manuscripts Collections of the Library: early modern editions of some of the books read in the class, printed ephemera, or manuscript documents belonging to the Lea Collection. Students are expected to be active participants in this class; class attendance, participation, and oral presentations will be required. Students will write a final paper, around 15 pages. Students majoring in History can opt to write a research paper (20 pages) using original primary sources, to fulfill the department research requirement.
Fall or Spring
Also Offered As: ENGL 2179
Mutually Exclusive: HIST 2602
1 Course Unit
HIST 3603 Writing, Publishing, and Reading in Early Modern Europe and the Americas
In this course we will consider the writing, publication, and reading of texts created on both sides of the Atlantic in early modern times, from the era of Gutenberg to that of Franklin, and in many languages. The seminar will be held in the Kislak Center for Special Collections, Rare Books and Manuscripts in Van Pelt Library and make substantial use of its exceptional, multilingual collections, including early manuscripts, illustrated books, plays marked for performance, and censored books. Any written or printed object can be said to have a double nature: both textual and material. We will introduce this approach and related methodologies: the history of the book; the history of reading; connected history; bibliography; and textual criticism. We will focus on particular case studies and also think broadly about the global history of written culture, and about relations between scribal and print culture, between writing and reading, between national traditions, and between what is and what is not “literature.” We encourage students with diverse linguistic backgrounds to enroll. As part of the seminar, students will engage in a research project which can be based in the primary source collections of the Kislak Center. History Majors or Minors may use this course to fulfill the US, Europe, or Latin America geographic requirement if that region is the focus of their research paper.
Also Offered As: COML 3603, ENGL 2603
1 Course Unit

HIST 3700 Abolitionism: A Global History
This class develops a transnational and global approach to the rise of abolitionism in the nineteenth century. In a comparative framework, the class traces the rise of abolitionism in Europe, the Americas, Africa, and Asia, examining the suppression of the transatlantic slave trade, the rise of colonialism in Africa, and the growth of forced labor in the wake of transatlantic slave trade. We will deal with key debates in the literature of African, Atlantic and Global histories, including the causes and motivations of abolitionism, the relationship between the suppression of the slave trade and the growth of forced labor in Africa, the historical ties between abolitionism and the early stages of colonialism in Africa, the flow of indentured laborers from Asia to the Americas in the wake of the slave trade. This class is primarily geared towards the production of a research paper. *Depending on the research paper topic, History Majors and Minors can use this course to fulfill the US, Europe, Latin America or Africa requirement.*
Fall or Spring
Also Offered As: AFRC 3700, LALS 3700
1 Course Unit

HIST 3701 Capitalism and Humanitarianism
Reviewing David Brion Davis’ Problem of Slavery in Western Culture for the New York Review of Books in 1967, the great ancient historian Moses Finley concluded that Davis’s book was “one of the most important to have been published on the subject of slavery in modern times.” Yet he found the book inconclusive on the “decisive question” of why slavery was finally abolished in the West. “Nothing is more difficult perhaps than to explain how and why, or why not, a new moral perception becomes effective in action,” Finley wrote. Almost 50 years after this statement was made, the complicated processes that are being played out at the heart of capitalism, mobilizing both ethical issues and the pursuit of profit are still imperfectly understood, yet more fascinating than ever. This course’s working hypothesis is that, from a better understanding of the entanglements of capitalism and humanitarianism a better understanding of the nature of the “material civilization” can be achieved. For this purpose, the course does provide a multi-pronged approach including sessions discussing analytical arguments about the reasons for the entanglements of capitalism and humanitarianism, sessions devoted to historical turning points and sessions devoted to case studies and the exploration of specific mechanisms whereby capitalism and humanitarianism connect with one another. I wish in particular to try and make students aware of the problem of “quality” and its social construction, which is found at the heart of both capitalism and humanitarianism. By awakening them to this question, I also hope to provide an engaging way to understand the importance of economics in cultural history. Last, while the course will make verbal references to work on more recent periods, the focus is on a time frame that ends with World War I. This seems warranted given that the purpose is to unpack the entanglements of finance and humanitarianism “as they got intertwined.”
Nota Bene, some a few non-mandatory readings in French.
Fall or Spring
1 Course Unit

HIST 3702 Feminism in the Americas
Students in this seminar will choose their own research topic in the history of feminism. With guidance and support each person will produce a twenty-page paper based on intensive work with primary sources. Readings will range across Latin America, the Caribbean, and the United States. We’ll take a long view, beginning in the sixteenth century, and use an expansive frame. Our purpose will not be to decide who was or wasn’t ‘a feminist’ but instead to try to understand actors within their contexts. Readings include scholarship on Sor Juana Inés de la Cruz, Sojourner Truth, the struggle for voting rights across national lines, opposition to dictatorship, and organizing against racism and homophobia. *For History Majors and Minors: Geographic requirement fulfilled by this seminar is dependent on research paper topic.
Fall or Spring
Also Offered As: GSWS 3702, LALS 3702
1 Course Unit
HIST 3703 Taking Off: How Some Economies Get Rich
What makes an economy grow? This question has been asked – and answered – many times over in modern history. From Adam Smith's classic Wealth of Nations (1776) to today's political leaders, many have debated the ingredients necessary for a nation to prosper, or policies to promote growth. Some point to the need for fiscal responsibility, others an educated labor force, or to tariffs, natural resources, and the right laws. This seminar explores the deep history of this problem of economic growth. Students will read works by economists, social scientists, and historians that present different theories for why some nations develop faster than others. With case studies from across the globe, we will tackle topics like why Europe industrialized first, or the paradox of why the abundance of natural resources does not necessarily contribute to long-lasting economic development. This course also asks students to think critically about the metrics used to measure "success" and "failure" across nations, as well as how such comparisons between societies have been mobilized to legitimate imperial expansion, human exploitation, environmental destruction, or political repression. By discussing how governments, corporate interests, and individual actors have implemented strategies to increase national wealth, students will also be asked to grapple with some of the consequences of economic growth for the environment, human welfare, and social inequality. *Students may fulfill one geographic requirement for the History major or minor with this course. The specific requirement fulfilled will be determined by the topic of the research paper.
Fall or Spring
Also Offered As: LALS 3703
1 Course Unit

HIST 3704 Re-reading the Holocaust
This course explores how the Holocaust has been constructed as an historical event. Beginning in the mid-1940s, with the first attempts to narrate what had transpired during the Nazi era, this seminar traces the ways that the Holocaust became codified as a distinct episode in history. Taking a chronological approach, the course follows the evolution of historical and popular ideas about the Holocaust and considers the different perspectives presented by a variety of sources. We will examine documentary films, memoirs, survivor testimonies, as well as other scholarly and popular representations of the Holocaust. Students will be introduced to unfamiliar sources and also asked to reconsider some well-known Holocaust documents and institutions.
Fall or Spring
Also Offered As: JWST 3704
1 Course Unit

HIST 3705 Jews and the City
Jews have always been an extraordinarily urban people. This seminar explores various aspects of the Jewish encounter with the city, examining the ways that Jewish culture has been shaped by and has helped to shape urban culture. We will examine European and American cities as well as some in Palestine/Israel, covering an expansive view of urban culture. We will consider Jewish involvement in political and cultural life, the various neighborhoods in which Jews have lived, relations with other ethnic groups, as well as many other topics. We will read some classic works in the field along with contemporary scholarship. No prior background in Jewish history is required. *This course may be applied toward the US, European, or Middle East requirements for the History Major or Minor, depending upon the research paper topic. Students must consult with the instructor to determine which geographic requirement will be fulfilled.*
Fall or Spring
Also Offered As: JWST 3705, URBS 3705
1 Course Unit

HIST 3706 Oral History
From wax cylinders to reel-to-reel to digital video, recording technologies expanded the historical profession dramatically during the twentieth century. We will read some classics, such as Barbara Myerhoff's Number Our Days and Alessandro Portelli's Death of Luigi Trastulli, as well as scholarly pieces aimed at working historians. This course centers on methodology—students will learn about 'best practices' in the field and will work toward creating an interview record that can be housed in an archive and accessed by other researchers. All students will use digital video and will practice creating accessible links to both video and audio material, although your interviewees may choose an audio format.
Fall or Spring
Also Offered As: LALS 3706
1 Course Unit

HIST 3707 The Vietnam War
The Vietnam war was a great watershed in twentieth century history that rearranged geo-politics while changing the United States through dissent and social unrest. Frankly, things have never quite recovered. It was a catastrophic and humiliating defeat, but that is all the more reason to study it, for failure often has more to teach us than success. This course provides a framework of free discussion and basic readings—ranging from battlefield memoirs to Graham Greene's great novel The Quiet American—in which to pursue research on whatever aspect of the war they choose, from strategy to cinema and the arts. We will start with a look at the Empire of Vietnam that lasted a millennium, producing a uniquely refined and pure culture. Then we turn to the century of French colonialism and its end in 1954, which was followed by an invasion of South Vietnam from the north, through Laos. American policy was both arrogant and uninformed, converting a protracted loss (1955-1975) into what could easily have been a relatively bloodless success. That process we trace in its many strands. Finally we spend some time on contemporary Vietnam, on how the war is now understood, remembered, and memorialized, as well as how the country seeks to advance. And not least, without removing our focus from Vietnam, we assess how the United States has been changed. For every Tuesday meeting we will have some reading, to provide a common timeline and set of issues. As the semester progresses, students will make informal presentations about their work. This is a "Research Seminar" which means a 15-20 page paper on a topic you choose yourself. This can be the most enjoyable and interesting part of the course.
Fall or Spring
Also Offered As: EALC 1791
1 Course Unit

HIST 3708 History of Truth
Truth has become a controversial topic lately. This course will take a historical look at truth and its opposites, including lies and false beliefs, in the history of the West from the Renaissance to the present. We will consider changing conceptions of evidence and knowledge in law, religion, science, the arts, and politics and the media. We will also consider the historian's responsibility to truth, in the past and today. Part of the course will focus on the discussion of readings in common, including both primary sources and secondary sources that introduce students to interpretive problems in this field. Part will be devoted to the construction of an extensive research paper in which students grapple with a problem of their choice related to the history of truth claims or lies. Class time will also be devoted to discreet steps involved in this process, including framing a question, building a bibliography, analyzing various kinds of evidence or sources, constructing an effective outline, and writing an argument-driven and well-substantiated seminar paper.
Fall or Spring
1 Course Unit
HIST 3709 Global Blackface, Minstrelsy and Passing
Global Blackface, Minstrelsy and Passing is an undergraduate seminar that will explore the performance of blackface across the world. We will look at the practice of "blacking up" in theater, opera, vaudeville and film through the Middle East, Africa, Europe, India, the Caribbean and put these historical practices in dialogue with British and American blackface performance. We will also look at how performers enlisted themselves or were hired for minstrelsy shows and how these translated around the world. The seminar will also explore the concept of passing, and whether it is just a matter of skin color, but also of language. This is a cultural history course that will also investigate constructions of blackness and whiteness around the world.
Also Offered As: AFRC 3408
1 Course Unit

HIST 3710 Introduction to Business, Economic and Financial History
Business, Economic and Financial History plays a crucial role today in informing the views of business leaders, policy makers, reformers and public intellectuals. This seminar provides students with the opportunity to acquire a command of the key elements of this important intellectual field. The seminar format enables us to do this engagingly through reading and discussion. Students acquire a knowledge of the fundamental texts and controversies. Each meeting focuses on one foundational debate and provides a means to be up to date with the insights gleaned from rigorous economic history. We will examine twelve important debates and students will be asked to write a paper. The debates will include such questions as: What is growth and how can it be measured? What caused the "great divergence" in long run development among countries? How can we "understand" the rise and fall of slavery and its long shadow today? What is globalization and when did it begin? Did the Gold Standard and interwar fiscal and monetary policy orthodoxy cause the great depression? How can we explain the evolution of inequality in the very long run?
Also Offered As: ECON 0625
1 Course Unit

HIST 3711 Uses and Abuses of History
This course is designed for junior and senior history majors in any regional or thematic concentrations. Using case studies from around the world, it will explore the roles of history and historians in shaping national and 'ethnic' outlooks and identities; in offering 'lessons' to guide policy makers in a variety of diplomatic, political, and social contexts; and in contributing to the numerous controversies surrounding the most appropriate ways to remember and represent painful events in a society's past. Because nations, regimes, and interest groups invariably want to believe that 'history is on their side', they typically produce partisan narratives which use historical evidence selectively and subjectively. How effective have historians been—or can they be—in countering egregious 'myths' about the past, in uncovering 'silences' in the historical record, and in acknowledging that the same 'objective' events can leave different memories and carry different meanings for the various parties involved. Does fuller knowledge of the past constrain or empower our capacities to deal with challenges in the present and future? In examining these and other 'meta-questions' through a series of specific case studies, you will almost certainly learn something about contested histories in parts of the world you may not be familiar with, but which should help you situate your own regional interests in a wider comparative framework. During the last five weeks of the course, students will have an opportunity to research a topic of their choice and to present their findings to the class.
1 Course Unit

HIST 3712 From Tablets to Tablets: A Long History of Technology and Communication
The invention of new communications technologies is often accompanied by a swell of hope. Enthusiasts expect people to become more connected, new ideas to become more accessible, and information to be shared more rapidly and in more fixed forms than ever before. While there are always nay-sayers, who warn against the effects of such inventions, the narrative linking new communications technologies and progress is so strong that these detractors are most commonly painted as luddites, and the narrative itself is used to justify and promote yet newer media as well as new configurations of state and media relations. In this class, we will examine some of the most significant transformations in the history of communications technology—from orality to writing, from tablet to scroll to codex, manuscript to print, hand-press to steam-press, print to radio, radio to tv, and tv to streaming and other forms of new media. We will ask some basic questions: How were these technologies made? How and by whom were these technologies used? How did contemporaries perceive them and the transformations they did or did not work? We will also ask some bigger questions: why do certain communications technologies emerge and get adopted when and where they do? Conversely, why are some communications technologies resisted at some times and in some places? What impacts do communications technologies have on the societies in which the appear? Do they alter the course of events? Do they change the way in which we think? If so, then how? Is the history of communication substitutive or additive? How is the digital age in which we live similar to or different from those that came before? History Majors may use this course to fulfill the pre-1800 requirement depending on the topic of their research paper.
Not Offered Every Year
Also Offered As: COML 3712
1 Course Unit

HIST 3713 Singer-songwriters in the Cold War
This research seminar considers the overlapping political worlds of performers like Violeta Parra (b. Chile 1917), Pete Seeger (b. USA 1919), Miriam Makeba (b. South Africa 1932), Vladimir Vysotsky (b. USSR 1938), Gilberto Gil (b. Brazil 1942), Bob Marley (b. Jamaica 1945), Silvio Rodríguez (b. Cuba 1946), Waldemar Bastos (b. Angola 1954), and others. We will have shared readings about youth-identified musicians who brought Lefist politics on stage with them, as well as about the activism of anti-communists and anti-Stalinists in different geographic spaces. Each participant will produce a 15-20 page paper based on primary sources. Throughout the semester, in-class work will be designed to support the research process. Students will work through multiple drafts and share their writing with one another. Faculty members from Music, Comparative Literature, and other departments will be invited as guest speakers, as will folklorists, performers, and members of other Philadelphia-area communities.
Also Offered As: LALS 3713
1 Course Unit

HIST 3820 Renaissance Europe
This course will examine the cultural and intellectual movement known as the Renaissance, from its origins in fourteenth-century Italy to its diffusion into the rest of Europe in the sixteenth century. We will trace the great changes in the world of learning and letters, the visual arts, and music, along with those taking place in politics, economics, and social organization. We will be reading primary sources as well as modern works.
Fall or Spring
Also Offered As: ITAL 3820
1 Course Unit
HIST 3910 Immigration and the Making of US Law
This course examines the legal history of the United States to illuminate one of the most urgent issues of our time: immigration. From the late nineteenth century, immigration to the United States changed the legal landscape of the country by challenging the bounds of national citizenship, “separate but equal,” Congressional powers, home ownership, and an array of other topics. In this course, we will trace how immigrants challenged existing orders of their time through major state and federal supreme court cases, and the subsequent aftermaths of their trials. In addition to considering the key legal issues at stake in these cases, this course compels us to consider the dynamics of race, disability, gender, and labor that define the construction of US law in the context of immigration.
Also Offered As: ASAM 3110
1 Course Unit

HIST 3920 European Diplomatic History 1789-1914
This course will examine the international politics of Europe in the 18th and 19th centuries, up to the outbreak of World War I. During these centuries, the European great powers experienced significant internal transformations and also a revolution in their relations, both of which reinforced and accelerated each other. In the process, Europe asserted a dominant position in world politics, but also sowed the seed for the terrible catastrophes of the 20th Century. The course will address this transformation of European diplomacy with special attention to the rivalries between the great powers, the impact of nationalism and emerging mass politics, the interplay between military and economic power, and the relationship between the European powers and the rest of the world.
Fall
1 Course Unit

HIST 3921 European International Relations 1914-present
This course looks at Europe’s interactions with other world regions throughout the twentieth century. Over the course of roughly a hundred years, Europeans have shaped the fates of peoples living beyond the western world, for instance through the impact of two world wars, European colonialism, and the global Cold War. At the same time, European societies ‘at home’ were not left unaffected by these interactions. Even today, Europeans are facing the legacies of some of these histories in immigration and the politics of religion and secularism for example. The past century also saw a dramatic shift in Europe’s position in the world - from dominance to a loss of influence in the shadow of the United States and more recently, China. The course spends significant time covering the histories of world regions other than Europe. It furthermore considers some interactions and exchanges between world regions from a social and cultural point of view. Because the class spans roughly a century, the content has to remain introductory and general, although a very basic familiarity with 20th-century international history is helpful.
Two Term Class, Student may enter either term; credit given for either
1 Course Unit

HIST 3922 European Thought and Culture in the Age of Revolution
Starting with the dual challenges of Enlightenment and Revolution at the close of the eighteenth century, this course examines the emergence of modern European thought and culture in the century from Kant to Nietzsche. Themes to be considered include Romanticism, Utopian Socialism, early Feminism, Marxism, Liberalism, and Aestheticism. Readings include Kant, Hegel, Burke, Marx, Mill, Wollstonecraft, Darwin, Schopenhauer, and Nietzsche.
Fall or Spring
Also Offered As: COML 3922
1 Course Unit

HIST 3923 Twentieth Century European Intellectual History
European intellectual and cultural history from 1870 to 1950. Themes to be considered include aesthetic modernism and the avant-garde, the rebellion against rationalism and positivism, Social Darwinism, Second International Socialism, the impact of World War One on European intellectuals, psychoanalysis, existentialism, and the ideological origins of fascism. Figures to be studied include Nietzsche, Freud, Woolf, Sartre, Camus, and Heidegger.
Spring
Also Offered As: COML 3923
1 Course Unit

HIST 3930 The History of Foreign Aid and Intervention in Africa
This course examines the history, politics, and significance of foreign aid to Africa since the late 19th century. While we do not typically think about the European colonial period in Africa in terms of ‘foreign aid,’ that era introduced ideas and institutions which formed the foundations for modern aid policies and practices. So we start there and move forward into more contemporary times. In addition to examining the objectives behind foreign assistance and the intentions of donors and recipients, we will look at some of the consequences (intended or unintended) of various forms of foreign aid to Africa over the past century. While not designed to be a comprehensive history of development theory, of African economics, or of international aid organizations, the course will touch on all of these topics. Previous course work on Africa is strongly advised.
Fall or Spring
Also Offered As: AFRC 3931
1 Course Unit

HIST 3960 Histories of the Information Economy
This course provides a perspective on the role of information as a historical actor. Moving beyond common narratives of the progress of the information economy driven by technological factors, the course underscores the significance of what may be called the political economies of information. We will approach major works, dealing with the historical importance of information (Foucault, Cohn, Habermas) and simultaneously engages with the history of institutions to store and circulate information. We will emphasize the importance of value (social, political, economic) which is at the heart of information gathering and producing. In particular, we will discuss the rise and fall of institutions to store and circulate information. We will study the importance of information in historical processes such as imperialism and colonization, state building, propaganda, the Enlightenment, as well as the informational aspects of the rise of global NGOs and international organization, police and spying. Information may be accumulated or lost; it can be safeguarded or debased; it can confer power or undermine it. In the age of fake news, these are issues worthy of a closer interest.
Fall or Spring
1 Course Unit
HIST 3965 The History of the International Monetary System and the Rise of the US Dollar
The course will cover the modern evolution of the international monetary system going all the way back to the era when sterling became the leading international currencies. It is arranged thematically and chronologically both. The lessons and readings will introduce students to the principal evolutions of the international monetary system and at the same time, it will give them an understanding of regimes, their mechanics and the geopolitical economies behind systemic shifts. Students need not have an economic background but must be prepared to read about exchange rates (and world politics). Special focus on: The early modern international monetary system. How Amsterdam and London captured the Spanish treasure. Beyond the West (Ottoman Empire, India, China). The Napoleonic wars and the rise of sterling. Hong-Kong: Silver, Opium, and the Recycling of Surpluses. The emergence of the Gold Standard. Bimetallism: The US election of 1796. Sterling and Key Currencies before WWI. The First World War and the origins of dollar supremacy. When the dollar displaced sterling (1920s). The collapse of the international gold standard (1930s). The Bretton Woods System. The rise and rise of the US dollar. Currency competition (Dollar, Euro, Yuan Renminbi). The meaning of cryptocurrencies.

Also Offered As: ECON 0615
1 Course Unit

HIST 4925 Independent Study: Europe after 1800
Independent Study on Europe after 1800
Fall or Spring
1 Course Unit

HIST 4997 Junior Honors in History
Open to junior honors candidates in history. Introduction to the study and analysis of historical phenomena. Emphasis on theoretical approaches to historical knowledge, problems of methodology, and introduction to research design and strategy. Objective of this seminar is the development of honors thesis proposal.
Spring
1 Course Unit

HIST 4998 Senior Honors in History
Open to senior honors candidates in history who will write their honors thesis during this seminar.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

HIST 5100 African American History
Selected topics in African American History as determined by the instructor.
Not Offered Every Year
Also Offered As: AFRC 5100
1 Course Unit

HIST 5240 The Rise and Fall of the Russian Empire, 1552-1917
How and why did Russia become the center of the world’s largest empire, a single state encompassing eleven time zones and over a hundred ethnic groups? To answer this question, we will explore the rise of a distinct political culture beginning in medieval Muscovy, its transformation under the impact of a prolonged encounter with European civilization, and the various attempts to re-form Russia from above and below prior to the Revolution of 1917. Main themes include the facade vs. the reality of central authority, the intersection of foreign and domestic issues, the development of a radical intelligentsia, and the tension between empire and nation.
Also Offered As: REES 5310
Mutually Exclusive: HIST 0240
1 Course Unit

HIST 5550 East Asian Diplomacy
Home to four of the five most populous states and four of the five largest economies, the Asia/Pacific is arguably the most dynamic region in the twenty-first century. At the same time, Cold War remnants (a divided Korea and China) and major geopolitical shifts (the rise of China and India, decline of the US and Japan) contribute significantly to the volatility of our world. This course will examine the political, economic, and geopolitical dynamism of the region through a survey of relations among the great powers in Asia from the sixteenth century to the present. Special emphasis will be given to regional and global developments from the perspective of the three principal East Asian states—China, Japan and Korea. We will explore the many informal, as well as formal, means of intercourse that have made East Asia what it is today. Graduate students should consult graduate syllabus for graduate reading list, special recitation time and graduate requirements.
Also Offered As: EALC 5711
Mutually Exclusive: HIST 1550
1 Course Unit

HIST 6100 Topics in US History
Reading and discussion course on selected topics in US history.
Fall
1 Course Unit

HIST 6110 Topics in Early American History
Reading and discussion course on selected topics in Early American history.
Fall
1 Course Unit

HIST 6120 Topics in 19th-Century US History
Reading and discussion course on selected topics in 19th Century US history.
Fall
1 Course Unit

HIST 6130 Topics in 20th- and 21st-Century US History
Reading and discussion course on selected topics in 20th & 21st US history.
Fall
1 Course Unit

HIST 6200 Topics in European History
Reading and Discussion course on selected topics in European History.
Fall
1 Course Unit
HIST 6210 Topics in Medieval European History  
Reading and Discussion course on selected topics in Medieval European History.  
Fall  
1 Course Unit

HIST 6220 Topics in Early Modern European History  
Reading and Discussion course on selected topics in Early Modern European History.  
Fall  
1 Course Unit

HIST 6230 Topics in Modern European History  
Reading and Discussion course on selected topics in Modern European History.  
Fall  
1 Course Unit

HIST 6300 Topics in Asian History  
Reading and discussion course on selected topics in Asian History.  
Fall or Spring  
1 Course Unit

HIST 6310 Topics in Premodern Asian History  
Reading and discussion course on selected topics in Pre-Modern Asian History.  
Fall or Spring  
1 Course Unit

HIST 6320 Topics in Early Modern Asian History  
Reading and discussion course on selected topics in Early Modern Asian History.  
Fall or Spring  
1 Course Unit

HIST 6330 Topics in Modern Asian History  
Reading and discussion course on selected topics in Modern Asian History.  
Fall or Spring  
1 Course Unit

HIST 6400 Topics in Middle Eastern History  
Reading and discussion course on selected topics in Middle Eastern history.  
Fall or Spring  
1 Course Unit

HIST 6410 Topics in Pre-Colonial Middle Eastern History  
Reading and discussion course on selected topics in Pre-Colonial Middle Eastern history.  
Fall or Spring  
1 Course Unit

HIST 6420 Topics in Colonial-Era Middle Eastern History  
Reading and discussion course on selected topics in Colonial Middle Eastern history.  
Fall or Spring  
1 Course Unit

HIST 6430 Topics in Post-Colonial Middle Eastern History  
Reading and discussion course on selected topics in Post-colonial Middle Eastern history.  
Fall or Spring  
1 Course Unit

HIST 6500 Topics in African History  
Reading and discussion course on selected topics in African history.  
Fall or Spring  
1 Course Unit

HIST 6510 Topics in Pre-Colonial African History  
Reading and discussion course on selected topics in Pre-Colonial African history.  
Fall or Spring  
1 Course Unit

HIST 6520 Topics in Colonial-Era African History  
Reading and discussion course on selected topics in Colonial Era African history.  
Fall or Spring  
1 Course Unit

HIST 6530 Topics in Post-Colonial African History  
Reading and discussion course on selected topics in Post-colonial African history.  
Fall or Spring  
1 Course Unit

HIST 6600 Topics in Latin American and Caribbean History  
Reading and discussion course on selected topics in Latin American and Caribbean history.  
Fall or Spring  
1 Course Unit

HIST 6610 Topics in Pre-Colonial Latin American History  
Reading and discussion course on selected topics in Pre-Colonial Latin American and Caribbean history.  
Fall or Spring  
1 Course Unit

HIST 6620 Topics in Colonial-Era Latin American  
Reading and discussion course on selected topics in Colonial Latin American and Caribbean history.  
Fall or Spring  
1 Course Unit

HIST 6630 Topics in Post-Colonial Latin American  
Reading and discussion course on selected topics in Post-Colonial Latin American and Caribbean history.  
Fall or Spring  
1 Course Unit

HIST 6680 History of Law and Social Policy  
This is a course in the history of law and policy-making with respect to selected social problems. Discussion of assigned readings and papers will elaborate the role law, lawyers, judges, other public officials and policy advocates have played in proposing solutions to specific problems. The course will permit the evaluation of the importance of historical perspective and legal expertise in policy debates.  
Fall  
1 Course Unit

HIST 6700 Seminar: Transregional History  
Reading and discussion course on selected topics in Transregional History.  
Fall or Spring  
1 Course Unit

HIST 6710 Seminar: Transregional Economic History  
Reading and discussion course on selected topics in Transregional Economic History.  
Fall or Spring  
1 Course Unit
HIST 6720 Seminar: Transregional Gender History
Reading and discussion course on selected topics in Transregional Gender History
Fall or Spring
1 Course Unit

HIST 6730 Seminar: Transregional Intellectual History
Reading and discussion course on selected topics in Transregional Intellectual History
Fall or Spring
1 Course Unit

HIST 6740 Seminar: Transregional Religious History
Reading and discussion course on selected topics in Transregional Religious History
Fall or Spring
1 Course Unit

HIST 6750 Seminar: History of Transregional Race and Slavery
Reading and discussion course on selected topics in History of Transregional Race and Slavery
Fall or Spring
1 Course Unit

HIST 6760 Seminar: Transregional Nationalisms
Reading and discussion course on selected topics in the History of Transregional Nationalisms
Fall or Spring
1 Course Unit

HIST 6770 Seminar: TransRegional History of War and Diplomacy
Reading and discussion course on selected topics in the History of Transregional War and Diplomacy
Fall or Spring
1 Course Unit

HIST 6780 Seminar: History of Transregional Migrations and Diasporas
Reading and discussion course on selected topics in the History of Transregional Migrations and Diasporas
Fall or Spring
1 Course Unit

HIST 6790 Seminar: History of Transregional Empires and Colonialisms
Reading and discussion course on selected topics in the History of Transregional Empires and Colonialisms
Fall or Spring
1 Course Unit

HIST 7000 Proseminar in History
Weekly readings, discussions, and writing assignments to develop a global perspective within which to study human events in various regional/cultural milieus, c. 1400 to the present. This course is required for all PhD students, and is taken in the first year of study.
Two Term Class, Student must enter first term; credit given even if second term not complete
1 Course Unit

HIST 7100 Research seminar in US history.
Research seminar on selected topics in US history.
Fall or Spring
1 Course Unit

HIST 7110 Research seminar in Early American history.
Research seminar on selected topics in Early American history.
Fall or Spring
1 Course Unit

HIST 7120 Research seminar in 19th Century US history.
Research seminar on selected topics in 19th Century US history.
Fall or Spring
1 Course Unit

HIST 7130 Research seminar in 20th & 21st Century US history.
Research seminar on selected topics in 20th & 21st Century US history.
Fall or Spring
1 Course Unit

HIST 7200 Research Seminar in European History
Research seminar on selected topics in European history.
Fall or Spring
1 Course Unit

HIST 7210 Research Seminar in Medieval European History
Research seminar on selected topics in Medieval European history.
Fall or Spring
1 Course Unit

HIST 7220 Research Seminar in Early Modern European History
Research seminar on selected topics in Early Modern European history.
Fall or Spring
1 Course Unit

HIST 7230 Research Seminar in Modern European History
Research seminar on selected topics in Modern European history.
Fall or Spring
1 Course Unit

HIST 7300 Research Seminar in Asian History
Research seminar on selected topics in Asian History.
Fall or Spring
1 Course Unit

HIST 7310 Research Seminar in Pre-Modern Asian History
Research seminar on selected topics in Pre-Modern Asian History.
Fall or Spring
1 Course Unit

HIST 7320 Research Seminar in Early Modern Asian History
Research seminar on selected topics in Early Modern Asian History.
Fall or Spring
1 Course Unit

HIST 7330 Research Seminar in Modern Asian History
Research seminar on selected topics in Modern Asian History.
Fall or Spring
1 Course Unit

HIST 7400 Research Seminar in Middle Eastern History
Research seminar on selected topics in Middle Eastern history.
Fall or Spring
1 Course Unit

HIST 7410 Research Seminar in Pre-Colonial Middle Eastern History
Research seminar on selected topics in Pre-Colonial Middle Eastern history.
Fall or Spring
1 Course Unit

HIST 7420 Research Seminar in Colonial Middle Eastern History
Research seminar on selected topics in Colonial Middle Eastern history.
Fall or Spring
1 Course Unit
HIST 7430 Research Seminar in Post-Colonial Middle Eastern History
Research seminar on selected topics in Post-Colonial Middle Eastern history.
Fall or Spring
1 Course Unit

HIST 7500 Research Seminar in African History
Research seminar on selected topics in African history.
Fall or Spring
1 Course Unit

HIST 7510 Research Seminar in Pre-Colonial African History
Research seminar on selected topics in Pre-Colonial African history.
Fall or Spring
1 Course Unit

HIST 7520 Research Seminar in Colonial African History
Research Seminar on selected topics in Colonial African history.
Fall or Spring
1 Course Unit

HIST 7530 Research Seminar in Post-Colonial African History
Research Seminar on selected topics in Post-Colonial African history.
Fall or Spring
1 Course Unit

HIST 7600 Research Seminar in Latin American History
Research Seminar on selected topics in Latin American and Caribbean history.
Fall or Spring
1 Course Unit

HIST 7610 Research Seminar in Pre-Colonial Latin American History
Research Seminar on selected topics in Pre-Colonial Latin American and Caribbean history.
Fall or Spring
1 Course Unit

HIST 7620 Research Seminar in Colonial Latin American History
Research Seminar on selected topics in Colonial Latin American and Caribbean history.
Fall or Spring
1 Course Unit

HIST 7630 Research Seminar in Post-Colonial Latin American History
Research Seminar on selected topics in Post-Colonial Latin American and Caribbean history.
Fall or Spring
1 Course Unit

HIST 7700 Research Seminar in Transregional History
Research seminar on selected topics in Transregional history.
Fall or Spring
1 Course Unit

HIST 7710 Research Seminar in Transregional Economic History
Research seminar on selected topics in Transregional Economic history.
Fall or Spring
1 Course Unit

HIST 7720 Research Seminar in Transregional Gender History
Research seminar on selected topics in Transregional Gender history.
Fall or Spring
1 Course Unit

HIST 7730 Research Seminar in Transregional Intellectual History
Research seminar on selected topics in Transregional Intellectual history.
Fall or Spring
1 Course Unit

HIST 7740 Research Seminar in Transregional Religious History
Research seminar on selected topics in Transregional Religious history.
Fall or Spring
1 Course Unit

HIST 7750 Research Seminar in Transregional Race and Slavery
Research seminar on selected topics in Transregional Race and Slavery.
Fall or Spring
1 Course Unit

HIST 7760 Research Seminar in Transregional Nationalisms
Research seminar on selected topics in Transregional Nationalisms.
Fall or Spring
1 Course Unit

HIST 7770 Research Seminar on Transregional War and Diplomacy
Research seminar on selected topics in Transregional War and Diplomacy.
Fall or Spring
1 Course Unit

HIST 7780 Research Seminar in TransRegional Migration and Diasporas
Research seminar on selected topics in Transregional Migration and Diasporas.
Fall or Spring
1 Course Unit

HIST 7790 Research Seminar on Transregional Colonialism and Empires
Research seminar on selected topics in Transregional Colonialism and Empires.
Fall or Spring
1 Course Unit

HIST 9810 The Craft of Writing
This faculty-led workshop for advanced doctoral students focuses on dissertation writing. The course will be adapted to meet the needs of enrolled dissertators, but expected topics include: finding your historical writing voice; telling an evidence-based narrative; what to do when you have too much or too little evidence; structuring your material into chapters; developing effective titles; streamlining and signposting; the best use of quotations; knowing when to revise and when to overhaul; knowing when and how to stop.
Fall or Spring
1 Course Unit

Hungarian (HUNG)

HUNG 0100 Hungarian I
This course is the first in a series of first-year courses, intended for students with no previous background in Hungarian. The course develops competence in speaking, reading, writing, and understanding contemporary Hungarian. It will also introduce you to Hungarian culture through exciting authentic materials, including songs, videos, and short stories. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Hungarian. By the end of the course, you will be able to engage in simple conversations in Hungarian on topics concerning your daily life, likes and dislikes, school, work and family, Hungarian holidays and holiday traditions. You will also be able to write short personalized messages in Hungarian.
Two Term Class, Student may enter either term; credit given for either
1 Course Unit
HUNG 0200 Hungarian II
This course is the second in a series of first-year courses, continuation of Hungarian I. The course continues to develop competence in speaking, reading, writing, and understanding contemporary Hungarian. We will continue the exploration of Hungarian culture through exciting authentic materials, including songs, videos, short stories, and internet sites. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Hungarian. By the end of the course, you will be able to engage in simple conversations in Hungarian on many topics in informal and some formal contexts concerning your daily life, including planning a trip to Hungary, staying in a hotel, ordering meals, and buying goods. You will also be able to write longer personalized messages in Hungarian.
Two Term Class, Student may enter either term; credit given for either
1 Course Unit

HUNG 0299 Independent Study in Hungarian
This is an independent study course for students who select to do individual language and culture projects in Hungarian under the guidance of the Hungarian language instructor; students need to be done with the four semesters of Hungarian prior to requesting such course.
Fall or Spring
1 Course Unit

HUNG 0300 Hungarian III
This course is the first in a series of second-year courses, continuation of Hungarian II. The course will strengthen students' competence in speaking, reading, writing, and understanding contemporary Hungarian and will expand students' active and passive vocabulary on a variety of topics. We will continue the exploration of Hungarian culture through exciting authentic materials, including songs, videos, and short stories. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Hungarian. By the end of the course, you will be able to engage in increasingly complex conversations in Hungarian on many topics in informal and formal contexts concerning your daily life, your interests and life on campus, travel and cultural experiences, Hungarian seasonal traditions and cultural events. You will also be able to write longer messages in a variety of informal and formal contexts.
Two Term Class, Student may enter either term; credit given for either
1 Course Unit

HUNG 0400 Hungarian IV
This course is the second in a series of second-year courses, continuation of Hungarian III. The course will continue strengthening and expanding students' competence in speaking, reading, writing, and understanding contemporary Hungarian and increasing active and passive vocabulary on a variety of topics. We will continue the exploration of Hungarian culture through exciting authentic materials, including online news resources, songs, and videos. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Hungarian. By the end of the course, you will be able to engage in increasingly complex conversations in Hungarian on many topics in informal and formal contexts concerning your daily life, significant personal and cultural events, attitudes and perspectives. You will be able to write longer messages in a variety of informal and formal contexts.
Satisfies Penn Language Requirement.
Two Term Class, Student may enter either term; credit given for either
1 Course Unit

Igbo (IGBO)

IGBO 0100 Elementary Igbo I
The main objective of this course is to allow students to study an African language of their choice, depending on the availability of the instructor. The course will provide students with linguistics tools which will facilitate their research work in the target country. Cultural aspects of the speakers of the language will be introduced and reinforced.
Fall or Spring
1 Course Unit

IGBO 0200 Elementary Igbo II
Continuation of AFST 490.
Fall or Spring
1 Course Unit

IGBO 0300 Intermediate Igbo I
Intermediate level courses in a variety of African languages: Igbo, Shona, Wolof, Malagasy, Chichewa, Setswana, Manding, Afrikaans, Setswana. Focus on oral proficiency and productive language skills. All course are language specific and follow ACTFL proficiency guidelines.
Fall
1 Course Unit

IGBO 0400 Intermediate Igbo II
Continuation of AFST 492.
Spring
1 Course Unit

IGBO 1100 Advanced Igbo I
Language specific sections for students interested in doing country-specific research in a target language. Courses cover project-based skills for AFST research.
Fall
1 Course Unit

IGBO 1200 Advanced Igbo II
Continuation of AFST 494.
Spring
1 Course Unit

IGBO 1300 Igbo Language and Culture
Aspects of the targeted language's history, language, and culture.
Fall
1 Course Unit

Immunology (IMUN)

IMUN 5060 Immune Mechanisms
This is an introductory graduate course which surveys most areas of immunology. It is assumed that students have a background in biochemistry and molecular biology, and at least some familiarity with immunological concepts. Topics covered include the major histocompatibility complex, structure of antibodies and T cell receptors, antigen-antibody interactions, the generation of diversity of immunoglobulins and B cells, antigen presentation, and immunological tolerance.
Fall
1 Course Unit
IMUN 5070 Immunopathology
The relationship between basic immunology and clinical immunologic diseases is emphasized. Course lecturers represent University faculty who are established investigators in immunologic research and established clinical immunologists. Course topics include plasma protein systems; B cell, T cell, macrophage immunology; immunohematology; tumor immunology; benign and malignant, immunoproliferative disorders; neuro-immunology; pulmonary immunology; renal immunology; immune complex disease and immunoregulatory abnormalities. Prerequisite: Permission from instructor.
Fall
Prerequisite: IMUN 5060
1 Course Unit

IMUN 5200 Tutorials in Immunology
This tutorial course is designed to provide students with an in-depth knowledge of a specific branch of Immunology. The tutorial can be used to enable students to become more deeply acquainted with the literature related to their thesis projects or to expand on a topic that the student found interesting in one of their basic courses. The course is currently the only immunology elective and is, therefore, required for all Immunology Graduate Group students. It is also open as an elective to BGS students who meet the prerequisite. The tutorial course will be examined by the program director and the tutorial leader and the grade will be based on a written paper on the subject studied (5 to 10 typewritten pages) and by an oral presentation of the paper (15 to 20 minutes). Prerequisite: A senior undergraduate, graduate or professional school course in Immunology.
Fall
1 Course Unit

IMUN 5770 Statistics for Genomics and Biomedical Informatics
BMIN 5330 is an introductory course in probability theory and statistical inference for graduate students in Genomics and Computational Biology. The goal of the course is to provide foundation of basic concepts and tools as well as hands-on practice in their application to problems in genomics. At the completion of the course, students should have an intuitive understanding of basic probability and statistical inference and be prepared to select and execute appropriate statistical approaches in their future research.
Also Offered As: BMN 5330, GCB 5330
1 Course Unit

IMUN 6010 Molecular Immunology
The purpose of this course is to provide examples in which the cell biology topics covered in BIOM 600 are studied in the context of immune cells or used to explain immune system function. This course will help students become proficient at reading and critically assessing the published literature and encourage students to actively participate in scientific discussion with their peers.
Not Offered Every Year
0.5 Course Units

IMUN 6070 Grant Writing
This course will introduce the student to basic principles of grant writing. In this regard a primary objective of the course is to teach you how to describe your ideas and experimental objectives in a clear and concise manner within the standard NIH grant format. To accomplish this, you will be required to write an NIH, "R01" type grant proposal based on your current laboratory project. Prerequisite: Permission from instructor.
Spring
Prerequisite: IMUN 5060 AND IMUN 5070
1 Course Unit

IMUN 6090 Vaccines and Immune Therapeutics
Vaccination is perhaps the most successful medical technological intervention. The goal of this course is to expand on students’ general understanding of the immune system and to focus this understanding towards the application of modern vaccines and immune therapies in the 21st century. The course will provide the student with a sense of how these principles are applied to a vaccine and immune therapeutic development. The course covers basic vaccine science and describes how this science is translated through clinical, regulatory, ethical, and political issues to result in a final vaccine product. The courses’ goal is to leave the student with an understanding of the implications of modern vaccines /immunotherapies and their impact on world health.
Initial lectures review immune mechanisms believed to be responsible for vaccine-induced protection from disease. Subsequent lectures build on this background to explore the science of vaccines for diverse pathogens, including agents of bioterrorism, as well as vaccines and immunotherapies for cancer. An appreciation for the application of laboratory science to the clinical development and clinical trials of vaccines are provided. An important focus on the regulatory, safety, and ethical implications of vaccines in different world situations based on true world examples are presented. The financial implications of specific vaccines with these implications for global health is a focus of the course. The course is presented in a lecture-style consisting of multiple distinguished guest lecturers who are experts in their particular area of vaccine development. There are required readings to provide the student context and background for the diverse lectures. Students are graded on course participation and a final project/exam which the students will present. The project is to design a vaccine strategy for a current disease or pathogen of importance that does not as yet have an effective vaccine or immune therapy and present this to the class. Strategies used should build on the material presented in the class lectures. The course is intended for graduate students or medical students in various MS, Ph.D., or MD/Ph.D. programs on the campus, as well as local scientists and professionals in the community. As a prerequisite, students should have taken biology, biochemistry, or immunology courses at the advanced college level. This course is offered in the fall semester. Prerequisite: Biology, Biochemistry at the advanced college level, college-level immunology is recommended. Not limited to CAMB students, however first options are to CAMB students, the permission of the
Fall
1 Course Unit

Also Offered As: CAMB 6090

IMUN 6990 Laboratory Rotation Lab rotation.
0-4 Course Units

IMUN 7990 Independent Study
1-3 Course Units

IMUN 8990 Predissertation Lab
1-4 Course Units

IMUN 9950 Dissertation
0-4 Course Units
Implementation Science (IMP)

IMP 6000 Foundations in Implementation Science
The purpose of this course is to introduce participants to the foundations of implementation science (i.e., terminology, conceptual models and frameworks, study design). Participants will develop an in-depth understanding of the historical and theoretical underpinnings of implementation science, preparing them to describe the positionality of their research within the broader field. Relevant theories and frameworks will be addressed in the context of multiple disciplines, such as healthcare, social work, education, and criminal justice. Significant group work will prepare participants to evaluate the appropriate usage of frameworks, theories, and models in the design and execution of IS research. This course is available to anyone outside of the Implementation program with permission from the program coordinator. This course may also be of interest to students with a major in Health Policy Research, Medicine, Nursing, Social Work, or Education. **There are two alternate completion pathways for IMP 6000: participants may take the summer 4-day virtual Implementation Science Institute (HPR 6110) for 0.5 CU and complete an additional 0.5 CU elective, OR participants may enroll in HPR 6200: Implementation Science in Health and Healthcare.**

Fall
1 Course Unit

IMP 6100 Ethics and Equity in Implementation Science
Implementation science introduces a host of issues related to the ethics and equity in care delivery and the conduct of research. We will use case examples from ongoing trials to demonstrate and work through these concepts, including (1) pragmatic tradeoffs (e.g., acceptability and effectiveness) in study design and execution; (2) sustainability and health system integration as up-front considerations; (3) unintended consequences with implications for health equity; and (4) consent in implementation research, considering organizational power and hierarchical relationships. We will highlight future directions for empirical work at the intersection of bioethics and implementation science. We will encourage students to work through these issues in their own research.
Prerequisite: IMP 6000, HPR 6110 (Penn Implementation Science Institute) or HPR 6200

Fall
Prerequisite: HPR 6110 OR IMP 6000 OR HPR 6200
1 Course Unit

IMP 6200 Mixed Methods in Implementation Science
The focus of this course is applying and integrating mixed methods in implementation research/science, with a particular emphasis on incorporating qualitative and mixed methods to design and evaluate implementation trials equitably and sustainably. This course will provide an overview of different ways in which mixed methods can be used across implementation and dissemination research using readings, lectures, case studies, and group discussions. Trainees will gain basic skills in collecting and analyzing qualitative and mixed methods data, ways in which mixed methods can be integrated into different study designs (e.g., pragmatic trials) and innovative approaches such as rapid ethnography and configurational comparative methods. The course will also cover philosophical and theoretical foundations and tensions in the field. At the end of the course, trainees will be able to: 1. Design and plan a mixed methods implementation research project. 2. Identify different forms of mixed methods analysis and how to integrate into study designs. 3. Critically evaluate the use of methodological paradigms and theoretical models to ensure alignment with implementation targets and strategies. 4. Identify different ways mixed methods can incorporated across the implementation process from contextual inquiry to implementation trials to policy change.
Prerequisite: IMP 6000, HPR 6110 (Penn Implementation Science Institute), or HPR 6200 Prior coursework or training in qualitative research is strongly suggested. Training or experience in public health, epidemiology, quality improvement or health care organization leadership is preferred.

Spring
Prerequisite: IMP 6000 OR HPR 6110 OR HPR 6200
1 Course Unit

IMP 6300 Project Development in Implementation Sciences
This course offers an opportunity for trainees to apply competencies acquired through the certificate program to address questions related to implementation research and practice. Students will meet weekly as a group to receive guidance and hands-on experience in developing individual proposals in their topical area of interest. At the conclusion of the course, students will have workshopped a proposal suitable for submission, so preference for enrollment will be given to trainees who plan to submit grants within the next year. Prerequisite: IMP 6000, HPR 6110, or HPR 6200

Fall, Spring, and Summer Terms
Prerequisite: HPR 6110 OR IMP 6000 OR HPR 6200
0.5 Course Units

IMP 6400 Practicum in Implementation Science
This course offers an opportunity for trainees to apply competencies in implementation research and practice. Through mentorship from course directors, trainees will receive guidance as they execute individual projects. Prerequisite: IMP 6000, HPR 6110, or HPR 6200

Fall, Spring, and Summer Terms
Prerequisite: HPR 6110 OR IMP 6000 OR HPR 6200
0.5 Course Units
**Indonesian (INDO)**

**INDO 0100 Elementary Indonesian I**
Elementary Indonesian I course is designed for both beginners and those who may have some previous experience with the language. This course will focus on developing and using the four foundational language skills (speaking, listening, reading, and writing) in a communicative format. Students will develop not only their ability to use and understand contemporary Indonesian, but also their knowledge of Indonesian history and culture. By the end of the semester, students will be able to engage in simple conversations about familiar things such as family, friends and daily activities. They will know every day expressions, will be able to tell time, to negate sentences and to build questions. Students will develop reading strategies and learn about the practical life and the cultural practices in Indonesia and compare them with their own.

Fall
1 Course Unit

**INDO 0200 Elementary Indonesian II**
Elementary Indonesian II course is the second course in the first-year series. It is designed to strengthen and expand students Indonesian language competencies in listening, speaking, reading, writing and to deepen their understanding of Indonesian culture. By the end of the semester, students will be able to engage in more detail conversations about familiar things and topics pertinent to them. Students will know everyday expressions and will be able to describe their cities, to tell story about their friends, family, about celebration and family tradition. Furthermore, students will be able to talk about events that happened in the past and in the future, will be able to make comparisons, to express their preference, describe people, things, or an important experience in increasing detail. Furthermore, students will be able to make plan for a party or a trip, write and retell a story or fairy tale.

Fall
1 Course Unit

**INDO 0300 Intermediate Indonesian I**
This course is designed to improve students writing and speaking competencies, to increase their vocabulary, to deepen grammar usage, and to help them develop effective reading and listening strategies in Indonesian. The authentic Indonesian reading texts and videos provide cultural and historical background information. In class, students will practice grammar, interpret reading texts, analyze and discuss Indonesian cultural practices and compare them with their own.

Fall or Spring
1 Course Unit

**INDO 0400 Intermediate Indonesian II**
This course is designed to expand students writing and speaking competencies, to increase their vocabulary and to deepen grammar usage. Students will practice effective reading and listening strategies in Indonesian. The authentic Indonesian reading texts and videos give students opportunities to deepen their knowledge about cultural practices and historical moments in Indonesia. In class, students will have ample opportunities to practice speaking on a daily basis through partner and group work, discussion forums and oral presentations. The variety of communicative activities exposes students to rich input of spoken Indonesian and leads them from structured practice to free expression.

Fall
1 Course Unit

**INDO 0500 Advanced Indonesian Conversation I**
This course will focus on the development of communicative skills and the ability to use Indonesian in extended discourse and abstract discussions at the advanced level. Student will give oral presentations, lead discussions on selected topics from authentic texts, short stories, and Indonesian video clips. Students will also write weekly journals and compositions. The course will provide students with tools to improve understanding of intercultural competence and communication with a focus on Indonesian culture.

Fall or Spring
1 Course Unit

**INDO 0600 Advanced Indonesian Conversation II**
This is continuation of Advanced Indonesian Conversation I, and builds on the student’s communicative skills and the ability to use Indonesian in extended discourse and abstract discussions at the advanced level. Student will give oral presentations, lead discussions on selected topics from authentic texts, short stories, and Indonesian video clips. Students will also write weekly journals and compositions. The course will provide students with tools to improve understanding of intercultural competence and communication with a focus on Indonesian culture.

Fall
1 Course Unit

**Integrated Studies (INTG)**

**INTG 2610 Emerging Technologies and the Future of the World**
Technological change is always occurring, but the rate of change seems to be accelerating. Advances in robotics, artificial intelligence, cyber, biotechnology, and other arenas generate promise as well as peril for humanity. Will these emerging technologies unleash the innovative capacity of the world, generating new opportunities that help people live meaningful lives? Alternatively, are automation and other technologies chipping away at the labor market in a way that could create severe generational dislocation at best, and national and international turmoil at worst? These questions are important, and have consequences for how we live our lives, how nations interact, and the future of the world writ large. Emerging technologies could shape public policy at the local, national, and international level, and raise questions of fairness, ethics, and transparency. This course takes a unique approach, combining insights from engineering, political science, and law in an interdisciplinary way that will expose students both to the key technologies that could shape the future and ways to think about their potentials, politics, and society.

Fall or Spring
Also Offered As: EAS 2610, PSCI 2401
1 Course Unit

**INTG 3440 Curiosity: Ancient and Modern Thinking about Thinking**
This course will examine two approaches to the still unanswered question of what happens when we humans come up with new knowledge. How should we describe the impulse, or set of impulses, that leads us to seek it? What is happening when we achieve it? And how do we describe the new state in which we find ourselves after we have it? We will study the work of contemporary physicists and cognitive scientists on these questions along side the approaches developed by the two most powerful thinkers from antiquity on the topic, Plato and Aristotle.

Not Offered Every Year
Also Offered As: CLST 3803, EAS 2440
1 Course Unit
Integrated Product Design (IPD)

**IPD 5000 Product Engineering Basics**
The course targets non-engineering majors interested in understanding engineering approaches to product fabrication. The course covers a broad variety of engineering topics including mechanical, electrical, computer and material science. Many of these topics would normally be full courses in themselves. This course intends to teach familiarity with a focus on hands-on practice as applied to products. Students will briefly use equipment such as MTS materials testing machines, mills, lathes, oscilloscopes, laser cutters, photodiodes, motors, servos, microcomputers as well as engineering software such as Solidworks, C compilers, Labview, Matlab, and Cambridge Engineering Selector. The class concludes with independent projects.
1 Course Unit

**IPD 5010 Integrated Computer-Aided Design, Manufacturing and Analysis**
The majority of today’s engineered products move through an advanced computer-aided workflow which greatly speeds design and process time. This course will explore the fundamental components of this workflow through a combination of lectures, hands-on exercises, and a semester design project. General course topics include: fundamental design principles, project definition and needfinding, advanced computer-aided design, rapid prototyping techniques, computer-controlled machining, and an in-depth exploration of the modern analysis and simulation tools that have revolutionized the way in which products are designed. Enrollment is limited. Not Offered Every Year
1 Course Unit

**IPD 5030 Design Fundamentals**
The creation of a successful product requires the integration of design, engineering, and marketing. The purpose of this intensive studio course is to introduce basic concepts in the design of three-dimensional products. For purposes of the course, design is understood as a creative act of synthesis expressed through various modes of 2-dimensional and 3-dimensional representation. The course develops basic design skills ranging from hand sketching to the use of digital modeling software and rapid prototyping. Fulfills the requirement for a design background course in the interdisciplinary graduate program in Integrated Product Design (IPD).
Summer Term
1 Course Unit

**IPD 5040 Rehab Engineering and Design**
Students will learn about problems faced by disabled persons and medical rehabilitation specialists, and how engineering design can be used to solve and ameliorate those problems. The course combines lectures, multiple design projects and exercises, and field trips to clinical rehabilitation facilities. Students will have substantial interaction with clinical faculty, as well as with patients. Prerequisite: Graduate students or permission of the instructor.
Fall
Also Offered As: BE 5140
1 Course Unit

**IPD 5090 Needfinding**
Needfinding is an approach that puts people and their needs at the center of product development and business strategy creation. Over 90% of new products introduced into the marketplace fail. A good portion of these failures are due to lack of understanding of end consumers and their needs. To develop truly successful new products, it’s not enough just to ask people what they need or want. Designers and engineers need tools and techniques to get beyond what people can explicitly state and determine their implicit needs. Needfinding is an approach for developing deep insights that provide strategic direction for corporations and open up new possibilities for product development. In this class students will gain a toolset from which to develop their own approaches to conducting researching for design: learning how to think about other people, about culture, and about new perspectives. They will also learn tactical skills: how to define research questions, how to conduct observations and interviews, how to interpret results, how to synthesize them into fodder for design, and how to communicate their findings in a way that is compelling and actionable for designers, marketers, and business strategists. This class is designed for graduate students and upper level undergrads with a specific interest in product design or design thinking.
Fall or Spring
1 Course Unit

**IPD 5110 How to Make Things: Production Prototyping Studio**
The course centers around a sequence of three projects that each culminate in the design and fabrication of functional objects. A 2D Design, 3D Design, and final “Micro-Manufacturing” project will introduce students to a wide variety of design, engineering, and fabrication skills made possible by the new Studios @ Tangen Hall. The micro-manufacturing final project will task interdisciplinary student teams to create a "micro-business" where they will design and utilize 3D printed molding and casting techniques to create a small-scale run of functional products. These products will then be showcased in an end of semester exposition, where the teams will merchandise and market their products to the Penn community. This exposition will also be a wonderful inaugural use of the student and alumni retail space on the 1st floor of Tangen Hall and serve as a great university-wide event to show case the work of SEAS students. Requires proficiency in solid modeling software (e.g., SolidWorks, Maya, Rhino), practice with design process, and hands-on fabrication experience.
Also Offered As: OIDD 5110
1 Course Unit

**IPD 5140 Design for Manufacturability**
This course is aimed at providing current and future product design/development engineers, manufacturing engineers, and product development managers with an applied understanding of Design for Manufacturability (DFM) concepts and methods. The course content includes materials from multiple disciplines including: engineering design, manufacturing, marketing, finance, project management, and quality systems. Prerequisite: Senior or graduate standing in the School of Design, Engineering, or Business with completed product in development and/or design engineering core coursework or related experience.
Spring
Also Offered As: MEAM 5140
1 Course Unit
IPD 5150 Product Design
This course provides tools and methods for creating new products. The course is intended for students with a strong career interest in new product development, entrepreneurship, and/or technology development. The course follows an overall product design methodology, including the identification of customer needs, generation of product concepts, prototyping, and design-for-manufacturing. Weekly student assignments are focused on the design of a new product and culminate in the creation of a prototype, which is launched at an end-of-semester public Design Fair. The course project is a physical good - but most of the tools and methods apply to services and software products. The course is open to any Penn sophomore, junior, senior or graduate student. The course follows a studio format, in which students meet for three hours each week with Professor Marcovitz for lectures and hands-on making, and students will complete 90 minutes of asynchronous, self-paced content from Professor Ulrich on their own time each week. Professor Ulrich gives one in-person lecture during the semester and attends the Design Fair, but is not present at the weekly studio sessions.
Also Offered As: OIDD 5150
1 Course Unit

IPD 5160 Advanced Mechatronic Reactive Spaces.
This course combines performance art and advanced mechatronics concepts that include the design and implementation of large-scale actuation, advanced sensing, actuation and control. This course pairs design school and engineering students to form interdisciplinary teams that together design and build electro-mechanical reactive spaces and scenic/architectural elements in the context of the performing arts. The two disciplinary groups will be treated separately and receive credit for different courses (ARCH746 will be taught concurrently and in some cases co-located) as they will be learning different things. Engineering students gain design sensibilities and advanced mechatronics in the form of networked embedded processing and protocols for large scale actuation and sensing. Design students learn elementary mechatronics and design reactive architectures and work with engineering students to build them. The class will culminate in a some artistic performance (typically with professional artists) such as a Shakespeare play, robotic ballet, a mechatronic opera.
Not Offered Every Year
Also Offered As: MEAM 5160
Prerequisite: MEAM 5100
1 Course Unit

IPD 5190 Smart Devices
An embedded system is the product of a marriage between hardware and software. Embedded systems have grown to be ubiquitous in the modern world - from simple temperature controlled kettles to intricate smart watches with a plethora of functions squeezed into one small package to complex rovers for space exploration. This course introduces the theory and practice of developing embedded systems through exploration of modern microcontroller architectures and culminates in a final project where students have the opportunity to synthesize and apply their knowledge in a project of their own design. Previous programming experience (Preferably C); Some exposure to circuit/ electronics; Undergraduates who have taken ESE 3500 are not permitted to take this course.
Fall
Also Offered As: ESE 5190
Prerequisite: CIS 1200 AND ESE 3500
1 Course Unit

IPD 5210 Designing Smart Objects for Play and Learning
Today's children enjoy a wide array of play experiences, with stories, learning, characters and games that exist as physical stand-alone objects or toys enhanced with electronics or software. In this course, students will explore the design of play and learning in order to develop original proposals for new product experiences that are at once tangible, immersive and dynamic. They will conduct research into education and psychology while also gaining hands-on exposure to new product manifestations in a variety of forms, both physical and digital. Students will be challenged to work in teams to explore concepts, share research and build prototypes of their experiences in the form of static objects that may have accompanying electronic devices or software. Final design proposals will consider future distribution models for product experiences such as 3D printing, virtual reality and software-hardware integration. Instruction will be part seminar and part workshop, providing research guidance and encouraging connections will subject matter experts throughout the Penn campus.
Fall
Also Offered As: ARCH 7210
1 Course Unit

IPD 5250 Ergonomics/Human Factors Based Product Design
Human Factors and Ergonomics knowledge is a critical component of a product designer or design engineer’s toolbox. This course teaches the direct application of existing human factors/ergonomic data to the creation of new product designs. Applying human factors knowledge to problem solving for product design happens throughout the design process. It is a useful input as initial ideas begin to ut and as a way to verify completed concepts through directly documented user testing and design iteration. The course would be a mini-lecture/studio style course in which the students will work in class on assigned projects, finding, analyzing, extrapolating and applying data to design solutions and creating mockups, modeland prototypes for user testing of their designs.
Fall
1 Course Unit

IPD 5270 Industrial Design I
This course provides an introduction to the ideas and techniques of Industrial Design, which operates between Engineering and Marketing as the design component of Integrated Product Development. The course is intended for students from engineering, design, or business with an interest in multi-disciplinary, needs-based product design methods. It will follow a workshop model, combining weekly lectures on design manufacturing, with a progressive set of design exercises.
Spring
Also Offered As: ARCH 7270
1 Course Unit
**IPD 5280 Design of Contemporary Products: Design for Equity, Inclusion and Accessibility**
The power of design to shape the world we live in is increasingly obvious, as is the responsibility of designers to challenge our assumptions about who designs, who is included or marginalized by our designs, and how we can make sure that all design is inclusive design. This course will address issues around designing for equity, inclusion and accessibility and co-design. We will ask, What is inclusive design? Who does it serve? What should it look like? To answer these questions, we will engage with the current discourse around designing for equity, inclusion and accessibility, with a particular focus on accessibility. We will engage with disability justice frameworks and critical disability studies to challenge our assumptions about disability and engagement. And we will connect with members of the disability community and co-design along with them. This course is intended for anyone who considers themselves a designer of physical or digital products, places, or services who wants to prioritize inclusion in their practice.

*Spring*

*Also Offered As: ARCH 7280*

1 Course Unit

**IPD 5290 Designing Connected Objects and Experiences**
The objective of this course is to introduce students to a more conceptual, creative, and meaningful approach to creating interactive functional objects utilizing analog, digital, and electronic skillsets acquired through the core engineering curriculum. This course will cover basics of design as an art form, wearables design, electronic sensors, and creating connected devices. Students will be challenged to create 3 pieces of work both individually and in teams culminating in a gallery show of the students’ work. Visit the course website at www.ipd529.com to view previous student work.

*Fall or Spring*

*Also Offered As: EAS 5450*

1 Course Unit

**IPD 5440 Image, Object, Architecture**
As we have entered a postdigital era, the dominance of a purely technological approach as a vehicle for design innovation has waned. Questions of substance and disciplinary autonomy have found their way back into the contemporary cultural discourse, enriching the way we examine and deploy advanced technologies towards novel expressions in architecture. This seminar will investigate, through the production of estranged objects, opportunities for design that are being generated at the intersection of machinic and human minds, and speculate on possible futures in which concepts of nature and technology have been inseparably intertwined.

*Spring*

*Also Offered As: ARCH 7440*

1 Course Unit

**IPD 5450 Engineering Entrepreneurship I**
Engineers and scientists create and lead great companies, hiring managers when and where needed to help execute their vision. Designed expressly for students having a keen interest in technological innovation, this course investigates the roles of inventors and founders in successful technology ventures. Through case studies and guest speakers, we introduce the knowledge and skills needed to recognize and seize a high-tech entrepreneurial opportunity - be it a product or service - and then successfully launch a startup or spin-off company. The course studies key areas of intellectual property, its protection and strategic value; opportunity analysis and concept testing; shaping technology driven inventions into customer-driven products; constructing defensible competitive strategies; acquiring resources in the form of capital, people and strategic partners; and the founder’s leadership role in an emerging high-tech company. Throughout the course emphasis is placed on decisions faced by founders, and on the sequential risks and determinants of success in the early growth phase of a technology venture. The course is designed for, but not restricted to, students of engineering and applied science and assumes no prior business education. Prerequisite: Third or Fourth year or Graduate standing.

*Fall or Spring*

*Also Offered As: EAS 5450*

1 Course Unit

**IPD 5510 Design Processes**
This studio is structured for IPD students as an intensive, interdisciplinary exploration of Design as purposeful for Integrated Product Design. The goal of the studio is to give students a firsthand experience of various processes involved in creating successful integrated product designs. This first semester of the four-semester studio sequence focuses on giving students experience developing designs based on a range of starting points: form, function, materiality and manufacturing process. Students will practice design through rigorous, consistent processes for thinking through the evolution of their ideas. In this course, they will go through an entire design process from conceptualization to design to producing prototypes. They will be taught to focus on the specifics of their designs, causing them to be conscious of what drives their choices as designers and providing them with a wider range of tools to design from in successive projects. Course work will involve readings, assignments, class participation, in-class exercises, a mid-term presentation and a final submission.

*Fall or Spring*

1 Course Unit

**IPD 5520 Problem Framing**
In the second semester of the four-semester studio sequence, we ask students to take a step back from what and how they are designing and ask the question of why they are designing it. We will teach them a rigorous process for understanding stakeholder needs and for translating those needs into implications for product design. They will begin to develop greater awareness of the personal, social, competitive and technological contexts that their products fit into, and to learn how to design for those contexts. They will develop the ability to dive into a topic and frame a design problem, and to understand the implications of how they frame the problem on what they design. Ideally, they will use this process to identify a problem or opportunity to work on for their final project. Course work will involve readings, assignments, class participation, in-class exercises, and a final submission.

*Spring*

1 Course Unit
IPD 5680 Integrative Design Studio: Biological Design
This course is a research-based design studio that introduces new materials, fabrication, and prototyping techniques to develop a series of design proposals in response to the theme: Biological Design. The studio introduces life sciences and biotechnologies to designers, artists, and non-specialists to develop creative and critical propositions that address the social, cultural, and environmental needs of the 21st century. The course will be a pilot study of the first biodesign challenge organized by CUT/PASTE/GROW. The final projects will be submitted to a competition and the winning entry will be featured at Biofabricate in Summer 2017. Fall or Spring
1 Course Unit

IPD 5720 Design Thinking
Creating new product concepts was once a specialized pursuit exclusively performed by design professionals in isolation from the rest of an organization. Today's products are developed in a holistic process involving a collaboration among many disciplines. Design thinking - incorporating processes, approaches, and working methods from traditional designers' toolkits - has become a way of generating innovative ideas to challenging problems and refining those ideas. Rapid prototyping techniques, affordable and accessible prototyping platforms, and an iterative mindset have enabled people to more reliably translate those ideas into implementable solutions. In this course, students will be exposed to these techniques and learn how to engage in a human-centered design process. Fall
Also Offered As: ARCH 7250
1 Course Unit

IPD 5900 Special Topics in Integrated Product Design
This course will be offered when demand permits. The topics will change due to the interests and specialties of the instructor(s). Some topics could include: Advanced Manufacturing, Design of Interactive Objects, Medical Devices and Sustainable Products. Not Offered Every Year
0.5-1 Course Unit

IPD 5990 Master's Independent Study
Fall or Spring
1 Course Unit

IPD 6990 IPD Seminar
Capitalized course title and removed period from the end of the long course title.
Fall or Spring
1 Course Unit

IPD 7990 IPD Final Project
The last two semesters of the IPD studio sequence consist of the IPD Final Project. Students are given the opportunity to work on design problems that follow their passion or to work on a real world problem provided by our partners in academia, industry, or the non-profit world. The Final Project enables students to put the skills that they have developed in engineering, design arts and business into practice, following the process from initial opportunity identification into the development of a working product with a complementary business plan. Interdisciplinary group work is encouraged on final projects. Working in teams offers students the opportunity to collaborate across skill sets and learn from teammates from different disciplines. Final Projects provide students with ample opportunity to learn leadership and collaboration skills that are invaluable in today's workplace. Fall or Spring
1 Course Unit

Intercultural Communication (ICOM)
The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).

ICOM 1000 Intercultural Communication
Language is a complex and multifaceted phenomenon, simultaneously communicative, creative, and cultural. An intercultural perspective is vital to learning a new language and engaging meaningfully with speakers of other languages and cultures. Focusing on the key ideas of intercultural practices, reflections, and strategies, this course offers students a foundation for understanding language, culture, and communication as well as the intricate relationship between them. 1 Course Unit

International Relations (INTR)

INTR 1001 Transnational Issues in Global Politics
This course is designed to provide students with an introduction to transnational issues and world politics and to acquaint them with some of the leading issues, theories, concepts and processes, and history that shape and define world events. It is suitable for students embarking on a long-term study of international affairs as well as for students with other majors and intellectual interest who simply want to know more about how the world works and how the material covered in this class affects their lives. It is expected that students taking the course will gain an ability to analyze, understand objectively evaluate and appreciate the complex dynamics that affect “global politics” writ large, including issues relating to trade, diplomacy, people-to-people and business transactions, and shifts in demography, borders, international institutions and global governance. In addition to issues of diplomacy, statecraft, and security we will assess some of the major international issues of our time (i.e. climate change, proliferation of weapons of mass destruction, genocide and human trafficking) and debate the prospects for bringing peace and prosperity to a world that is rife with conflict and poverty. Fall or Spring
1 Course Unit

INTR 2500 Political Risk Analysis
This course teaches students to apply social science theories and concepts together with futures methodologies (e.g. Delphi method; country risk assessments used by ratings agencies) to the challenges of addressing international political risks to the continuity, effectiveness and operations of business, government and other organizations in their international transactions. Fall or Spring
1 Course Unit
INTR 2600 Counterintelligence: History, Theory, and Practice
This course will address the conceptual and practical issues of the practice of counterintelligence as it relates to the national defense, economic competitiveness, and foreign policy decision-making and the role of the intelligence community in thwarting intelligence gathering and espionage against the United States and the United Kingdom. Because the closer is to the contemporary world and the inherent secrecy the surrounds intelligence and counterintelligence activities, much of this class focuses on historical cases where long term public research and declassification of government documents have allowed us to look into the system and process of intelligence gathering, analysis, and recommendations for action. We will explore recurrent and prominent themes of intelligence failures, the trade-offs and calculations of a strong CI infrastructure as it relates to ethics, democracy and national power and prestige that shape our understanding of the subject and how it directly and indirectly impacts our lives and our society. Students will gain an appreciation of how the practice has been utilized by government, specifically its structure, analytical processes, organizational culture, practice-related ethics, perception(s) by the public, guiding charter, and governmental oversight. This class covers the diverse array of counterintelligence applications - within the government as well as in the private sector and our individual lives. TO APPLY FOR THIS COURSE, EMAIL INSTRUCTION FOR APPLICATION FORM FPLANTAN@SAS.UPENN.EDU
Spring
1 Course Unit

INTR 2900 Topics in International Relations
Topics in International Relations focuses on specialized issues, practical or applied approaches, policy and other topics of contemporary relevance in modern study of international relations. These are experimental or occasionally offered classes. Past topics of included US Foreign Policy and the Arab Spring, the Iraq Wars, Secret Intelligence & American Democracy, Counterintelligence, Homeland Security, the US & South Asia Cold War and New Alignments, and Think Tanks and Global Governance.
Fall or Spring
1 Course Unit

INTR 2999 Independent Study
Independent study for IR majors.
Fall or Spring
1 Course Unit

INTR 3500 Research Methods/Practice in IR
International Relations is concerned with both theory and practice so we employ a range of analytical tools to examine actors and events in world politics. The purpose of this course is to introduce students to the various research methods utilized by students and scholars in the field of IR including: case studies, historical - comparative and archival research, survey research, interviewing techniques, simulations, quantitative and statistical analysis.
Fall or Spring
Prerequisite: PSCI 0400
1 Course Unit

INTR 4197 Senior Seminar for Thesis Research I
Seminar in International Relations. A two semester sequence including review of advanced International Relations theory and research methods for the preparation of the senior thesis.
Fall
Prerequisite: INTR 3500 AND PSCI 0400
1 Course Unit

INTR 4198 Independent Study for Thesis Research
Independent study for international relations majors completing senior thesis research.
Fall or Spring
1 Course Unit

INTR 4297 Senior Seminar For Thesis Research II
Seminar in international relations. Second semester of a two semester sequence including review of advanced international relations theory and research methods for the preparation of the senior thesis.
Spring
Prerequisite: INTR 4197
1 Course Unit

INTR 4597 Senior Project I
This seminar will prepare students to plan, implement, and present their senior research project. Students will draw on the experience and insight they have gained in the course of their fieldwork or internship to develop defensible policy recommendations for their target audience. As such, the seminar will introduce students to the policy formation process as they develop the practical skills needed to formulate and produce actionable policy recommendations. Students will produce a formal report and will present their findings to relevant stakeholders at the conclusion of the Seminar. This class will ensure that students develop the skills necessary to undertake a substantive research project.
Fall
Prerequisite: INTR 3500 AND PSCI 0400
1 Course Unit

INTR 4697 Senior Project II
This course is a continuation of INTR-395, culminating with the production of a policy research paper and presentation.
Spring
Prerequisite: INTR 4597
1 Course Unit
International Studies (INSP)

INSP 1001 Huntsman Program First-Year Seminar in International Studies and Business
This is a course for first-year students in their first semester. Will be required for, and limited to, incoming students in the Huntsman Program in International Studies and Business, which is a coordinated dual-degree program jointly administered by the College of Arts and Sciences and the Wharton School. The course is being offered for the first time in Fall 2020 and will be co-taught by the Huntsman Faculty Directors, Professor Rudra Sil (Department of Political Science, School of Arts & Sciences) and Professor Harbir Singh (Management Department, Wharton School). The course offers a shared understanding of some fundamental concepts, theoretical frameworks, and long-term historical trends that relate to both the study of business on a global scale and the social scientific analysis of contemporary issues. The first section (module) of the course, to be led by Professor Sil, will provide a broad overview of the evolution of global political economy across diverse historical eras, from the Industrial Revolution to the challenges of economic governance in the post-World War II era to the emergence of (and questioning of) the "Washington Consensus" in the post-Cold War era. Throughout, students will learn about varied developmental pressures and shifting international environments within which the relationships between markets and governments have been organized. The second section (module), to be led by Professor Singh, will delve into the complex challenges and opportunities faced by firms and businesses operating on a global scale. With the aid of case studies, this section will address approaches to decisions and processes that affect the rise and fall of comparative advantage, while paying attention to evolving organizational structures, business strategies, the emergence of inter-firm networks and large business organizations, including multi-national corporations. In the third part of the course, students are expected to use what they learn and engage each other through the presentation of team projects on a major contemporary issue of global significance. These projects will incorporate discussion of some of the research being done by Penn faculty in the School of Arts & Sciences as well as the Wharton School, thereby helping to familiarize students with some of the disciplines and scholarly traditions covered in the two schools. The weekly three-hour sessions will typically include lectures, discussions of assigned readings, small-group work and question-and-answer periods. Following an introductory session in the first week, the course will consist of three modules. Prerequisites: Admission to Huntsman Program in International Studies and Business
Fall
1 Course Unit

INSP 4998 Senior Thesis, International Studies
The senior thesis course is a capstone for seniors in the Huntsman Program in International Studies and Business. Students in the Huntsman Program should consult with the Huntsman Program advisors for more information.
1 Course Unit

INSP 4999 Honors Thesis, International Studies
The senior thesis course is a capstone for seniors in the Huntsman Program in International Studies and Business. Students in the Huntsman Program should consult with the Huntsman Program advisors for more information.
1 Course Unit

Irish Gaelic (IRIS)

IRIS 0100 Beginning Irish Gaelic I
Irish Gaelic, spoken primarily on the west coast of Ireland, is rich in oral traditions, song, poetry and literature. Knowledge of this language provides a foundation to understanding Celtic folklore and linguistics and also enhances the study of Anglo-Irish literature and history. The first-year course will include reading, conversation, listening and speaking. Two Term Class, Student may enter either term; credit given for either
1 Course Unit

IRIS 0200 Beginning Irish Gaelic II
Irish Gaelic, spoken primarily on the west coast of Ireland, is rich in oral traditions, song, poetry and literature. Knowledge of this language provides a foundation to understanding Celtic folklore and linguistics and also enhances the study of Anglo-Irish literature and history. The first-year course will include reading, conversation, listening and speaking. Fall or Spring
1 Course Unit

IRIS 0300 Intermediate Irish Gaelic I
The first part of a continuation of Elementary Irish Gaelic with increasing emphasis on the native idiom and literary forms. Drama texts and poetry will be used to supplement the grammar component and encourage oral proficiency, while simultaneously providing an understanding of the challenges faced by contemporary authors writing in Irish. Fall or Spring
Prerequisite: IRIS 0200
1 Course Unit

IRIS 0400 Intermediate Irish Gaelic II
The second part of a continuation of Elementary Irish Gaelic with increasing emphasis on the native idiom and literary forms. Drama texts and poetry will be used to supplement the grammar component and encourage oral proficiency, while simultaneously providing an understanding of the challenges faced by contemporary authors writing in Irish. Fall or Spring
Prerequisite: IRIS 0300
1 Course Unit

IRIS 1000 Advanced Irish Gaelic I
This course will emphasize reading of literary texts, and advanced aspects of grammar, composition, and conversation. Offered through the Penn Language Center.
Fall or Spring
Prerequisite: IRIS 0400
1 Course Unit

IRIS 1200 Advanced Irish Gaelic II
This course will emphasize reading of literary texts, and advanced aspects of grammar, composition, and conversation. Fall or Spring
Prerequisite: IRIS 1000
1 Course Unit
ITALIAN (ITAL)

ITAL 0010 Italian Survival Kit: The Language and Culture of getting around in Italy
This course provides content that is taught efficiently in order to be used practically. If you are going to Italy and questioning how you will survive your total immersion experience, this course will provide you with the linguistic and cultural skills you will need to effectively function in Italy and fully enjoy its wonders. In this course, you will learn and practice the language you need to talk about: yourself; others; travel; public transportation; housing; food; shopping; technology; health; money, etc. Students participate in conversations that replicate day-to-day life in Italy thereby developing the skills needed for face-to-face and online situations. This course does not count toward fulfillment of the language requirement. Students wishing to continue in Italian 0200 should register for Italian 0100 rather than Italian 0010. This course is open to students who have never taken Italian and who don’t intend to satisfy the language requirement by taking courses in Italian.

Fall
0.5 Course Units

ITAL 0050 Sicilian Language and Culture
Occupied over the centuries by the Greeks, Romans, Arabs, Normans, French, and Spaniards, Sicily is a region of many histories and many traditions. Birthplace and crossroad of cultures and artistic movements, the Sicilian land has shaped the imagination of its inhabitants and has never ceased to fascinate its visitors. Its language and culture have also been exported abroad, through the many Sicilians who left the island and settled all over the world. This course is an introduction to Sicilian Language and Culture. We will study spoken Sicilian and cultural artifacts ranging from film to literature, to music and food, in order to learn to recognize and understand the unique sounds and features of "siciliano" and to converse in Sicilian with native speakers and with one another. Class sessions include lectures and interactive discussions. Between classes, the learning experience is extended through assignments, lectures and discussions.
Fall
0.5 Course Units

ITAL 0087 Desire and Deception in Medieval Erotic Literature
In this course, we will investigate the ideology, content, and material forms of love literature from Dante Alighieri to Francesco Petrarca. Through close readings of such texts as Dante's Vita nova (ca. 1295), Giovanni Boccaccio's Decameron (ca. 1353), and Petrarca's Rerum vulgarium fragmenta (often referred to as the poetry book par excellence: il canzoniere, ca. 1374), we will unveil the literary and fictitious nature of medieval erotic literature. We will explore the origins of love poetry in medieval France and its subsequent interpretation and rewriting in Italian courts and comuni. We will inquire into the cultural constructions of the medieval notion of lyrical self and how it still has an impact on our own notion of consciousness. We will study the forms, themes, and characters that populate 'love stories' in the Middle Ages. We will analyze the dynamics of composition, circulation, and reception in manuscript culture. Our close analysis of the texts as they have been preserved in manuscript form will help us gauge the differences between medieval and contemporary ways of writing, reading, and loving.
Not Offered Every Year
Also Offered As: COML 0087, GSWS 0087
1 Course Unit

ITAL 0088 First-Year Seminar: Italian Histories
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0088
1 Course Unit

ITAL 0089 First-Year Seminar: Italian Music
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0089, MUSC 0810
1 Course Unit

ITAL 0090 First-Year Seminar: Italian American Studies
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0090, ENGL 1299, GSWS 0090
1 Course Unit

ITAL 0091 First-Year Seminar: Contemporary Italy
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0091
1 Course Unit

ITAL 0092 First-Year Seminar: Italian Film and Media Studies
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0092, GSWS 0092
1 Course Unit

ITAL 0093 First-Year Seminar: Race and Ethnicity in Italy
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0093, GSWS 0093
1 Course Unit

ITAL 0094 First-Year Seminar: Italian Gender Studies
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0094, GSWS 0094
1 Course Unit

ITAL 0095 First-Year Seminar: Italian Fashion
Topics vary. See the Department's website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0095, GSWS 0095
1 Course Unit
ITAL 0096 First-Year Seminar: Italian Visual Studies
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0096, GSWS 0096
1 Course Unit

ITAL 0097 First-Year Seminar: Italian Foods and Cultures
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0097, GSWS 0097
1 Course Unit

ITAL 0098 First-Year Seminar: Italian Literature
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0098, GSWS 0098
1 Course Unit

ITAL 0099 First-Year Seminar: Italian Innovations
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italians/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0099, GSWS 0099
1 Course Unit

ITAL 0100 Elementary Italian I
A first-semester elementary language course for students who have never studied Italian or who have had very little exposure to the language. Students who have previously studied Italian are required to take the placement test. Class work emphasizes the development of spontaneous discourse skills and interactional competence. Out-of-class homework required.
Fall or Spring
1 Course Unit

ITAL 0120 Accelerated Elementary Italian
An intensive two-credit course covering the first and second semester of the elementary year for students who have never studied Italian before but have already fulfilled the language requirement in another modern language, preferably a romance language. Students who have fulfilled the language requirement in a language other than a romance language will be considered on an individual basis. All students must have departmental permission to register. Class work emphasizes the development of spontaneous discourse skills and interactional competence. Out-of-class homework required.
Fall or Spring
2 Course Units

ITAL 0200 Elementary Italian II
This course is the continuation of the elementary-level sequence designed to develop functional competence in the four skills. Class work emphasizes the further development of spontaneous discourse skills and interactional competence. Out-of-class homework required.
Fall or Spring
Prerequisite: ITAL 0100
1 Course Unit

ITAL 0300 Intermediate Italian I
Italian 0300 is the first half of a two-semester intermediate sequence designed to help you attain a level of proficiency that will allow you to function comfortably in an Italian-speaking environment. The course will build on your existing skills in Italian, increase your confidence and your ability to read, write, speak and understand the language, and introduce you to more refined lexical items, more complex grammatical structures, and more challenging cultural material. You are expected to have already learned the most basic grammatical structures in elementary Italian and to review these. The course materials will allow you to explore culturally relevant topics and to develop cross-cultural skills through the exploration of similarities and differences between your native culture and the Italian world.
Fall or Spring
Prerequisite: ITAL 0200
1 Course Unit

ITAL 0340 Accelerated Intermediate Italian
This course is the intensive and accelerated course that combines in one semester the intermediate sequence (0300 and 0400). It will build on your existing skills in Italian, increase your confidence and your ability to read, write, speak and understand the language, and introduce you to more refined lexical items, more complex grammatical structures, and more challenging cultural material. The course will allow you to explore culturally relevant topics and to develop cross-cultural skills through the exploration of similarities and differences between your native culture and the Italian world.
Fall or Spring
Prerequisite: ITAL 0120
2 Course Units

ITAL 0400 Intermediate Italian II
This course is the second half of a two-semester intermediate sequence designed to help you attain a level of proficiency that will allow you to function comfortably in an Italian-speaking environment. The course will build on your existing skills in Italian, increase your confidence and your ability to read, write, speak and understand the language, and introduce you to more refined lexical items, more complex grammatical structures, and more challenging cultural material. The course will allow you to explore culturally relevant topics and to develop cross-cultural skills through the exploration of analogies and differences between your native culture and the Italian world. The course will move beyond stereotypical presentations of Italy and its people to concentrate on specific social issues together with cultural topics.
Fall or Spring
Prerequisite: ITAL 0300
1 Course Unit

ITAL 0800 Italian Conversation
The course materials and nature of assignments and projects complement the Italian Studies curriculum by supporting the cultural content, linguistic functions, and types of assignments students may have already been exposed to in other Italian courses. This course will serve not only as a gateway to inspire students to take Italian Studies courses in the future, but will also accompany classes they may be taking simultaneously. The learning objectives of the works studied in this course will mirror and support the goals of the Italian Studies Curriculum while paying particular attention to oral expression, communication, and fostering a community of students of Italian both inside and outside the classroom. Two Term Class, Student may enter either term; credit given for either 0.5 Course Units
ITAL 1000 Advanced Italian I
This course will focus on contemporary Italian culture following its development since the 1960s. Pertinent films, literary texts, articles, as well as material in other media will complement the analysis of films and allow in-depth discussion. The cultural material explored in the course will be also used as a basis for a review of linguistic structures and vocabulary. Audiovisual materials develop students’ comprehension and production in Italian and enable them to function in an academic setting. Class work will center primarily on conversation to improve students’ fluency, vocabulary, and accuracy in speaking. Homework will consist of research and writing assignments in written Italian. Additionally, students will be required to prepare presentations. Students will write a final essay.
Fall or Spring
1 Course Unit

ITAL 1200 Advanced Italian II
In this course, students will strengthen their communication skills, while continuing to explore significant aspects of contemporary Italian culture and history. Students will take further steps towards being able to understand in depth and to contextualize authentic Italian documents. Films, songs, and a variety of readings, will be used as windows on particular historical periods, cultural movements, political issues, and social customs. They will serve as a tool to investigate the many facets of Italian identity and, at the same time, as a way to prepare those students who will continue their study of Italian literature and culture in higher-level courses. Students are expected to participate in conversations and all other class activities in order to improve their oral and written ability to narrate, express opinion, hypothesize, and discuss a variety of topics, using rich, appropriate vocabulary and grammar, and organizing well-structured discourses, be they oral presentations, weekly compositions or the final essay. To reach these goals, speaking, listening, reading and writing activities – role plays, discussions, oral presentations, journals, grammar reviews – will be based on audio-visual material and written texts and/or proposed by the students themselves, based on their independent explorations and research.
Fall or Spring
1 Course Unit

ITAL 1211 Business Italian
The course is conducted entirely in Italian and should be taken after completion of Italian 1000 or equivalent. It is designed to enable students to acquire language proficiency in the current Italian business and labor world. Business terminology will be used in specific business situations such as banking, trade, communications, etc. The course will examine Italian business practices, cultural differences such as the attitude towards money, work, leisure and consumerism through websites, newspaper and magazine articles and video clips. Students will learn to read business publications, write and compose business texts, and participate in business-related conversations. Additionally, guest lecturers from the local business world with ties to Italy will provide students with information about internship and job opportunities and the knowledge necessary to navigate international and Italian commercial routes. All reading and lectures in Italian.
Not Offered Every Year
1 Course Unit

ITAL 1212 Business Italian: Italian for Special Purposes
The course is conducted entirely in Italian and should be taken after completion of Italian 1000 or equivalent. It is designed to enable students to acquire language proficiency in the current Italian business and labor world. Business terminology will be used in specific business situations such as banking, trade, communications, etc. The course will examine Italian business practices, cultural differences such as the attitude towards money, work, leisure and consumerism through websites, newspaper and magazine articles and video clips. Students will learn to read business publications, write and compose business texts, and participate in business-related conversations. Additionally, guest lecturers from the local business world with ties to Italy will provide students with information about internship and job opportunities and the knowledge necessary to navigate international and Italian commercial routes. All reading and lectures in Italian.
Not Offered Every Year
1 Course Unit

ITAL 1213 Business Italian: Italian for Professions
The course is conducted entirely in Italian and should be taken after completion of Italian 1000 or equivalent. It is designed to enable students to acquire language proficiency in the current Italian business and labor world. Business terminology will be used in specific business situations such as banking, trade, communications, etc. The course will examine Italian business practices, cultural differences such as the attitude towards money, work, leisure and consumerism through websites, newspaper and magazine articles and video clips. Students will learn to read business publications, write and compose business texts, and participate in business-related conversations. Additionally, guest lecturers from the local business world with ties to Italy will provide students with information about internship and job opportunities and the knowledge necessary to navigate international and Italian commercial routes. All reading and lectures in Italian.
Not Offered Every Year
1 Course Unit

ITAL 1214 Business Italian: Translation and Interpreting
The course is conducted entirely in Italian and should be taken after completion of Italian 1000 or equivalent. It is designed to enable students to acquire language proficiency in the current Italian business and labor world. Business terminology will be used in specific business situations such as banking, trade, communications, etc. The course will examine Italian business practices, cultural differences such as the attitude towards money, work, leisure and consumerism through websites, newspaper and magazine articles and video clips. Students will learn to read business publications, write and compose business texts, and participate in business-related conversations. Additionally, guest lecturers from the local business world with ties to Italy will provide students with information about internship and job opportunities and the knowledge necessary to navigate international and Italian commercial routes. All reading and lectures in Italian.
Not Offered Every Year
1 Course Unit

Prerequisite: ITAL 1000
1 Course Unit
ITAL 1320 Composers: Opera Composers 1600-1900
This course will center on the biography, works, and cultural context of a specific composer or group of composers. As well as introducing students to the musical works of the composer(s), the course will examine issues such as reception history, the canon, mechanisms of cult formation, authorship and attribution, identity, historical and social contexts, and nationalism and patriotism. Fulfills Arts and Letters Requirement. The course centers on a group of composers who created or developed opera as a successful genre by setting texts in Italian: Monteverdi, Handel, Mozart, Verdi, and Puccini. We will explore how these musicians were involved in opera as a business model, how their careers took shape, how their music interacted on stage with words, bodies, and sets (enhancing narratives based on literature, mythology and history), how their works were products of larger social contexts, and finally, how and why these operas are presented today by American theatres (also adapted as Broadway musicals) or in film versions. The course is intended for non-majors, but music majors are welcome. Knowledge of Italian is not necessary.
Not Offered Every Year
Also Offered As: MUSC 1320
1 Course Unit

ITAL 1322 Composers: Mozart/DaPonte
This course will center on the biography, works, and cultural context of a specific composer or group of composers. As well as introducing students to the musical works of the composer(s), the course will examine issues such as reception history, the canon, mechanisms of cult formation, authorship and attribution, identity, historical and social contexts, and nationalism and patriotism. Fulfills Arts and Letters Requirement. Mozart's meeting with Lorenzo Da Ponte in Vienna in 1783 sparked one of the most successful collaborations in opera history between a poet and a composer, generating three works that are frequently staged in today's theatres worldwide, The Marriage of Figaro (1786), Don Giovanni (1787), and Cosi fan tutte (1790). We will study the literary sources of these operas, the poetic and operatic conventions of the time, and the issues (such as love, power, and gender) that these works raise, by also comparing different versions on video. The course is intended for non-majors, but music majors are welcome.
Not Offered Every Year
Also Offered As: MUSC 1322
1 Course Unit

ITAL 1430 History of Opera
An investigation, through a series of representative works, of the central problem of opera: how does the combination of music, text, and visual spectacle create an art form in which the whole is more powerful than its parts. Today this issue can be examined not only in live performances but also through media such as film, DVD, streaming video— media to which this four-centuries-old multimedia form has adapted, evolving in still compelling ways. The works chosen for the course provide a chronological survey but also represent the variety of sources on which opera has drawn for it subject matter: myth and legend, the epic, the novel, and the play.
Not Offered Every Year
Also Offered As: MUSC 1430
1 Course Unit

ITAL 1440 Film Music in Post 1950 Italy
An exploration of cinematic sound through the lens of specific composer/director collaborations in post-1950 Italy, examining scores, soundtracks, and the interaction of diegetic and non-diegetic music with larger soundscapes. Composers Nino Rota and Ennio Morricone serve as case studies, in partnership with directors Fellini, Visconti, Leone, Pontecorvo, Pasolini, and Coppola. Highlights include several excerpts from the Fellini/Rota collaboration, including The White Sheik, I vitelloni, The Road, Nights of Cabiria, La dolce vita, 8 1/2, Juliet of the Spirits, Satyricon, The Clowns, Roma, Amarcord, Casanova, and Orchestra Rehearsal. Rota's music for Visconti will be examined in Senso, the Leopard, and Rocco and his Brothers, along with his Transatlantic collaboration for The Godfather. Morricone's work with various directors will be discussed in The Good, the Bad, and the Ugly, The Battle of Algiers, and Teorema, as well as for American films such as Malick's Days of Heaven and Tarantino's The Hateful Eight. Weekly screenings required. Open to all: music majors, minors, and non-majors; will count toward requirements for music minor. Knowledge of music and Italian helpful but not required. All readings and lectures in English.
Also Offered As: CIMS 1440, MUSC 1440
1 Course Unit

ITAL 1871 Florence Myth and History
The course explores the historical, social, and cultural history of Florence across the centuries. Florence, which has been one of the largest and most powerful city-states since the Middle Ages, has undergone different changes that have significantly shaped both the character and the urban texture of the city. Cradle of the Renaissance, culinary and fashion hub, a political laboratory, Florence has lived many lives that will be discussed in the course, also offering comparisons with other Italian and Mediterranean realities. Readings by authors, philosophers, architects, and artists will be complemented by field trips, excursions, and tours of Florence's most iconic sites and monuments. Trips to other Tuscan cities (Siena, S. Gimignano, Arezzo, Cortona) will be part of the course.
1 Course Unit

ITAL 1890 Masterpieces-Italian Literature
This course surveys the history of Italian literature through its major masterpieces. Beginning with Dante's Divine Comedy, Petrarca's love poems, and Boccaccio's Decameron, we will follow the development of Italian literary tradition through the Renaissance (Machiavelli's political theory and Ariosto's epic poem), and then through Romanticism (Leopardi's lyric poetry and Manzoni's historical novel), up to the 20th century (from D'annunzio's sensual poetry to Calvino's post-modern short stories). The course will provide students with the tools needed for analyzing the texts in terms of both form and content, and for framing them in their historical, cultural, and socio-political context. Classes and readings will be in Italian. ITAL 1890 is mandatory for Majors in Italian Literature and Minors in Italian Literature. If necessary, ITAL 1000 can be taken at the same time as ITAL 1890. Prerequisite: Open to students who have completed ITAL 1000 or equivalent.
Fall or Spring
Also Offered As: COML 1890
Prerequisite: ITAL 1000
1 Course Unit
ITAL 1900 Italian History on Screen: How Movies Tell the Story of Italy
How has our image of Italy arrived to us? Where does the story begin and who has recounted, rewritten, and rearranged it over the centuries? In this course, we will study Italy's rich and complex past and present. We will carefully read literary and historical texts and thoughtfully watch films in order to attain an understanding of Italy that is as varied and multifaceted as the country itself. Group work, discussions and readings will allow us to examine the problems and trends in the political, cultural and social history from ancient Rome to today. We will focus on: the Roman Empire, Middle Ages, Renaissance, Unification, Turn of the Century, Fascist era, World War II, post-war and contemporary Italy. Lectures and readings are in English.
Fall or Spring
Also Offered As: CIMS 1900
1 Course Unit

ITAL 1910 Sicily on Page and Screen
What images come to mind when we hear the words Sicily and Sicilians? Often our thoughts range from scenic vacation spots, delicious seafood and cannoli, and sweet grandmothers dressed in black, to mafia violence, vendettas, and the deep-rooted code of silence, omerta. But, how did these ideas get to us? Is there truth in them? Is there more to this island and its people? Through careful analysis of literary and cinematic representations of this Italian region, and those that do and have inhabited it, we will trace and analyze how Sicilians have represented themselves, how mainland Italians have interpreted Sicilian culture, how outsiders have understood these symbols, how our own perceptions shaped what we thought we knew about this place and, finally, how our own observations will have evolved throughout our studies. We will watch films such as Tornatore's Cinema paradiso and Coppola's The Godfather II, and read texts such as Lampedusa's The Leopard and Maraini's Bagheria. This course aims to increase students' understanding and knowledge of the Sicilian socio-cultural system. It will help students develop their ability to understand and interpret Sicilian culture through close analysis of its history, values, attitudes, and experiences, thereby allowing them to better recognize and examine the values and practices that define their own, as well as others', cultural frameworks.
Summer Term
Also Offered As: CIMS 1910
1 Course Unit

ITAL 1920 Italian History on the Table
"Mangia, mangia!" is an expression commonly associated with the American stereotype of Italians, whose cuisine is popular throughout the world. But is the perceived Italian love of food the same in the United States and in Italy? Is it an issue of quantity or quality? Of socioeconomics, politics, education, health ...? Global, local or maybe, glocal? In this course, we will explore the role of food in Italian culture and in the shaping of the Italic identity, in Italy and abroad since antiquity. We will trace its evolution through literary documents, works of art, music and film, as well as family recipes and cooking tools; from ancient Rome to Dante and Boccaccio, to Stanley Tucci's Big Night; from court banquets to food trucks that, while always a feature at Italian fairs and open air markets, are now being "Americanized" under the influence of American cooking shows on Italian television. This course will be taught in English. It is an OBL (Object Based Learning) Course and will include class visits, in person and/or virtual, to the Penn Museum and to the Rare Book and Manuscript Library. It counts also as a credit for the minor in Global Medieval Studies.
Not Offered Every Year
Also Offered As: ENGL 1295
1 Course Unit

ITAL 1930 Fascist Cinemas
Cinema played a crucial role in the cultural life of Nazi Germany and other fascist states. As cinema enthusiasts, Goebbels and Hitler were among the first to realize the important ideological potential of film as a mass medium and saw to it that Germany remained a cinema powerhouse producing more than 1000 films during the Nazi era. In Italy, Mussolini, too, declared cinema "the strongest weapon." This course explores the world of "fascist" cinemas ranging from infamous propaganda pieces such as The Triumph of the Will to popular entertainments such as musicals and melodramas. It examines the strange and mutually defining kinship between fascism more broadly and film. We will consider what elements mobilize and connect the film industries of the Axis Powers: style, genre, the aestheticization of politics, the creation of racialized others. More than seventy years later, fascist cinemas challenge us to grapple with issues of more subtle ideological insinuation than we might think. Weekly screenings with subtitles.
Not Offered Every Year
Also Offered As: CIMS 1070, COML 1071, GRMN 1070
1 Course Unit

ITAL 1982 Film Sound and Film Music
Please check the website for a current course description at: http://www.sas.upenn.edu/italians/courses
Fall or Spring
Also Offered As: MUSC 1810
1 Course Unit

ITAL 2200 Florence in History
Florence is justly famous for its art and learning, especially during the era of the Renaissance. It was also one of the most literate states in Europe during this era; thanks to the city's 3 abundant records, it is one of the best-studied cities in Europe from the later Middle Ages through the early modern era. Our course readings present a mix of major primary sources, synthetic summaries, and important modern scholarship. Most of our class time will focus on the information and issues they raise.
Fall or Spring
Also Offered As: HIST 2200
1 Course Unit

ITAL 2201 The City of Rome: From Constantine to the Borgias
The great city of Rome outlived its empire and its emperors. What happened to the Eternal City after "the fall of the Roman Empire in the West?" In this course, we will follow the story of this great city, its people, its buildings old and new, and its legacy across Italy, Europe, and beyond. Rome rebuilt and reshaped itself through the Middle Ages: home for popes, destination for pilgrims, power broker for Italy. It became a great Renaissance and early modern city, a center of art and architecture, of religion, and of politics. We will be reading a mix of primary sources and modern scholarship. All required texts are in English, though students who take this course for Italian Studies credit may choose to read some works in Italian.
Fall or Spring
Also Offered As: HIST 2201
1 Course Unit
ITAL 2204 Food and Diet in Early Europe: Farm to Table in the Renaissance

What did medieval and Renaissance Europeans choose to eat? What did they have to eat? Before the age of mass transportation, was all food locally sourced? In an era when most medicines were plant-based, what did it mean to eat a balanced diet? “Feed a cold, starve a fever.” Why?

In this course we will examine food, foodways, and diet in European culture, thought, and society with a focus on the later Middle Ages and Renaissance, and with a mix of primary sources and modern scholarship on food, cuisine, religion, and diet.

Fall or Spring
Also Offered As: HIST 2204
1 Course Unit

ITAL 2210 Intensive Italian, Culture, and Conversation - Penn in Florence

This course, taught in Italian, has been designed to enhance the students’ reading, speaking, and listening abilities in Italian and to enrich their knowledge of Italian culture. Aspects of contemporary culture, civilization, and current events will be explored through the discussion of articles, short stories, selections from novels, movies, and documentaries. Students will have the opportunity to practice the language in context and use a variety of formats, including debates, role plays, scene analysis, and quote or text interpretation. The course requires students to explore the city and its cultural landscape, starting with group forays and proceeding through meetings and interviews.

Summer Term
1 Course Unit

ITAL 2500 Cultura E Letteratura

Please check the website for a current course description at: http://www.sas.upenn.edu/italians/courses

Fall or Spring
Also Offered As: CIMS 2500
1 Course Unit

ITAL 2510 Black Italy: Transnational Identities and Narratives in Afro-Italian Literature

This course focuses on how the migration movements to Italy, mainly from the Maghreb and the Horn of Africa in the ‘80s and ‘90s contributed to change Italy’s status and image. From a country of emigration to other parts of the world, Italy became - as many historians, geographers, and scholars have observed - an immigration site, playing a pivotal role in the African diaspora. In the shadow of Italy’s colonialist heritage (a past that Italy still has not fully confronted), these phenomena of mass migration challenge, complicate, and develop the notion of Italian-ness and undermine the fixity of an Italian identity in favor of multicultural and transnational identities. This course focuses on several Black Italian artists, writers, filmmakers, and activists of Somali, Eritrean, Ethiopian, and Egyptian origins (e.g. migrants or children of immigrants who were born or raised in Italy and children of mixed-race unions) who contribute to broaden the definition of Italian-ness and to challenge its racial, social, and cultural boundaries. Students will analyze short stories, novels, documentaries, songs, blogs, journal articles by Igiaba Scego, Cristina Ali Farah, Gabriella Ghermandi, Medhin Paolos, Fred Kudjo Kuwornu, Amir Issaa, Amara Lakhous, Pap Khouma, and Kaha Mohamed Aden, among others. They describe their multicultural identities, their senses of belonging, their feelings for the place that is depriving them of foundational rights (such as citizenship or a legal status), their nostalgia for their homeland or the countries where their parents were born, their fights to find or create a social and literal space where being recognized not as foreigners or worse as "clandestini." Their works offer an original, complex, and multilayered depiction of contemporary Italy and its social and cultural changes, where the African community is becoming larger and better represented. Some questions this course will ask include: what are the historical and geographical components of blackness in Italy? How, if at all, have these phenomena of migration changed Italian identity? How do black Italians live within the context of anti-blackness? How do these Italian writers and artists relate to African American histories and experiences of diaspora? How can African Italian literature contribute to a deeper understanding of the Black diaspora in Europe and elsewhere? The course will pursue answers to these questions by exploring issues of race, color, gender, class, nationality, identity, citizenship, social justice in post-colonial Italy while drawing on related disciplines such as Geography, Mediterranean Studies, Diaspora Studies, Post-Colonialism, and Media and Cultural Studies. Course taught in English. Course Material in English.

Not Offered Every Year
Also Offered As: COML 2084, ENGL 1296
1 Course Unit

ITAL 2512 Introduction to Italian Cinema

Topics vary. Please check the department’s website for a current course description at: http://www.sas.upenn.edu/italians/courses

Fall or Spring
Also Offered As: CIMS 2512, GSWS 2512
1 Course Unit
ITAL 2520 Contemporary Italy: Pop Culture, Politics, and Peninsular Identity  
Is the land of good food, beautiful landscapes, and la bella vita really how it looks in the movies? Where do our ideas about Italy come from and how do they compare to the realities of its cultural production and its contemporary day-to-day life? This cultural survey course on contemporary Italy will investigate the similarities and divergences of these perceptions by researching current social, political, and media trends and putting them face to face with our preconceived notions. The course will cover major cultural trends from fashion and food trends, to eco-Italy, criminality and the Anthropocene, to immigration, to Black and LGBTQ Italia, to contemporary transfeminism, to Berlusconismo and Populism, to Netflix Italia and Social media culture. Through written assignments both in and outside the classroom, oral presentations, and multimedia projects we will critically reflect on these contemporary issues and gain a stronger understanding of the socio-cultural specificity of the Italian cultural landscape and its relationship to contemporary global socio-political trends and identities.
Not Offered Every Year  
Also Offered As: COML 2520  
1 Course Unit

ITAL 2522 Modern Italian Culture  
Please check the website for a current course description at: http://www.sas.upenn.edu/italians/courses  
Not Offered Every Year  
Also Offered As: CIMS 2522, GSWS 2522  
1 Course Unit

ITAL 2525 Florence Throughout the Centuries  
The course explores the historical, social, and cultural history of Florence across the centuries. Florence, which has been one of the largest and most powerful city-states since the Middle Ages, has undergone different changes that have significantly shaped both the character and the urban texture of the city. Cradle of the Renaissance, culinary and fashion hub, a political laboratory, Florence has lived many lives that will be discussed in the course, also offering comparisons with other Italian and Mediterranean realities. Readings by authors, philosophers, architects, and artists will be complemented by field trips, excursions, and tours of Florence’s most iconic sites and monuments. Trips to other Tuscan cities (Siena, S. Gimignano, Arezzo, Cortona) will be part of the course.
Summer Term  
1 Course Unit

ITAL 2540 Titian and Venetian Painting  
This lecture course examines the art and architecture of the Venetian Republic, with emphasis on the work of the renowned painter, Titian.  
Not Offered Every Year  
Also Offered As: ARTH 2540  
1 Course Unit

ITAL 2541 Caravaggio  
This lecture course explores the artistic culture of Baroque Rome, with focus on the life and career of Caravaggio.  
Not Offered Every Year  
Also Offered As: ARTH 2541, ENGL 2541  
1 Course Unit

ITAL 2550 Michelangelo and the Art of the Italian Renaissance  
An introduction to the work of the Renaissance artist Michelangelo (1475-1564)-his sculptures, paintings, architecture, poetry, and artistic theory-in relation to his patrons, predecessors, and contemporaries, above all Leonardo and Raphael. Topics include artistic creativity and license, religious devotion, the revival of antiquity, observation of nature, art as problem-solving, the public reception and function of artworks, debates about style, artistic rivalry, and traveling artists. Rather than taking the form of a survey, this course selects works as paradigmatic case studies, and will analyze contemporary attitudes toward art of this period through study of primary sources.
Not Offered Every Year  
Also Offered As: ARTH 2550  
Mutually Exclusive: ARTH 6500, ITAL 6500  
1 Course Unit

ITAL 2600 Italian Theater  
Please check the website for a current course description at: http://www.sas.upenn.edu/italians/courses  
Not Offered Every Year  
Also Offered As: CIMS 2600  
1 Course Unit

ITAL 2950 Palermo: Urban Migration, the Built Environment, and Global Justice  
This City Seminar sponsored by Penn’s Humanities+Urbanism+Design initiative explores Palermo, Italy, its migrant communities, built environment, and related questions of justice. In the first half of the semester, we will survey Palermo’s long history as one of the most “conquered” cities in the world, tracing different empires and peoples’ impacts on the city, its social life and built environment, to its recent history as a “sanctuary city” and center of diverse communities from Africa, Asia, and Europe. The class will travel to Palermo during the week of fall break, documenting the built environments of historic and contemporary immigrant neighborhoods, and meeting with leaders of city government, immigrant rights movements, and migrant community associations. Assisted by “cultural mediators” from various communities, students will produce case studies of different migrant communities, their civil society organizations, and the recent impacts they have had on the city and its built environment. Leaders of Palermo’s elected migrants’ city council, the Consulta delle Culture, will be our partners in this class and its engagement with migrant communities. During the second half of the semester, we will continue to explore contemporary topics related to migration, the built environment, and social justice in the city while students work to develop their case studies, which we will publish at the end of the semester on a web site that we build together.  
Also Offered As: URBS 2950  
1 Course Unit
ITAL 3030 Queer Cinema
Queer Cinema, in Theory. This course explores the role of cinema in shaping the history of gender and sexuality, at the same time introducing students to some of the most relevant texts in the field of queer, gender and trans studies. While the last decades have been characterized by increasing acceptance of gays, lesbians and trans people into mainstream society, this process has no doubt reproduced new inequalities and asymmetries — in terms of race, class, and gender presentation. Does “queer” still pose a threat to the mainstream or is it now part of the “normal”? Should one welcome the progressive acceptance or queer lives within the mainstream or should one reject it in the name of an indissoluble difference? How do whiteness and homonormativity participate in the structural marginalization of black and trans people? Some of the topics addressed by this course are the “closet” in classical Hollywood cinema and its critique in 1990s queer films such as Happy Together (Wong Kar-wai, 1997); the intersection of sexuality and race in black feminist films such as Born in Flames (Lizzie Borden, 1983) and Watermelon Woman (Cheryl Dunye, 1996); the treatment of reproductive labor in experimental feminist films such as Jeanne Dielmann (Chantal Akerman, 1975); the representation of the AIDS crisis in new queer films such as The Living End (Gregg Araki, 1992); sex reassignment politics in 2000s Iranian films such as Sex My Life (Bahman Motomedian).
Not Offered Every Year
Also Offered As: CIMS 3030, GSWS 3020
1 Course Unit

ITAL 3050 Rome in Cinema: Representations of The Eternal City
In this course we will look at the different ways in which Rome's cityscape has been represented in 20th and 21st century Italian and American cinemas, intersecting with historical events such as the rise of Italian fascism, WWII, the 1960s economic boom, as well as the political impact of the current migratory crisis in the Mediterranean Sea. Why is Rome often referred to as "The Eternal City"? In what ways has the myth of Rome's eternity been politically exploited throughout Italy's modern history? Students will acquire technical vocabulary to improve their visual interpretation skills, as well as knowledge of some of the most impactful historical and cultural events of last century. Requirements will include readings in cultural and film history, an analytical essay, a research paper, weekly blog posts, and active participation in class discussion. Films may include Roman Holiday (William Wyler, 1953), La Dolce Vita (Federico Fellini, 1960), Accattone (Pier Paolo Pasolini, 1961), The Talented Mr Ripley (Anthony Minghella, 1999), The Great Beauty (Paolo Sorrentino, 2013).
Not Offered Every Year
Also Offered As: CIMS 3050
1 Course Unit

ITAL 3300 Historical Eras and Topics: Earlier Periods
Classes under this number offer a more in-depth look at historical eras and topics or repertories associated with a specific period of music history. Classes will focus on one historical epoch (Medieval, Renaissance, Baroque). The purpose of this course is to give students the opportunity to engage deeply with musical objects, both historically and analytically, as well as to expose them to a range of methodologies with which to study music. Topics include: the Italian and English Renaissance madrigal; Baroque Opera 1600-1750.
Not Offered Every Year
Also Offered As: MUSC 3300
1 Course Unit

ITAL 3328 The Holocaust in Italian Literature and Film
Please check the website for a current course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3328
1 Course Unit

ITAL 3330 Dante's Divine Comedy
In this course we will read the Inferno, the Purgatorio and the Paradiso, focusing on a series of interconnected problems raised by the poem: authority, fiction, history, politics and language. Particular attention will be given to how the Commedia presents itself as Dante's autobiography, and to how the autobiographical narrative serves as a unifying thread for this supremely rich literary text. Supplementary readings will include Virgil's Aeneid and selections from Ovid's Metamorphoses. All readings and written work will be in English. Italian or Italian Studies credit will require reading Italian texts in their original language and writing about their themes in Italian. This course may be taken for graduate credit, but additional work and meetings with the instructor will be required.
Not Offered Every Year
Also Offered As: COML 3330, ENGL 0509
1 Course Unit

ITAL 3335 BFS--Med/Red Dante in English: Creative Responses to the Divine Comedy
A cross-period and in-depth look at Dante's Divine Comedy and the many creative responses it has spawned across the globe and across languages. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 0502, ENGL 0502
1 Course Unit

ITAL 3400 Italian American Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3400, ENGL 2299
1 Course Unit

ITAL 3401 Contemporary Italy
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3401, GSWS 3401
1 Course Unit

ITAL 3402 Italian Film and Media Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3402, GSWS 3402
1 Course Unit

ITAL 3403 Race and Ethnicity in Italy
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3403, GSWS 3403
1 Course Unit

ITAL 3404 Italian Gender Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3404, GSWS 3404
1 Course Unit
ITAL 3405 Italian Fashion
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3405, GSWS 3405
1 Course Unit

ITAL 3406 Italian Visual Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3406, GSWS 3406
1 Course Unit

ITAL 3407 Italian Foods and Cultures
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3407, GSWS 3407
1 Course Unit

ITAL 3408 Italian Literature
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3408, GSWS 3408
1 Course Unit

ITAL 3409 Italian Innovations
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3409
1 Course Unit

ITAL 3410 Italian Renaissance Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3410, GSWS 3410
1 Course Unit

ITAL 3411 Mediterranean Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3411, GSWS 3411
1 Course Unit

ITAL 3412 Italian Performance Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3412, GSWS 3412
1 Course Unit

ITAL 3413 Italian Science and Philosophy
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3413, GSWS 3413
1 Course Unit

ITAL 3414 Italian Material Studies
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3414
1 Course Unit

ITAL 3415 Italian Digital Humanities
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3415
1 Course Unit

ITAL 3416 Boccaccio
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3416
1 Course Unit

ITAL 3417 Machiavelli
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3418 Petrarch
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3419 Italian Music
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3420 ITALIAN HISTORIES
Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3500 Italian Diaspora Studies
Taught in Italian. Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3501 Contemporary Italy
Taught in Italian. Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3502 Italian Film and Media Studies
Taught in Italian. Topics vary. Please check the department's website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3502
1 Course Unit
ITAL 3503 Race and Ethnicity in Italy
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3503
1 Course Unit

ITAL 3504 Italian Gender Studies
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: GSWS 3504
1 Course Unit

ITAL 3505 Italian Fashion
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3505
1 Course Unit

ITAL 3506 Italian Visual Studies
Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: CIMS 3506
1 Course Unit

ITAL 3507 Italian Foods and Cultures
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3508 Italian Literature
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3509 Italian Innovations
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3510 Italian Renaissance Studies
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3511 Mediterranean Studies
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3512 Italian Performance Studies
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: THAR 3512
1 Course Unit

ITAL 3513 Italian Science and Philosophy
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3514 Italian Material Studies
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3515 Italian Digital Humanities
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3516 Boccaccio
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3517 Machiavelli
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3518 Petrarch
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3519 Italian Music
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3520 Italian Histories
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
1 Course Unit

ITAL 3610 Writing About Art Seminar
What does it mean to write about art? What are the historical origins of this undertaking? How does language mediate the intellectual, somatic, and cultural rapport between the viewing self and the physical object? As an initial response to these questions we will examine the writings of the Tuscan artist and critic Giorgio Vasari (1511-1574), the biographer of such renowned artists as Leonardo, Raphael, Donatello, and Michelangelo. We will also read the letters of famous artists from the early modern period, and examine the theoretical forays of artists such as Albrecht DÃ?rer, who attempted to sketch the relationship between the memory and the imagination. Finally, we will look to examples of works of art for how we might read visual images as expressive of theories about what are is and what it can do.
Not Offered Every Year
Also Offered As: ARTH 3510, ENGL 0549, GRMN 1302
1 Course Unit
ITAL 3612 Caravaggio Seminar
This seminar explores the artistic culture of Baroque Rome, with focus on the life and career of Caravaggio. This course is open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: ARTH 3512
1 Course Unit

ITAL 3820 Renaissance Europe
This course will examine the cultural and intellectual movement known as the Renaissance, from its origins in fourteenth-century Italy to its diffusion into the rest of Europe in the sixteenth century. We will trace the great changes in the world of learning and letters, the visual arts, and music, along with those taking place in politics, economics, and social organization. We will be reading primary sources as well as modern works.
Fall or Spring
Also Offered As: HIST 3820
1 Course Unit

ITAL 3830 French & Italian Modern Horror
This course will consider the horror genre within the specific context of two national cinemas: France and Italy. For France, the focus will be almost exclusively on the contemporary period which has been witnessing an unprecedented revival in horror. For Italy, there will be a marked emphasis on the 1960s-1970s, i.e. the Golden Age of Gothic horror and the giallo craze initiated by the likes of Mario Bava and Dario Argento. Various subgenres will be examined: supernatural horror, ghost story, slasher, zombie film, body horror, cannibalism, etc. Issues of ethics, gender, sexuality, violence, spectatorship will be examined through a variety of critical lenses (psychoanalysis, socio-historical and cultural context, aesthetics, politics, gender, etc.).
Fall or Spring
Also Offered As: CIMS 3830, COML 3830, FREN 3830
1 Course Unit

ITAL 3999 Independent Study
Independent research under the supervision of a department faculty member. Research topic is determined in consultation with the supervising faculty member.
Fall or Spring
1 Course Unit

ITAL 4000 Honors Thesis
Honors thesis in Italian Studies. This course is open to undergraduate students.
Fall or Spring
1 Course Unit

ITAL 4999 Independent Study
Independent research under the supervision of a department faculty member. Research topic is determined in consultation with the supervising faculty member.
Fall
1 Course Unit

ITAL 5110 Introduction to Paleography & Book History
Writing and reading are common actions we do every day. Nonetheless they have changed over the centuries, and a fourteenth century manuscript appears to us very different from a Penguin book. The impact of cultural movements such as Humanism, and of historical events, such as the Reformation, reshaped the making of books, and therefore the way of reading them. The course will provide students with an introduction to the history of the book, including elements of paleography, and through direct contact with the subjects of the course: manuscripts and books. Furthermore, a section of the course will focus on digital resources, in order to make students familiar with ongoing projects related to the history of book collections (including the “Philosophical Libraries” and the “Provenance” projects, based at the Scuola Normale Superiore in Pisa and at Penn). The course will be conducted in English; a basic knowledge of Latin is desirable but not required.
Spring
Also Offered As: CLST 7709, COML 5111
1 Course Unit

ITAL 5254 Myth Through Time and in Time Seminar
The textual and physical remains of Greek and Roman culture and belief as ‘myth’ entranced the post-antique European world and its neighbors. Makers, patrons and viewers manipulated those survivals to challenge and speak to a contemporary world. This course focuses on how and why artists and their patrons engaged the mythic and examines the various areas of political and religious life that sought animation through an evocation of narratives from the past. Readings and case studies will examine very late antique through medieval and early modern art. This seminar is open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5254, ARTH 5254, CLST 7407
1 Course Unit

ITAL 5300 Medieval Italian Literature
Medieval Italian society, art, intellectual and political history. Please check the department’s website for the course description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
1 Course Unit

ITAL 5310 Dante’s Commedia I
Please check the department’s website for the course description at: http://www.sas.upenn.edu/italians/graduate/courses Dante Visualizing: Dante Visualizing and Dante Visualized. Dante’s Commedia has inspired art, but at the same time art is present within the Comedy itself, through images, metaphors, descriptions and even more concrete examples. This course aims at discussing these aspects, taking into consideration also the philosophical, political and religious background of these motifs. While analyzing images in and from the Commedia, we will look at illustrations and artistic interpretations, spanning from medieval illuminations and Renaissance printed books (mainly from Van Pelt Library) to contemporary examples, and focusing on artists such as Giotto, Botticelli, Michelangelo, Blake, Dore, and Dali. The course will be taught in English.
Not Offered Every Year
Also Offered As: COML 5310
1 Course Unit

ITAL 5350 Petrarch
Petrarch’s life and work in the context of Italian and European culture and society.
Not Offered Every Year
Also Offered As: COML 5351
1 Course Unit
ITAL 5370 Boccaccio
Boccaccio’s life and work in the context of Italian and European culture and society.
Not Offered Every Year
1 Course Unit

ITAL 5400 Topics: Renaissance Culture
Please see department website for a current course description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
Also Offered As: CLST 7704, COML 5450, PHIL 5150
1 Course Unit

ITAL 5410 Transalpine Tensions: Franco-Italian Rivalries in the Renaissance
In the Middle Ages and Early Modern period, France and the Italian States were bound together by linguistic, economic, political, and religious ties, and intellectual developments never flowed unilaterally from one country to the other. On the contrary, they were transnational phenomena, and French and Italian thinkers and writers conceived of themselves and their work both in relation to and in opposition to one another. This course will consider the most fundamental aspects of Franco-Italian cultural exchange in the medieval and early modern period, with an emphasis on humanism, philosophical and religious debates, political struggles, and the rise of vernacular languages in literary and learned discourse. Authors to be studied include Dante, Petrarch, Boccaccio, Ficino, Pico della Mirandola Castiglione, Bembo, Rabelais, Marguerite de Navarre, Du Bellay, Machiavelli, and Montaigne. In addition to learning the material covered in the course, students will gain expertise in producing professional presentations and research papers, and will also have the opportunity to consult original material from the Kislak Center. This course is open to undergraduates with permission of the instructors. It counts toward the certificate in Global and Medieval Renaissance Studies.
Not Offered Every Year
Also Offered As: COML 5411, FREN 5410
1 Course Unit

ITAL 5550 Digital Humanities
This course examines the literary and social resonances of mural arts in medieval and Early Modern Italy. We will investigate emerging artistic conventions alongside textual moments that employ ekphrastic descriptions of mural art as a point of departure for larger commentaries on the role of gender, social hierarchies, the labor of the author and the artist, and civic justice. How did mural arts in medieval and early modern Italy shape viewers’ understanding of justice, society, and city life and their role within it? How did Italian authors appropriate artistic conventions, through text, in order to intervene in public discourse on sociopolitical concerns? Through a comparison of images and texts, we will explore the ways in which Italian writers and artists visualized justice, critiqued dominant social hierarchies, and renegotiated gendered spaces in their literary and artistic works. Alongside viewing works of art, course readings will explore literary representations of mural arts, both fictional and real, described ekphrastically in the works of Dante, Boccaccio, Ariosto, and Machiavelli, among others. Select readings from the work of Marguerite de Navarre, Sor Juana Inés de la Cruz, and Classical antecedents will shed light on cross cultural dialogue on the representation of civic life, gender, and justice in the Early Modern period. Primary source readings will be accompanied by selections from contemporary and critical theory on art history, gender, race, and politics. Finally, we will examine contemporary street art and graffiti in Florence to consider the legacy of these early modern tensions in Florentine culture today.
Not Offered Every Year
1 Course Unit

ITAL 5710 Literature and Multilingualism
Since several years, the societal and cultural reality of multilingualism has become an important research field in linguistics and literary studies, as in cultural studies more generally. This graduate course will investigate how multilingual poetics challenge and resist paradigms and ideologies of innate monolingualism, linguistic mastery, absolute translatability and monocultural nationalism. To begin with, the course will introduce central aspects of scholarship on literature and multilingualism, covering concepts such as heteroglossia, code switching, translingualism and macaronic language, and debates such as those on world literature, global English, foreignization, (un)translatability and non-translation, including their political and ethical importance. After a brief historical overview, glancing at western literary multilingualism in the Middle Ages, Romanticism and the avantgarde, the course will mainly focus on literature of the late 20th and 21st centuries taken from Germanic and Romance linguistic contexts. Using an exemplary selection, the course will cover prose, poetry and drama, and include excerpts of texts by authors such as Andrea Camilleri, Gino Chiellino, Fikry El Azzouzi, Ernst Jandl, Jackie Kay, Çağlar Köseoğlu, Monique Mojica, Melinda Nadji Abonji, Emine Sevgi Özdamar, Olivier Rolin, Yoko Tawada, Nicole van Harskamp, and others. Reading these texts, we will try to determine how multilingualism manifests itself (linguistically, discursively, rhetorically, thematically, contextually etc.) and how the texts engage with linguistic, cultural and social pluralities. The course will conclude with a focus on the translator as a central character in fictional prose and movies. Classes will take place in an interactive format that stimulates discussion and exchange. Students will get their respective excerpts – both in the original version and in English translation – one week at a time so that they can prepare themselves each week for the discussion. Theoretical and contextual information will be provided via Power Point presentations.
Not Offered Every Year
Also Offered As: COML 5710, DTCN 5700, FREN 5710, GRMN 5710
1 Course Unit
ITAL 5810 Modern/Contemporary Italian Culture
Please see department website for current description at: http://www.sas.upenn.edu/italians/graduate/courses
Fall or Spring
Also Offered As: COML 5810, JWST 5810
1 Course Unit

ITAL 5820 Topics: Literature and Film
Please see department website for a current course description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
Also Offered As: CIMS 5820, COML 5821
1 Course Unit

ITAL 5830 Post-Human Landscapes
Please check the website for a current course description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
1 Course Unit

ITAL 5840 20th-Century Italian Fiction and Film
Please see department website for current course description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
Also Offered As: CIMS 5840
1 Course Unit

ITAL 5850 Italian Thought
What is Italian philosophy? Does Italian philosophy have a peculiar character? Can we speak of "Italian philosophy" if Italy became a unified country only recently, and its history is complex and fragmented? Yet "Italian Thought" and its genealogy are central to today's theoretical debates on concepts such as biopolitics, reproductive labor and "empire" among others. This course will offer a diachronic review of the most important Italian thinkers, highlighting the political vocation of Italian philosophy, and its engagement with history and science, while discussing the modern supporters and opponents of the "Italian Thought" category. Readings might include Dante, Machiavelli, Bruno, Vico, Beccaria, Gramsci, Cavarero and Agamben among others.
Fall or Spring
Also Offered As: CIMS 5850, COML 5850
1 Course Unit

ITAL 5870 Pasolini and Calvino
Please see department website for a current course description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
Also Offered As: CIMS 5870
1 Course Unit

ITAL 5910 Italian Teaching & Learning
This is a year-long course required of all first-year Teaching Assistants in Italian. It is designed to provide new instructors with the necessary practical support to carry out their teaching responsibilities effectively and to build their own portfolio. It will also introduce students to various approaches to foreign language teaching as well as to current issues in second language acquisition.
Two Term Class; Student must enter first term; credit given after both terms are complete
1 Course Unit

ITAL 5940 Theories of Nationalism
You cannot build a wall to stop the free flow of literary and creative ideas. But in constructing narratives of national identity, states have long adopted particular texts as "founding." Very often these texts have been epics or romances designated "medieval," that is, associated with the period in which specific vernaculars or "mother tongues" first emerged. France and Germany, for example, have long fought over who "owns" the Strasbourg oaths, or the Chanson de Roland; new editions of this epic poem, written in French but telling of Frankish (Germanic) warriors, have been produced (on both sides) every time these two countries go to war. In this course we will thus study both a range of "medieval" texts and the ways in which they have been claimed, edited, and disseminated to serve particular nationalist agendas. Particular attention will be paid to the early nineteenth century, and to the 1930s. Delicate issues arise as nations determine what their national epic needs to be. Russia, for example, needs the text known as The Song of Igor to be genuine, since it is the only Russian epic to predate the Mongol invasion. The text was discovered in 1797 and then promptly lost in Moscow's great fire of 1812; suggestions that it might have been a fake have to be handled with care in Putin's Russia. Similarly, discussing putative Mughal (Islamic) elements in so-called "Hindu epics" can also be a delicate matter. Some "uses of the medieval" have been exercised for reactionary and revisionist causes in the USA, but such use is much more extravagant east of Prague. And what, exactly, is the national epic of the USA? What, for that matter, of England? Beowulf has long been celebrated as an English Ur-text, but is set in Denmark, is full of Danes (and has been claimed for Ulster by Seamus Heaney). Malory's Morte Darthur was chosen to provide scenes for the queen's new robing room (following the fire that largely destroyed the Palace of Westminster in 1834), but Queen Victoria found the designs unacceptable: too much popery and adultery. Foundations of literary history still in force today are rooted in nineteenth-century historiography: thus we have The Cambridge History of Italian Literature and The Cambridge History of German Literature, each covering a millennium, even though political entities by the name of Italy and Germany did not exist until the later nineteenth century. What alternative ways of narrating literary history might be found? Itinerary models, which do not observe national boundaries, might be explored, and also the cultural history of watercourses, such as the Rhine, Danube, or Nile. The exact choice of texts to be studied will depend in part on the interests of those who choose to enroll. Faculty with particular regional expertise will be invited to visit specific classes.
Not Offered Every Year
Also Offered As: COML 5904, ENGL 5940
1 Course Unit

ITAL 5990 Teaching and Learning
The course focuses on diverse areas of Foreign Language and Second Language Acquisition research and theories and how they apply to foreign language teaching. Students will familiarize themselves with the major foreign language methodologies and approaches, as well as the ACTFL standards and proficiency guidelines for foreign language learning. Similarly, students will analyze the resources and tools for planning instruction in a second language based on Backward Design and the Universal Design for Learning. Furthermore, students will research and discuss the most effective ways to promote diversity, inclusivity, and equity; enhance learning experiences and outcomes through technology; foster engagement and active learning; and build a sense of community in the foreign language classroom.
Fall
Also Offered As: FREN 5990, GRMN 5990
1 Course Unit
ITAL 6010 Italian Literary Theory
Please see department website for current description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
Also Offered As: COML 6010
1 Course Unit

ITAL 6050 Modern Literary Theory and Criticism
This course will provide an overview of major European thinkers in critical theory of the 20th and 21st centuries. We will pay particular attention to critical currents that originated in Eastern European avant-garde and early socialist contexts and their legacies and successors. Topics covered will include: Russian Formalism and its successors in Structuralism and Deconstruction (Shklovsky, Levi-Strauss, Jakobson, Derrida); Bakhtin and his circle, dialogism and its later western reception; debates over aesthetics and politics of the 1930s (Lukacs, Brecht, Adorno, Benjamin, Radek, Clement Greenberg), the October group; Marxism, new Left criticism, and later lefts (Althusser, Williams, Eagleton, Jameson, Zizek). Fall or Spring
Also Offered As: COML 6050, ENGL 6050, ENGL 7905, FREN 6050, GRMN 6050, REES 6435
1 Course Unit

ITAL 6381 Troubadours at the Center
'Troubadour' is a term whose meaning has evolved from the eleventh century to our day. In the Middle Ages, a Troubadour was a singer-songwriter (male or female) who composed in a language called Occitan, the language spoken in northern Italy, across southern France, and into today's Catalonia. Medieval works in this language include epic poetry, didactic texts, lengthy romances, and love poetry. Renowned and imitated throughout medieval Europe – by authors from today's Italy, Austria, Germany, France, Spain, and Portugal – the Occitan literary heritage cannot be ignored. Though sometimes presented as a dead language, Occitan is very much alive, and one purpose of this course is to introduce students to it and to its broad importance in European literary history. This course will present the literary and cultural history of the Occitan region, writ large, from the Middle Ages to the modern day. By the end of the course, students will be able to read Occitan with the aid of a dictionary; they will understand the culture of the French Midi as distinct from that of France; they will know something of the distinctive cultural elements of Occitania. They will also have a profound knowledge of at least one Occitan author, medieval, modern, or contemporary. The course will be taught in English. In addition to learning the material covered in the course, students will gain expertise in producing professional presentations and research papers.
Also Offered As: COML 6381, FREN 6381, GRMN 6381
1 Course Unit

ITAL 6500 Michelangelo and the Art of the Italian Renaissance
An introduction to the work of the Renaissance artist Michelangelo (1475-1564) - his sculptures, paintings, architecture, poetry, and artistic theory - in relation to his patrons, predecessors, and contemporaries, above all Leonardo and Raphael. Topics include artistic creativity and license, religious devotion, the revival of antiquity, observation of nature, art as problem-solving, the public reception and function of artworks, debates about style, artistic rivalry, and traveling artists. Rather than taking the form of a survey, this course selects works as paradigmatic case studies, and will analyze contemporary attitudes toward art of this period through study of primary sources.
Not Offered Every Year
Also Offered As: ARTH 6500
Mutually Exclusive: ARTH 2500, ITAL 2550
1 Course Unit

ITAL 6540 Titian and Venetian Painting
This lecture course examines the art and architecture of the Venetian Republic, with emphasis on the work of the renowned painter, Titian. Not Offered Every Year
Also Offered As: ARTH 6540
1 Course Unit

ITAL 6541 Caravaggio
This lecture course explores the artistic culture of Baroque Rome, with focus on the life and career of Caravaggio. Not Offered Every Year
Also Offered As: ARTH 6541
1 Course Unit

ITAL 7320 Studies in Baroque Music
Seminar on selected topics in the music of the Baroque period. The seminar explores musical genres (madrigal, opera, cantata, etc.) using poetic texts in Italian (primarily), French, and German, which circulated mainly in Europe in both private and public settings during the 17th and early 18th centuries. Issues of reception and performance/staging during the 20th and 21st centuries are also investigated. Each instance of the seminar has a focus, e.g.: Monteverdi's madrigals, opera in seventeenth-century Venice and Paris, Guarini and Marino in music, histories of the madrigal, Petrarchism and music, the "Baroque" in theory and practice, Handel's operas, staging Baroque opera today, historically informed performance practice, etc. Please see department website https://music.sas.upenn.edu/course-list/ for current term course descriptions.
Not Offered Every Year
Also Offered As: MUSC 7320
1 Course Unit

ITAL 7770 Francophone, Italian and Germanic Proseminar
This proseminar will introduce first-year FIGS graduate students to doctoral studies in the humanities. It is organized into four parts. Part I, "Scholarly Habits and Resources," introduces students to a variety of resources at Penn, discusses the scholarly habits that graduate students should develop, and covers strategies for promoting mental and physical well-being as a graduate student. Part II, "Intervening in the Field," introduces students to the processes of conference participation and article publication. Part III, "The Dissertation," covers the ins-and-outs of writing the dissertation. Part IV, "Awards, Networking, and Jobs," addresses the importance of awards and networking as well as the academic and non-academic job markets. While DEI issues are constantly addressed throughout the course, also in the form of assignments, there are also bridge sessions to other courses, especially on pedagogy and recent research trends. In addition to weekly discussions and activities, this course will include a number of guest speakers who will share their expertise and give guidance on the how-tos of the field. Students will be given pre- as well as post-class activities to reflect on each week's topic and begin to prepare a dossier for later use in their graduate studies. Much of the information in this proseminar becomes particularly relevant during the final years of coursework and your dissertation writing years, but it is important to be introduced to these topics and to begin to think about them now. This course is designed for PhD students in Francophone, Italian, and Germanic Studies. Many of the topics apply to all three fields; however, students will also have the opportunity to work on areas that are specific to their language for certain topics. They will also be able to add to the course materials for future graduate students in FIGS.
Fall
Also Offered As: FREN 7770, GRMN 7770
1 Course Unit
ITAL 8000 Exam Preparation
PhD Exam Preparation
Not Offered Every Year
1 Course Unit

ITAL 9950 Dissertation
Preparation for the dissertation
Fall or Spring
0 Course Units

ITAL 9999 Independent Study
Independent research under the supervision of a department faculty member. Research topic is determined in consultation with the supervising faculty member.
Fall or Spring
1 Course Unit

Japanese (JPAN)

JPAN 0100 Beginning Japanese I
Intended for students who have no Japanese background. All four skills, speaking/listening/writing/reading, are equally emphasized. Hiragana/Katakana (Two sets of Japanese syllabic letters) and some Chinese characters (Kanji) are introduced. Textbooks: Genki I (Lesson 1- Lesson 7). Kanji: reproduction-approx.70/recognition-approx.110
Fall
1 Course Unit

JPAN 0103 Spoken Japanese I
Intended for students who have no Japanese background. The major emphasis is on oral communication skills, although some reading and writing instructions are given. Japanese pop-culture will also be incorporated.
Fall
1 Course Unit

JPAN 0105 Spoken Japanese II
Although some reading/writing instruction is given, the major emphasis is on oral communication skill.
Spring
Prerequisite: JPAN 0103
1 Course Unit

JPAN 0200 Beginning Japanese II
A continuation of Beginning Japanese I, this course continues the introduction of the Japanese language. All four skills, speaking/listening/writing/reading, are equally emphasized. Hiragana/Katakana (Two sets of Japanese syllabic letters) and some Chinese characters (Kanji) are introduced. Textbooks: Genki I (Lesson 8- Lesson 12) and Genki II (Lesson 13- Lesson 14) Kanji: reproduction-approx. 170/recognition-approx.250
Spring
Prerequisite: JPAN 0100
1 Course Unit

JPAN 0210 Intensive Beginning Japanese I & II
A continuation of Intensive Beginning Japanese, this class is equivalent to JPAN0300 Intermediate Japanese I and JPAN0400 intermediate Japanese II in one semester, 2 CU, and completes the College language requirement. Textbooks: Genki II and Tobira: Gateway to Advanced Japanese (Unit 1-Unit 3) Kanji: Approximately 140 new Kanji will be introduced. Overall Kanji knowledge will be about approx. 400.
Spring
Prerequisite: JPAN 0100 or JPAN 0210
1 Course Unit

JPAN 0300 Intermediate Japanese I
This course is a continuation of Beginning Japanese II and focuses on the development of the elementary grammatical structures of the Japanese language through aural-oral practices. The course also aims to develop the four basic skills: listening, speaking, reading, and writing. The course also introduces aspects of Japanese culture and customs, knowledge that is necessary for behaving in a socio-culturally appropriate manner. Students will learn and practice skills to communicate in situations they might face in real life. Example topics and functions are travel, part-time job, work, asking for favors, asking permission, stating your intention/opinion, reporting what you heard, and various speech styles including Keigo (respectful speech). Textbooks: Genki II (Lesson 15- Lesson 21) will be covered, and around 100 new Kanji will be introduced. Overall kanji knowledge will be 286.
Fall
Prerequisite: JPAN 0200 or JPAN 0210
1 Course Unit

JPAN 0400 Intermediate Japanese II
Prerequisites: Completion of Intermediate Japanese I or the equivalent. This course completes the College language requirement. Textbooks: Genki II (Lesson 22- Lesson 23) and Tobira: Gateway to Advanced Japanese (Unit 1-Unit 3) Kanji: Approximately 140 new Kanji will be introduced. Overall Kanji knowledge will be about approx. 400.
Spring
Prerequisite: JPAN 0300
1 Course Unit

JPAN 0410 Intensive Intermediate Japanese I & II
A continuation of Intensive Intermediate Japanese, this course is equivalent to JPAN 0300 Intermediate Japanese I and JPAN 0400 Intermediate Japanese II in one semester, 2 CU, and completes the College language requirement. Textbooks: Genki II and Tobira: Gateway to Advanced Japanese (Unit 1-Unit 2) Kanji: Approximately 140 new Kanji will be introduced. Overall, Kanji knowledge will be about approx. 400.
Spring
Prerequisite: JPAN 0300 or JPAN 0410
2 Course Units

JPAN 0500 High Intermediate Japanese I
A continuation of Japanese language beyond the language requirement. Textbooks: Tobira: Gateway to Advanced Japanese (Unit 4-Unit 8) Kanji: reproduction-approx.400/recognition-approx.550
Fall
Prerequisite: JPAN 0400 or JPAN 0410
1 Course Unit

JPAN 0600 High Intermediate Japanese II
A continuation of Japanese language at the intermediate level. Textbooks: Tobira: Gateway to Advanced Japanese (Unit 9-Unit 15) Kanji: reproduction-approx.470/recognition-approx.650
Spring
Prerequisite: JPAN 0500
1 Course Unit

JPAN 0700 Advanced Japanese I
This course is a continuation of Japanese language at the upper intermediate level, and authentic materials and video clips will be used.
Fall
Prerequisite: JPAN 0600
1 Course Unit
JPAN 0760 Japanese for the Professions I
Fall
Prerequisite: JPAN 0600
1 Course Unit

JPAN 0800 Advanced Japanese II
PREREQUISITES Completion of Advanced Japanese I or the equivalent. Authentic materials and video clips will be used.
Spring
Prerequisite: JPAN 0700
1 Course Unit

JPAN 0860 Japanese for the Professions II
Spring
Prerequisite: JPAN 0760
1 Course Unit

JPAN 1040 Advanced Japanese III
A continuation of Japanese language beyond the intermediate level, and Authentic materials and video clips will be used.
Fall
Mutually Exclusive: JPAN 6040
Prerequisite: JPAN 0800 OR JPAN 0860
1 Course Unit

JPAN 1045 Advanced Japanese IV
A continuation of Japanese language at the advanced level. Authentic materials and video clips will be used.
Spring
Mutually Exclusive: JPAN 6045
Prerequisite: JPAN 1040
1 Course Unit

JPAN 1050 Readings in Classical Japanese I
Readings in classical texts drawn from the Heian, Kamakura, Muromachi, and Edo periods. Introduction to the different styles of classical Japanese, and to classical Japanese as a whole.
Fall
Also Offered As: EALC 3641
1 Course Unit

JPAN 1080 Advanced Japanese for Proficiency I
This course is for students with an advanced background in Japanese, who are interested in taking at least the Level 2 Japanese Proficiency Test. Solid grammar, an extensive vocabulary, and the knowledge of at least 800-900 Chinese characters is required. This course is not continuous with any existing intermediate or advanced-level Japanese course; therefore, your grade from any of those courses does not qualify you to take this class. Eligibility will be determined through an interview and placement test taken in the first meeting. All students who take this course are required to take the Japanese Proficiency Test in December. Since the JLPT is administered in December every year, if you wish to fully prepare for the test, the instructor strongly recommends that you take Advanced Proficiency II in the same calendar year. For example, if you plan to take the test in December, take Advanced Proficiency II the prior spring and take Advanced Proficiency I in the fall. Different from other courses, this full-year course begins in the spring and ends in the fall, because the test is given in December. However, participation in 482 is optional.
Fall
Mutually Exclusive: JPAN 6080
Prerequisite: JPAN 0800 OR JPAN 0860
1 Course Unit

JPAN 1085 Advanced Japanese for Proficiency II
This course is for students with an advanced-low or advanced-mid background in Japanese, aiming to strengthen the four language skills (speaking, reading, writing, and listening) and to deepen their understanding of Japanese culture. The class will use authentic Japanese through media, such as newspapers, television, and articles, regarding Japanese culture and society as well as current news. Students will narrate, describe, and express their opinions with details, examples, and strong reasoning, using sophisticated terms and phrases related such topics.
Spring
Mutually Exclusive: JPAN 6085
1 Course Unit

JPAN 1140 Readings in Advanced Japanese
Readings in advanced literary and journalistic texts written in modern Japanese.
Fall
Mutually Exclusive: JPAN 6140
Prerequisite: JPAN 1045
1 Course Unit

JPAN 1145 Readings Advanced Japanese II
Readings in advanced literary and journalistic texts written in modern Japanese.
Spring
Mutually Exclusive: JPAN 6145
Prerequisite: JPAN 1140
1 Course Unit
In this course, students learn basic techniques and skills in translation through hands-on practices. Depending on the interests of enrolled students, both literary and non-literary texts are drawn from a wide range of fields, including popular culture (e.g. manga, animation, film, game, music, and short story), religion, law, and medicine. As students read papers pertinent to principles and problems of translation from Japanese to English, they acquire practical experience in translation tasks and approaches, learn cultural and communicative differences between Japanese and English, and familiarize themselves with ethics and resources.

Not Offered Every Year
Mutually Exclusive: JPAN 6148
Prerequisite: JPAN 1045
1 Course Unit

JPAN 6040 Advanced Japanese III
A continuation of Japanese language beyond the intermediate level, and Authentic materials and video clips will be used.
Fall
Mutually Exclusive: JPAN 1040
Prerequisite: JPAN 0800 OR JPAN 0860
1 Course Unit

JPAN 6045 Advanced Japanese IV
A continuation of Japanese language at the advanced level. Authentic materials and video clips will be used.
Spring
Mutually Exclusive: JPAN 1045
Prerequisite: JPAN 1040
1 Course Unit

JPAN 6080 Advanced Japanese for Proficiency I
This course is for students with an advanced background in Japanese, who are interested in taking at least the Level 2 Japanese Proficiency Test. Solid grammar, an extensive vocabulary, and the knowledge of at least 800-900 Chinese characters is required. This course is not continuous with any existing intermediate or advanced-level Japanese course; therefore, your grade from any of those courses does not qualify you to take this class. Eligibility will be determined through an interview and placement test taken in the first meeting. All students who take this course are required to take the Japanese Proficiency Test in December. Since the JLPT is administered in December every year, if you wish to fully prepare for the test, the instructor strongly recommends that you take Advanced Proficiency II in the same calendar year. For example, if you plan to take the test in December, take Advanced Proficiency II the prior spring and take Advanced Proficiency I in the fall. Different from other courses, this full-year course begins in the spring and ends in the fall, because the test is given in December. However, participation in 482 is optional.
Fall
Mutually Exclusive: JPAN 1080
Prerequisite: JPAN 0800 OR JPAN 0860
1 Course Unit

JPAN 6085 Advanced Japanese for Proficiency II
This course is for students with an advanced-low or advanced-mid background in Japanese, aiming to strengthen the four language skills (speaking, reading, writing, and listening) and to deepen their understanding of Japanese culture. The class will use authentic Japanese through media, such as newspapers, television, and articles, regarding Japanese culture and society as well as current news. Students will narrate, describe, and express their opinions with details, examples, and strong reasoning, using sophisticated terms and phrases related such topics.
Spring
Mutually Exclusive: JPAN 1085
1 Course Unit

JPAN 6140 Readings in Advanced Japanese
Readings in advanced literary and journalistic texts written in modern Japanese.
Spring
Mutually Exclusive: JPAN 1140
Prerequisite: JPAN 1045
1 Course Unit

JPAN 6145 Readings Advanced Japanese II
Readings in advanced literary and journalistic texts written in modern Japanese.
Not Offered Every Year
Mutually Exclusive: JPAN 1145
Prerequisite: JPAN 1140
1 Course Unit

JPAN 6148 Japanese-English Translation
In this course, students learn basic techniques and skills in translation through hands-on practices. Depending on the interests of enrolled students, both literary and non-literary texts are drawn from a wide range of fields, including popular culture (e.g. manga, animation, film, game, music, and short story), religion, law, and medicine. As students read papers pertinent to principles and problems of translation from Japanese to English, they acquire practical experience in translation tasks and approaches, learn cultural and communicative differences between Japanese and English, and familiarize themselves with ethics and resources.
Not Offered Every Year
Mutually Exclusive: JPAN 1148
Prerequisite: JPAN 1045
1 Course Unit
Jewish Studies Program (JWST)

JWST 0012 Jews and China: Views from Two Perspectives
Jews in China??? Who knew??? The history of the Jews in China, both modern and medieval, is an unexpected and fascinating case of cultural exchange. Even earlier than the 10th century, Jewish trader from India or Persia on the Silk Road, settled in Kaifeng, the capital of the Northern Song Dynasty, and established a Jewish community that lasted through the nineteenth century. In the mid-nineteenth century, Jewish merchants, mainly from Iraq, often via India, arrived in China and played a major role in the building of modern Shanghai. After 1898, Jews from Russia settled in the northern Chinese city of Harbin, first as traders and later as refugees from the Bolshevik Revolution and Russian Civil War. In the first decades of the twentieth century, a few Jews from Poland and Russia visited China as tourists, drawn by a combination of curiosity about the cultural exoticism of a truly foreign culture and an affinity that Polish Jewish socialists and communists felt as these political movements began to emerge in China. During World War II, Shanghai served as a port of refuge for Jews from Central Europe. In this freshman seminar, we will explore how these Jewish traders, travelers, and refugees responded to and represented China in their writings. We will also read works by their Chinese contemporaries and others to see the responses to and perceptions of these Jews. We will ask questions about cultural translation: How do exchanges between languages, religions, and cultures affect the identities of individuals and communities? What commonalities and differences between these people emerge? Not Offered Every Year
Also Offered As: GRMN 0012
1 Course Unit

JWST 0200 Elementary Modern Hebrew I
A continuation of first semester Elementary Modern Hebrew, which assumes basic skills of reading and speaking and the use of the present tense. Open to all students who have completed one semester of Hebrew at Penn with a grade of B- or above and new students with equivalent competency.
Fall or Spring
Also Offered As: HEBR 0100
Prerequisite: HEBR 0150
1 Course Unit

JWST 0250 Elementary Biblical Hebrew II
A continuation of first semester Elementary Modern Hebrew, which assumes basic skills of reading and speaking and the use of the present tense. Open to all students who have completed one semester of Hebrew at Penn with a grade of B- or above and new students with equivalent competency.
Spring
Also Offered As: HEBR 0250
Prerequisite: HEBR 0150
1 Course Unit

JWST 0260 Beginning Yiddish II
In this course, you can continue to develop basic reading, writing and speaking skills. Discover treasures of Yiddish culture: songs, literature, folklore, and films.
Spring
Also Offered As: YDSH 0200
Prerequisite: YDSH 0100
1 Course Unit

JWST 0111 Archaeology & The Bible
Archaeology and the Bible is a chronological survey of the long span of human occupation in the Land of the Bible, known by the names of the modern nation-states and political entities that occupy the area, as well as various short hands such as Levant and Syria-Palestine, from ca. 10,000 BCE, when humans first began to farm and herd animals through the time of the Divided Monarchy of Israel and Judah. While archaeology has moved beyond a primary concern with illuminating the Bible, NELC 155 will investigate the broader import of archaeological discoveries for our understanding of ancient Israel and its neighbors.
Not Offered Every Year
Also Offered As: ANTH 0111, NELC 0100
1 Course Unit

JWST 0160 Beginning Yiddish I
The goal of this course is to help beginning students develop skills in Yiddish conversation, reading and writing. Yiddish is the medium of a millennium of Jewish life. We will frequently have reason to refer to the history and culture of Ashkenazi Jewry in studying the language.
Fall
Also Offered As: YDSH 0100
1 Course Unit

JWST 0170 Elementary Biblical Hebrew I
This course is an introduction to Biblical Hebrew. It assumes no prior knowledge, but students who can begin to acquire a reading knowledge of the Hebrew alphabet before class starts will find it extremely helpful. The course is the 1st of a 4-semester sequence whose purpose is to prepare students to take courses in Bible that demand a familiarity with the original language of the text.
Fall
Also Offered As: NELC 0301
Mutually Exclusive: NELC 5211
1 Course Unit
JWST 0270 Elementary Biblical Hebrew II
A continued introduction to the grammar of Biblical Hebrew, focusing on the verbal system, with an emphasis on developing language skills in handling Biblical texts. A suitable entry point for students who have had some Modern Hebrew.
Spring
Also Offered As: NELC 0302
1 Course Unit

JWST 0300 Intermediate Modern Hebrew III
Development of the skills of reading, writing, and conversing in modern Hebrew on an intermediate level. Open to all students who have completed two semesters of Hebrew at Penn with a grade of B- or above and new students with equivalent competency.
Fall or Spring
Also Offered As: HEBR 0300
1 Course Unit

JWST 0303 Introduction to the Bible: The Old Testament
An introduction to the major themes and ideas of the Hebrew Bible (the Old Testament), with attention to the contributions of archaeology and modern Biblical scholarship, including Biblical criticism and the response to it in Judaism and Christianity. All readings are in English.
Fall
Also Offered As: NELC 0300, RELS 0301
1 Course Unit

JWST 0305 Great Books of Judaism
Since the early medieval period, Jews have been known as "the People of the Book". Yet the books they produced and consumed changed drastically over time and place, spanning a variety of known genres and inventing new ones. These works, in turn, shaped the texts, ideas, and lives of Jews and others for millennia, spawned vast commentary traditions, and inspired new works. This course engages prominent Jewish texts, such as the Hebrew Bible, Rabbinic Literature, the works of major medieval philosophers, pre-modern intellectuals, and modern authors, situating them in their literary, cultural, and social contexts, and examining their later reception.
Fall
Also Offered As: NELC 0305, RELS 0305
1 Course Unit

JWST 0315 Jewish Literature in the Middle Ages in Translation
Course explores the cultural history of Jews in the lands of Islam from the time of Mohammed through the late 17th century (end of Ottoman expansion into Europe) -- in Iraq, the Middle East, al-Andalus and the Ottoman Empire. Primary source documents (in English translation) illuminate minority-majority relations, internal Jewish tensions (e.g., Qaraism), and developments in scriptural exegesis, rabbinic law, philosophy, poetry, polemics, mysticism and liturgy.
Fall or Spring
Also Offered As: COML 0315, NELC 0315, RELS 0315
1 Course Unit

JWST 0320 Modern Hebrew Literature and Film in Translation
This course is designed to introduce students to the rich art of Modern Hebrew and Israeli literature and film. Poetry, short stories, and novel excerpts are taught in translation. The course studies Israeli cinema alongside literature, examining the various facets of this culture that is made of national aspirations and individual passions. The class is meant for all: no previous knowledge of history or the language is required. The topic changes each time the course is offered. Topics include: giants of Israeli literature; the image of the city; childhood; the marginalized voices of Israel; the Holocaust from an Israeli perspective; and fantasy, dreams & madness.
Fall or Spring
Also Offered As: CIMS 0320, COML 0320, NELC 0320
1 Course Unit

JWST 0325 Jewish Mysticism
Survey of expressions of Jewish mysticism from Hebrew Scripture through the 21st century. Topics include rabbinic concerns about mystical speculation, the ascent through the celestial chambers - heikhalot-, the Book of Creation, the relationship of Jewish philosophy and mysticism, techniques of letter permutation, schematization of the Divine Body, the prominence of gender and sexuality in kabalistic thought, the relationship of kabbalah to the practice of the commandments, Zohar, Lurianic kabbalah, Hasidism, New-Age Jewish spirituality and the resurgence of Jewish mysticism in the 20th century. All readings will be in English translation.
Not Offered Every Year
Also Offered As: NELC 0325, RELS 0325
1 Course Unit

JWST 0330 Themes Jewish Tradition: Iberian Conversos: Jew-Christian?
Course topics will vary; they have included The Binding of Isaac, Responses to Catastrophes in Jewish History, Holy Men & Women (Ben-Amos); Rewriting the Bible (Dohrmann); Performing Judaism (Fishman); Jewish Political Thought (Fishman); Jewish Esotericism (Lorberbaum) Democratic culture assumes the democracy of knowledge - the accessibility of knowledge and its transparency. Should this always be the case? What of harmful knowledge? When are secrets necessary? In traditional Jewish thought, approaching the divine has often assumed an aura of danger. Theological knowledge was thought of as restricted. This seminar will explore the "open" and "closed" in theological knowledge, as presented in central texts of the rabbinic tradition: the Mishnah, Maimonides and the Kabbalah. Primary sources will be available in both Hebrew and English.
Fall or Spring
Also Offered As: NELC 0330, RELS 0335
1 Course Unit

JWST 0335 Jewish Humor
In modern American popular culture Jewish humor is considered by Jews and non-Jews as a recognizable and distinct form of humor. Focusing upon folk-humor, in this course we will examine the history of this perception, and study different manifestation of Jewish humor as a particular case study of ethnic in general. Specific topics for analysis will be: humor in the Hebrew Bible, Jewish humor in Europe and in America, JAP and JAM jokes, Jewish tricksters and pranksters, Jewish humor in the Holocaust and Jewish humor in Israel. The term paper will be collecting project of Jewish jokes.
Not Offered Every Year
Also Offered As: COML 0335, NELC 0335
1 Course Unit
JWST 0350 Intermediate Biblical Hebrew I
This course will focus on using the grammar and vocabulary learned at the introductory level to enable students to read Biblical texts independently and take advanced Bible exegesis courses. We will also work on getting comfortable with the standard dictionaries, concordances, and grammars used by scholars of the Bible. We will concentrate on prose this semester, closely reading Ruth, Jonah, and other prose selections. We will begin to translate from English into Biblical Hebrew, and there will also be a unit on the punctuation marks used in the Bible. This is a suitable entry point for students who already have strong Hebrew skills.
Fall
Also Offered As: HEBR 0350
Prerequisite: HEBR 0250
1 Course Unit

JWST 0360 Intermediate Yiddish I
The course will continue the first year’s survey of Yiddish grammar with an additional emphasis on reading Yiddish texts. The course will also develop conversational skills in Yiddish.
Not Offered Every Year
Also Offered As: YDSH 0300
Prerequisite: YDSH 0200
1 Course Unit

JWST 0370 Intermediate Biblical Hebrew I
This course will focus on using the grammar and vocabulary learned at the introductory level to enable students to read Biblical texts independently and take advanced Bible exegesis courses. We will also work on getting comfortable with the standard dictionaries, concordances, and grammars used by scholars of the Bible. We will concentrate on prose this semester, closely reading Ruth, Jonah, and other prose selections. We will begin to translate from English into Biblical Hebrew, and there will also be a unit on the punctuation marks used in the Bible. This is a suitable entry point for students who already have strong Hebrew skills.
Fall
Also Offered As: NELC 0303
1 Course Unit

JWST 0400 Intermediate Modern Hebrew IV
This course constitutes the final semester of Intermediate Modern Hebrew. Hence, one of the main goals of the course is to prepare the students for the proficiency exam in Hebrew. Emphasis will be placed on grammar skills and ability to read literary texts. Open to all students who have completed three semesters of Hebrew at Penn with a grade of B- or above and new students with equivalent competency.
Fall or Spring
Also Offered As: HEBR 0400
1 Course Unit

JWST 0450 Intermediate Biblical Hebrew II
This course is a continuation of the fall semester’s Intermediate Biblical Hebrew I. No one will be admitted into the course who has not taken the fall semester. It will continue to focus on using the grammar and vocabulary learned at the introductory level to enable students to read biblical texts independently and take advanced Bible exegesis courses. We will concentrate this semester on various selections of Biblical poetry, including Exodus 15 and Job 28. We will also continue to translate English prose into Biblical Hebrew.
Spring
Also Offered As: HEBR 0450
Prerequisite: HEBR 0350
1 Course Unit

JWST 0460 Intermediate Yiddish II
Continuation of YDSH 0300. Emphasis on reading texts and conversation.
Not Offered Every Year
Also Offered As: YDSH 0400
Prerequisite: YDSH 0300
1 Course Unit

JWST 0470 Intermediate Biblical Hebrew II
This course is a continuation of the fall semester’s Intermediate Biblical Hebrew I. No one will be admitted into the course who has not taken the fall semester. It will continue to focus on using the grammar and vocabulary learned at the introductory level to enable students to read biblical texts independently and take advanced Bible exegesis courses. We will concentrate this semester on various selections of Biblical poetry, including Exodus 15 and Job 28. We will also continue to translate English prose into Biblical Hebrew.
Spring
Also Offered As: NELC 0304
1 Course Unit

JWST 0550 Readings in Modern Yiddish Literature
This course will survey modern Yiddish literature through readings of Yiddish prose and poetry from the end of the 19th century through the late 20th century. The class will be conducted in both Yiddish and English. Reading knowledge of Yiddish is required, although some texts will be available in English translation. Authors include I.L. Peretz, Isaac Bashevis Singer, Moyshe-Leyb Halpern, and Kadya Molodowsky.
Not Offered Every Year
Also Offered As: YDSH 0550
1 Course Unit

JWST 0625 Israel in the Middle East
This introductory level course will offer an in-depth look at Israeli history and society, and how it relates to the Middle East through varying lenses. We will consider such topics as the rise of Jewish, Palestinian, and Arab nationalisms in the context of changing imperial control over Palestine/Israel (from Ottoman to British), and the emergence of the Middle East in its current borders; Conflict and conflict-resolution in Israel, Palestine, and the Middle East; Israel's Palestinian minority, Jewish immigrants to Israel from the Middle East, food and music culture in Israel, and their connection to the Middle East; or the place of the Middle East in Israeli literature and film. We will use cutting edge research from several disciplines, as well as literature, film, audio, and photographic evidence. Students will leave the class with a firm grasp of Israeli history and society, and will be widely familiar with the different narratives, viewpoints, and complexities concerning Israel and its position in the Middle East. Prior knowledge of Israeli or Middle Eastern history is not required.
Also Offered As: NELC 0625
1 Course Unit
**JWST 1000 Advanced Modern Hebrew: Conversation & Writing**
In this course students are introduced to the vibrant world of contemporary Israeli culture by reading some of the best plays, poems, short stories and journalism published in Israel today. They also watch and analyze some of Israel's most popular films, TV programs, and videos. Themes include Jewish-Arab relations, the founding of the State, family ties and intergenerational conflict, war and society, and the recent dynamic changes in Israel society. Students must have taken four semesters of Hebrew at Penn or permission of instructor. Since the content of this course may change from year to year, students may take it more than once (but only once for credit).

Fall or Spring
Also Offered As: HEBR 1000
1 Course Unit

**JWST 1090 Jewish Films and Literature**
From the 1922 silent film "Hungry Hearts" through the first "talkie," "The Jazz Singer," produced in 1927, and beyond "Schindler's List," Jewish characters have confronted the problems of their Jewishness on the silver screen for a general American audience. Alongside this Hollywood tradition of Jewish film, Yiddish film blossomed from independent producers between 1911 and 1939, and interpreted literary masterpieces, from Shakespeare's "King Lear" to Sholom Aleichem's "Tevye the Dairyman," primarily for an immigrant, urban Jewish audience. In this course, we will study a number of films and their literary sources (in fiction and drama), focusing on English language and Yiddish films within the framework of three dilemmas of interpretation: a) the different ways we "read" literature and film, b) the various ways that the media of fiction, drama, and film "translate" Jewish culture, and c) how these translations of Jewish culture affect and are affected by their implied audience.

Not Offered Every Year
Also Offered As: COML 1090, ENGL 1289, GRMN 1090
1 Course Unit

**JWST 1100 Women in Jewish Literature**
"Jewish woman, who knows your life? In darkness you have come, in darkness do you go." J. L. Gordon (1890). This course will bring into the light the long tradition of women as readers, writers, and subjects in Jewish literature. All texts will be in translation from Yiddish and Hebrew, or in English. Through a variety of genres – devotional literature, memoir, fiction, and poetry – we will study women’s roles and selves, the relations of women and men, and the interaction between Jewish texts and women’s lives. The legacy of women in Yiddish devotional literature will serve as background for our reading of modern Jewish fiction and poetry from the past century. The course is divided into five segments. The first presents a case study of the Matriarchs Rachel and Leah, as they are portrayed in the Hebrew Bible, in rabbinic commentary, in modern prayers, and in modern poems. We then examine a modern novel that recasts the story of Dinah, Leah's daughter. Next we turn to the seventeenth century Glikl of Hamel, the first Jewish woman memoirist. The third segment focuses on devotional literature for and by women. In the fourth segment, we read modern women poets in Yiddish, Hebrew, and English. The course concludes with a fifth segment on fiction written by women in Yiddish, Hebrew, and English.

Not Offered Every Year
Also Offered As: GRMN 1100, GSWS 1100, NELC 0375
1 Course Unit

**JWST 1110 Jewish American Literature**
What makes Jewish American literature Jewish? What makes it American? This course will address these questions about ethnic literature through fiction, poetry, drama, and other writings by Jews in America, from their arrival in 1654 to the present. We will discuss how Jewish identity and ethnicity shape literature and will consider how form and language develop as Jewish writers "immigrate" from Yiddish, Hebrew, and other languages to American English. Our readings, from Jewish American Literature: A Norton Anthology, will include a variety of stellar authors, both famous and less-known, including Isaac Mayer Wise, Emma Lazarus, Isaac Bashevis Singer, Celia Dropkin, Abraham Cahan, Anzia Yezierska, Saul Bellow, Philip Roth, Cynthia Ozick, and Allegra Goodman. Students will come away from this course having explored the ways that Jewish culture intertwines with American culture in literature.

Not Offered Every Year
Also Offered As: COML 1110, GRMN 1110
1 Course Unit

**JWST 1120 Translating Cultures: Literature on and in Translation**
"Languages are not strangers to one another," writes the great critic and translator Walter Benjamin. Yet two people who speak different languages have a difficult time talking to one another, unless they both know a third, common language or can find someone who knows both their languages to translate what they want to say. Without translation, most of us would not be able to read the Bible or Homer, the foundations of Western culture. Americans wouldn’t know much about the cultures of Europe, China, Africa, South America, and the Middle East. And people who live in or come from these places would not know much about American culture. Without translation, Americans would not know much about the diversity of cultures within America. The very fabric of our world depend upon translation between people, between cultures, between texts. With a diverse group of readings—autobiography, fiction, poetry, anthropology, and literary theory—this course will address some fundamental questions about translating language and culture. What does it mean to translate? How do we read a text in translation? What does it mean to live between two languages? Who is a translator? What are the different kinds of literary and cultural translation? What are their principles and theories? Their assumptions and practices? Their effects on and implications for the individual and the society?

Not Offered Every Year
Also Offered As: COML 1120, GRMN 1120
1 Course Unit

**JWST 1130 How to Read the Bible**
The aim of this course is to explore what the Bible means, and why it means such different things to different people. Why do people find different kinds of meaning in the Bible. Who is right in the struggle over its meaning, and how does one go about deciphering that meaning in the first place? Focusing on the book of Genesis, this seminar seeks to help students answer these questions by introducing some of the many ways in which the Bible has been read over the ages. exploring its meaning as understood by ancient Jews and Christians, modern secular scholars, contemporary fiction writers, feminist activists, philosophers and other kinds of interpreter.

Also Offered As: NELC 0365, RELS 1130
1 Course Unit
JWST 1150 American Jewish Experience
This course offers a comprehensive survey of American Jewish history from the colonial period to the present. It will cover the different waves of Jewish immigration to the United States and examine the construction of Jewish political, cultural, and religious life in America. Topics will include: American Judaism, the Jewish labor movement, Jewish politics and popular culture, and the responses of American Jews to the Holocaust and the State of Israel.
Fall or Spring
Also Offered As: HIST 1150, RELS 1150
1 Course Unit

JWST 1200 The Bible in Translation
This course introduces students to one specific Book of the Hebrew Bible. "The Bible in Translation" involves an in-depth reading of a biblical source against the background of contemporary scholarship. Depending on the book under discussion, this may also involve a contextual reading with other biblical books and the textual sources of the ancient Near East. Although no prerequisites are required, this class is a perfect follow-up course to "Intro to the Bible."
Fall or Spring
Also Offered As: NELC 1200, RELS 1200
1 Course Unit

JWST 1261 Topics in Jewish-American Literature
From the 1922 silent film "Hungry Hearts" through the first "talkie," "The Jazz Singer," produced in 1927, and beyond "Schindler's List," Jewish characters have confronted the problems of their Jewishness on the silver screen for a general American audience. Alongside this Hollywood tradition of Jewish film, Yiddish film blossomed from independent producers between 1911 and 1939, and interpreted literary masterpieces, from Shakespeare's "King Lear" to Sholom Aleichem's "Teyve the Dairyman," primarily for an immigrant, urban Jewish audience. In this course, we will study a number of films and their literary sources (in fiction and drama), focusing on English language and Yiddish films within the framework of three dilemmas of interpretation: a) the different ways we "read" literature and film, b) the various ways that the media of fiction, drama, and film "translate" Jewish culture, and c) how these translations of Jewish culture affect and are affected by their implied audience.
Not Offered Every Year
1 Course Unit

JWST 1270 Gender and Religion in Israel
Contemporary Israel is a site not just of religious conflict but of clashing gender norms, bringing together a variety of groups - the secular and the religious, the Orthodox and the non-Orthodox - that are distinguished from each other in part by their understanding of gender and their treatment of women and LGBTQ people. As a way into understanding the interaction of religion and gender more broadly, this course survey various intersections of religion, gender and politics in Israel today, investigating how religion shapes gender relations, and is shaped in turn by gender.
Also Offered As: RELS 1270
1 Course Unit

JWST 1272 Israel: Law, Religion and State
This course aims to explore the role of religion in the political and legal culture of the state of Israel by examining Israel's efforts and vision to be both a Jewish state and a democratic state at the same time. How does the state of Israel manage the challenges and conflicts inherent in such an identity, and what is there to be learned about the relationship between the state and religion by comparing the situation in Israel with the separation of Church and State in the United States? What is the status of gender equity in Israel when it is in apparent conflict with religious considerations? Religious freedom and the rights of people belonging to other religious groups? Students will have the opportunity to learn more about these and other questions as the course examines the political, legal and cultural foundations of Israel's self-identity as a Jewish and democratic state.
Not Offered Every Year
Also Offered As: RELS 1271
1 Course Unit

JWST 1280 Spirituality in Contemporary Israel
This course maps out spiritual and religious life in Israel today, ranging from state-supported orthodox communities to groups that practice alternative forms of spirituality. What role do tradition, custom and ritual practice play in the construction of contemporary Israeli identity? How does the State shape religious and spiritual life? What forms of spiritual life are emerging beyond orthodoxy? The course will explore these and other questions through the examination of various media including newspapers, movies, and online conversations with Israeli religious leaders and important figures in popular culture.
Fall, even numbered years only
Also Offered As: RELS 1280
1 Course Unit

JWST 1300 Jewish Folklore
The Jews are among the few nations and ethnic groups whose oral tradition occurs in literary and religious texts dating back more than two thousand years. This tradition changed and diversified over the years in terms of the migrations of Jews into different countries and the historical, social, and cultural changes that these countries underwent. The course attempts to capture the historical and ethnic diversity of Jewish Folklore in a variety of oral literary forms.
Spring
Also Offered As: COML 1301, NELC 1300
1 Course Unit

JWST 1310 Introduction to Modern Hebrew Literature
The objective of this course is to develop an artistic appreciation for literature through in-depth class discussions and text analysis. Readings are comprised of Israeli poetry and short stories. Students examine how literary language expresses psychological and cultural realms. The course covers topics such as: the short story reinvented, literature and identity, and others. This course is conducted in Hebrew and all readings are in Hebrew. Grading is based primarily on participation and students' literary understanding.
Fall
Also Offered As: COML 1311, NELC 1310
Prerequisite: HEBR 0400
1 Course Unit
JWST 1320 The History of God
This course introduces the history of God as understood by modern scholars of religion. Why do people believe in gods in the first place? How is the God of the Old Testament different from earlier Near Eastern deities, or different from God as represented in the New Testament and the Quran? When and why did people come to question the existence of God, and how has the idea of God changed in the last century in light of experiences like the Holocaust, social movements like feminism, and the rise of new technologies like the Internet? This course will address these questions as it surveys the approaches scholars have developed to comprehend the history of a being who would seem beyond human comprehension.
Not Offered Every Year
Also Offered As: ANCH 1204, RELS 1320
1 Course Unit

JWST 1360 Death and the Afterlife in Ancient Judaism and Christianity
This course surveys the development of concepts about death and the afterlife in Judaism and Christianity, exploring the cultural and socio-historical contexts of the formation of beliefs about heaven and hell, the end of the world, martyrdom, immortality, resurrection, and the problem of evil. Readings cover a broad range of ancient sources, including selections from the Hebrew Bible and New Testament, as well as other Jewish and Christian writings (e.g., “apocrypha,” “pseudepigrapha,” Dead Sea Scrolls, classical rabbinic literature, Church Fathers, “gnostic” and “magical” materials). In the process, this course introduces students to formative eras and ideas in the history of Judaism, Christianity, and Western culture.
Fall or Spring
Also Offered As: RELS 1360
1 Course Unit

JWST 1362 The Making of Modern Israel and Palestine
This course analyzes the making of a modern Jewish state in the land of Israel/Palestine and the role of Zionism, Palestinian nationalism, and global politics in that process. Beginning in 19th-century Europe and the Middle East, we will study the ideas, movements, and people that shaped what has come to be known as the Arab-Israeli conflict. Students will explore the impact of international factors on the struggles that resulted from the Zionist project in Israel/Palestine and Arab reactions to it across three periods: imperialism and world wars (1860s-1940s), cold war (late 1940s-1990), and multi-polarity (1990s-present).
Also Offered As: HIST 1362, PSCI 1141
1 Course Unit

JWST 1400 The Making of Scripture: From Revelation to Canon
The Bible as we know it is the product of a lengthy process of development, elaboration, contest, and debate. Rather than a foregone conclusion, the process by which the texts and traditions within the bible, and the status ascribed to them, was turbulent and uncertain. This course examines that process, examining the Bible, traditions and communities from the Second Temple Period - such as the Dead Sea Scrolls and Community - that rewrote, reconsidered, revised, or rejected now well-recognized figures and stories, and constructed distinct ideas of what was considered scripture and how it should be approached. Even as the bible began to resemble the corpus as we now know it, interpretive strategies rendered it entirely different, such as Hellenistic Allegorizers, working from the platonic tradition, rabbinic readers who had an entirely different set of hermeneutics, early Christians, who offered different strategies for reading the “Old” and “New” Testaments alongside one another (and employing categories like “Old” and “New,” themselves constituting a new attitude and relationship to and between these texts), and lastly early Muslim readers, who embraced many of the stories in the Bible, altered others, and debated the status of these corpses under Islam.
Also Offered As: NELC 1400, RELS 1400
1 Course Unit

JWST 1600 Jews and Judaism in Antiquity
A broad introduction to the history of Jewish civilization from its Biblical beginnings to the Middle Ages, with the main focus on the formative period of classical rabbinic Judaism and on the symbiotic relationship between Judaism, Christianity, and Islam.
Spring
Also Offered As: HIST 1600, NELC 0350, RELS 1600
1 Course Unit

JWST 1605 Muslims, Christians, and Jews in the Middle East: Historical Perspectives
A reading- and discussion-intensive seminar that addresses several recurring questions with regard to the Middle East and North Africa. How have Islam, Judaism, and Christianity influenced each other in these regions historically? How have Jews, Christians, and Muslims fared as religious minorities? To what extent have communal relations been characterized by harmony and cooperation, or by strife and discord, and how have these relations changed in different contexts over time? To what extent and under what circumstances have members of these communities converted, intermarried, formed business alliances, and adapted or developed similar customs? How has the emergence of the modern nation-state system affected communal relations as well as the legal or social status of religious minorities in particular countries? How important has religion been as one variable in social identity (along with sect, ethnicity, class, gender, etc.), and to what extent has religious identity figured into regional conflicts and wars? The focus of the class will be on the modern period (c. 1800-present) although we will read about some relevant trends in the early and middle Islamic periods as well. Students will also pursue individually tailored research to produce final papers. Prior background in Islamic studies and Middle Eastern history is required. Middle Eastern history is required. This class is intended for juniors, seniors, and graduate students.
Fall or Spring
Also Offered As: HIST 0836, NELC 1605, RELS 1605
1 Course Unit
JWST 1610 Medieval and Early Modern Jewry
Exploration of intellectual, social, and cultural developments in Jewish civilization from the rise of Islam in the seventh century to the assault on established conceptions of faith and religious authority in 17th century Europe, that is, from the age of Mohammed to that of Spinoza. Particular attention will be paid to the interaction of Jewish culture with those of Christianity and Islam.
Fall
Also Offered As: HIST 1610, NELC 0355, RELS 1610
1 Course Unit

JWST 1690 Modern Jewish Intellectual and Cultural History
An overview of Jewish intellectual and cultural history from the late 18th century until the present. The course considers the Jewish enlightenment Reform, Conservative and Neo-Orthodox Judaism, Zionist and Jewish Socialist thought, and Jewish thought in the 20th century, particularly in the context of the Holocaust. Readings of primary sources including Mendelsohn, Geiger, Hirsch, Herzl, Achad ha-Am, Baeck, Buber, Kaplan, and others. No previous background is required.
Fall or Spring
Also Offered As: HIST 1690, RELS 1690
1 Course Unit

JWST 1710 Jews in the Modern World
This course offers an intensive survey of the major currents in Jewish culture and society from the late middle ages to the present. Focusing upon the different societies in which Jews have lived, the course explores Jewish responses to the political, socio-economic, and cultural challenges of modernity. Topics to be covered include the political emancipation of Jews, the creation of new religious movements within Judaism, Jewish socialism, Zionism, the Holocaust, and the emergence of new Jewish communities in Israel and the United States. No prior background in Jewish history is expected.
Spring
Also Offered As: HIST 1710, NELC 0360, RELS 1710
1 Course Unit

JWST 1910 The Religious Other
Course explores attitudes toward monotheists of other faiths, and claims made about these “religious Others” in real and imagined encounters between Jews, Christians and Muslims from antiquity to the present. Strategies of “othering” will be analyzed through an exploration of claims about the Other’s body, habits and beliefs, as found in works of scripture, law, theology, polemics, art, literature and reportage. Attention will be paid to myths about the other, inter-group violence, converts, cases of cross-cultural influence, notions of toleration, and perceptions of Others in contemporary life. Primary sources will be provided in English.
Not Offered Every Year
Also Offered As: NELC 1910
1 Course Unit

JWST 2070 Jews, Race and Religion
Contemporary Jewish identity exists at an uneasy cross-section of race, religion and ethnicity. This course aims to expose students to the diversity of Jewish experience through the lenses of race and religion, examining the various ways these categories intersect and complicate each other. How can the study of race and religion help us to understand the present and future of Jewish life? How do Jews figure in the study of race and race relations in North America and Israel? Of what relevance is the category of whiteness for understanding Jewish identity, and what does their association in the U.S. mask about Jews and Jewish life today? And what are the roles of Jews in the continuing struggle for racial justice now underway in the world? This course aims to address these questions in light of a range of intellectual perspectives and disciplinary approaches. It will be built around a series of weekly guest lectures by leading scholars of Jews, race and/or religion, and will include among the questions and topics that it explores opportunities to explore connections among scholarship, personal experience and activism.
Not Offered Every Year
Also Offered As: RELS 2070
1 Course Unit

JWST 2080 20th-Century Literature Seminar
The course explores an aspect of 20th-century literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: CIMS 2080, ENGL 2080
1 Course Unit

JWST 2206 Neighbors and Strangers: Jews and Christians in Premodern Europe
The history of Christians and Jews—and of Judaism and Christianity—is an entangled one. From antiquity the two groups gained understandings of themselves in relation to the other, and that story defined much of the lives of each throughout the Middle Ages and into the modern period. At times this relationship was a hostile one, but it was also a force for creativity and a basic fact of life. This course approaches the history of relations between Christians and Jews in Medieval and Early Modern Europe (ca. 1000-1800), exploring both the bases of hatred and the possibilities of coexistence. We will look at episodes of crusader violence, mass expulsion, and religious polemic alongside exchanges in taverns, shared child-rearing, and sexual encounters. We will examine sources from both Christians and Jews, recovering voices from across this seeming divide, encountering both the ideals imagined by elites and intellectuals, and the messy—and more interesting!—realities of living side-by-side for centuries. Class meetings will involve dedicated discussion of a combination of primary and secondary sources, and assessment will be based on writing assignments.
Also Offered As: HIST 2206
1 Course Unit
JWST 2225 Religious Conflict and Coexistence in Early Modern Europe
Europe's early modern period (roughly 1450-1750) has been described as an "age of religious wars," with the Reformation and contact with the New World prompting the formation of new fault lines, new collectives, and the reshaping of old animosities in new expressions. It was a period of bloody riots between Catholics and Protestants, expulsions of Jews and Muslims, prosecution of heretics, martyrdoms of saints, and inquisitions of witches. But it was also an age of living together, of pragmatism, and of coexistence. This seminar explores the complexities and curiosities of religious intellectual, political, social, and daily life as people across religious lines clashed, cooperated, communicated, and carried-on. We will explore the experiences both of influential thinkers but also ordinary people, and ask how and why people were willing, in the name of religion, to persecute, prosecute, fight, kill, and die, and how others traded and traveled together, defended each other, and even married across religious lines.
Also Offered As: HIST 2205
1 Course Unit

JWST 2440 From Miracles to Mindfulness
In 1902, the most famous philosopher in America, William James, revolutionized the study of religion by analyzing religion as an experience rather than as a set of doctrines or scriptures. In this course, we will pick up the inquiry that James and scholars such as Sigmund Freud began by exploring new approaches to the science and philosophy of religious experience. We will invite a series of experts from a wide range of fields—neuroscience, psychoanalysis, phenomenology, psychology, anthropology, to name only a few—to present their cutting-edge research on the nature of religious experience. How can religious experience be studied? What does the research reveal about religious experience? And what can we learn from such experiences about the workings of the human mind and human society? The course has two components: 1) a discussion-centered mini-seminar from 3:30-5:00 will open consideration of the subject with help from relevant readings 2) a guest lecture series every Tuesday from 5:00-6:30, featuring leading scholars who approach religious experience from different disciplinary angles or in light of different questions.
Also Offered As: RELS 2440
1 Course Unit

JWST 2605 The Jewish Book from Scroll to Screen
Through much of their history, Jews have been known as a "people of the book" and have, often, prided themselves on such an association. The very definition of a book, what books contained, and who might use them are not so easy to define, and their study opens up new ways to think about the Jewish past. Books are perhaps the most important way people share ideas and change minds. But they are also commercial goods, collectors' items, community memories, and cherished heirlooms. This course offers a cultural history of communication and knowledge in Jewish experience through an exploration of the history of the book. It will use primary sources, scholarly articles, and hands-on encounters with books in different shapes and sizes to explore the way people of the past engaged with books both texts and material objects. It will also offer examples of new methods in the study of the book drawn from the digital humanities. Tracing changing conceptions and uses of the book from the ancient world until the present, we will consider the way that books have shaped religion, caused upheaval, and changed over time, even to face their possible obsolescence in our own age.
Also Offered As: HIST 2605
1 Course Unit

JWST 2999 Independent Study
An independent study course culminating in a final written project. Prior approval and sponsorship by a member of the Jewish Studies Program faculty is needed to take the course.
Fall or Spring
1 Course Unit

JWST 3203 Power and Peril: The Paradox of Monarchy among Ancient Greeks, Romans, and Jews
We imagine ancient Greece and Rome as the cradles of democracy and republicanism, early Judea as a pious theocracy, but monarchy was the most common and prevalent form of government in antiquity (and the premodern world in general). In this class, we will take a special look at kinship among the Jews, Greeks, and Romans to assess and discuss similarities, differences, and mutual influences. In all these cultures, the king was a polarizing figure in reality and in conception. On the one hand, some revered the monarch as ideal leader; and monarchy provided the language with which to describe and even imagine the very gods. On the other, monarchs were widely reviled in both theory and practice, from the Greek tyrants to biblical Saul. The Emperor Augustus loudly denied his own affinity to the office of king, even as he ruled alone and was revered as a god. In other words, kings stood both for the ideal and the worst form of government. This class confronts the paradox of monarchical rule and will, through the lens of the king, explore ideas of god, government, human frailty, and utopianism.
Not Offered Every Year
Also Offered As: ANCH 3203, CLST 3203, RELS 3203
1 Course Unit

JWST 3206 Jewish Diaspora in the Roman Empire
Under the Roman Empire, Jewish communities developed and flourished especially in the cities of the Eastern Mediterranean, in Egypt, Syria, Asia Minor, Greece, Northern Africa, and Italy proper. In many of these cities, the Jews formed a considerable part of the population; they influenced the cultural, social, and political communal life and developed an identity that was distinctively different from that in Judea. In this seminar, we will trace Jewish life in the Diaspora under Roman rule. How did Jews and non-Jews interact? What was the legal status of Jewish communities under the Roman Empire? What caused conflicts and how were they solved? What can the history of Jewish Diaspora communities tell us about minorities in the Roman Empire in general? We will use literary texts, inscriptions, papyri, and archaeological material to answer these questions and many more.
Also Offered As: ANCH 3206, CLST 3206
1 Course Unit
JWST 3300 Jewish Magic
The Hebrew Bible legislates against magic and witchcraft. But Jewish literature is replete with demons, witches, spells and incantations. This course will examine the phenomenon of Jewish magic in the longue durée. We will explore a wide array of sources describing ancient Jewish magical practices, and attempt to reconstruct the various aspects of ancient Jewish magic. We will start with demonology and exorcism in biblical and Second Temple literature. Then we will examine rabbinic attitudes towards magic and sorcery and rabbinic magical recipes. We then turn to material artifacts: late antique Jewish amulets and magic bowls. Finally we will survey the large corpus of magical texts from the Cairo Geniza and Hebrew manuscripts of magic from the middle ages. During the course we will consider broader questions such as the relationships between magic and religion, the identity of the Jewish magicians and their clients, relationship between Jewish and contemporary non-Jewish magic, and the role of women in magical practice.
Also Offered As: NELC 3300
1 Course Unit

JWST 3704 Re-reading the Holocaust
This course explores how the Holocaust has been constructed as an historical event. Beginning in the mid-1940s, with the first attempts to narrate what had transpired during the Nazi era, this seminar traces the ways that the Holocaust became codified as a distinct episode in history. Taking a chronological approach, the course follows the evolution of historical and popular ideas about the Holocaust and considers the different perspectives presented by a variety of sources. We will examine documentary films, memoirs, survivor testimonies, as well as other scholarly and popular representations of the Holocaust. Students will be introduced to unfamiliar sources and also asked to reconceptualize some well-known Holocaust documents and institutions.
Fall or Spring
Also Offered As: HIST 3704
1 Course Unit

JWST 3705 Jews and the City
Jews have always been an extraordinarily urban people. This seminar explores various aspects of the Jewish encounter with the city, examining the ways that Jewish culture has been shaped by and has helped to shape urban culture. We will examine European and American cities as well as some in Palestine/Israel, covering an expansive view of urban culture. We will consider Jewish involvement in political and cultural life, the various neighborhoods in which Jews have lived, relations with other ethnic groups, as well as many other topics. We will read some classic works in the field along with contemporary scholarship. No prior background in Jewish history is required. *This course may be applied toward the US, European, or Middle East requirements for the History Major or Minor, depending upon the research paper topic. Students must consult with the instructor to determine which geographic requirement will be fulfilled.*
Fall or Spring
Also Offered As: HIST 3705, URBS 3705
1 Course Unit

JWST 3900 Senior Research Seminar
JWST 390 is required of all students majoring in the Interdisciplinary Jewish Studies major, but all majors and minors in the various departmental programs are encouraged to take the seminar. Students will conduct independent research and complete a 20-30 page paper.
Spring
1 Course Unit

JWST 3999 Senior Honors Thesis
Jewish Studies Honors majors must take JWST 399 in which they will design, with the guidance of an advisor, an individualized directed reading program culminating in the writing of an honors thesis.
Fall or Spring
1 Course Unit

JWST 4000 Rabbinic Writers on Rabbinic Culture
This course traces reflections on rabbinic culture produced within Jewish legal literature of the classic rabbinic period - - Midrash, Mishna, and Talmud - - and in later juridical genres - - Talmudic commentary, codes and responses. Attention will be paid to the mechanics of different genres, the role of the underlying proof text, the inclusion or exclusion of variant opinions, the presence of non-legal information, the balance between precedent and innovation. Reading knowledge of Hebrew is required.
Not Offered Every Year
Also Offered As: HEBR 4000, RELS 4300
1 Course Unit

JWST 4130 Creating a Constitution in Israel
Why does the State of Israel not have a constitution? If it ever establishes a constitution, what will it consist of? How would it impact contemporary Israeli politics if it voted to accept one? The aim of this course, offered in conjunction with Penn’s law school, is to explore the attempt to write a constitution for Israel in light of readings and the instructor’s personal experience as a member of Israeli parliament (the Knesset) and chair of its Constitution, Law and Justice Committee at the time that it drafted a full Israeli constitution. We will explore legal and political issues and controversies involved in the effort to create a constitution, including issues bearing on the relationship of religion and the state in Israel, and will seek to understand the process in light of larger social, historical and philosophical contexts.
Not Offered Every Year
Also Offered As: RELS 4140
1 Course Unit

JWST 4300 Seminar in Modern Hebrew Literature
This course introduces students to selections from the best literary works written in Hebrew over the last hundred years in a relaxed seminar environment. The goal of the course is to develop skills in critical reading of literature in general, and to examine how Hebrew authors grapple with crucial questions of human existence and national identity. Topics include: Hebrew classics and their modern “descendants,” autobiography in poetry and fiction, the conflict between literary generations, and others. Because the content of this course changes from year to year, students may take it for credit more than once. This course is conducted in Hebrew and all readings are in Hebrew. Grading is based primarily on participation and students’ literary understanding.
Spring
Also Offered As: COML 4300, NELC 4300
Mutually Exclusive: NELC 5410
Prerequisite: HEBR 1000
1 Course Unit
JWST 4305 Spirit and Law
While accepting “the yoke of the commandments”, Jewish thinkers from antiquity onward have perennially sought to make the teachings of revelation more meaningful in their own lives. Additional impetus for this quest has come from overtly polemical challenges to the law, such as those leveled by Paul, medieval Aristotelians, Spinoza and Kant. This course explores both the critiques of Jewish Law, and Jewish reflections on the Law’s meaning and purpose, by examining a range of primary sources within their intellectual and historical contexts. Texts (in English translation) include selections from Midrash, Talmud, medieval Jewish philosophy and biblical exegesis, kabbalah, Hasidic homilies, Jewish responses to the Enlightenment, and contemporary attempts to re-value and invent Jewish rituals.
Not Offered Every Year
Also Offered As: COML 5090, GRMN 5090, GSWS 5090, YDSH 5090

JWST 4900 Topics in Jewish History
Reading and discussion course on selected topics in Jewish history.
Fall or Spring
1 Course Unit

JWST 5090 Topics in Yiddish Literature: Modernist Jewish Poetry
One version of this seminar considers works by Jewish women who wrote in Yiddish, Hebrew, English, and other languages in the late 19th through the 20th century. The texts, poetry and prose, will include both belles lettres and popular writings, such as journalism, as well as private works (letters and diaries) and devotional works. The course will attempt to define “Jewish writing,” in terms of language and gender, and will consider each writer in the context of the aesthetic, religious, and national ideologies that prevailed in this period. Because students will come with proficiency in various languages, all primary texts and critical and theoretical materials will be taught in English translation. However, those students who can, will work on the original texts and share with the class their expertise to foster a comparative perspective. Because we will be discussing translated works, a secondary focus of the course will, in fact, be on literary translation’s process and products. Another version of this seminar presents Jewish modernism as an international phenomenon of the early 20th century. The course will attempt to define “Jewish modernism” through the prism of poetry, which inevitably, given the historical events in Europe and America during this time, grapples with aesthetic, religious, and national ideologies and methods. The syllabus will focus mainly on poetry written in Yiddish and English, and will also include German, Russian, and Hebrew verse. All poetry, critical, and theoretical materials will be taught in English translation, although students who know the languages will work on the original texts and will bring to the table a comparative perspective. Because we will be discussing translated poems, a secondary focus of the course will, in fact, be on literary translation’s process and products.
Not Offered Every Year
Also Offered As: COML 5090, GRMN 5090, GSWS 5090, YDSH 5090
1 Course Unit

JWST 5300 Seminar in Rabbinic Literature
Most of the foundational writings of rabbinic Judaism corpora of Midrash, Mishna, and the two Talmuds were in existence by the end of the sixth century CE. Yet, for several centuries thereafter, there is little evidence attesting to the lived nature of rabbinic culture and society. Course will focus on writings by Jews and about Jews, produced between the 7th and 10th centuries, complemented by secondary sources. Texts will include selections from archaeological inscriptions; Midrash; liturgical poetry; Targum; Masora; geonic responsa, writings by Muslims and by Church Fathers. While students must be able to read Hebrew, much class time will be devoted to the improvement of reading and comprehension skills. Undergraduates should seek permission of the instructor.
Spring
Also Offered As: HEBR 6100, NELC 5300
1 Course Unit

JWST 5370 Translating Literature: Theory and Practice
The greats all have something to say about translation. The Hebrew poet H. N. Bialik is attributed with saying that “he who reads the Bible in translation is like a man who kisses his bride through a veil.” That, however, is a misinterpretation: What Bialik really wrote was, “Whoever knows Judaism through translation is like a person who kisses his mother through a handkerchief.” (http://benyehuda.org/bialik/dvarim02.html), a saying that he probably translated and adapted from Russian or German. (https://networks.h-net.org/node/28655/discussions/116448/query-bialik-kissing-bride) Robert Frost wrote, “I could define poetry this way: it is that which is lost out of both prose and verse in translation.” Walter Benjamin defines it: “Translation is a form. To comprehend it as a form, one must go back to the original, for the laws governing the translation lie within the original, contained in the issue of its translatability.” Lawrence Venuti rails against translation that domesticates, rather than foreignizes, thus betraying the foreign text through a contrived familiarity that makes the translator invisible. Emily Wilson wants her translation “to bring out the way I think the original text handles it. [The original text] allows you to see the perspective of the people who are being killed.” (https://bookriot.com/2017/12/04/emily-wilson-translation-the-odyssey/ Is translation erotic? A form of filial love? Incestuous? A mode of communion, or idol worship? Is translation a magician’s vanishing trick? Is translation traitorous, transcendent? Maybe translation is impossible. But let’s try it anyways! In this graduate seminar, we will read key texts on the history and theory of translating literature, and we sample translations from across the centuries of the “classics,” such as the Bible and Homer. We will consider competing translations into English of significant modern literary works from a variety of languages, possibly including, but not limited to German, Yiddish, French, Hebrew, and Russian. These readings will serve to frame each student’s own semester-long translation of a literary work from a language of her or his choice. The seminar offers graduate students with their skills in various language an opportunity to take on a significant translation project within a circle of peers.
Not Offered Every Year
Also Offered As: COML 5370, GRMN 5370
1 Course Unit
JWST 5650 Reading Benjamin Reading Kafka
Readings and discussions in English. Walter Benjamin’s study of the works of Franz Kafka is as enlightening as it can be bewildering. Moving from philology to Marxism, metaphysics to messianism, Daoism to Talmud, this densely argued piece elliptically touches on almost all of Kafka’s published works in just four short sections. This seminar proposes a line-by-line reading Benjamin’s 1934 “Franz Kafka on the Tenth Anniversary of His Death” with an eye to its literary, philosophical and religious contexts as well as to the rich history of its intellectual reception. Reading Kafka’s works as the essay evokes them, we will situate this piece with regard to Benjamin’s other writings, the essay’s interlocutors (Brod, Scholem, Lukacs, Brecht) and its most illustrious interpreters (Adorno, Arendt, Celan, Hamacher).
Not Offered Every Year
Also Offered As: COML 5871, GRMN 5800, PHIL 5389
1 Course Unit

JWST 5800 Topics In Aesthetics
Topic title for Spring 2018: Walter Benjamin. Walter Benjamin (1892-1940) is a philosopher whose writings on art, literature, and politics have had tremendous influence on many disciplines in the Humanities and Social Studies. He has been variously described as one of the leading German-Jewish thinkers, and a secular Marxist theorist. With the publication of a four-volume collection of this works in English, many more of his writings have been made accessible to a wider public. Our seminar will undertake a survey of his work that begins with his studies on language and allegory, and continues with his autobiographical work, his writings on art and literature, and on the imaginary urban spaces of the nineteenth-century.
Not Offered Every Year
Also Offered As: ARTH 5871, COML 5800, GRMN 5800, PHIL 5389
1 Course Unit

JWST 5810 Modern/Contemporary Italian Culture
Please see department website for current description at: http://www.sas.upenn.edu/italians/graduate/courses
Fall or Spring
Also Offered As: COML 5811, ITAL 5810
1 Course Unit

JWST 5811 Topics in Jewish History
Reading and discussion course on selected topics in Jewish history. The instructors are visiting scholars at the Center for Advanced Judaic Studies. Topic and seminar title for Spring 2015: Topics in Jewish Studies: The Origins of Jewish Studies. Course description for Spring 2015: This is a reading course that grants seminar participants access to Katz Center fellows, some of the best scholars in Judaic studies from around the world. The aim of the course is to expose students to these scholars and their work, to get to know them as people, learn from them at high level, and understand their approach to the field. Over the course of the spring semester there will be four 3-session modules. Students will meet with 4 different fellows for 3 sessions each. The weekly 90-minute classes will be held at the Katz Center on Wednesdays from 10:30 am - 12 pm, and participants will be encouraged to then stay for lunch and the fellows’ seminar which runs from 12:30 - 2:30 pm.
Not Offered Every Year
Also Offered As: GRMN 5810
1 Course Unit

JWST 6120 Hannah Arendt: Literature, Philosophy, Politics
The seminar will focus on Arendt’s major work, The Origins of Totalitarianism (and its three parts, Anti-Semitism, Imperialism, Totalitarianism). We will also discuss the reception of this work and consider its relevance today.
Not Offered Every Year
Also Offered As: COML 6120, ENGL 6120, GRMN 6120, PHIL 5439
1 Course Unit

JWST 6200 Studies in Medieval Jewish Culture
Through close reading of primary sources in the original Hebrew, participants in this seminar will explore historical circumstances that engaged and shaped medieval Jews in both Christian and Muslim lands, along with the enduring cultural projects that Jews themselves produced. Topics will include Geonica, Karaism, the encounter of Reason and Revelation; the Christian "Other": the Muslim "Other"; legal codification; the Tosafist project; Rhineland Pietism; Minhag (custom); family life; the aesthetic dimension; Kabbalah; conversos; messianism. Students should be able to comfortably read unpointed Hebrew.
Fall
Also Offered As: HEBR 6200, RELS 6200
1 Course Unit

JWST 6375 Rabbinic Literature: History and Methods
This course is intended as an in-depth survey of research debates, historical-critical methods and resources employed in the study of classical (pre-Geonic) rabbinic literature; in other words, this class offers a robust introduction to the history of the field. The course will introduce students to much (but by no means all) of the fundamental modern scholarship of the 19th-21st centuries, divided into key topics. Spring, even numbered years only
Also Offered As: NELC 6375
1 Course Unit

JWST 6570 Becoming Modern: The German-Jewish Experience
Yuri Slezkine described the twentieth century as a "Jewish Age"—to be modern would essentially mean to be a Jew. In German historical and cultural studies, this linkage has long been made—only in reference to the last years of the German monarchy and the time of the Weimar Republic. Indeed, what has become known as "modern" German culture—reflected in literature, music, and the visual arts and in a multitude of public media—has been more often than not assigned to Jewish authorship or Jewish subjects. But what do authorship and subject mean in this case? Do we locate the German-Jewish experience as the driving force of this new "modernity" or is our understanding of this experience the result of this new "modern" world? Not Offered Every Year
Also Offered As: HEBR 6200, RELS 6200
1 Course Unit

JWST 6999 Independent Study
An independent study course culminating in a final written project. Prior approval and sponsorship by a member of the Jewish Studies Program faculty is needed to take the course.
Fall or Spring
1 Course Unit

JWST 9999 Independent Study
An independent study course culminating in a final written project. Prior approval and sponsorship by a member of the Jewish Studies Program faculty is needed to take the course.
Fall or Spring
1 Course Unit
Kannada (KAND)

KAND 0100 Beginning Kannada I
This is a systematic introduction to the Kannada language and culture for beginners. The course aims at developing listening and comprehension and a real life interactive speaking ability in a variety of everyday topics. The Kannada script is introduced from the beginning and the language is presented in its socio-cultural context for achieving a meaningful and operational control of the language. Students acquire basic rules for structural and socio-cultural appropriateness. Students learn vocabulary related to a variety of topics during the semester. Class activities include watching videos, role-playing, language games and group work. Evaluation is based on class participation, performance in quizzes and tests and completed assignments.
Fall
1 Course Unit

KAND 0200 Beginning Kannada II
This is a systematic introduction to the Kannada language and culture for beginners. The course aims at developing listening and comprehension and a real life interactive speaking ability in a variety of everyday topics. The Kannada script is introduced from the beginning and the language is presented in its socio-cultural context for achieving a meaningful and operational control of the language. Students acquire basic rules for structural and socio-cultural appropriateness. Students learn vocabulary related to a variety of topics during the semester. Class activities include watching videos, role-playing, language games and group work. Evaluation is based on class participation, performance in quizzes and tests and completed assignments.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: KAND 0100
1 Course Unit

KAND 0300 Intermediate Kannada I
This course continues the study of the Kannada language and culture from where the beginners II course ended. The course continues developing listening and comprehension and a real life interactive speaking ability in a variety of everyday topics. The Kannada script is learned in its socio-cultural context for achieving a meaningful and operational control of the language. Students acquire rules for structural and socio-cultural appropriateness. Students learn vocabulary related to a variety of topics during the semester. Class activities include watching videos, role-playing, language games and group work. Evaluation is based on class participation, performance in quizzes and tests and completed assignments.
Fall
Prerequisite: KAND 0200
1 Course Unit

KAND 0400 Intermediate Kannada II
Students continue their study of Intermediate Kannada I, both in language and culture. The course aims at honeing listening and comprehension and a real life interactive speaking ability in a variety of everyday topics. The Kannada script is learned in its socio-cultural context for achieving a meaningful and operational control of the language. Students acquire basic rules for structural and socio-cultural appropriateness. Students learn vocabulary related to a variety of topics during the semester. Class activities include watching videos, role-playing, language games and group work. Evaluation is based on class participation, performance in quizzes and tests and completed assignments.
Spring
Prerequisite: KAND 0300
1 Course Unit

KAND 1500 Advanced Kannada: Selected Topics
Directed topics vary by semester in advanced level Kannada.
Fall or Spring
1 Course Unit

KAND 5100 Beginning Kannada I
This is a systematic introduction to the Kannada language and culture for beginners. The course aims at developing listening and comprehension and a real life interactive speaking ability in a variety of everyday topics. The Kannada script is introduced from the beginning and the language is presented in its socio-cultural context for achieving a meaningful and operational control of the language. Students acquire basic rules for structural and socio-cultural appropriateness. Students learn vocabulary related to a variety of topics during the semester. Class activities include watching videos, role-playing, language games and group work. Evaluation is based on class participation, performance in quizzes and tests and completed assignments.
Fall
1 Course Unit

KAND 5200 Beginning Kannada II
This is a systematic introduction to the Kannada language and culture for beginners. The course aims at developing listening and comprehension and a real life interactive speaking ability in a variety of everyday topics. The Kannada script is introduced from the beginning and the language is presented in its socio-cultural context for achieving a meaningful and operational control of the language. Students acquire basic rules for structural and socio-cultural appropriateness. Students learn vocabulary related to a variety of topics during the semester. Class activities include watching videos, role-playing, language games and group work. Evaluation is based on class participation, performance in quizzes and tests and completed assignments.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit
KAND 5300 Intermediate Kannada I
This course continues the study of the Kannada language and culture from where the beginners II course ended. The course continues developing listening and comprehension and a real life interactive speaking ability in a variety of everyday topics. The Kannada script is learned in its socio-cultural context for achieving a meaningful and operational control of the language. Students acquire rules for structural and socio-cultural appropriateness. Students learn vocabulary related to a variety of topics during the semester. Class activities include watching videos, role-playing, language games and group work. Evaluation is based on class participation, performance in quizzes and tests and completed assignments.
Fall
1 Course Unit

KAND 5400 Intermediate Kannada II
Students continue their study of Intermediate Kannada I, both in language and culture. The course aims at honeing listening and comprehension and a real life interactive speaking ability in a variety of everyday topics. The Kannada script is learned in its socio-cultural context for achieving a meaningful and operational control of the language. Students acquire basic rules for structural and socio-cultural appropriateness. Students learn vocabulary related to a variety of topics during the semester. Class activities include watching videos, role-playing, language games and group work. Evaluation is based on class participation, performance in quizzes and tests and completed assignments.
Spring
1 Course Unit

KAND 5500 Advanced Kannada: Selected Topics
Directed topics vary by semester in advanced level Kannada.
Fall or Spring
1 Course Unit

Korean (KORN)

KORN 0100 Beginning Korean I
This course is designed for students who have little or no knowledge of Korean. This course aims to develop foundational reading, writing, listening, and speaking skills through meaningful communicative activities and tasks. Upon successful completion of this course, students should be able to comprehend and carry on simple daily conversations and create simple sentences in the past, present, and future tenses. Students will learn how to introduce themselves, describe their surroundings, talk about daily lives, friends and relatives, and talk about past and future events.
Fall
1 Course Unit

KORN 0103 Spoken Korean I
This class is for those that have little to no knowledge of Korean. The main focus is the development of Korean communication skills by exploring a variety of everyday topics beyond school settings. Students will improve their Korean communication skills by engaging in a variety of interactive activities, role plays, and presentations. Class topics include, but are not limited to, introducing oneself, describing one's surroundings, discussing daily activities and past events, talking about common objects and people, etc. We will also introduce cultural topics in order to deepen students' understanding of Korea's culture and language. NOTE: This course does not count toward the language requirement or the EALC major or minor. Offered through the Penn Language Center.
Fall
1 Course Unit

KORN 0105 Spoken Korean II
A continuation of Spoken Korean I, this course aims to further develop oral communication skills by exploring a variety of topics, such as shopping, hobbies, family and future plans. Class activities include interactive tasks, role plays and presentations. Cultural topics will also be incorporated in order to further deepen students' understanding of Korea's culture and language. Upon completion of the course, students will be able to comprehend and carry on basic conversations; exchange information on a variety of topics in the past, present and future tenses; and achieve a proficiency level of Novice High based on the ACTFL (American Council on the Teaching of Foreign Languages) proficiency scale. NOTE: This course does not count toward the language requirement or the EALC major or minor. Offered through the Penn Language Center.
Spring
Prerequisite: KORN 0103
1 Course Unit

KORN 0200 Beginning Korean II
A continuation of Beginning Korean I, this course aims to further develop the four language skills of students to the novice-high level by building on materials covered in that class. Students will learn how to use three speech styles (polite formal, informal, and intimate) appropriately in a given context. Upon successful completion of this course, students should be able to handle simple and elementary needs of daily lives and talk (and write) about a variety of topics such as family, college life, birthday celebration, shopping, Korean food, etc.
Spring
Prerequisite: KORN 0100
1 Course Unit
KORN 0210 Intensive Beginning Korean I & II
This is an intensive Korean course that covers the material from Elementary Korean I and Elementary Korean II in an intensive format, designed for novice learners who have little or no knowledge of Korean. This course aims to develop a solid foundation for reading, writing, listening, and speaking skills through meaningful communicative activities and tasks in cultural context. Upon completion of the course, students should be able to handle simple and elementary needs of daily lives and be able to talk and write about a variety of topics such as mood and personalities, clothing, weather, illness, Korean food, etc. Students will also learn how to use three speech styles (polite formal, informal, and intimate) appropriately in a given context. Students are also expected to obtain the Novice High level of proficiency based on the ACTFL (American Council on the Teaching of Foreign Languages) proficiency scale. During the summer, this course will be given in an online format that provides a communicative learning environment through Adobe Connect and Canvas. Students will be required to view PowerPoint slide shows and do homework questions in Canvas before each class, and class time will be mostly spent on communicative activities. After class, students will practice four language skills with the online exercises on Canvas, class blogs, and Voice Thread. This online course requires access to a reliable computer with high-speed internet and good quality headsets with a microphone. This course is offered through the Penn Language Center.

Summer Term

KORN 0220 Korean for Heritage Speakers I
This course is designed for heritage speakers who have a strong background in everyday Korean. This course focuses on enhancing linguistic accuracy (spelling, grammar, vocabulary, pronunciation) and fluency (idiomatic and figurative expressions, narrative structure, discursive practice) in both spoken and written Korean, as well as gaining a deeper understanding of Korean culture. Upon completion of the course, students will be able to express themselves more accurately and participate in Korea-related communities more meaningfully. This course and its subsequent course KORN0420 complete the College language requirement.

Fall
1 Course Unit

KORN 0300 Intermediate Korean I
This is a continuation of Elementary Korean II. This course is designed to develop students' Korean language proficiency to the intermediate-low level of the ACTFL Proficiency Guidelines. Authentic materials, as well as various student-centered activities that are highly contextualized in everyday interactions will be used. Upon completion of the course, students will be able to present and exchange information on a variety of topics such as weather, fashion, travel, mailing, housing, public transportation, and shopping.

Fall
Prerequisite: KORN 0200
1 Course Unit

KORN 0400 Intermediate Korean II
This is a continuation of Intermediate Korean I. This course is designed to develop students' Korean language proficiency to the intermediate-mid level of the ACTFL Proficiency Guidelines. This course expands student's competence by dealing with more functions in various contexts that students can frequently encounter in everyday interactions. In order to prepare students for social contexts, students are encouraged to engage in conversations by personalizing the topics, functions, or contexts. Students will perform in an interpersonal way by providing and obtaining information, expressing feelings and emotions, and exchanging opinions on a variety of topics such as birthday parties, recreation and hobbies, Korean holidays, marriage, cultural differences, education and jobs. This course completes the College language requirement.

Spring
Prerequisite: KORN 0300
1 Course Unit

KORN 0420 Korean for Heritage Speakers II
This course is a continuation of Korean for Heritage Speakers I, and aims to further develop students’ linguistic and cultural competence by building on materials covered in that class. In addition to gaining a deeper understanding of Korean culture, the course focuses on enhancing linguistic accuracy and fluency in both spoken and written Korean. Particular emphasis will be placed on building a meaningful Korean-speaking community, as well as consolidation of grammar structures, and expansion and enhancement of vocabulary. Topics include preparing for a trip to Korea, finding housing, college culture in Korea, entertainment and participating in various social events. Upon completion of this course, students will be able to express themselves more accurately and participate in Korea-related communities more meaningfully. This course completes the College language requirement.

Spring
Prerequisite: KORN 0220
1 Course Unit

KORN 0500 High Intermediate Korean I
This course aims to develop functional proficiency in Korean at the intermediate-high level. Students will develop competence in fluency, grammatical accuracy and socio-linguistic/cultural appropriateness through a variety of activities and assignments. In addition, students will learn to communicate using more sophisticated grammatical structures and advanced vocabulary on various topics. The development of each of the four language skills (speaking, listening, reading and writing) is equally emphasized.

Fall
Prerequisite: KORN 0400 OR KORN 0420
1 Course Unit
KORN 0560 Business Communication in Korean
Offered through the Penn Language Center. This course is designed to help students improve their Korean language proficiency by learning essential communication skills necessary to engage in business in Korea. Students will also develop their knowledge of and competence in Korean business culture and practice. The course objectives include: (1) to learn essential business terms, advanced grammar structures and communication strategies in business transactions; (2) to learn Korean business customs and culture, work norms, and business etiquette that students need to successfully communicate in a Korean business context. Topics include job application, business correspondence and reports, discussion and presentation in business meetings, communication styles and strategies in business contexts, current business culture, etc.
Fall
Prerequisite: KORN 0400
1 Course Unit

KORN 0600 High Intermediate Korean II
This is a continuation of Advanced Korean I. Students continue to develop functional proficiency in Korean at the advanced-low level. The topics include literature, culture, Korean customs, and social issues in contemporary Korea.
Spring
Prerequisite: KORN 0500
1 Course Unit

KORN 0700 Advanced Korean
This course aims to develop an in-depth understanding of Korean culture and society through the analysis of spoken and written Korean discourse. Students will engage with key sociolinguistic concepts of politeness, hierarchy, solidarity, power, age, and gender, and enhance their advanced vocabulary and grammar. Students will also develop their abilities in conversation management, self-presentation, socialization, and sense of socio-cultural appropriateness, and gain a better understanding of how native speakers' cultural practices are reflected in language use and how interpersonal relationships are built and maintained through language.
Fall
Prerequisite: KORN 0600
1 Course Unit

KORN 0800 Advanced Korean II
KORN 0800 is a sequel to KORN 0700 (Advanced Korean I) that focuses on further developing language skills and intercultural competence at the advanced level, so that students can communicate in a clearly participatory manner regarding various topics of personal and general interests. Students will engage in various task-based activities to expand lexical repertoire, refine grammar, and develop appropriate and effective interactional skills in Korean. Students’ active engagement in learning through presentations and projects will constitute a crucial part of the course. Upon completion of the course, students will be able to participate in Korean-speaking communities in meaningful ways and competently and confidently interact with Korean people, utilize their linguistic knowledge in a wider range of social settings, and develop a deeper understanding and appreciation of Korea’s language and culture. According to the ACTFL (American Council on the Teaching of Foreign Languages) oral proficiency guidelines, students will attain Advanced Low/Mid-Level and sufficient linguistic and cultural competence to advance to a content-and-language course beyond the 0700 level.
Spring
Prerequisite: KORN 0700
1 Course Unit

KORN 0860 Business Korean I
Offered through the Penn Language Center. Business Korean I is designed for students who want to sharpen their Korean language skills to the advanced-high level by focusing their study on Korean business and economy. Students will learn business/economy-related terminologies and concepts. They will also take an in-depth look at the issues related to business practices and environment in Korea. Students will improve and refine their language skills through actively participating in discussions, research, and presentations.
Not Offered Every Year
Prerequisite: KORN 0600
1 Course Unit

KORN 0865 Business Korean II
Offered through the Penn Language Center. A continuation of the material offered in Business Korean I. Students further develop their Korean language proficiency at the advance-high level by studying case studies, participating in discussions, and doing research and giving presentations on the topic of current Korean business and economy.
Not Offered Every Year
Prerequisite: KORN 0600
1 Course Unit

KORN 0870 Current Korean Media I
Offered through the Penn Language Center. This course aims to develop a deeper understanding of the contemporary Korean society through critical analysis of language use and viewpoints expressed in various types of media including the internet, TV, films and newspapers. This course will provide students with a rich opportunity to relate what they have learned in previous Korean language courses to the larger context of Korean culture and society. The course is conducted entirely in Korean and utilizes both written and audiovisual materials to develop students’ reading/listening comprehension and critical thinking. The course also involves in-depth class discussion and writing short compositions to enhance conversation and writing skills.
Fall or Spring
Prerequisite: KORN 0600
1 Course Unit

KORN 0875 Current Korean Media II
Offered through the Penn Language Center. This course aims to develop a deeper understanding of the contemporary Korean society through critical analysis of language use and viewpoints expressed in various types of media including the internet, TV, films, magazines and newspapers. This course will focus on cultural products and practices such as popular culture, media culture, and entertainment. By catering to the needs and interests of individual learners of Korean, the course will provide them with a rich opportunity to relate what they have learned in previous Korean language courses to the larger context of Korean culture and society. In addition, students will have an in-depth discussion on topics related to Korean society as well as Penn news. This course is conducted entirely in Korean.
Fall
Prerequisite: KORN 0870
1 Course Unit
### KORN 1040 Advanced Readings in Modern Korean I
This course is designed for advanced level students. Based on literary pieces in the form of short stories, essays, and novels, students are to gain an in-depth, multi-faceted and critical understanding of Korean people, society, and culture. These objectives are achieved primarily through 1) close reading and discussion of original literary texts by 20th-century Korean writers; and 2) regular writing exercises. Some Korean films that are related to the topics of the reading text will be used.

- **Prerequisite:** KORN 0700
- **Mutually Exclusive:** KORN 6045
- **Fall, even numbered years only**
- **Not Offered Every Year**
- **Mutually Exclusive:** KORN 6040
- **1 Course Unit**

**KORN 1045 Advanced Readings in Modern Korean II**
This course allows development of creative and analytical thinking through introduction of more organized thematic topics such as family, human relationships, and the reflection of self-images, and individual’s mental status while the society changes in time.

- **Spring**
- **Mutually Exclusive:** KORN 6045
- **Prerequisite:** KORN 0700
- **1 Course Unit**

### KORN 1060 Advanced Business Korean I
Offered through the Penn Language Center. This course aims to further develop students’ advanced language proficiency and simultaneously deepen their knowledge and understanding of specific areas related to Korean business and economy such as an expansion of business into Asian markets and globalization strategies. Through research, discussion and presentation on various case studies and other business-related materials, students will enhance their critical thinking skills and gain an in-depth perspective on issues related to contemporary Korean business operations and practices.

- **Fall**
- **Prerequisite:** KORN 0700
- **1 Course Unit**

### KORN 1065 Advanced Business Korean II
Offered through the Penn Language Center. A continuation of the material offered in Advanced Business Korean I. Students continue to closely follow the current topics of business and financial markets of Korea by actively participating in discussions, research, and presentations.

- **Spring**
- **Mutually Exclusive:** KORN 6065
- **Prerequisite:** KORN 0700
- **1 Course Unit**

### KORN 1070 Advanced Topics in Korean Language and Culture I
This class aims to expand and deepen students’ understanding and knowledge related to various aspects of the Korean language and culture. Students will consolidate and further sophisticate their expertise in the Korean language and culture to achieve professional language proficiency while engaging in discussions, debates, mini-research, and presentations on a wide range of topics covering the Korean language, contemporary life, and culture. Special emphasis will be given to how the Korean language is structured, how cultural practices are reflected in the way language is used, and how interpersonal relationships are built and negotiated through the use of language. As such, the course is organized into the following two parts: (1) Analysis of the Korean language in various genres and media sources and (2) Examination of critical issues related to the Korean language and culture and development of one’s own stance on the given issues. Upon completion of the course, students will be able to reach the Advanced High Level (according to the ACTFL’s proficiency guidelines).

- **Fall**
- **Mutually Exclusive:** KORN 6070
- **Prerequisite:** KORN 0800
- **1 Course Unit**

### KORN 1075 Advanced Topics in Korean Language and Culture II
This course focuses on further developing comprehensive language abilities and deepening socio-cultural knowledge related to Korea by exploring contentious topics surrounding Korean society. Through a review of Korean materials from various genres and media, students will not only gain knowledge of Korean society and culture, but also advance their language proficiency to the professional level. Special emphasis will be given to the investigation of the dynamic nature of Korean culture and society, as well as the development of students’ debate skills on important issues related to them. Upon completion of the course, students will be able to reach the Advanced High Level (according to the ACTFL’s proficiency guidelines).

- **Spring**
- **Mutually Exclusive:** KORN 6075
- **Prerequisite:** KORN 0800
- **1 Course Unit**

### KORN 1140 Advanced Academic Korean I
This course aims to assist students who wish to improve their knowledge of the advanced Korean language skills required to conduct academic research. Students will critically read, analyze, and discuss academic and other relevant texts, written in either Korean or mixed scripts. Readings include, but are not limited to, academic journal articles and book chapters are important in the field of each student’s research, as well as major primary sources, such as periodicals, government documents, and other authentic texts from the late nineteenth century to the present. Students will develop familiarity with these texts and a deeper understanding of academic writing styles in Korean. In addition, students will expand their proficiency in Sino-Korean vocabulary and Hanja (Chinese characters), both essential to developing their academic language skills in Korean. This course will be conducted in Korean.

- **Fall, even numbered years only**
- **Prerequisite:** KORN 1045
- **1 Course Unit**

---

**KORN 1070 Advanced Topics in Korean Language and Culture I**
This class aims to expand and deepen students’ understanding and knowledge related to various aspects of the Korean language and culture. Students will consolidate and further sophisticate their expertise in the Korean language and culture to achieve professional language proficiency while engaging in discussions, debates, mini-research, and presentations on a wide range of topics covering the Korean language, contemporary life, and culture. Special emphasis will be given to how the Korean language is structured, how cultural practices are reflected in the way language is used, and how interpersonal relationships are built and negotiated through the use of language. As such, the course is organized into the following two parts: (1) Analysis of the Korean language in various genres and media sources and (2) Examination of critical issues related to the Korean language and culture and development of one’s own stance on the given issues. Upon completion of the course, students will be able to reach the Advanced High Level (according to the ACTFL’s proficiency guidelines).

- **Fall**
- **Mutually Exclusive:** KORN 6070
- **Prerequisite:** KORN 0800
- **1 Course Unit**

---

**KORN 1075 Advanced Topics in Korean Language and Culture II**
This course focuses on further developing comprehensive language abilities and deepening socio-cultural knowledge related to Korea by exploring contentious topics surrounding Korean society. Through a review of Korean materials from various genres and media, students will not only gain knowledge of Korean society and culture, but also advance their language proficiency to the professional level. Special emphasis will be given to the investigation of the dynamic nature of Korean culture and society, as well as the development of students’ debate skills on important issues related to them. Upon completion of the course, students will be able to reach the Advanced High Level (according to the ACTFL’s proficiency guidelines).

- **Spring**
- **Mutually Exclusive:** KORN 6075
- **Prerequisite:** KORN 0800
- **1 Course Unit**

---

**KORN 1140 Advanced Academic Korean I**
This course aims to assist students who wish to improve their knowledge of the advanced Korean language skills required to conduct academic research. Students will critically read, analyze, and discuss academic and other relevant texts, written in either Korean or mixed scripts. Readings include, but are not limited to, academic journal articles and book chapters are important in the field of each student’s research, as well as major primary sources, such as periodicals, government documents, and other authentic texts from the late nineteenth century to the present. Students will develop familiarity with these texts and a deeper understanding of academic writing styles in Korean. In addition, students will expand their proficiency in Sino-Korean vocabulary and Hanja (Chinese characters), both essential to developing their academic language skills in Korean. This course will be conducted in Korean.

- **Fall, even numbered years only**
- **Prerequisite:** KORN 1045
- **1 Course Unit**
KORN 1145 Advanced Academic Korean II
This course aims to further develop and enhance the language and critical thinking skills required for conducting academic research in Korean studies or relevant disciplines. Through a historical lens, students will have the opportunity to explore a variety of topics, such as culture, gender, international relations, politics, the economy, and religion from early times to the nineteenth century. Students will continue to read critically, evaluate, analyze, and discuss these academic texts (both primary and secondary sources), written in Korean or mixed scripts, and will broaden and expand their repertoires of the Sino-Korean vocabulary and Hanja (Chinese characters) common in academic disciplines. Course materials will include academic journal articles, book chapters, and primary sources pertaining to the fields of each student's research, as well as Korean historical movies and documentaries. This course will be conducted in Korean.
Spring
Fall, odd numbered years only
Prerequisite: KORN 1045
1 Course Unit

KORN 6040 Advanced Readings in Modern Korean I
This course is designed for advanced level students. Based on literary pieces in the form of short stories, essays, and novels, students are to gain an in-depth, multi-faceted and critical understanding of Korean people, society, and culture. These objectives are achieved primarily through 1) close reading and discussion of original literary texts by 20th -century Korean writers; and 2) regular writing exercises. Some Korean films that are related to the topics of the reading text will be used.
Spring
Fall
Mutually Exclusive: KORN 1040
Prerequisite: KORN 0700
1 Course Unit

KORN 6045 Advanced Readings in Modern Korean II
This course allows development of creative and analytical thinking through introduction of more organized thematic topics such as family, human relationships, and the reflection of self-images, and individual's mental status while the society changes in time.
Spring
Fall
Mutually Exclusive: KORN 1045
Prerequisite: KORN 0700
1 Course Unit

KORN 6065 Advanced Business Korean II
Offered through the Penn Language Center. A continuation of the material offered in Advanced Business Korean I. Students continue to closely follow the current topics of business and financial markets of Korea by actively participating in discussions, research, and presentations.
Spring
Fall
Mutually Exclusive: KORN 1065
Prerequisite: KORN 0700
1 Course Unit

KORN 6070 Advanced Topics in Korean Language and Culture I
This class aims to expand and deepen students' understanding and knowledge related to various aspects of the Korean language and culture. Students will consolidate and further sophisticate their expertise in the Korean language and culture to achieve professional language proficiency while engaging in discussions, debates, mini-research, and presentations on a wide range of topics covering the Korean language, contemporary life, and culture. Special emphasis will be given to how the Korean language is structured, how cultural practices are reflected in the way language is used, and how interpersonal relationships are built and negotiated through the use of language. As such, the course is organized into the following two parts: (1) Analysis of the Korean language in various genres and media sources and (2) Examination of critical issues related to the Korean language and culture and development of one's own stance on the given issues. Upon completion of the course, students will be able to reach the Advanced High Level (according to the ACTFL's proficiency guidelines).
Fall
Mutually Exclusive: KORN 1070
Prerequisite: KORN 0800
1 Course Unit

KORN 6075 Advanced Topics in Korean Language and Culture II
This course focuses on further developing comprehensive language abilities and deepening socio-cultural knowledge related to Korea by exploring contentious topics surrounding Korean society. Through a review of Korean materials from various genres and media, students will not only gain knowledge of Korean society and culture, but also advance their language proficiency to the professional level. Special emphasis will be given to the investigation of the dynamic nature of Korean culture and society, as well as the development of students' debate skills on important issues related to them. Upon completion of the course, students will be able to reach the Advanced High Level (according to the ACTFL's proficiency guidelines).
Spring
Fall
Mutually Exclusive: KORN 1075
Prerequisite: KORN 0800
1 Course Unit

Landscape Architecture & Regional Planning (LARP)

LARP 5010 Studio I
The focus of this foundation studio is to explore ways of recording and representing landscape - with an emphasis on material, space, rhythm and measure - through a range of drawings and constructions. The studio attempts to create a sensibility toward landscape where the act of surveying a site is as much an imaginative endeavor as is the crafting of an artifact or the construction of a path in a landscape. Emphasis is placed on visual and manual skills in two-dimensional and three-dimensional constructions (drawing, fabrications, model-making, etc.), while developing ways to "see" landscape.
Spring
Fall
2 Course Units
LARP 5020 Studio II
This foundation design studio explores the relationship among sites, drawings, models and the making of landscape architectural projects. Sites are fairly large in size and present a complex set of issues, including fragmentation, lack of access, and contamination. Through the design of a park, students test and refine the relationship among project concept, modes of visualization, and project formation (organizational and material). The objective for the studio is to develop an informed and imaginative response to the site in order to create new relationships among the site, its immediate edges and the larger neighborhood or region.
Spring
Prerequisite: LARP 5010
2 Course Units

LARP 5110 Workshop I: Ecology and Built Landscapes
This workshop explores a sequence of sites extending from the Atlantic Ocean to the Appalachian Mountains that illustrates the changing geology and topography of the regional physiographic provinces including the Atlantic Coastal Plain, Piedmont, and Valley and Ridge. In moving westward along the transect, field trips to natural areas and constructed sites will highlight the diversity of regional plant communities ranging from primary dune to salt marsh, serpentine Virginia pine-oak forest to seepage wetland, and more. Analysis of the inter-connections between the underlying geology, topography, hydrology, soils, vegetation, wildlife, and human interventions will reveal patterns reflecting process and demonstrate key ecological and cultural systems and processes through the production of field notebooks as well as large-scale measured drawings. Ultimately students will develop a vocabulary (recognition, identification and nomenclature) of the materials of landscape, its substance, its ecology, and its changing nature owing to place and time. NOTE: COURSE MEETS IN ASSIGNED CLASSROOM FROM 9-1PM. CLASS MEETING FROM 2-5PM IS DEDICATED TO FIELD WORK.
Fall
1 Course Unit

LARP 5120 Workshop II: Landform and Planting Design
Workshop II combines two of the most elemental tools in the practice of landscape architecture: landform and planting design. Grading - the shaping and sculpting of the landform - is both art and science, and thus Workshop II aims to provide an appreciation of landform as an evocative component in the design vocabulary as well as a critical tool in solving difficult design problems. The basic techniques and strategies of grading design (slopes, terraces, water management, grade change devices) will be introduced, practiced and reinforced, so that grading design becomes an integral part of the students’ design approach. Lecture, field trips, modeling, in-class exercises, and group projects will be used. The Planting component provides students with a working overview of the principles and processes of planting design. Plants will be considered both as individual elements and as part of larger dynamic systems. The natural distribution of plants, concepts of plant community and successional patterns, and the relationship of planting to topography will be used as the initial framework for planting design. Planting design typologies will be examined as an outgrowth of these "natural" patterns. The role of plants as a key element in the structural design of the landscape will be explored through a combination of modeling, plan and section drawing, temporal studies, writing, field trips and case studies. Emphasis will be placed on process and evolution: the temporality of planting (daily, seasonal and annual changes), establishment and maintenance of plantings, and the process of planting design. During the first week of May, a five-day field ecology course focuses on techniques of urban revitalization, sustainable land use, reclamation, and restoration. The field trips offer insight into the diversity of approaches to using plants to promote positive environmental change.
Spring
Prerequisite: LARP 5110
1 Course Unit

LARP 5130 Workshop II: Landform and Planting Design Plants Audit
Workshop II combines two of the most elemental tools in the practice of landscape architecture: landform and planting design. Grading - the shaping and sculpting of the landform - is both art and science, and thus Workshop II aims to provide an appreciation of landform as an evocative component in the design vocabulary as well as a critical tool in solving difficult design problems. The basic techniques and strategies of grading design (slopes, terraces, water management, grade change devices) will be introduced, practiced and reinforced, so that grading design becomes an integral part of the students’ design approach. Lecture, field trips, modeling, in-class exercises, and group projects will be used. The Planting component provides students with a working overview of the principles and processes of planting design. Plants will be considered both as individual elements and as part of larger dynamic systems. The natural distribution of plants, concepts of plant community and successional patterns, and the relationship of planting to topography will be used as the initial framework for planting design. Planting design typologies will be examined as an outgrowth of these "natural" patterns. The role of plants as a key element in the structural design of the landscape will be explored through a combination of modeling, plan and section drawing, temporal studies, writing, field trips and case studies. Emphasis will be placed on process and evolution: the temporality of planting (daily, seasonal and annual changes), establishment and maintenance of plantings, and the process of planting design. During the first week of May, a five-day field ecology course focuses on techniques of urban revitalization, sustainable land use, reclamation, and restoration. The field trips offer insight into the diversity of approaches to using plants to promote positive environmental change.
Fall
0 Course Units
LARP 5330 Media I: Drawing and Visualization
Drawing is the ability to experience deeply things we see and envision. It allows us, not only to represent things or images seen, but, to discover and construct space and depth on the two dimensions of drawing surface. Expanding the tools of drawing, this course presents inquiries into applied media providing a basis for envisioning the speculative and developing an economy of expression. Work will be closely related to work in Studio I. Students will be introduced to the formal syntax of drawing (line, contour, structure, texture, chiaroscuro), graphic grammar (orthographic, oblique, perspective projection drawings and free-hand sketching) alongside exercises in material expression (collage, assemblage).
Fall
1 Course Unit

LARP 5350 Theory I: Histories and Theories of Landscape and Environment
This course introduces students to relevant topics, themes, and sites that help us understand the conception, production, evolution, and reception of designed and found landscapes throughout the nineteenth and twentieth centuries. It aims at building an understanding of landscapes as both physical spaces and as cultural media and constructions that sit at the nexus between art and science and that contribute knowledge about humankind’s relationship with non-human nature. Landscapes are the result of social, political, artistic and intellectual endeavors. The toponomy, soil and climate of a site also condition its design, use and habitation. As much as designed and found landscapes are a product of their time, they have also contributed to shaping history, both through their physical materiality and through the mental worlds they enable. Embedding found and designed landscapes into their social, political and cultural contexts, the course also pays close attention to the role of expert knowledge and the professions that have contributed to creating them. The course explores the various tensions and relationships embodied, created and represented by designed landscapes; the tensions between nature and culture, practice and use, design and reception, the visual reception of landscapes and their inhabitation, and site-specificity and purposefully “international” design expressions. Using a variety of sources including texts, illustrations, and film the course offers insights into the development and transfer of ideas between different cultures, countries and geographical regions, and time periods.
Fall
1 Course Unit

LARP 5400 Theory II: The Culture of Nature
Landscape architecture, architecture and visual art are all mediations between nature and culture. This course is designed to help students form their own view regarding our relationship with the "natural" world around us in an age of ecological crisis. To achieve this, the course provides a stimulating historical and contemporary survey of ideas of nature. We explore ways “nature” has been understood mythically, theologically, ideologically, philosophically, scientifically, and artistically through the ages, with an emphasis on contemporary culture. We survey the way in which the polarity of culture and nature has been historically constructed and more recently, deconstructed. The pedagogical philosophy of this course is that an appreciation of the broad pattern of history and the ideas that have shaped it are foundational to living a critical and ethical life and central to the process of making contemporary art, architecture, and landscape architecture.
Spring
2 Course Units

LARP 5420 Media II: Fundamentals of 3D Modeling
Continuing the sequence of the Landscape Architecture media classes, this course will provide students with the techniques to explore and examine precision surface profiles and land forming strategies, in both physical and digital models. These models provide a basis to speculate on what processes and programs might be engendered or instigated. Rhino will be the primary modeling platform. Associated plug-ins of Grasshopper, Rhino Terrain, Sonic, and Bongo will help extend the toolset. GIS will facilitate the collection and analysis of extent data. The Adobe Creative Cloud will also be used for documenting and expressing modeling processes through static and time-based visualizations.
Spring
Prerequisite: LARP 5330
1 Course Unit

LARP 5430 Media III: Landscape and Digital Dynamics
This course is the third in the media sequence and is required of all MLA students at the 600 level. This course engages the generative potential of the dynamic and temporal attributes of the landscape medium. Time-based visualizations are used to investigate landscape organizations shaped through the dynamic interplay of varying processes and their spatial consequences. Emphasis will parallel the LARP 601 on urban ecology and landscape systems.
Fall
1 Course Unit

LARP 6010 Studio III
This studio brings together both two-year and three-year MLA students for a landscape studio problem that works at a regional scale, as well as multiple design scales. LARP 601 - the Green Stimuli studio - emphasizes rigorous site analysis, the strategic organization of living material, and the potential of design to produce a wide range of effects. Studio problems are “live” - local leaders and experts are actively trying to solve them, there is an audience for student work outside the University, and projects have the potential to stimulate debate and new directions. The Green Stimuli studio takes on design problems where soil, terrain, geology, mineral resources, climate, water, plants, wildlife, and living systems interactions are major drivers. Studio projects explore one or more of these dimensions in depth to reach high levels of design exploration, strategic thinking, technical resolution and physical expression. The studio’s topics intersect with a broader universe of practical concerns, including land use, local and regional economies, real estate development and public policy, as well as philosophical and artistic questions about nature and ecology. The intent is that designed Green Stimuli make new connections between the material of landscape and the economic, infrastructural, scientific, social, cultural and creative attributes of a region.
Fall
2 Course Units
LARP 6020 Studio IV
This studio is the fourth and final studio in the core sequence and is designed to introduce students to essential competencies related to contemporary problems in urban design. The studio operates in what have been referred to as "global cities" - contexts in which there are significant pressures on the physical form of a metropolis from substantial population and economic growth (both ongoing and projected). These pressures induce considerable demands for the development of new contexts. The studio is focused on managing and negotiating these pressures through landscape-driven strategies capable of guiding and organizing this urbanization. Students develop individual design strategies through a process of mapping, modeling, scenario building and fieldwork that lead to both conceptual and physical proposals for the development of new urban districts and metropolitan agendas.
Spring
2 Course Units

LARP 6110 Workshop III: Site Engineering and Water Management
Building upon the skills and concepts developed in Workshops I and II, this intermediate workshop focuses on technical aspects of site design, with an emphasis on landscape performance. Functional considerations related to landscapes and their associated systems - including circulation, drainage and stormwater management, site stabilization and remediation - will be explored as vital and integral components of landscape design, from concept to execution. Lectures, case studies, field trips, and focused design exercises will enable students to develop facility in the tools, processes and metrics by which landscape systems are designed, evaluated, built and maintained. In concert with the concurrent design studio, students will consider the means by which functional parameters can give rise to the conceptual, formal, and material characteristics of designed landscapes.
Spring
1 Course Unit

LARP 6120 Workshop IV: Advanced Landscape Construction
Advanced Landscape Construction: The Art and Craft of Design Documentation and Detailing introduces students to the process of landscape documentation as means of strengthening design intent through careful material selection and articulation of form. The course builds upon Workshop III by expanding the concept of site systems to the full range of drawings, details, specifications, and contracts used by landscape designers in the creation of the man-made environment. The course features lectures, case studies and field walks, exploring documentation from initial concept through construction administration. Topics will include materials and their use in exterior environments, documentation phases and their role in a projects evolution and the art of detailing to ensure beautiful, durable landscapes that define cohesive design.
Fall
Prerequisite: LARP 6110
1 Course Unit

LARP 6650 Case Studies and Urban Design Explorations
Participants in this course will become familiarized with a diversity of iconic urban references from all continents, while acquiring skills that will facilitate planning and design processes, appreciating the value of interdisciplinary, multi-scaler initiatives, and the transformative contributions of city planning and urban design/placemaking. It is a dynamic class in which each session is centered on a particular topic (see list below), combining class discussions on case studies presented by the instructor, guest lecturers, and teams of students. Interdisciplinary groups also are asked to deliver short planning/design exercises - without the pressure of the studios, allowing to rapidly identify existing site conditions, design opportunities, delivering their proposals with compelling narratives, strategic moves, graphics, models, and verbal communication. Course topics include: From territory to site-specific; On the public realm; The rehabilitation of historic districts; Mobility/infrastructure and public space; The self-constructed city; Community and urban design; Contending forces of nature; Ecological urbanism; New town planning; Urban art. The class also organizes walking tours in Philadelphia. A final exhibit of the work delivered by the students will be held in Meyerson's Lower Gallery.
Spring
1 Course Unit

LARP 6741 Curricular Practical Training: Academic Year
This course provides international Master of Landscape Architecture students the opportunity for practical training in architecture in the United States (CPT). The course develops critical thinking about the organization, operation, and ethics of professional practice in city planning. This course will allow international MLA students to work in an internship in the United States during the academic year without shortening their limited OPT time. The course is offered for .20 course units. The employment must relate to the major and the experience must be part of the program of study. Course enrollment is by permit only.
0.2 Course Units

LARP 6850 Environmental Readings
In this seminar, we will explore this green thread and analyze its influence on how we shape our environments through design and planning. The course has three parts. Throughout, the influence of literature on design and planning theory will be explored. The first part will focus on three most important theorists in environmental planning and landscape architecture: Frederick Law Olmsted Sr., Charles Eliot and Ian McHarg. The second part of the course will critically explore current theories in environmental planning and landscape architecture. The topics include: frameworks for cultural landscape studies, the future of the vernacular, ecological design and planning, sustainable and regenerative design, the languages of landscapes, and evolving views of landscape aesthetics and ethics. In the third part of the course, students will build on the readings to develop their own theory for ecological planning or, alternatively, landscape architecture. While literacy and critical inquiry are addressed throughout the course, critical thinking is especially important for this final section.
Fall
Also Offered As: ARCH 6850, CPLN 6850
1 Course Unit
LARP 7010 Studio V
These advanced elective studios provide opportunities for focused exploration of particular themes in contemporary landscape architecture. Important emerging and accomplished designers, often from divergent points-of-view, interests and backgrounds, are invited to run these studios. Collaborative options (between Landscape and the Departments of Architecture or City Planning) are sometimes offered across the School. In addition to our own faculty who offer some of these studios (Fabiani Giannetto, Gouverneur, Marcinkoski, Mathur, M’Closkey, Neises, Olin, Pevzner, Sanders, Tomlin), visitors have included Paolo Burgi (Switzerland), Peter Latz (Munich), Bernard Lassus (Paris), Margie Ruddick (Philadelphia), Chris Reed (Boston), Peter Beard (London), Nicholas Quennell (New York), Ken Smith (New York), Raymond Gastil (New York), Alessandro Tagliolini (Italy), Ignacio Bunster (Philadelphia), Perry Kulper (Los Angeles), James Wines (New York), Lee Weintraub (New York), Charles Waldheim (Chicago), Stanislaus Fung (Australia), Dennis Wedlick (New York), Sandro Marpillero (New York), Peter Connolly (Australia), and former associate professor Anita Berrizbeitia. More recent visitors have been Claire Fellman (New York), Catherine Mosbach (Paris), Nanako Umemoto/Neil Cook (New York), Valerio Morabito (Italy), Carol and Colin Franklin (Philadelphia), Keith Kaseman (Philadelphia), Silvia Benedito (New York), Claudia Taborda (Lisbon), Mark Thomann (New York), Jerry Van Eyck (New York), and Martin Rein-Cano (Berlin).

Fall
2 Course Units

LARP 7020 Studio VI
These advanced elective studios provide opportunities for focused exploration of particular themes in contemporary landscape architecture. Important emerging and accomplished designers, often from divergent points-of-view, interests and backgrounds, are invited to run these studios. Collaborative options (between Landscape and the Departments of Architecture or City Planning) are sometimes offered across the School. In addition to our own faculty who offer some of these studios (Fabiani Giannetto, Gouverneur, Marcinkoski, Mathur, M’Closkey, Neises, Olin, Pevzner, Sanders, Tomlin), visitors have included Paolo Burgi (Switzerland), Peter Latz (Munich), Bernard Lassus (Paris), Margie Ruddick (Philadelphia), Chris Reed (Boston), Peter Beard (London), Nicholas Quennell (New York), Ken Smith (New York), Raymond Gastil (New York), Alessandro Tagliolini (Italy), Ignacio Bunster (Philadelphia), Perry Kulper (Los Angeles), James Wines (New York), Lee Weintraub (New York), Charles Waldheim (Chicago), Stanislaus Fung (Australia), Dennis Wedlick (New York), Sandro Marpillero (New York), Peter Connolly (Australia), and former associate professor Anita Berrizbeitia. More recent visitors have been Claire Fellman (New York), Catherine Mosbach (Paris), Nanako Umemoto/Neil Cook (New York), Valerio Morabito (Italy), Carol and Colin Franklin (Philadelphia), Keith Kaseman (Philadelphia), Silvia Benedito (New York), Claudia Taborda (Lisbon), Mark Thomann (New York), Jerry Van Eyck (New York), and Martin Rein-Cano (Berlin).

Fall
2 Course Units

LARP 7040 Urban Design Research Studio
This course is a requirement for students enrolled in the Certificate of Urban Design. The Urban Design Research Studio (UDRC) is a capstone educational experience open to students of architecture, planning, landscape architecture and historic preservation in PennDesign. The studio’s focus is how design intelligence can be applied to complex urban problems which are at once systemic and spatial. Reaching across scales and across disciplines the studio immerses students in the social, economic, political, ecological and aesthetic complexity of the contemporary city in a way that interweaves the speculative quality of the design process with the analytical and evidence-based empiricism of urban research. Interdisciplinary collaboration is the studio’s modus operandi and its purpose is to develop techniques and strategies by which contemporary cities can become not only metabolically more efficient but also more edifying of the human spirit in the 21st century. Acceptance into the studio is based on interview and portfolio with priority placements given to students enrolled in the Urban Design Certificate Program.

Spring
2 Course Units

LARP 7100 Implementation of Urban Design
This course is a requirement for students enrolled in the Certificate of Urban Design. With a focus on contemporary major cities this subject charts the various ways in which urban design is typically conceived, procured, administered and ultimately delivered. From the very conception of a project to its completion, the various methods and avenues through which contemporary cities are planned, designed, and constructed are examined from multiple perspectives so that students become familiar with the myriad issues and main actors involved in urban development. Though exemplary case studies the subject offers a comprehensive understanding of the complexities and contingencies of contemporary city making, placing a particular emphasis on the role of the urban designer as a practical, ethical and visionary agent of change. This course may open to other interested PennDesign students if there is space and with permission of the instructor.

Spring
1 Course Unit

LARP 7200 Topics in Representation
In these advanced representation courses the work extends to new ways of documenting and seeing landscape. These courses are open to all interested School of Design students who have previous drawing experience or have taken foundation studios. Recent topics have been: Landscape Representation (fall annually), instructors: Valerio Morabito; Terrains of Wetness (spring 2017-2020), instructors: Anuradha Mathur, Matthew Neff; Landscape Drawing, instructor: Laurie Olin (spring 2014); Traces and Inscriptions (spring 2013), instructors: Anuradha Mathur, Matthew Neff.

Fall or Spring
Prerequisite: LARP 5010 OR LARP 5330 OR LARP 6010 OR ARCH 5010 OR ARCH 5320 OR ARCH 6010
1 Course Unit
LARP 7300 Topics in Professional Practice
These seminar courses explore ideas and methods in current landscape architectural practice. They include instruction in professional procedures, project development, leadership, and professional identity. They include visits to construction sites, professional offices and archives. Recent topics have been: Transformational Leadership (fall annually), instructor: Lucinda Sanders; Unruly Practices (spring 2021), instructors: Rebecca Popowsky and Sarai Williams; The Practice of Landscape Architecture (spring 2021, fall 2021).
Fall or Spring
1 Course Unit

LARP 7340 Designing a Green New Deal: From Concept to Program
This advanced social science and design seminar is about mobilizing expert knowledge to develop transformative policy ideas to make the Green New Deal come alive. We'll look at cutting edge social science and design scholarship on the problems we're trying to solve, and the successes and failures of past efforts at transformative policy. And we’ll focus in particular on the built environment. How might a Green New Deal make the physical changes to our infrastructures, homes, energy landscapes, transportation systems, public recreation amenities, care facilities, and more, in ways that slash carbon emissions, increase resiliency, and abolish inequalities of race, class, gender, and nation? That’s not a rhetorical question: in this class, we’ll assemble knowledge, get into teams, and come up with concrete proposals.
1 Course Unit

LARP 7380 Cultural Landscapes and Landscape Preservation
The course surveys and critically engages the field of cultural landscape studies. Over the semester, we will explore cultural landscape as a concept, theory and model of preservation and design practice; we will read cultural landscape historiography and creative non-fiction; we will examine a range of types (national parks, community gardens, designed landscapes, informal public spaces), and we will map the alternative preservation, planning and design methods that ground cultural landscape studies practically. Readings, class discussions, and projects will draw on cultural geography, environmental history, vernacular architecture, ecology, art, and writing.
Not Offered Every Year
Also Offered As: HSPV 5380
1 Course Unit

LARP 7400 Topics in Digital Media
These courses offer advanced instruction in the uses and applications of various digital media, including Geographical Information Systems, 3D modeling, video, animation, and web-design. These courses are open to all interested School of Design students who already have a working knowledge of basic digital graphic techniques and with permission of the instructor. Recent topics have been: Sensing and Sensibility (fall 2019-2021), instructors: Keith VanDerSys, Sean Burkholder; Simulated Natures (instructors Keith VanDerSys, Joshua Freeese); Digital Fabrication (instructor: Keith VanDerSys); Non-Static Representation: Video, Animation, and Interactive Media (instructor: Todd Montgomery).
Fall or Spring
Prerequisite: LARP 5430
1 Course Unit

LARP 7500 Topics in Construction, Horticulture and Planting Design
These courses explore relevant topics in construction, horticulture and planting design as they relate to contemporary landscape architecture. The aim is to supplement fundamental skills and ideas explored in the core curriculum workshops with more advanced, cutting-edge research, technology and case studies. The teaching faculty are leading practitioners and researchers in the field. These courses are open to all interested Weitzman students. Recent topics have been: Build It/Detailing in Landscape Design (spring annually since 2015), instructors: Lindsay Falck, Abdallah Tabet, Andrew Schlatter; Plant Futures (spring 2019), instructors: Kira Appelhans, Misako Murata; Urban Horticulture and Planting Design (2009-2014), instructor: David Ostrich
Fall or Spring
1 Course Unit

LARP 7550 Arboretum Management I: Understanding Plants
In this course, students will learn about plants from an organismal perspective, an applied/practical perspective, an aesthetic perspective, an environmental perspective, and an evolutionary perspective. Utilizing the plant collection of the Morris Arboretum as a living laboratory and the expertise of arboretum staff, this course will bring students, novices and experts alike, to a better understanding of plants. Session topics integrate both theoretical and hands-on practical work. Course assessment will be based on weekly practical assignments and two exams. Please note that this course takes place at the Morris Arboretum in the Chestnut Hill section of Philadelphia and students are responsible for transporting themselves to and from the arboretum on their own for class each week. For further information about the course, students may contact Cynthia Skema (cskema@upenn.edu).
Fall
1 Course Unit

LARP 7560 Arboretum Management II: Evaluating Public Gardens
This interdisciplinary course looks at public gardens as a whole, studying these public institutions and their performance in the four major services they undertake: research, horticultural display, conservation and education/outreach. Students, of any level or discipline, begin the course by learning what arboreta and botanic gardens are, how they function, and what role they fill in our society through a series of lecture sessions at the Morris Arboretum. For the remainder of the semester, the students take that knowledge into the field to apply what they have learned and evaluate some of the many public gardens in "America's Garden Capital," the Philadelphia region, with expert instructors from the Morris Arboretum as guides. Course assessment will be based on one exam, and a series of essays pertaining to their garden evaluations. Garden evaluations and the written work can be tailored to a particular subject of interest to a student, if pertinent within the public garden realm. Please note that this course takes place at the Morris Arboretum in the Chestnut Hill section of Philadelphia and students are responsible for transporting themselves to and from the arboretum on their own or to other Philadelphia area public gardens as required for class each week. For further information about the course, students may contact Cynthia Skema (cskema@upenn.edu).
Spring
1 Course Unit
LARP 7600 Topics in Ecological Design
These elective courses explore relevant topics in ecological design and new technologies as they relate to contemporary landscape architecture. The courses explore topics such as ecology, sustainability, habitat restoration, hydrology, green roof and green architecture technology, soil technology, and other techniques pertinent to the construction of ecologically dynamic, functioning landscapes. The teaching faculty are leading practitioners and researchers in the field. These courses are open to all interested Weitzman students. Recent topics have been: Large-Scale Land Reclamation Projects (annually since 2005), instructor: William Young; Green Roof Systems (spring 2010-2014), instructor: Susan Weiler
Fall or Spring
1 Course Unit

LARP 7610 Urban Ecology
This course introduces students to the core concepts, processes, and vocabulary of contemporary urban ecology. It aims to provide a conceptual framework and grounding in an understanding of ecological processes, in order to empower students to develop and critique the function and performance of landscape interventions. Urban ecology describes the interaction of the built and natural environment, looking at both ecology in the city, as well as ecology of the city. Lectures, case studies, critical reading and design exercises will enable students to increase their ability to analyze and interpret ecological systems and processes. By analyzing the application of ecological concepts in the design management of urban landscapes, urban ecology will be explored as a dynamic, human-influenced system. Registration is limited to MLA students in the LARP 601 studio.
Fall
1 Course Unit

LARP 7700 Topics in Landscape Architecture History and Theory
These advanced seminars explore central issues in the history and theory of landscape architecture from the Renaissance to the present day. The focus is upon the cultural context of built works, their relation to conceptual writings (contemporary with the designs as well as modern) and the dialogue between modern professional practice and historical example and method. These courses are open to all interested students. Recent topics include: The Culture of Cultivation (spring 2017), instructor: Raffaella Fabiani Giannetto; Weimar Landscapes (spring 2017), instructors: John Dixon Hunt, Liliane Weissberg; Seminar in American Architecture (spring 2016), instructor: Aaron Wunsch; Therapeutic Landscape (spring 2014), instructor: Aaron Wunsch
Fall or Spring
1 Course Unit

LARP 7710 Celebrations in the Contingent City
This seminar will explore the impact of Philadelphia’s 1876 Centennial Exhibition on the subsequent histories of the neighborhoods adjacent to the West Fairmount Park exhibition site.
Spring
1 Course Unit

LARP 7800 Topics in Theory and Design
These advanced seminars explore ideas in contemporary landscape architectural design and theory. A special link is made between the analysis of built work and text to design practice and the making of projects. Topics include the intersections of art, nature and creativity; practices of analysis and criticism; ideas of urbanism and infrastructure; collaborative ventures and cross-disciplinarity; vision and visuality; and representational structures, both verbal and visual. These courses are open to all interested Weitzman students.
Fall or Spring
1 Course Unit

LARP 7801 Topics in Theory and Design
These advanced seminars explore ideas in contemporary landscape architectural design and theory. A special link is made between the analysis of built work and text to design practice and the making of projects. Topics include the intersections of art, nature and creativity; practices of analysis and criticism; ideas of urbanism and infrastructure; collaborative ventures and cross-disciplinarity; vision and visuality; and representational structures, both verbal and visual. These courses are open to all interested Weitzman students.
1 Course Unit

LARP 7802 Topics in Theory and Design
These advanced seminars explore advanced ideas in contemporary landscape architectural design and theory. A special link is made between the analysis of built work and text to design practice and the making of projects. Topics include the intersections of art, nature and creativity; practices of analysis and criticism; ideas of urbanism and infrastructure; collaborative ventures and cross-disciplinarity; vision and visuality; and representational structures, both verbal and visual. These courses are open to all interested Weitzman students.
1 Course Unit

LARP 7803 Topics in Theory and Design
These advanced seminars explore advanced ideas in contemporary landscape architectural design and theory. A special link is made between the analysis of built work and text to design practice and the making of projects. Topics include the intersections of art, nature and creativity; practices of analysis and criticism; ideas of urbanism and infrastructure; collaborative ventures and cross-disciplinarity; vision and visuality; and representational structures, both verbal and visual. These courses are open to all interested Weitzman students.
1 Course Unit
LARP 7890 LARP Summer Institute: Lineages of Contemporary Landscape for 3-Year Students
This one-week course will introduce students to some of the most important strands of contemporary landscape architecture, introduce important landscape vocabulary and terminology in the landscape lexicon, analyze seminal landscape case studies, and hold group discussion on these topics. It will provide an overview of the vocabulary of landscape representation and visualization, introduce students to techniques of landscape representation, and then dive more deeply into the visualization of information, grounded in landscape theory. Students will collaborate on a historical analysis of the various threads of landscape architecture, tracing its relationship to allied fields such as architecture, urbanism, ecology, cultural geography, art, and the landscape garden tradition—and use this analysis as a basis of group discussion about what landscape architecture can accomplish in the world. Along the way, we will talk about how we use visualization as a way to synthesize ideas and as a projective device for testing new concepts and combinations. This course will offer an opportunity to practice research methods, and prepare students for digital collaboration. Course enrollment is by permit only. Please contact landarch@design.upenn.edu.
Summer Term
0 Course Units

LARP 7900 LARP Summer Institute: Natural Systems (3-year Students)
This one-week session for entering three-year MLA students will provide an introduction to the varied physiographic provinces and associated plant communities of the greater Philadelphia region. Through a review of available mapping and on-site study we will characterize and consider the connections between climate, geology, topography, hydrology, soils, vegetation, wildlife, and disturbance, both natural and anthropogenic.
With a focus on plants students will begin to develop a familiarity with the local flora (native and non-native) including plant species identification, preferred growing conditions and potential for use. Field trips will include visits to the Inner Coastal Plain and Piedmont. Course enrollment is by permit only. Please contact landarch@design.upenn.edu.
Summer Term
0 Course Units

LARP 7910 LARP Summer Institute: Landscape Operations (3-year Students)
This one-week course will introduce some of the concepts and techniques for the manipulation of the ground plane, one of the most fundamental skills in landscape architecture. The course will discuss some of the technologies, considerations, and constraints of operating on landform, introduce representation techniques that convey how we describe and communicate landform and topography, and walk students through some simple design exercises to make a set of interventions on a topographic site. Students will develop an appreciation for the spatial implications of landform, for landscape narrative, for the movement of water and people across the landscape, and for the operation of reshaping the ground, through the construction of a set of drawings that walk viewers through students' set of interventions on their site. Work product from this week will serve as the starting point for the following week's course, Introduction to Digital Media for 3-year Students. Please contact landarch@design.upenn.edu.
Summer Term
0 Course Units

LARP 7920 LARP Summer Institute: Introduction to Digital Media (3-year Students)
This four-day introductory course is intended to enable students to orient themselves to digital media facilities, programs, and workflows. The course is focused around daily projects building up to a final pinup. Each daily project illustrates a different set of work paths between digital programs, as well as teaches students how to use different software applications key to the practice of landscape architecture today. The focus of this course is to enable students to understand what each digital software application offers to the landscape process, and how to build change and iteration into digital workflows. Please contact landarch@design.upenn.edu.
Summer Term
0 Course Units

LARP 7930 LARP Summer Institute: Landform and Grading Workshop (2-Year Students)
The reading and shaping of landform is an elemental tool in the practice of landscape architecture. The act of grading design - the shaping and sculpting of landform - is both art and science. This four-day session for entering two-year MLA students aims to provide an appreciation of landform as both an evocative component in the design vocabulary and as a critical tool in resolving difficult design problems. Basic techniques and strategies of grading design are introduced and reinforced, so that grading design becomes an integral part of the student's design approach. This session is intended to provide a concise overview of the principles and process of landform and grading design, and is designed to prepare the entering two-year students for Workshop III. Course enrollment is by permit only. Please contact landarch@design.upenn.edu.
Summer Term
0 Course Units

LARP 7940 LARP Summer Institute: Natural Systems (2-year students)
This five-day session for entering two-year MLA students will provide an introduction to the varied physiographic provinces and associated plant communities of the greater Philadelphia region. Through a review of available mapping and on-site study we will characterize and consider the connections between climate, geology, topography, hydrology, soils, vegetation, wildlife, and disturbance, both natural and anthropogenic.
With a focus on plants students will begin to develop a familiarity with the local flora (native and non-native) including plant species identification, preferred growing conditions and potential for use. Field trips will include visits to the Coastal Plain and Piedmont of New Jersey and Pennsylvania. Course enrollment is by permit only. Please contact landarch@design.upenn.edu.
Summer Term
0 Course Units

LARP 7950 LARP Summer Institute: Computing Introduction (2-year Students)
This nine-day session introduces the entering two-year MLA students to digital media as the primary mode of design visual communication. The course provides a short, yet intensive, hands-on inquiry into the production and expression of digital media that is essential for all designers. Through a series of working labs, students learn various software applications and associated techniques to execute precise two-dimensional representations of three-dimensional concepts. Students also learn the Weitzman systems, network basics and computer lab procedures. Course enrollment is by permit only. Please contact landarch@design.upenn.edu.
Summer Term
0 Course Units
Spring vocabulary, and experience in reading simple continuous texts. will have a complete working knowledge of Latin grammar, a growing
Prerequisite(s): LATN 101 or equivalent. Completes the introduction
LATN 0200 Elementary Latin II
2 Course Units
Summer Term
please contact Prof. James Ker (jker@sas.upenn.edu).
textbook only, not workbook). For further information about the course,
schedule, plus one daily video-linked session 5.30-7.00pm EST (Monday
required to be in Philadelphia. Course activities will involve a series
of one year Latin (e.g., LATN 0300). The course covers the second year
of college-level Latin, equivalent to LATN 0300 + 0400 at more than
twice the normal pace. This is an online course. 2 c.u. Students are not
required to be in Philadelphia. Course activities will involve a series
of intense online exercises completed each day according the students
own schedule, plus one daily video-linked session 5.30-7.00pm EST
(Monday thru Thursday). The focus of the course will be Romans and
Carthaginians, combining readings on Hannibal and the second Punic
war (mostly in prose, focusing on Cornelius Nepos Life of Hannibal) with
readings from the story of Dido (mostly in poetry, focusing on Ovids
Heroïdes). For further information about the course, please contact Prof.
James Ker (jker@sas.upenn.edu).
Summer Term
1 Course Unit

LATN 0300 Intermediate Latin: Prose
Prerequisite(s): LATN 0200 or equivalent (such as placement score of
550). Introduction to continuous reading of unadapted works by Latin
authors in prose (e.g., Cornelius Nepos, Cicero, Pliny), in combination
with a thorough review of Latin grammar. By the end of the course
students will have thorough familiarity with the grammar, vocabulary,
and style of the selected authors, will be able to tackle previously unseen
passages by them, and will be able to discuss questions of language and
interpretation.
Fall
Prerequisite: LATN 0200
1 Course Unit

LATN 0310 Intensive Intermediate Latin
An introduction to the basic history and conventions of Latin prose and
poetry, with continuous readings from classical authors accompanied
by grammar review and exercises. Ideal for undergraduates or graduate
students from Penn or elsewhere who have completed the equivalent
of one year Latin (e.g., LATN 0110). The course covers the second year
of college-level Latin, equivalent to LATN 0300 + 0400 at more than
twice the normal pace. This is an online course. 2 c.u. Students are not
required to be in Philadelphia. Course activities will involve a series
of intense online exercises completed each day according the students
own schedule, plus one daily video-linked session 5.30-7.00pm EST
(Monday thru Thursday). The focus of the course will be Romans and
Carthaginians, combining readings on Hannibal and the second Punic
war (mostly in prose, focusing on Cornelius Nepos Life of Hannibal) with
readings from the story of Dido (mostly in poetry, focusing on Ovids
Heroïdes). For further information about the course, please contact Prof.
James Ker (jker@sas.upenn.edu).
Summer Term
2 Course Units

LATN 0400 Intermediate Latin: Poetry
Prerequisite(s): LATN 0300 or equivalent (such as placement score of
600). Continuous reading of several Latin authors in poetry (e.g., Ovid,
Virgil, Horace) as well as some more complex prose, in combination with
ongoing review of Latin grammar. By the end of the course students
will have thorough familiarity with the grammar, vocabulary, and style
and style of the selected authors, will be able to tackle previously unseen
passages by them, and will be able to discuss language and
interpretation. Note: Completion of Latin 0400 with C- or higher fulfills
Penn's Foreign Language Requirement.
Spring
Prerequisite: LATN 0300
1 Course Unit

LATN 3202 Latin Love Letters
In this course we look at an intersection between emotion and rhetoric,
reading ancient theorists and practitioners in the art of love-letter
writing. Readings will include Cicero, Ovid, Propertius, Horace, Seneca,
and Petronius. "Love" will include the full breadth of affections from
intellectual friendship to erotic desire, and "letters" will include the whole
spectrum of written communication, both formal and informal. A special
goal of this course will be to gently develop our speaking and writing
skills in Latin. Final projects will be flexible, ranging from a traditional
term-paper to creative experiments in speaking and writing Latin.
Not Offered Every Year
1 Course Unit
LATN 3203 Triangulating Augustanism: Livy, Horace, and Ovid
What is a Roman? How does the rise of Augustus Caesar change the meaning of Romanness? In this course, we will read selections from the historian Livy and the poets Horace and Ovid as they try (and sometimes fail) to navigate and accommodate the new regime. Livy’s prose history of Rome, Ab Urbe Condita, looks to the past for moral guidance and attempts to draw lessons for the imperial future. Horace’s Odes veer from ironic to patriotic (and back again) as he works out the new reality and his place in it. Ovid’s Fasti, written during the poet’s exile from Rome, report the origins of Rome’s sacred festival calendar. Through close readings of these three texts, this course will consider Augustanism from several angles and distances, and attempt to construct a richer picture of a complicated and vibrant period.
Fall or Spring
1 Course Unit
Not Offered Every Year

LATN 3204 Plague and Pestilence in Latin Literature
Plagues and pestilences were a common feature of life in the ancient world. As such, they fueled the literary imagination. Historians, doctors, poets, and others have left many accounts of diseases, both endemic and epidemic. This literature can be considered a kind of literary genre with its own conventions, literal and metaphorical frames of reference, and intertextual relations. We will focus on a few representative examples in Latin literature to read in the original, and will read others Greek and Roman accounts in translation to gain familiarity with the broader context. Students will gain experience in reading upper-level Latin while broadening their knowledge of Latin literature and literary history.
Not Offered Every Year
1 Course Unit

LATN 3205 Medieval Latin
This course will be an introduction to the literature of the Latin Middle Ages. Our readings will range from the early Christian era (beginning with the Latin Vulgate translation of Scripture) and early medieval poetic philosophy (Boethius) to medieval receptions of classical myth, funny and poignant Latin poetry of the later Middle Ages, literary love letters, autobiography (Abelard), and other selections from the rich fields of medieval Latin literature. The purpose of this course is to offer a broad picture of the Latin literature of the Middle Ages and to engage with some key themes that medieval Latinity offers up to us: how to engage with antiquity, how to imitate and innovate, how to be persuasive, how to value poetic effect for its own sake, how to negotiate the sacred and secular domains of Latinity. We’ll be particularly interested in how medieval teachers taught Latin to non-Latin speakers, whose native languages were French, English, German, etc., a parallel to our modern situation. 200-level Latin or equivalent is a prerequisite for enrollment.
Not Offered Every Year
1 Course Unit

LATN 3206 The Underworld in Latin Poetry
The mythical land of the dead was a source of endless fascination and inspiration for Latin poets of all periods. The importance of the underworld as a place of revelation, a storehouse of poetic treasure, and a demonic source of narrative and dramatic energy is especially great in epic and tragic poetry. In this course we will survey conceptions of the underworld as presented from the 2nd century BCE to the 4th century CE in the works of Ennius, Lucretius, Vergil, Ovid, Seneca, Lucan, Statius, and Claudian and the influence of these poets on medieval, renaissance, and modern literature. An intermediate (200-level) Latin or equivalent course is prerequisite.
Not Offered Every Year
1 Course Unit

LATN 3207 Writing Women at Rome
In this course, students will read texts in Latin from a variety of classical Roman genres - letters, love poems, epic, history, graffiti - that represent women’s communications. While working on their own translations, students will become familiar with the contemporary lively discussion surrounding the interpretation and translation of the poet Ovid through contemporary opinion pieces. At the same time, we will also get to know some of the historical evidence for women’s educational, philosophical, literary, and sexual activities. We will read the mysterious poems attributed to Sulpicia, one of the few bodies of pre-Christian writings in Latin attributed to a woman - and understand the debates surrounding her work. Principal readings will be drawn from Ovid (Metamorphoses, Heroides), Sulpicia (Elegies), and Roman satire.
Not Offered Every Year
1 Course Unit

LATN 3208 Pagan and Christian Martyrs
Under the Roman Empire, martyrdom — dying for one's beliefs — took many different forms among different groups. Some martyrs were members of the imperial power structure, while others were individually unimportant subjects. Nevertheless, all of their deaths had political, philosophical, religious, and personal meanings. Many of them came to be celebrated in some of the world’s most compelling literature. In this course we will read and discuss a number of shorter and a few longer examples of martyr literature in Latin and in English translation from the 1st century BCE to the 6th century CE and compare them to one or more modern examples of martyr literature. Evaluation will be based primarily on daily, in-class contributions to translation and discussion. There will also be a mid-term examination and a choice between a final examination or a ten-to-fifteen page paper.
Not Offered Every Year
1 Course Unit

LATN 3401 Seneca, On the Brevity of Life and other essays
Seneca was the most important writer of Latin in the early imperial period. In addition to poetry, satire, and natural philosophy, he wrote ethical philosophy in the form of letters, dialogues, and essays. His works "On the Brevity of Life" and "On Leisure" speak both the ethical issues of his own time and those of many others, including our own. In this course we will read both these essays with the goals of becoming familiar with Seneca’s thought and style of expression, both as an individual and as a writer representative of his age. Students will have the opportunity to respond to Seneca in the form of critical essays, essayistic or epitaphial responses, or other forms of their choosing.
1 Course Unit

LATN 3403 The Poetry of Phaedrus
A survey of the poetry of Phaedrus, who wrote during the reign of Tiberius or shortly thereafter. His poems consist mainly of animal fables in the manner of Aesop. Through regular translation and discussion, students will gain facility with Phaedrus’ poetic style, which is disarmingly simple, and with the esthetic and political interpretation of his work, which is always entertaining, and sometimes challenging. In addition, by reading other examples of Aesopic fables in translation, we will gain some familiarity with Phaedrus’ sources and his influence, which is considerable, as well as with the relation of Aesopic fable to other kinds of animal fable.
Not Offered Every Year
1 Course Unit
LATN 3801 Advanced Latin Language and Composition
Study of Latin grammar, vocabulary, and stylistic features, combining exercises in analysis, composition, and sight translation. Intended for graduate students and advanced undergraduates.
Not Offered Every Year
Mutually Exclusive: LATN 5801
1 Course Unit

LATN 3982 Study Abroad
This course code is assigned to a course taken abroad that lacks an equivalent course on the Penn roster.
1 Course Unit

LATN 3999 Independent Study in Advanced Latin Literature
This course is taken by students doing independent work with a faculty advisor, equivalent to 3000-level advanced courses.
1 Course Unit

LATN 4998 Senior Research Paper (Honors Thesis)
This course is taken in the senior year by students approved to write a Senior Research Paper for the Ancient History major. For policies see the Classical Studies department website.
Fall or Spring
Also Offered As: ANCH 4998
1 Course Unit

LATN 5040 Medieval Latin
This course will be an introduction to the literature of the Latin Middle Ages. Our readings will range from the early Christian era (beginning with the Latin Vulgate translation of Scripture) and early medieval poetic philosophy (Boethius) to medieval receptions of classical myth, funny and poignant Latin poetry of the later Middle Ages, literary love letters, autobiography (Abelard), and other selections from the rich field of medieval Latin literature. The purpose of this course is to offer a big picture of the Latin literature of the Middle Ages and to engage with some key themes that medieval Latinity offers up to us: how to engage with antiquity, how to imitate and innovate, how to be persuasive, how to value poetic effect for its own sake, how to negotiate the sacred and secular domains of Latinity. We'll be particularly interested in how medieval teachers taught Latin to non-Latin speakers (students whose native languages were French, English, German, etc.), a parallel to our modern situation. 200-level Latin or equivalent is a prerequisite for enrollment.
Not Offered Every Year
1 Course Unit

LATN 5801 Advanced Latin Language and Composition
Study of Latin grammar, vocabulary, and stylistic features, combining exercises in analysis, composition, and sight translation. Intended for graduate students and advanced undergraduates.
Not Offered Every Year
Mutually Exclusive: LATN 3801
1 Course Unit

LATN 6600 The Latin Text: Language and Style
What do we need to read texts in Latin? In these courses we read just one prose text and one poetic text, or a very limited number of texts and passages, with a focus on language and formal analysis (such as diction, grammar, stylistics, metrics, rhetoric, textual criticism). A range of exercises will be used to develop this, including composition, lexical studies, recitation, memorization, exegesis, written close-readings, and sight-translation.
Not Offered Every Year
1 Course Unit

LATN 6601 Latin Literary History
In this course we survey an extensive range of readings in a variety of authors in both prose and poetry, and consider the problems and opportunities involved in literary history.
Not Offered Every Year
1 Course Unit

LATN 6610 Reading Latin
Intensive reading in ancient Latin literature, focusing on the skills and practices required to read closely a 150-page “short list” of key texts and to become familiar with authors, chronology, meters, dialects, and genres. Exercises include analysis, sight translation, and practice versions of the Qualifications Examination in Latin.
1 Course Unit

LATN 7002 The Mostly Latin Epigram
In this seminar we will explore the themes and aesthetics of the Latin epigram, a genre (or is it?) best known for its brevity and wit but one whose precise nature is tantalizingly elusive. After orienting ourselves in the epigrams of Hellenistic Greek epigrammatists and late Republican authors like the so-called Neoterics (Catullus, Cinna, Calvus, Caesar), we will turn our attention to the poetry of Martial, whose accounts of Rome, its inhabitants, and their foibles exerted a profound influence on subsequent epigrammatists. Among the themes we will engage are: epigram as a genre; persona in tessellated textual collections; the interaction of refined and obscene language; and the artistic and intellectual implications of replication, anthology, and remix.
1 Course Unit

LATN 7004 The Worlds of the Latin Novel
This seminar will explore the worlds of Petronius' Satyrica, Apuleius' Metamorphoses, and other works of Latin prose fiction, devoting equal time to literary, historical, and material dimensions. Participants will devise research topics to serve as the focus of presentations and a seminar paper. Latin is not required, but the regular reading assignments will include Latin options, both from ancient novels and from modern novellae (a recent innovation in Latin learning).
Not Offered Every Year
Also Offered As: CLST 7602
1 Course Unit

LATN 7201 Julio-Claudian Literature
The years between the principates of Augustus and Nero are commonly regarded as a "fallow" period in Latin literary history. In fact, this is objectively untrue in terms of both the amount of literature produced during this time and in terms of its influence. If one considers the relationship between contemporary Latin and Greek literature or the evidence for increased institutional support of literature during this period, the sense of its importance increases. In this course we will study the formative aspects of literature culture during the regimes of Tiberius, Gaius, and Claudius and their decisive influence on the Latin and Greek literature of the subsequent Imperial Period.
1 Course Unit
LATN 7203 Roman Humor and Invective
This seminar will explore Roman humor in epigram, iambic, oratory, and satire as a method of constructing and policing norms of sexuality, the body, and social identity. We will read from a wide range of authors including Catullus, Martial, Cicero, Quintilian, Petronius, and Juvenal, as well as texts that discuss or depict laughter and ridicule. Beyond focused analysis of the works at hand, we will evaluate modern theories of humor and laughter according to the ancient evidence and develop models for understanding Roman humor. In addition to weekly readings, students will be responsible for class presentations, contributing to works-in-progress workshops, and a final research paper.
Not Offered Every Year
Also Offered As: CLST 7200
1 Course Unit

LATN 7204 The Black Aeneid
This research seminar will bring the insights of critical race theory to bear on Vergil's Aeneid. Its general objective will be to assess how these insights reinforce and/or complicate existing ideas about the poem and its reception. We will frame our work in terms of three major questions: (1) To what extent are ancient conceptions of blackness thematized in the poem? (2) What insights can be gained by studying the poem with reference to modern conceptions of Blackness? (3) How has race figured in assessments of and responses to the Aeneid by scholars, writers, and artists? To answer these questions we will organize our work under three research rubrics, each of them based on a secondary character whom the poem figures explicitly or implicitly as black. These are: The Black Hero (Memnon); The Black Suitor (Iarbas); The Black Poet (Iopas). Students will work in groups to address these and other topics with a view to understanding the potential significance of such features in the poem as a whole and in its reception. The goal of the course will be to produce publishable research as well as materials to facilitate teaching the Aeneid with appropriate attention to issues of race in the poem, in classical studies, and in ancient and modern society. Each student will write a paper reporting on their own research, or a part of it, during the seminar and will contribute to one of several collaborative papers that will be assessed for eventual submission to an appropriate peer-reviewed journal. Graduate-level Latin is a pre-requisite for this course.
Not Offered Every Year
1 Course Unit

LATN 7210 The Principate under Pressure: Gaius Caligula
The course discusses the principate of Gaius Caligula in regard to contemporary evidence, later reception in antiquity, and modern scholarship.
Not Offered Every Year
Also Offered As: ANCH 7210
1 Course Unit

LATN 7202 ANCH 7210
Not Offered Every Year

LATN 7403 Phaedrus and Aesopic Fable
The Roman poet Phaedrus is author of the earliest surviving collection of Aesopic fables in Greek or Latin. His work, which dates from the reign of Tiberius or shortly afterwards, is foundational for later collections of animal fables in all European languages. In addition, and in contrast to most Greek and Latin literature, many of his fables are known in earlier and later versions in languages such as Sanskrit, Arabic, Syriac, Persian, and others. Phaedrus' poetry therefore bears witness to the aesthetics and the sociopolitical realities of the early Roman Empire, and also belongs to a literary and cultural tradition that extends far beyond the limits of Greek and Roman indebtedness and influence. Students will become familiar with both aspects. Class meetings will be divided between group reading and discussion of Phaedrus' poetry with reference to its closest Greek and Latin analogues, and individual student reports on related or similar material from other literary traditions.
Not Offered Every Year
1 Course Unit

LATN 7601 Tacitus' Annals
In this seminar we will read Tacitus' Annals, a work replete with stirring history presented in a style that eschews complacency. Through careful study of this work and selected passages of its predecessor, the Histories, we will develop a richly detailed understanding of Tacitus' historiographical method, principles, and practice. Consideration of surviving epigraphic parallels will allow us to see a particularly important element of his historiographical practice, namely, his awareness of but deviation from the official record of events. Each class session will involve close reading of the text and student-led discussion of important features of Tacitus work. As a group project we will produce a variorum edition of the Annals for on-line publication. Final projects will take the form of papers suitable for presentation at the SCS Annual Meeting.
Fall or Spring
1 Course Unit

LATN 9999 Independent Study
This course is taken by graduate students doing independent work with a faculty advisor.
Fall or Spring
1-2 Course Units

Latin American & Latinx Studies (LALS)

LALS 0012 First-Year Seminar: War on Drugs in Latin America
The United States government has spent tens of billions of dollars on policies aimed at reducing the flow of
Fall or Spring
Also Offered As: PSCI 0012
1 Course Unit

LALS 0040 First-Year Seminar: Coca and Cocaine
This seminar compares a set of practices that center on coca leaf production in indigenous communities, where coca cultivation has been sustained over long centuries, on the one hand, with a set of unsustainable practices linked to the "drug war" in the Americas, on the other. Participants will read scholarly work in history and anthropology, support one another through a research process, and explore what historians and other scholars might contribute to discussions about drug policy. First-year students only.
Fall or Spring
Also Offered As: HIST 0040
1 Course Unit
LALS 0091 Sustainable Development and Culture in Latin America
This interdisciplinary course exposes students to the three dimensions of sustainable development - environmental, economic, and social through an examination of three products - peyote, coca, and coffee - that are crucial in shaping modern identity in areas of Latin America. The course integrates this analysis of sustainable development in relation to cultural sustainability and cultural practices associated with peyote, coca, and coffee and their rich, traditional heritage and place in literature, film, and the arts.
Fall, even numbered years only
Also Offered As: ANTH 0091, ENVS 0054, SPAN 0091
1 Course Unit

LALS 0092 Corona Capitalism: Crisis and Inequality Across the Americas
The coronavirus pandemic has exacerbated existing social inequalities. It has also accelerated the pace of history so sharply that the course of events has become nearly impossible to predict. This CWiC critical speaking seminar takes as its starting point our shared participation in the experience of uncertainty. At the same time, in looking to Latin America and the US, it articulates the fact that COVID-19 is anything but a “great equalizer”: its impact varies widely and decisively across race, class, and gender. As the world confronts multiple layers of wreckage, not only biological but also ecological and economic, how can we frame and communicate both uncertainty and truth in a thoughtful way? We will examine social problems that have been laid bare by the pandemic and have since become sites of ethical and political reevaluation, namely health disparities, ecological racism, the distribution of labor, and criminal justice. This seminar’s aim is to collaboratively assess one fundamental question: How can we understand COVID-19 not as an exceptional moment in history, but as a crisis of racial capitalism? By studying media, activism, policy, and scholarship produced during the pandemic alongside foundational critical theory, students will gain the analytical tools to contextualize its disproportionate global impact on poor communities and people of color, and to envision a just post-pandemic recovery. We will engage Marxist, feminist, and anti-racist theoretical approaches, and while familiarity with these methods is not necessary, an openness to them is. Self-examination is crucial to the success of the course, which requires students reflect on their own political, intellectual, and emotional investments in racialized inequality. This is a speaking intensive seminar intended to improve students’ oral communication and listening skills through class discussions, prepared presentations, and mixed-media communication projects. Conducted in English.
Fall or Spring
Also Offered As: SPAN 0092
1 Course Unit

LALS 0093 Latinx Environmental Justice
This course explores the involvement of the Latinx environmental justice movement since the 1960s. It addresses theories and concepts of environmental racism and environmental justice, underscoring how Latinx have challenged, expanded, and contributed to the environmental justice discourse. In this course, students will explore national case studies of environmental and racial injustice as they bear on Latinx communities both in rural areas and in urban barrios throughout the United States. The course will analyze these case studies through the lens of Latinx artistic and literary texts (essays, paintings, short stories, documentaries, and short films) as they provide a unique historic and multicultural perspective of the Latinx experience with environmental injustice and of how Latinxs imagine alternative transitions and responses to environmental marginalization. In addition, the works of Latinx artists and writers will serve as case studies to deconstruct racial stereotypes of Latinxs as unconcerned about environmental issues, shedding light on how they share a broad engagement with environmental ideas. The case studies analyzed in this course emphasize race and class differences between farmworkers and urban barrio residents and how they affect their respective struggles. The unit on farmworkers will focus on workplace health issues such as toxic chemicals and collective bargaining contracts. The unit on urban barrios will focus on gentrification, affordable housing, and toxic substances in the home. We will also review current and past programs that have been organized to address the aforementioned problems. This is an Academically Based Community Service Course (ABCS course) through which students will learn from and provide support to a Latinx-serving organization in the City of Philadelphia on preventing exposure to hazardous substances, thus bridging the information gap on environmental justice issues in the Latinx community in Philadelphia. Information dissemination and education efforts will be conducted by collaborating with Esperanza Academy Charter School in Philadelphia to implement lessons on preventing exposure to hazardous substances. Studying environmental justice and pairing it with community service will heighten students’ awareness of the complexities of culture, race, gender, and class while providing them with an invaluable experience of cross-cultural understanding.
Spring
Also Offered As: ANTH 0930, ENVS 0054, SPAN 0093, URBS 0093
1 Course Unit
LALS 0115 American Race: A Philadelphia Story (SNF Paideia Program Course)
This course proposes an examination of race with a two-pronged approach: one that broadly links the study of race in the United States with a multi-disciplinary approach and also simultaneously situates specific conversations within the immediate location of Philadelphia, home to the University. The broad historical examination advances key concepts of race and racialization, explores key theoretical methodologies, and highlights major scholarly works. For example, students will engage with the study of race through Africana Studies, Asian American Studies, Urban Studies and through Latin American & Latinx Studies. Readings and methodologies will introduce students to critical issues in education, in literature, in sociology, and with methods in oral history, archival work, and ethnography. Most importantly, this extensive approach highlights the impact of race across multiple communities including Black Americans, immigrant populations, and communities that are marginalized to emphasize connections, relationships, and shared solidarity. Students are intellectually pushed to see the linkages and the impacts of racism across and among all Americans historically and presently. As each theme is introduced a direct example from Philadelphia will be discussed. The combination of the national discourse on race, with an intimate perspective from the City of Philadelphia, engages students both intellectually and civically. The course will be led by Fariha Khan and Fernando Chang-Muy but guest instructors with varied disciplinary backgrounds and guest speakers from local community organizations. Each instructor not only brings specific disciplinary expertise, but also varied community engagement experience.
Spring
Also Offered As: AFRC 1115, ANTH 1150, ASAM 0115, SAST 1115, SOCI 2976, URBS 1150
1 Course Unit

LALS 0270 The Immigrant City
This course focuses on immigrant communities in United States cities and suburbs. We survey migration and community experiences among a broad range of ethnic groups in different city and suburban neighborhoods. Class readings, discussions, and visits to Philadelphia neighborhoods explore themes including labor markets, commerce, housing, civil society, racial and ethnic relations, integration, refugee resettlement, and local, state, and national immigration policies. The class introduces students to a variety of social science approaches to studying social groups and neighborhoods, including readings in sociology, geography, anthropology, social history, and political science. Ultimately, the class aims to help students develop: 1) a broad knowledge of immigration and its impacts on U.S. cities and regions; 2) a comparative understanding of diverse migrant and receiving communities; and 3) familiarity with policies and institutions that seek to influence immigration and immigrant communities.
Spring
Also Offered As: SOCI 0270, URBS 0270
1 Course Unit

LALS 0400 Colonial Latin America
The year 1492 was pivotal in the history of the world. It precipitated huge population movements within the Americas and across the Atlantic - a majority of them involuntary as in the case of indigenous and African people who were kidnapped and enslaved. It led to cataclysmic cultural upheavals, including the formation of new cultures in spaces inhabited by people of African, European and indigenous descent. This course explores the processes of destruction and creation in the region known today as Latin America in the period 1400 - 1800. Class readings are primary sources and provide opportunities to learn methods of source analysis in contexts marked by radically asymmetrical power relationships.
Fall
Also Offered As: AFRC 0400, HIST 0400
1 Course Unit

LALS 0450 Modern Latin America 1808-Present
This course examines central themes of Latin American history, from independence to the present. It engages a hemispheric and global approach to understand the economic and social transformations of the region. We will explore the anti-imperial struggles, revolutions, social movements, and global economic crises that have given rise to new national projects for development, or have frustrated the realization of such goals. Taking a historical perspective, we will ask: What triggers imperial breakdown? How did slaves navigate the boundary between freedom and bondage? Was the Mexican Revolution revolutionary? How did the Great Depression lead to the rise of state-led development? In what ways have citizens mobilized for equality, a decent standard of living, and cultural inclusion? And what future paths will the region take given uneasy export markets and current political uncertainty?
Fall
Also Offered As: HIST 0450
1 Course Unit

LALS 0520 Capitalism, (Neo)Colonialism, Racism, and Resistance
This interdisciplinary seminar examines, from an international perspective, theory and artistic productions, including literature, films, and performance art, that analyze and critique capitalism, imperialism and (neo)colonialism, racism, and patriarchy. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: COML 0520, ENGL 0520
1 Course Unit
LALS 0600 The Foundations of the Early Modern Atlantic World 1450-1800
The purpose of this course is to provide students with a solid knowledge of Atlantic history during the early modern period (XV-XVIII centuries). Through readings of primary and secondary texts we will discuss the cultural, religious, intellectual, and economic developments of Europe, Africa, and the Americas, as well as the connections, struggles, and mutual influences between the peoples of these three continents. Throughout the semester we will study several important topics: medieval precedents of early modern expansion; theories of empire; ideologies and systems of conquest and colonization; the relevance of race and slavery to the understanding of the early modern Atlantic world; how different peoples perceived others and themselves; how European imperialism and colonization affected the internal development of Africa and America; the role played by religion in the Atlantic world; persistence and continuity of Native cultures and beliefs during an age of expansion; the creation of new identities; the role played by African nations in the creation of the Atlantic world; and the creation of an Atlantic economy. Not Offered Every Year Also Offered As: HIST 0600 1 Course Unit

LALS 0720 Introduction to Latin American and Latino Studies
Designed to introduce students to the interdisciplinary field of Latin American and Latino Studies, this is a seminar oriented toward first and second year students. Readings will range widely, from scholarly work on the colonial world that followed from and pushed back against the "conquest"; to literary and artistic explorations of Latin American identities; to social scientists' explorations of how Latinos are changing the United States in the current generation. Spring Also Offered As: HIST 1702 1 Course Unit

LALS 1060 Race and Ethnic Relations
The course will focus on race and ethnicity in the United States. We begin with a brief history of racial categorization and immigration to the U.S. The course continues by examining a number of topics including racial and ethnic identity, interracial and interethnic friendships and marriage, racial attitudes, mass media images, residential segregation, educational stratification, and labor market outcomes. The course will include discussions of African Americans, Whites, Hispanics, Asian Americans and multiracial. Fall or Spring Also Offered As: AFRC 1060, ASAM 1510, SOCI 1060, URBS 1060 1 Course Unit

LALS 1090 Urban Sociology
This course is a comprehensive introduction to the sociological study of urban areas. This includes more general topics as the rise of cities and theories urbanism, as well as more specific areas of inquiry, including American urbanism, segregation, urban poverty, suburbanization and sprawl, neighborhoods and crime, and immigrant ghettos. The course will also devote significant attention to globalization and the process of urbanization in less developed counties. Not Offered Every Year Also Offered As: AFRC 1090, SOCI 1090, URBS 1090 1 Course Unit

LALS 1103 Dilemmas of Immigration
Beneath the daily headlines about refugees blocked entry, and undocumented migrants deported there is a set of hard questions which deserve closer attention: Should countries have borders? If countries have borders, how should they decide who is kept out and who is allowed in? How many immigrants is ’enough’? Are immigrants equally desirable? What kinds of obligations do immigrants have to their receiving society? What kinds of obligations do host societies have to immigrants? Should there be ‘pathways’ to citizenship? Can citizenship be earned? Should citizenship be automatic? This course explores these and other dilemmas raised by immigration. Spring, odd numbered years only Also Offered As: PSCI 1103 1 Course Unit

LALS 1120 Latin American Politics
This course examines the dynamics of political and economic change in twentieth century Latin America, with the goal of achieving an understanding of contemporary politics in the region. We will analyze topics such as the incorporation of the region to the international economy and the consolidation of oligarchic states (1880s to 1930s), corporatism, populism, and elict pacts (1930s and 1940s), social revolution, democratic breakdown, and military rule (1960s and 1970s), transitions to democracy and human rights advocacy (1980s), maktet-oriented reforms (1990s), and the turn to the left of current governments (2000s). The course will draw primarily from the experiences of Argentina, Brazil, Colombia, Chile and Mexico. No prior knowledge of the region is required. Fall or Spring Also Offered As: PSCI 1120 1 Course Unit

LALS 1121 U.S. Intervention in Latin America
Why has the United States government participated in regime change in Latin America? How have these interventions affected Latin American political and economic outcomes? How have they helped or hurt U.S. interests in the region? This lecture course provides an introduction to the history and politics of U.S. participation in regime change in Latin America since 1949. For each event, the course will help students understand (1) the goals of the U.S. government; (2) the historical and political context of the intervention; and (3) the outcomes and consequences, both in Latin America and for the United States. One set of short writing assignments will train students to identify the main argument of a reading and assess the quality of the evidence presented in support of that argument; a second set of short writing assignments will train students to make and defend their own argument (see draft syllabus for details). Spring, odd numbered years only Also Offered As: PSCI 1121 1 Course Unit
LALS 1160 Caribbean Culture and Politics
This course offers anthropological perspectives on the Caribbean as a geo-political and socio-cultural region, and on contemporary Caribbean diaspora cultures. We will examine how the region’s long and diverse colonial history has structured relationships between race, ethnicity, class, gender and power, as well as how people have challenged these structures. As a region in which there have been massive transplantations of peoples and their cultures from Africa, Asia, and Europe, and upon which the United States has exerted considerable influence, we will question the processes by which the meeting and mixing of peoples and cultures has occurred. Course readings include material on the political economy of slavery and the plantation system, family and community life, religious beliefs and practices, gender roles and ideologies, popular culture, and the differing ways national, ethnic, and racial identities are expressed on the islands and throughout the Caribbean diaspora.
Not Offered Every Year
Also Offered As: AFRC 1160, ANTH 1160
1 Course Unit

LALS 1191 The U.S. and the World since 1898
This class examines the emergence of the U.S. as a world power since 1898, and considers both the international and domestic consequences of U.S. foreign relations. In one respect, the twentieth century was a strange time to become a global empire: it was the period when colonial systems centered in Europe, Russia, Japan, and Turkey collapsed, and new nations emerged throughout Africa and Asia. This class explores the changing strategies of military, economic, and political intervention that the U.S. pursued as colonization lost legitimacy. Within that framework, the class invites students to think about several questions: How did the idea and practice of empire change over the twentieth century? How did the United States relate to religious visions of independence emerging in Africa, Asia, and Latin America? How did global interactions both inform and reflect racial ideology in the United States? Finally, how did international affairs transform U.S. politics and social movements?
Spring
Also Offered As: HIST 1191
1 Course Unit

LALS 1202 Literature of the Americas to 1900
This course examines U.S. literature and culture in the context of the global history of the Americas. Historical moments informing the course will range from the origins of the Caribbean slave-and-sugar trade at the beginning of the nineteenth century, to the Monroe Doctrine of 1823 and the U.S.-Mexico and Spanish-American wars. Readings will include works by authors such as Frances Calderon de la Barca, Frederick Douglass, Helen Hunt Jackson, Henry Wadsworth Longfellow, Jose Marti, Herman Melville, John Rollin Ridge, Maria Amparo Ruiz de Burton, and Felix Varela. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 1120
1 Course Unit

LALS 1260 Latinx Literature and Culture
This course offers a broad introduction to the study of Latinx culture. We will examine literature, theater, visual art, and popular cultural forms, including murals, poster art, graffiti, guerrilla urban interventions, novels, poetry, short stories, and film. In each instance, we will study this work within its historical context and with close attention to the ways it illuminates class formation, racialization, and ideologies of gender and sexuality as they shape Latinx experience in the U.S. Topics addressed in the course will include immigration and border policy, revolutionary nationalism and its critique, anti-imperialist thought, Latinx feminisms, queer latinidades, ideology, identity formation, and social movements. While we will address key texts, historical events, and intellectual currents from the late 19th century and early 20th century, the course will focus primarily on literature and art from the 1960s to the present. All texts will be in English.
Not Offered Every Year
Also Offered As: ARTH 2679, COML 1260, ENGL 1260, GSWS 1260
1 Course Unit

LALS 1290 Race and Ethnic Politics
This course examines the role of race and ethnicity in the political discourse through a comparative survey of recent literature on the historical and contemporary political experiences of the four major minority groups (Blacks or African Americans, American Indians, Latinos or Hispanic Americans, and Asian Americans). A few of the key topics will include assimilation and acculturation seen in the Asian American community, understanding the political direction of Black America in a pre and post Civil Rights era, and assessing the emergence of Hispanics as the largest minority group and the political impact of this demographic change. Throughout the semester, the course will introduce students to significant minority legislation, political behavior, social movements, litigation/court rulings, media, and various forms of public opinion that have shaped the history of racial and ethnic minority relations in this country. Readings are drawn from books and articles written by contemporary political scientists.
Not Offered Every Year
Also Offered As: PSCI 1290
1 Course Unit

LALS 1310 Africa and the Transatlantic Slave Trade
This course focuses on the history of selected African societies from the sixteenth through the mid-nineteenth centuries. The primary goal is to study the political, economic, social, and cultural history of a number of peoples who participated in the Atlantic slave trade or were touched by it during the era of their involvement. The course is designed to serve as an introduction to the history and culture of African peoples who entered the diaspora during the era of the slave trade. Its audience is students interested in the history of Africa, the African diaspora, and the Atlantic world, as well as those who want to learn about the history of the slave trade. Case studies will include the Yoruba, Akan, and Fon, as well as Senegambian and West-central African peoples.
Fall or Spring
Also Offered As: AFRC 1310, HIST 1310
1 Course Unit
LALS 1320 Portuguese for the Professions
Portuguese for the Professions is designed for advanced-level students to develop their ability to use a wide technical vocabulary. The course will cover an array of topics in the areas of Economy, Politics, Science, Technology, Law and others as they pertain to the societies and cultures of the Lusophone countries, with particular emphasis placed on Brazil. Through readings, movies, discussions, essays and presentations, students will enhance their ability to write about and discuss these topics while employing the appropriate technical vocabulary.
Fall or Spring
Also Offered As: PRTG 1320
Prerequisite: PRTG 1000
1 Course Unit

LALS 1340 Portuguese for the Professions II
Portuguese for the Professions II is a second-semester course designed to provide advanced-level students with exposure to, and practice in, a wide variety of technical vocabulary, and to develop their communicative skills on topics related to Brazil’s economic, social and historical context. Classroom activities will be based on the readings and discussions of articles, papers, the viewing of documentaries and other visual media, covering an array of topics within the proposed themes. The course will be conducted in Portuguese.
Fall
Also Offered As: PRTG 1340
Prerequisite: PRTG 1000
1 Course Unit

LALS 1400 Silver and Gold in the Americas from pre-history to the present
Precious metals have shaped pre-Colombian economies and socio-cultural processes in the Americas for thousands of years. After 1492, gold and silver sent from the "New World" to the "Old World" played a key role in changing economies all over the world. Locally, mining centers were places marked by forced labor, conspicuous consumption, and the destruction of ecosystems. Internationally, gold and silver prices have long had outsized effects on monetary and trade policies. This course uses case studies to delve into the fascinating history of precious metals and mining in North and South America. We will analyze documents describing the gold objects ransacked by Spanish conquistadors, examine 17th Century proto-industrial silver mining at Potosi, trace the impact and human cost of the huge gold strikes in Minas Gerais, in colonial Brazil, read new work on the California and Yukon moments of "rush" and their long-term impact on US monetary policy, and follow new reports about the conflicts at the heart of transnational gold mining in the present. Students will gain experience working with primary sources and will produce an in-depth research paper.
Spring
Also Offered As: HIST 1400
1 Course Unit

LALS 1405 Indigenous Latin America 1400-1800
In 1492 Europeans began to colonize the Americas. Many colonizers sought to dispossess Indigenous people of their labor, land, and, sometimes, their lives, and often tried to impose their religion and cultural practices. Nonetheless, throughout Latin America Indigenous communities not only survived but adapted in creative, vigorous ways to the new social and ecological circumstances. In this course we will look at the diverse ways that Indigenous individuals and collectives avoided or adapted to colonial rule in Latin America between 1492 and 1800. We will particularly focus on Arawakan, Carib, Tupinamba, Nahuatl, and Andean histories. Readings will include both primary and secondary sources.
Also Offered As: HIST 1405
1 Course Unit

LALS 1455 Independence and Revolution in Latin America: Crises and Crossroads
Was it inevitable that the countries in Latin America would become independent, republican nations? What was the impact of revolutions throughout the region from Mexico to Buenos Aires? This course studies the main social, political, economic, and cultural tensions that shook Spanish and Portuguese America during the first decades of the nineteenth century. Through close readings of primary and secondary sources, we will reflect on the meanings and implications of independence and the rise of new republican nations throughout the region. The course is expansive across time and space as we explore topics including the Tupac Amaru Rebellion in Perú, the Comunero Revolt in New Granada, and how the French and Haitian Revolutions, as well as U.S. independence, were perceived throughout Spanish and Portuguese America. We will also delve deeply into the diversity of independence movements. Why did a monarch hold onto power for years after independence was proclaimed in Brazil? How were societies divided during the struggle and who fought on which side? The course culminates with a study of the impact and legacy of independence and revolutions on the region in the mid-19th century and thereafter.
Not Offered Every Year
Also Offered As: HIST 1455
1 Course Unit
LALS 1475 History of Brazil: Slavery, Inequality, Development
In the past decade, Brazil has emerged as a leading global power. As the world’s fifth-largest country, by size and population, and the ninth-largest by GDP, Brazil exerts tremendous influence on international politics and the global economy, seen in its position as an emerging BRIC nation and a regional heavyweight in South America. Brazil is often in the news for its strides in social welfare, leading investments in the Global South, as host of the World Cup and Olympics, and, most recently, for its political instability. It is also a nation of deep contradictions, in which myth of racial democracy – the longstanding creed that Brazilian society has escaped racial discrimination – functions alongside pervasive social inequality, state violence, political corruption, and an unforgiving penal system. This course examines six centuries of Brazilian history. It highlights the interplay between global events – colonialism, slavery and emancipation, capitalism, and democratization – and the local geographies, popular cultures, and social movements that have shaped this multi-ethnic and expansive nation. In particular, the readings will highlight Brazil’s place in Latin America and the Lusophone World, as well as the ways in which Brazil stands as a counterpoint to the United States, especially in terms of the legacy of slavery and race relation. In this lecture, we will also follow the current political and economic crises unfolding in Brazil, at a moment when it has become all the more important to evaluate just how South America’s largest nation has shaped and been shaped by global events.
Not Offered Every Year
Also Offered As: AFRC 1475, HIST 1475
1 Course Unit

LALS 1620 The Rise and Fall of the Spanish Empire 1450-1700
This course will provide students with a solid knowledge of the history of early modern Spain (1450-1700). Through readings of primary and secondary texts that offer a complex vision of the cultural, religious, intellectual, and economic contexts and processes, students will be able to appreciate the intricacies of Spain’s historical evolution. The course focuses on the rise and decline of the Spanish monarchy: the conditions that enabled Spain to become the most powerful monarchy in early modern times, and the conditions that led to its decline. This course also touches upon other important aspects critical to understanding early modern Spain: relationships among Christians, Muslims, and Jews in the Iberian Peninsula; the conquest and colonization of the New World; and early modern debates about Spain’s rights to occupy America and the so-called “destruction of the Indies.”
Fall or Spring
Also Offered As: HIST 1620
1 Course Unit

LALS 1625 Era of Revolutions in the Atlantic World
This class examines the global ramifications of the era of Atlantic revolutions from the 1770s through the 1820s. With a particular focus on French Saint Domingue and Latin America, it provides an overview of key events and individuals from the period. Along the way, it assesses the impact of the American and French revolutions on the breakdown of colonial regimes across the Americas. Students will learn how to think critically about citizenship, constitutional power, and independence movements throughout the Atlantic world. Slavery and the transatlantic slave trade were seriously challenged in places such as Haiti, and the class investigates the appropriation and circulation of revolutionary ideas by enslaved people and other subaltern groups.
Also Offered As: AFRC 1625, HIST 1625
1 Course Unit

LALS 1700 The African Diaspora: Global Dimensions
This class examines the cultural and social ramifications of the African diaspora on a global level. It is divided into two major sections. The first section provides the historical background to the African diaspora by focusing on the forced migration of Africans to Spanish and Portuguese colonies in the Americas. We will then delve into the black experience in French and British colonial spaces. In this section, we will also endeavor to move beyond the Atlantic-centric paradigm in studies of the African diaspora by examining free and unfree migrations of African people across the Indian Ocean to places as far away as India and the Philippines. The second half of the class devotes significant attention to the historical legacy of slavery and colonialism in places like Brazil, Cuba, and the United States. In this section, we will discuss such issues as race relations, the struggle for civil rights for African-descent people as well as the emergence and the implementation of affirmative action policies in places like Brazil and the US.
Spring
Also Offered As: AFRC 1700, HIST 1700
1 Course Unit

LALS 1740 Capitalism, Socialism, and Crisis in the 20th Century Americas
From the crisis of the Great Depression through the 1970s, the United States and Latin America produced remarkable efforts to remake society and political economy. This course analyzes the Cuban and Guatemalan revolutions, as well as social movements that transformed the United States: the black freedom movement, the labor movement, and changing forms of Latinx politics. In all three countries, Americans looked for ways to reform capitalism or build socialism; address entrenched patterns of racism; define and realize democracy; and achieve national independence. They conceived of these challenges in dramatically different ways. Together, we’ll compare national histories and analyze the relationships between national upheavals.
Fall
Also Offered As: HIST 1740
1 Course Unit

LALS 1800 Perspectives in Brazilian Culture
This course is designed to provide advanced-level students with additional exposure to Portuguese language and culture, as they broaden their knowledge of the Lusophone world and its identity. Classes will focus on discussions and students presentations based on articles, literary texts, and movies or documentaries from, and about, the different regions of the world where Portuguese is spoken. We will start with Portugal and Brazil, and end with Angola and Mozambique, and their cultural expressions. A series of important themes related to the Lusophone world, its history, the dialogues among its different countries, and contemporary challenges will be incorporated in this course as a way to familiarize students with key themes. At the end of this course, students should 1) have developed their oral and written expressions in Portuguese, at the advanced-level, and 2) be able to recognize and discuss important themes, historical figures, and cultural characteristics of the Lusophone world.
Not Offered Every Year
Also Offered As: PRTG 1800
Prerequisite: PRTG 1000
1 Course Unit
LALS 1900 Topics in Portuguese, African and Brazilian Cultures
This course explores aspects of Luso-Brazilian culture and film in light of its social context and reception. For current course content, please see department’s webpage: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc.
Fall or Spring
Also Offered As: CIMS 1901, PRTG 1900
1 Course Unit

LALS 2020 International Organizations in Latin America
International Organizations play a powerful role in mitigating conflict at the global level. What role do they play in solving problems related to global politics, economic development, corruption, inequality and civil society in Latin America? How much power, influence and control do they possess in the region? This course examines the role and impact international organizations have had on Latin America since the mid-20th century. After a review of theoretical and methodological perspectives on the significance of IOs in international relations, students will examine the workings, issues and often controversies surrounding IOs in Latin America, including the IMF, World Bank, UN, OAS and ICC as well as other national and international institutions such as the Inter-American Court of Human Rights and area trade blocs and agreements of Mercosur, NAFTA and others. Students will also explore the regional impact of transnational civil society organizations, such as human rights organizations and the International Olympic Committee. Students will be invited to participate in the Washington Model OAS from April 10-17.
Spring
Also Offered As: PSCI 2421
1 Course Unit

LALS 2120 Democracy in Latin America
Since the inception of the twenty first century, Latin America has undergone major economic, social, and political transformations. Many of the neoliberal policies of the last quarter of the twentieth century were reversed or revisited, economic inequality decreased significantly across the region, and a number of governments turned to the left of the political spectrum, often instituting major public policy and constitutional reforms. How have those changes affected citizenship and democracy in the region? In particular, have citizens' channels for representation and participation changed in the recent past? What has happened to local participatory institutions since the return to the right in some countries of the region? The course will explore these and related questions. Students will develop their own research projects throughout the semester. While not a requirement, the ability to read Spanish or Portuguese will significantly enhance students' learning experience.
Fall or Spring
Also Offered As: PSCI 2120
1 Course Unit

LALS 2121 People of the Land: Indigeneity and Politics in Argentina and Chile
This undergraduate seminar compares the evolution of relations between settler colonial nation-states and indigenous peoples and movements throughout the Americas, with a particular focus on the Mapuche people of the Patagonia region, in the south of nowadays Argentina and Chile. The main goal of the course is to comparatively study the organization of indigenous communities and analyze their political demands regarding plurinationality, self-determination, territory, prior consultation, living well, and intercultural education and health care, as well as the different ways in which settler colonial nation-states accommodate or respond to such demands. The course is organized in three parts. The first part of the course studies indigenous rights in international law and in global affairs, particularly in the United Nations, the Organization of American States, and the International Labor Organization. The second part of the course studies indigenous organization, movements, parties, and political representation, in Latin America since the 1990s, when indigenous demands acquired national and international notoriety throughout Latin America. The third part of the course zooms in on a comparative analysis of the relationship between the Mapuche and the formation and evolution of the settler colonial nation-states in Argentina and Chile. Once international travel resumes, the course will have an eight-day travel component. Students will travel to the south of Argentina to visit indigenous Mapuche communities to experience and learn first-hand about their culture, intercultural education and health, recuperation of identity and language practices, different models of economic sustainability, and of territorial claims and arrangements, including co-management between indigenous communities and the National Parks system.
Spring, even numbered years only
Also Offered As: PSCI 2121
1 Course Unit

LALS 2135 Trash: The Dime Novel
This seminar explores the rise of the "dime novel" across the late eighteenth and nineteenth centuries in the United States. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: ENGL 2135
1 Course Unit
LALS 2145 Reading Maya Culture: Decipherment and a New Window into the Ancient Americas

The past three decades have seen a revolution in the study of the Ancient Americas, one with far-reaching implications for how we understand indigenous society and culture on this continent. This course will take us on a journey of academic discovery—encompassing language, art, and materiality—that explains how the decipherment of a major writing system has revealed a previously hidden world. The Maya are one of the most distinctive and best-known of Mesoamerican peoples, who live today, as they did in ancient times, in the Yucatan Peninsula and a region that spans modern southern Mexico, the whole of Guatemala and Belize, and the westernmost fringes of Honduras and El Salvador. From as early as 1000 BCE they were erecting major architecture and flourished for twenty-five more centuries before the invasion of Europeans brought their independence to an end in the sixteenth century CE. Within their elaborate urban spaces, the Maya erected large stone monuments inscribed with imagery and hieroglyphic texts—most of them commissioned in the Classic Period that reaches from 150-900 CE—although the script is also found on many smaller and more intimate objects. For the first century of research these texts proved all but unintelligible, as faulty assumptions and lack of adequate sources left a deep pessimism that they could ever be understood. But beginning in the 1980s major progress in "cracking the code" took place and today we can read almost all inscriptions to some extent, a decent number in their entirety. This course will teach practical skills that allow students with no previous background to read Maya inscriptions and gain access to the history, politics, religious beliefs, and practical material culture they describe. The fabulous design of the hieroglyphs, that at first seem to the history, politics, religious beliefs, and practical material culture they describe. The fabulous design of the hieroglyphs, that at first seem so impenetrable, will be broken-down to reveal not only language but an iconographic system that reveals much about the ancient Maya aesthetics and visual culture.

Not Offered Every Year
Also Offered As: ANTH 2145, ARTH 2145
1 Course Unit

LALS 2150 The Ancient Maya: Integrating Material, Text, and Image

Ancient Maya studies is one of the most dynamic and innovative fields in world archaeology today. Emerging as a true historical archaeology only in the past three decades, the decipherment of Maya script now provides a powerful complement and counterpoint to both traditional excavation data and new remote sensing technologies. Equally, the reading of images, and their interaction with texts and artifacts, forms a vital part of our interest in the broader humanistic concerns of worldview and the transcendent—where our primary interest lies in gaining access to past mentalities. This course will provide a comprehensive introduction into current knowledge of the Ancient Maya, with a recurring methodological focus on how different types of evidence are integrated to assemble a persuasive "portrait of the past." This scope of this process is unique in the ancient Americas, since only the Maya offer us the opportunity to read their own descriptions of the world two millennia or more in the past. Geographically, we will be looking at the greater Yucatan Peninsula, which today covers parts of southeastern Mexico, the whole of Guatemala and Belize, and the western extremities of Honduras and El Salvador. Since archaic times (before 1200 BCE) this has been occupied by speakers of the Mayan language group, and millions of people identified as Maya by that means continue to do so today (despite popular notions to the contrary, they have never "disappeared"). No prior knowledge of archaeology or art history is necessary. The course structure is one 3-hour session per week, consisting of a lecture followed by group discussion in seminar-style. Additionally, in Week 6 there will be a virtual tour of the new Mexico and Central American Gallery at Penn Museum. This will introduce the class to the issues of disseminating scholarship and building narratives that are accessible to the wider public.

Not Offered Every Year
Also Offered As: ANTH 2150, ARTH 2200
1 Course Unit

LALS 2198 Race, Science, and Globalization

Why do racist ideologies persist when a majority of scientists and scholars reject the premises they rely upon? Since the end of WWII, major scientific organizations like UNESCO and the American Anthropological Association have published statements rejecting race as an accurate representation of human biological variation. Yet despite widespread scientific opposition to the validity of race as an object of study, troublesome issues concerning race and racism abound in Western societies. If not an accurate description of human biology then what is race? And is racism an inevitable feature of human societies?

Fall or Spring
Also Offered As: HSOC 2198, STSC 2198
1 Course Unit

LALS 2220 Latino/as and the Law

Based in concepts and principles of Constitutional law, this course explores the interpretation and impact of seminal court cases in U.S. history as applied to Latino/as in the United States and abroad. With a particular focus on the 20th century, students will examine how court decisions have affected civil rights, immigration policies, welfare, political incorporation and identity and other important issues affecting Latino/as. Students will also explore additional themes including the status and treatment of Latinos in the criminal justice system, representation of Latino/as in the judiciary, and how Supreme Court decisions have also affected U.S. foreign policy with Latin America. Students will be introduced to a number of guest speakers who are academic experts and practitioners in the field.

1 Course Unit
LALS 2238 Modalities of Black Freedom and Escape: Ships
The course circulates around ships and boats. The course combines methods from environmental humanities, visual arts and history to consider multi-modal practices of black freedom and escape. From free black sailors in the eighteenth century Caribbean Sea, to twentieth and twenty-first century West African fishing boats, notions of Haitian “boat people,” Parliament Funkadelic’s mothership, and sinking boats with Somali and Ethiopian migrants off Yemen’s coast, ships have been and remain technologies of containment and freedom for communities of African descent. In the face of environmental vulnerabilities and the reality of water ways as systems of sustenance and imminent death, this course asks: how do black people use the ship and the process and practice of shipping as vessels for freedom, escape, and as a site to experiment with futures? Using the city of Philadelphia and the Schuylkill and Delaware rivers as our primary site of interrogation, the course attends to the threats that black people experience following natural disaster (New Orleans, Haiti, Puerto Rico) and everyday engagement with the local and global state structures regarding water (Flint, MI). In this context, we also look to shipping as a site to theorize and account for black innovation, meanings of (non-)sovereignty, and alternative futures.
Not Offered Every Year
Also Offered As: AFRC 2238, ANTH 2338
1 Course Unit

LALS 2260 Latinx Literature Seminar
This course explores an aspect of Latinx literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 2260
1 Course Unit

LALS 2261 Capitalism, (Neo)Colonialism, Racism, and Resistance
This interdisciplinary seminar examines theory and artistic productions, including literature, films, and performance art, that analyze and critique capitalism, imperialism and (neo)colonialism, racism, and patriarchy. It examines history and culture from an international perspective, giving particular attention to works from the Global South (and from Latin America, especially) as well as works addressing the history of racialized groups within the Global North. See the English Department’s website at www.english.upenn.edu for a description of the current offerings
Not Offered Every Year
Also Offered As: ENGL 2261
1 Course Unit

LALS 2237 The Politics of Matter and the Matter of Politics
What is nature? What is culture? What kinds of practices and actors constitute what we call science? Who and what constitute the sphere we refer to as politics? A number of theoretical developments in cultural anthropology, political theory, critical geography, and feminist science studies have problematized the modernist ontological divide between Nature and Culture and a whole series of binary oppositions (such as objects/subjects, matter/form, bio/geo) that follow from it. Taking inspiration from this literature and placing it in conversation with Native and Indigenous scholarship and a series of contemporary socio-environmental struggles occurring in Latin America and beyond, this course will discuss the conceptual-methodological tools that a concern with politics of matter has generated. The epistemic and political implications of these tools go beyond their analytical usefulness as innovative devices to explore novel phenomena. They complicate well-established fields of inquiry, such as political ecology and economy, environmental studies, ethics, social justice, and modern politics; and, indeed, the singular ontology that these fields may inadvertently and explicitly sustain. We will explore how it is that things, stuff, matter, ‘nature’ came to fall outside modern politics as such, and the kinds of ethico-political repercussions that problematizing this division may produce.
Fall or Spring
Also Offered As: ANTH 2317
1 Course Unit

LALS 2320 Educating for Democracy in Latin America and the U.S.
What does it mean to educate for a democracy, and for what type of democracy should we educate for? This course will examine these central questions and others pertaining to citizenship, democracy, and education as it relates to Latin America and Latino/as in the U.S. The course will first examine theories of education for democracy comparing and contrasting the works of persons including U.S. progressive-era writer John Dewey, Brazilian scholar Paolo Freire, and Penn President and political scientist Amy Gutmann. The course will delve into a civic and political education curriculum and pedagogies that have been carried out in institutions, inequality, and culture in the region. The latterpart of the course will examine civic education practices of Latino/as here in the U.S. from primary schools to higher education. This course offers a service-learning component where students will be encouraged to volunteer with educational organizations in the Philadelphia community.
1 Course Unit

LALS 2390 Clarice Lispector
This seminar focuses on the work of Clarice Lispector, the Ukrainian-born Brazilian novelist and short story writer (1920-1977). See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 2390, ENGL 2390, GSWS 2390, PRTG 0090
1 Course Unit
LALS 2400 Indigenous History of Mexico from the Aztecs to Present
This course will explore the history of indigenous peoples of Mexico from roughly 1400 to the present. Mesoamerica — the cultural region that encompassed what is today Mexico and much of Central America — in the fifteenth century saw the ascendancy of the Aztec Empire in central Mexico (and beyond) and the continued independence of numerous Mayan communities. We will begin by looking at a diverse range of sources produced by the linguistically diverse people in these areas, particularly focusing on the “codices,” as the painted deer hide books that recorded history and ritual knowledge are known. Reading sources (in translation) by both European and indigenous languages (primarily Spanish, Nahuatl, and Maya), we will look at the divergent ways that Native communities and individuals responded to Spanish wars of conquest and how they responded to colonialism. The final part of the will look at the impact of Mexican independence and Revolution in the nineteenth century through the present, as well as the ongoing indigenous Mesoamerican diaspora to locales throughout the United States. In addition to written primary and secondary sources, we will consider a diverse array of visual sources — taking advantage of the spectacular holdings of the Penn museum — and contemporary cinema.
Fall or Spring
Also Offered As: HIST 2400
1 Course Unit

LALS 2401 Indians, Pirates, Rebels and Runaways: Unofficial Histories of the Colonial Caribbean
This seminar considers the early history of the colonial Caribbean, not from the perspective of European colonizing powers but rather from “below.” Beginning with European-indigenous contact in the fifteenth century, and ending with the massive slave revolt that became the Haitian Revolution (1791-1804), we will focus on the different ways in which indigenous, African, European and creole men and women experienced European colonization in the Caribbean, as agents, victims and resisters of imperial projects. Each week or so, we will examine the experiences of a different social group and their treatment by historians, as well as anthropologists, archaeologists, sociologists, and novelists. Along the way, we will pay special attention to the question of primary sources: how can we recover the perspectives of people who rarely left their own accounts? How can we use documents and material objects — many of which were produced by colonial officials and elites — to access the experiences of the indigenous, the enslaved, and the poor? We will have some help approaching these questions from the knowledgeable staff at the Penn Museum, the Kislak Center for Special Collections, Rare Books and Manuscripts, and the Van Pelt Library.
Fall or Spring
Also Offered As: AFRC 2401, GSWS 2401, HIST 2401
1 Course Unit

LALS 2402 The Haitian Revolution
In August 1791, enslaved Africans on the northern plain of Saint Domingue (colonial Haiti) rose up in a coordinated attack against their French colonial masters, launching the initial revolt in what would come to be known as the Haitian Revolution. In the years that followed, their actions forced the abolition of racial discrimination and slavery throughout the French Empire. When Napoleon Bonaparte threatened to return slavery to Saint Domingue, they waged a war for independence, declaring Haiti the world’s first “Black Republic” in 1804. This seminar will examine some of the major themes and debates surrounding Haiti’s colonial and revolutionary history. We will begin by considering the colonial paradox: France’s leading role in the intellectual movement called the “Enlightenment” coincided with its ascent as a slaveholding colonial power. The seminar will also explore parallels and points of connection between the revolutionary movements in France and Saint Domingue: how did increasingly radical ideas in France shape events in the Caribbean? Likewise, how did west African traditions and political ideologies influence insurgents and their leaders? And how, in turn, did revolution in the Caribbean impact the revolution in France? Finally, we will ask how the Haitian Revolution influenced ideas about liberty, sovereignty and freedom throughout the Atlantic World. We will read a combination of primary and secondary materials each week. A final research paper will be required of all students.
Fall or Spring
Also Offered As: AFRC 2402, HIST 2402
1 Course Unit

LALS 2403 Animal, Vegetable, Mineral: Culture, Tech, & the Columbian Exchange, 1450-1750
In this course we will explore how Native American technologies shaped the early modern Atlantic World in order to understand the role of culture in what is often called the “Columbian Exchange.” Technologies, for the purpose of this course, include animal practices (such as hunting and taming techniques), foraged and domesticated plants (such as maize, potatoes, and annatto), foods (such as cassava and chocolate), drugs (such as tobacco, quinine and coca), textiles (such as hammocks and featherworks), and precious metals and gemstones (such as pearls, emeralds and gold). We will explore technologies’ relationships to other aspects of art and culture, and focus particularly on how and why certain technologies - and not others - moved beyond colonial Latin America in the sixteenth and seventeenth centuries. We will read intensively in both primary and secondary sources.
Fall or Spring
Also Offered As: HIST 2403
1 Course Unit

LALS 2450 Coca and Cocaine
This seminar compares practices that center on coca leaf production in indigenous communities, where coca cultivation has been sustained over millennia, on the one hand, with practices linked to the post 1961 “drug war” in the Americas, on the other. Participants will read scholarly work in history and anthropology, support one another through a research process, and explore what historians and other scholars might contribute to discussions about drug policy. Case studies we’ll explore include Peruvian Quechua-speakers’ ritual use of leaf, the history of Coca-Cola, patterns of violence in Medellín and Northern Mexico, and the evolution of money laundering in 1980-2010. Students will also have the opportunity to define a topic of interest to them and prepare an in-depth literature review.
Fall or Spring
Also Offered As: HIST 2450
1 Course Unit
LALS 2542 Brazilian Baroque
This lecture course explores the art, architecture, and visual culture of the Portuguese Empire with emphasis on Brazil and its relations with Africa and Asia.
Not Offered Every Year
Also Offered As: AFRC 2542, ARTH 2542, ENGL 2542
1 Course Unit

LALS 2590 Nutritional Anthropology
The course is an introduction to nutritional anthropology, an area of anthropology concerned with human nutrition and food systems in social, cultural and historical contexts. On the one hand, nutritional anthropologists study the significance of the food quest in terms of survival and health. On the other hand, they also know that people eat food for a variety of reasons that may have little, if anything, to do with nutrition, health, or survival. While the availability of food is dependent upon the physical environment, food production systems, and economic resources, food choice and the strategies humans employ to gain access to and distribute food are deeply embedded in specific cultural patterns, social relationships, and political and economic systems. Thus, nutritional anthropology represents the interface between anthropology and the nutritional sciences, and as such, can provide powerful insights into the interactions of social and biological factors in the context of the nutritional health of individuals and populations. Because food and nutrition are quintessential biocultural issues, the course takes a biocultural approach drawing on perspectives from biological, socio-cultural and political-economic anthropology. Course content will include: a discussion of approaches to nutritional anthropology; basics of human nutrition; food systems, food behaviors and ideas; methods of dietary and nutritional assessment; and a series of case studies addressing causes and consequences to nutritional problems across the world.
Not Offered Every Year
Also Offered As: ANTH 2590, URBS 2590
1 Course Unit

LALS 2601 The Asian Caribbean
Although Asians have lived in the Americas for centuries, the Asian American community and experience tends to be defined by the post-1965 wave of immigration to the United States. In an effort to correct this narrative this course will explore the histories, experiences, and contributions of some of the forgotten Asians of the Americas. In particular, we will focus on the earlier labor migrations of Chinese and South Asian individuals to the Caribbean and the United States. The experiences of these individuals, who built railroads, cut sugarcane, and replaced African slave labor, complicate our understandings of race today. By examining the legal and social debates surrounding their labor in the 19th century and exploring how their experiences are forgotten and their descendants are rendered invisible today, we will complicate what is Asian America and consider how this history shapes immigration policies today.
Spring
Also Offered As: ASAM 2610, GSWS 2610, SAST 2610
1 Course Unit

LALS 2610 Latinos in the United States
This course presents a broad overview of the Latino population in the United States that focuses on the economic and sociological aspects of Latino immigration and assimilation. Topics to be covered include: construction of Latino identity, the history of U.S. Latino immigration, Latino family patterns and household structure, Latino educational attainment. Latino incorporation into the U.S. labor force, earnings and economic well-being among Latino-origin groups, assimilation and the second generation. The course will stress the importance of understanding Latinos within the overall system of race and ethnic relations in the U.S., as well as in comparison with previous immigration flows, particularly from Europe. We will pay particular attention to the economic impact of Latino immigration on both the U.S. receiving and Latin American sending communities, and the efficacy and future possibilities of U.S. immigration policy. Within all of these diverse topics, we will stress the heterogeneity of the Latino population according to national origin groups (i.e. Mexican, Puerto Rican, Cuban, and other Latinos), as well as generational differences between immigrants and the native born.
Fall or Spring
Also Offered As: SOCI 2610
1 Course Unit

LALS 2650 Sociology of the Climate Emergency
We're in the midst of a climate emergency, with climate change the most pressing problem. We need to transform our social and economic system to avoid the worst. There's still time to do this, while establishing the conditions for us, and our descendants, to live brilliant, stimulating lives. To move forward, we need to supplement natural science with social science. In the course, will ask, how did we get into this ecological crisis? How does climate figure in contemporary politics? How do the climate and water crises intersect with inequalities around the world? How does an ongoing revolution in the energy sector reflect these tendencies, and what is its promise? What are the big competing paradigms for positive, transformative change today? This fresh-person seminar will tackle these vast questions by introducing students to a range of novel social perspectives on the contemporary global environmental crisis - a crisis that is usually otherwise represented in coldly scientific terms or according to cliches about environmentalists.
Also Offered As: SOCI 2650
1 Course Unit

LALS 2660 International Migration
A comprehensive review of theories and research on international migration. The course introduces the basic precepts of neoclassical economics, the new economics of labor migration, segmented labor market theory, world systems theory, social capital theory and the theory of cumulative causation. Readings examine patterns and processes of global migration during the classic age from 1800-1914 as well as during the postwar period from 1945 to the present. The course also covers a history and evaluation of immigration policies around the world, and devotes signification attention to theoretical and empirical perspectives on immigrant adaptation. Within this larger topic, we will also discuss internal migration and urbanization; the relationship between gender and migration; the spatial distribution of immigrants within the United States, immigrant communities, and ethnic enclaves; and the undocumented population in the United States.
Also Offered As: SOCI 2660
1 Course Unit
LALS 2670 Latin American American Art
The numerous traditions of Latin American art have been formed from the historical confluence of Indigenous, European, African, and Asian cultural traditions, each one impacting the others. This lecture course serves as an introduction to these hybrid New World art forms and movements by both providing a large chronological sweep (1492-present) and focusing on several specific countries, including Brazil, Mexico, Cuba, Peru, and Argentina.
Not Offered Every Year
Also Offered As: AFRC 2670, ARTH 2670
Mutually Exclusive: ARTH 6670
1 Course Unit

LALS 2680 Contemporary Immigration in the U.S.
While this course will engage immigration issues more broadly, we will centrally focus on questions of immigrant incorporation and the effects of U.S. immigration policy. We will start with the broad question of what should be done about the estimated 10.5 million undocumented immigrants living in the United States. Then, we will take a deeper look at the ways in which macro-level forces such as our laws and institutions shape the micro-level, everyday lives of undocumented immigrants and those living in mixed-status families. We will pay close attention to the circumstances of young people, including their experiences of exclusion and belonging across social and educational contexts. More specifically, we will examine how these factors might affect young people’s development, schooling experiences, academic trajectories and aspirations, assimilation and ethnic identity, family dynamics, civic engagement, and employment.
Also Offered As: SOCI 2680
Mutually Exclusive: SOCI 5680
1 Course Unit

LALS 2670 Pan-Africanism in Global Perspective
This course covers the history of Pan-Africanism from its early inception in the nineteenth century to the present. Pan-Africanism has sparked political struggles and provided a powerful catalyst to artistic endeavors across the globe. The class focuses on the early critiques of the transatlantic slave trade, tracing the development of a unifying sociopolitical movement and the struggle for identity among Africans and African descendants in the diaspora. C. L. R. James posits that people of African descent, no matter where they might live, are linked through ancestral ties to Africa and as victims of structural and historical racism in the West. The class will not only engage with the classics of Pan-Africanism but also explore the movement’s influence through the arts (music, movies, and literature) and politics. To stress Pan-Africanism’s global ramifications, the class pays significant attention to the movement’s impact on Africa and Latin America.
Also Offered As: AFRC 2709, HIST 2709
1 Course Unit

LALS 2710 Inflationary Times: Money, Currency, and Debt in History
What is inflation? What are its causes and consequences? Inflation has become a pressing concern recently, as prices of fuel, food, and consumer goods have ticked upwards at alarming rates. From the ongoing COVID-19 pandemic, war in Ukraine, and climate disasters, current inflationary pressures are inseparable from the major events disrupting the global economy. This is as much the case today as it was following the discovery of silver mines in Potosí (Bolivia), the French Revolution, the breakdown of Bretton Woods, or the 1980s debt crises in Latin America. This course explores the economic and social consequences of inflation across history. It also considers the economic models used to explain the rise and fall of prices—and how economists and policy-makers experiment with new formulas when old ones appear obsolete. By exploring inflationary moments in historical perspective, this seminar explores topics like the political and social meanings of money, how to build trust in a new currency, and what governments can do (or tried to do) to correct financial crisis. Students will be asked to explore past moments of financial and economic crises on their own terms, but also to look for how the past can offer lessons for the present.
Also Offered As: HIST 2710
1 Course Unit

LALS 2740 Facing America
This course explores the visual history of race in the United States as both self-fashioning and cultural mythology by examining the ways that conceptions of Native American, Latino, and Asian identity, alongside ideas of Blackness and Whiteness, have combined to create the various cultural ideologies of class, gender, and sexuality that remain evident in historical visual and material culture. We also investigate the ways that these creations have subsequently helped to launch new visual entertainments, including museum spectacles, blackface minstrelsy, and early film, from the colonial period through the 1940s.
Not Offered Every Year
Also Offered As: AFRC 2740, ARTH 2740, CIMS 2740
Mutually Exclusive: ARTH 6740
1 Course Unit

LALS 2710 Designing a Green New Deal: From Concept to Program
This advanced social science and design seminar is about mobilizing expert knowledge to develop transformative policy ideas to make the Green New Deal come alive. We’ll look at cutting edge social science and design scholarship on the problems we’re trying to solve, and the successes and failures of past efforts at transformative policy. And we’ll focus in particular on the built environment. How might a Green New Deal make the physical changes to our infrastructures, homes, energy landscapes, transportation systems, public recreation amenities, care facilities, and more, in ways that slash carbon emissions, increase resiliency, and abolish inequalities of race, class, gender, and nation? That’s not a rhetorical question: in this class, we’ll assemble knowledge, get into teams, and come up with concrete proposals.
Also Offered As: SOCI 2810
1 Course Unit
LALS 2820 Theatre and Politics
This course will examine the relationship between theatre and politics in the twentieth and twenty-first centuries. How do theatre artists navigate their artistic and political aims? How do we distinguish between art and propaganda? Throughout the semester we will ask how the unique components of theatre—its poetic structure, engagement with spectators, aesthetics of representation, relationship to reality, and rehearsal process—contribute to its political capacity. Students will read a variety of plays drawn from late twentieth century and contemporary global theatre practice alongside political and aesthetic theory to interrogate the relationship between artistic production, power, and resistance. We will conclude with a consideration of the ways politics is itself a performance, considering how power is supported by theatrical means and how performance functions in resistance movements.
Also Offered As: COML 2820, ENGL 2880, THAR 2820
1 Course Unit

LALS 2860 Latin American and Latinx Theatre and Performance
This course will examine contemporary Latin American and Latinx theatre and performance from a hemispheric perspective. In particular, we will study how Latin American and Latinx artists engage with notions of identity, nation, and geo-political and geo-cultural borders, asking how we might study “national” theatres in an age of transnational globalization. Our consideration of plays, performances, and theoretical texts will situate Latin American and Latinx theatre and performance within the context of its politics, culture, and history.
Also Offered As: COML 2086, ENGL 0490, THAR 2860
1 Course Unit

LALS 2977 Just Futures Seminar I
This seminar analyzes the historical construction of race and ethnicity in the Americas by focusing on the processes of dispossession—of land, bodies, and heritage—that started with the European colonization of the continent. The first part of the class builds a theoretical framework that will allow students to understand the origin of ethnic and racial classifications as acts of symbolic power, and their connections to specific historical conjunctures. The second and main part of the class focuses on the historical processes that resulted in the colonization of the Americas and the global transformations that came from the encounter of people in the “New World” (the development of capitalism, the emergence of settler colonialism, the Atlantic slave trade, and modern liberalism) in order to trace the genealogy of the ethnic and racial classificatory systems that continue to be used today. We will pay particular attention to the transformation of land tenure and labor regimes and how different political economies produced different logics of racialization. The focus of the seminar is in the Americas as a unit, including both North and South America, and the Caribbean, from the 15th century to the present. The readings come from a wide range of disciplines, including sociology, anthropology, history, political science, settler colonial studies, and law. The last part of the class is organized as a workshop where students will develop their ideas for a final project and discuss student-selected readings.
Not Offered Every Year
Also Offered As: SOCI 2977
1 Course Unit

LALS 2978 Just Futures Seminar II: Health and Healing in Abiayala (the Americas)
Health and Healing in Abiayala (the Americas) will introduce students to ecosocial notions of health, colonialism’s contributions to ill-health, and decolonial action as healing action. Part one of the course introduces general concepts of body, health, and illness in biomedical models. It then pivots to the relational and ecosocial practices of body, health, and wellbeing among many First Peoples of the Abiayala, highlighting “radical relationality.” For many First Peoples, community includes humans, plants, animals, ancestors, and earth beings (such as the land, mountains, rivers, and lakes) that are materially, socially, and spiritually interdependent. These beings work together to maintain a “shared body” through practices of reciprocal care. Part two of the course examines how the shared body has been and is threatened by the colonization of Indigenous lands and bodies through (e.g.) land dispossession, pollution, extractive industry, lack of access to quality education and medical care, forced sterilization, forced removal of children, exploitative economic relations, and political violence. The third part of the course will follow how First Peoples of Abiayala are healing from the physical, social, and spiritual wounds of colonialism through decolonial action. First Peoples are creating their own healing centers and ecological protection agencies, engaging in Land Back movements, in legal and direct-action processes to protect the shared body from extractive industry, and reproductive justice movements. Healing is future oriented, powering the “radical resurgence” of First Peoples. Some questions addressed in this class include, where does the body begin and end? What constitutes personhood? How does continued colonization affected indigenous peoples’ health—and that of all peoples? How do indigenous peoples use ancestral knowledges, relation ethics, and local ecologies to help heal historic and contemporary wounds to power their futures? Is there a political dimension to healing? How do autonomy and self-determination figure into healing and wellbeing?
Not Offered Every Year
Also Offered As: ANTH 2978, GSWS 2978, HSOC 2332
1 Course Unit

LALS 3000 Center for Latin American and Latinx Studies Seminar
We need a placeholder for the possibility of an additional fall course.
1 Course Unit

LALS 3020 Diplomacy in the Americas - The Penn Model OAS Program
“Diplomacy in the Americas” an academically based community service course in which students work with Philadelphia and Norristown public school students to explore solutions to critical problems facing the Americas. Entrenched political, economic, and social inequality, combined with environmental degradation, weak institutions, pervasive health epidemics, weapon proliferation, and other issues pose formidable hurdles for strengthening democratic ideals and institutions. The Organization of the American States (OAS), the world’s oldest regional organization, is uniquely poised to confront these challenges. “Diplomacy in the Americas” guides students through the process of writing policy resolutions as though the students were Organization of the American States (OAS) diplomats, basing their research and proposals on democracy, development, security, and human rights - the four pillars of the OAS. Students will also read literature about what it means to educate for a democracy and global citizenry, and they will have the opportunity to turn theory into practice by creating and executing curriculum to teach and mentor the high school students through interactive and experiential pedagogies.
Fall
Also Offered As: PSCI 2420
1 Course Unit
LALS 3022 Bodies of Water: Conflicts and Collaborations around Wetlands and Watersheds
In less than half a decade, the idea that "nature" possesses inalienable rights akin to human rights has gone from a strictly theoretical concept to the basis of policy changes in several countries and U.S. municipalities. This seminar will introduce students to current legal, political, ethical, and practical debates about the implementation and impacts of granting "rights to nature" in these different contexts with a particular focus on the rights associated with bodies of water. We will begin by examining how the Community Environmental Legal Defense Fund (CELDF) supported citizens of Tamaqua, Pennsylvania to write the world's first local "rights of nature" ordinance. We will then go on to compare the politics of "rights of nature" cases in Ecuador, New Zealand, India, and Colombia paying special attention to the cases of rivers. We will focus on the ways biocentric constitutional moves may transform concepts and understandings of environmental justice and socio-environmental conflicts. In particular, how the recognition of "nature" as a victim of war may transform understandings of violence, and hence, approaches to constructing peace and engaging and reparative and restorative practices within the larger framework of planetary and community efforts to mitigate climate change, deforestation, and the degradation of watersheds and wetlands. Lastly, we will explore the possibilities and tensions between community decision-making, the "rights of nature," and national level policies regarding the intensification of extractive activities and questions of territorial ordinance as they relate to multiple bodies of water.
Not Offered Every Year
Also Offered As: ANTH 3022
1 Course Unit

LALS 3110 Transdisciplinary Environmental Humanities
Emergent transdisciplinary fields, such as the environmental and medical humanities, reflect a growing awareness that responses to contemporary environmental dilemmas require the collaborative work of not only diverse scientists, medical practitioners, and engineers, but also more expansive publics, including artists, urban and rural communities, social scientists, and legal fields. This course is inspired by the need to attend to environmental challenges, and their health, justice, and knowledge production implications, as inherently social concerns. The class is co-taught by faculty from the School of Arts and Sciences and the School of Medicine, and will address the challenges and possibilities of working across disciplinary boundaries, building collaborative affinities, and negotiating frictions between diverse methodologies and epistemological approaches. Dr. Kristina Lyons from the Department of Anthropology brings years of experience collaborating with scientists, small farmers, indigenous communities, lawyers, and judges in Colombia and Chile on watershed restoration projects, soil degradation, toxicity, and the implementation of socio-ecological justice. Dr. Marilyn Howarth is a medical doctor from the Center of Excellence in Environmental Toxicology of the School of Medicine and has experience engaging the public, legislators and regulators around environmental health issues affecting the quality of air, water, soil and consumer products. Through their different lenses, they will foster interdisciplinary environmental collaboration and scholarship by engaging students in discussions and research that bring together the arts and sciences regarding issues of urban air pollution, soil remediation, deforestation, and water contamination, among other environmental health problems. This class offers a unique opportunity for students from engineering, natural and social sciences, humanities, and the arts to learn to converse and collaborate around pressing socio-environmental and public health issues.
Spring
Also Offered As: ANTH 3110
1 Course Unit

LALS 3158 ¡Huelga! The Farmworker Movement in the United States
This intensive research seminar invites students to explore the history of farmworkers in the United States during the twentieth century. Research will primarily but not necessarily exclusively focus on the west coast, a region in which many archival sources have been digitized. Students may explore a wide variety of topics, including but not limited to: farmworker unions; the relationship between farmworker mobilizations and other movements in the US and abroad; the experiences of workers from the Philippines and Latin America and the role of US imperial and immigration policies in the lives of farmworkers; farmworkers’ confrontations with and participation in systems of racism; the Great Depression in rural communities; the history of gender and family in farmworker communities; the history of environment and health; struggles over citizenship and social rights; counter-mobilizations of growers and the right; religion in farmworker communities; legislative and legal strategies to obtain rights denied agricultural workers in federal law; artistic, musical, and cultural production; or the relationship between consumers and the workers who produced their food.
Also Offered As: HIST 3158
1 Course Unit
LALS 3251 Modern Spain: Civil War and Postwar, 1930-1970
This RESEARCH SEMINAR is divided into three parts. Part I centers on the Spanish CIVIL WAR, 1930-1939. The beginnings of the conflict, the main causes and motivations, the debates in the international arena, the main events and ideologies, some of the main characters, personal experiences (men and women) during the war, violence and repression. Part II focuses on the consequences of the Civil War (1939-1970), both from internal and international perspectives - the constitution of the Francoist regime and its internal politics; the repression of political dissidence; the situation of the Francoist regime during WWII and during the Cold War, how political and cultural dissidence started under Franco’s regime, the social history of Spain, and the construction of the historical memory of the Civil War. Part III, Research and Writing: this course is designed to model the research and writing process professional historians use, beginning with a paper proposal and bibliography of primary documents and secondary sources. It then proceeds through the various stages of the research process to produce drafts of the essay and finally the finished essay. All written work is for peer review.
Not Offered Every Year
Also Offered As: HIST 3251
1 Course Unit

LALS 3260 Dispossession and Territorial Recovery Among Indigenous Peoples in South America
This seminar will focus on contemporary dynamics of dispossession, territorial claims and territorial recovery involving indigenous peoples in South America. Drawing on cases from different countries (particularly from Brazil, Argentina, Chile, Bolivia and Colombia), we will examine, in historical perspective, processes of territorial dispossession, socio-environmental conflicts, collective action, and struggles for territorial recovery and recognition set against the policies of settler colonial nation-states and economic activities that tend to evict people from their lands. More specifically, we will focus on actions carried out by indigenous peoples and movements to fight territorial dispossession, recover and protect their lands. Particular attention will be paid to the period marked by the growing visibility of the indigenous movements in South America, from 1970s to the present. The perspectives and strategies of indigenous peoples and movements regarding their territorial rights and projects of living well will be considered within the broader framework of identity, ethnicity and land issues. In that sense, the course will draw connections to the actions carried out by landless peasants and other groups. By devoting our attention to different contexts through the region, we will be able both to understand specific situations and identify underlying dynamics.
Not Offered Every Year
Also Offered As: ANTH 2327
1 Course Unit

LALS 3260 The Peopling of the Americas
The peopling of the Americas is a question that has intrigued scholars and laymen for over 500 years. The origin of Native Americans was also a seminal issue during the emergence of American Anthropology as a discipline at the turn of the 20th century, with research on this topic animating current studies of ethnohistory, indigenous archeology, post-colonialism and repatriation. The proposed course will review the scholarship dedicated to describing this long history from an interdisciplinary perspective. It will explore their roots in the expansion of modern humans into Eurasia, evaluate the new archeological and genetic research that has fundamentally altered our understanding of the migration history and diversity of indigenous peoples in the American continents, and examine issues of identity, ethnicity and cultural heritage in contemporary Native populations that extend from this knowledge. The course will further draw on the instructor’s fieldwork experience working with indigenous communities in Alaska, Canada, the Lower 48, Mexico and the Caribbean, as well as native Siberians in Russia, where the cultural and biological roots of ancestral Native American populations lie.
Not Offered Every Year
Also Offered As: ANTH 3360
1 Course Unit

LALS 3377 Race and Medicine in the Global South
Racialized medical provisions under Apartheid in South Africa, theories of racial immunity to malaria in the Philippines and contemporary investigations of caste-based disease risks in India are some of the topics to be covered in this course. From the more straightforward issues of racial discrimination in medicine, to more complex issues of racial immunity or racial susceptibility to disease, medicine and race have been entangled together in multiple ways. More importantly these issues are far from being matters of the past. Genomic medicine and risk society have combined to make race and medicine one of the most potent contemporary issues. Outside the Western World, in the Global South, these issues are further refracted through local cultural, historical and political concerns. This course will take a long-term view of these contemporary issues.
Fall or Spring
Also Offered As: HSOC 3377
1 Course Unit
LALS 3405 The Conquest of Mexico
The Conquest of Mexico is one of the most famous episodes of global history. Often told as a story of European technological and military superiority, scholarship of the last thirty years has started to change our understanding of what really happened. In the first half of this course we will examine the history of both Spain and Mesoamerica from approximately 1300 to the fateful meeting of the two civilizations in 1519 that led to war in 1520-21. We will ask questions about sources, actors, and intentions such as, should we even call the events “The Conquest of Mexico”? The second half of the course will focus on the first century of Spanish colonial control of what was now called New Spain to roughly 1650. We will ask questions like, how much control did the Spanish have over their Mesoamerican colonies? What role did the Catholic Church play? How did Indigenous people and Africans adapt to living under colonialism? In what ways did the lives of women change? How was the environment impacted? How did epidemic disease alter daily life and communities? And, finally, what role did China and the Philippines play in the maintenance of a Spanish colony in the Americas? Throughout the course we will read translated primary sources produced by both Spaniards and Indigenous people, as well as selections from recently published scholarship. By the end of the course, each student will have written an original historical analysis based on a theme or event discussed with and approved by the instructor.
Also Offered As: HIST 3405
1 Course Unit

LALS 3510 Love, Anger, Madness: History and Silences in Modern Haiti
On the stage of modern world history, Haiti plays the unique role as both the exceptionally victorious and tragic character. This course interrogates archival documents, oral histories, historical texts, and prose created within the nation and her diaspora in order to establish a nuanced image of the projection of Haiti’s modern history. Using two classic Haitian texts, Marie Vieux-Chauvet’s Love, Anger, Madness (1968) and Michel-Rolph Trouillot’s Silencing the Past: Power and the Production of History (1995), this course examines how, why, and to what end Haiti’s history and popular narratives about the country have served to construct and dismantle global movements, popular culture, and meanings of race, gender, and citizenship in the Americas. In our historical examination, we will question some of the iconic representations of Haiti through literature that deepen the affective historical profile of Haiti with interrogations of culture, masculinity, and media performance. Students will become familiar with the post-colonial history of Haiti and the region, meanings of race, and the production of history. The course is a research and historical methods seminar. Students will conduct archival research and write narratives from primary source material. This course qualifies as a “methods” course for Africana Studies undergraduate majors and minors.
Spring
Also Offered As: AFRC 3510, GSWS 3510, HIST 0840
1 Course Unit

LALS 3511 Brazilian Baroque Seminar
This undergraduate lecture explores the art, architecture, and visual culture of the Portuguese Empire with emphasis on Brazil and its relations with Africa and Asia.
Not Offered Every Year
Also Offered As: AFRC 3511, ARTH 3511
1 Course Unit
LALS 3524 Medical Mestizaje: Health and Development in Contemporary Latin America
Latin American nations as we know them today emerged in the nineteenth century after violent independence struggles against the Spanish Empire. Since independence, mestizaje has been an influential ideology that seeks to portray the identity of Latin American nations as comprised of a unique cultural and racial fusion between Amerindian, European, and African peoples. Through historical, anthropological, and STS approaches this course examines how concerns with racial fusion and purity have shaped the design and implementation of public health programmes in Latin America after independence and into the 20th century. Topics include: tropical medicine and race; public health and urbanization; toxicity and exposure in industrialized settings; biomedicine and social control; indigenous health; genomics and health; food and nutrition.
Fall or Spring
Also Offered As: HSOC 3524
1 Course Unit

LALS 3550 Accordion of the New World
This course focuses on the musical genres and styles (both traditional and popular) that have grown up around the accordion in the New World. We will begin our explorations in Nova Scotia and move toward the Midwest, travelling through the polka belt. From there, our investigation turns toward Louisiana and Texas toward zydeco, Cajun, and Tex-Mex music. We will then work our way through Central and South America, considering norteno, cumbia, vallenato, tango, chamame, and forro. Our journey will conclude in the Caribbean, where we will spend some time thinking about merengue and rake-n-scraper music. Throughout the semester, the musical case studies will be matched by readings and film that afford ample opportunity to think about the ways that music is bound up in ethnicity, identity, and class. We will also have occasion to think about the accordion as a multiply meaningful instrument that continues to be incorporated into debates over cultural politics and mobilized as part of strategies of representation through the New World.
(Formerly Music 157).
Not Offered Every Year
Also Offered As: AFRC 3550, MUSC 3550
1 Course Unit

LALS 3551 Latin American Cuir/Queer Critique
While certain debates around queer theory and queer studies have emphasized the problematics of a deployment of a North American field to other geopolitical spaces, this course takes a different approach by emphasizing how Latin America expands the notion of queerness while also contributes to the field of queer studies and queer theory at large. As such, the course emphasizes different manifestations of the non-normative from and within Latin America. Paying close attention to aesthetic practices as well as criticism, theory, and activism, students will be exposed to how Latin American literary and cultural practices labor a critique of hegemonic structures of visibility that simultaneously direct our senses to quotidian and communal strategies of survival. Students will engage with aesthetic artifacts, such as film, literature, manifestoes, poetry, performance, music, video and street art, and photography from Argentina, Brazil, Chile, Mexico, and Peru.
Also Offered As: GSWS 3550
1 Course Unit

LALS 3560 Fighting the Dispossession of Black Bodies -The Brazilian Black Activism from Slavery to the Present
The objective of this seminar is to provide to the students an overview of the history of black activism in Brazil. We will examine several forms of racial conflict, focusing on the Afro-Brazilian ways of organization. We will explore the main periods and organizations of black activism, such as the abolitionism, the Brazilian Black Front, the Experimental Black Theater, the Black Unified Movement and the Quilombolas’ movement. Through this exploration, the classes will investigate the relationship between black organizations, black thinkers and the circulation of black ideas across Americas, Africa, and Europe. We will also examine how the Brazilian black movement has elaborated values of democracy and equality, handling notions of class, race and nationality.
Not Offered Every Year
Also Offered As: AFRC 3561
1 Course Unit

LALS 3570 Caribbean Music and Diaspora
This course considers Caribbean musics within a broad and historical framework. Caribbean musical practices are explored by illustrating the many ways that aesthetics, ritual, communication, religion, and social structure are embodied in and contested through performance. These initial inquiries open onto an investigation of a range of theoretical concepts that become particularly pertinent in Caribbean contexts-- concepts such as post-colonialism, migration, ethnicity, hybridity, syncretism, and globalization. Each of these concepts, moreover, will be explored with a view toward understanding its connections to the central analytical paradigm of the course--diaspora. Throughout the course, we will listen to many different styles and repertoires of music ranging from calypso to junkanoo, from rumba to merengue, and from dance hall to zouk. We will then work to understand them not only in relation to the readings that frame our discussions but also in relation to our own North-American contexts of music consumption and production. (Formerly Music 258).
Not Offered Every Year
Also Offered As: AFRC 3570, ANTH 2570, MUSC 3570
1 Course Unit

LALS 3580 Latin American Music
This survey course considers Latin American musics within a broad cultural and historical framework. Latin American musical practices are explored by illustrating the many ways that aesthetics, ritual, communication, religion, and social structure are embodied in and contested through performance. These initial inquiries open onto an investigation of a range of theoretical concepts that become particularly pertinent in Latin American contexts--concepts such as post-colonialism, migration, ethnicity, and globalization. Throughout the course, we will listen to many different styles and repertoires of music and then work to understand them not only in relation to the readings that frame our discussions but also in relation to our own, North American contexts of music consumption and production. (Formerly Music 158).
Not Offered Every Year
Also Offered As: AFRC 3580, MUSC 3580
1 Course Unit
LALS 3602 Cyborgs, Robots, Gadgets: Technologies in Contemporary Hispanic Cinema
Contemporary Latin American and Spanish Cinema offer a great reflection on the role that new technologies have in the film industry, and in our lives, in the digital era. Often, we find that technologies are used in an original way to overcome financial shortages in times of crisis, or when resources are limited. In this context, sometimes it is actually thanks to the new technologies that the work of new directors can be produced or distributed. Some recent Latin American and Spanish sci-fi movies find genuine ways to bring about social and political commentary through the use of technological narratives. Reflections on technology are often found in many other film genres too. Our aim in this course will be to explore the use of technology in film and in the present, as well as to study narratives that place technology at the center. We will focus our study on films where technology is a key factor and will reflect on the impact of technologies in our experience as spectators as well. Fall or Spring
Also Offered As: CIMS 3602, SPAN 3602
1 Course Unit

LALS 3650 Latin American Cinema
This course aims to familiarize students with the major achievements and cultural moments of Latin American cinematography. We will cover a broad set of themes, nations and time periods employing multiple theoretical positions. Fall or Spring
Also Offered As: CIMS 3650, SPAN 3650
1 Course Unit

LALS 3651 Passion Projects: Radical Experiments in Writing Plays, Screenplays, and Pilots
This creative writing workshop will focus on writing for screen, stage and internet and is open to undergraduate and graduate students at every level of writing experience. The course will be writing intensive and also include the reading and analysis of feminist, trans, queer, working class and racially liberatory plays, films, television and performance as models of inspiration. Meditation, drawing, theater games, improv exercises, screenings and outings to see work on and off campus will round out this holistic and experimental approach to making work that illuminates and entertains audiences from across the US and global audience spectrum. Also Offered As: ENGL 3651, CSWS 3651
1 Course Unit

LALS 3652 Crossing Borders in Latin American Cinema
Through the lens of border crossing this course will explore various current topics in Contemporary Latin American Cinema such as immigration, exile and travel narratives, gender crossing, social and political transgressions, transnationalism, and co-productions. The concept of the border will be fluid and central to the course, and through it we will reflect upon what separates and unites people at an individual, sexual, social, cultural, political, national, and geographical level. This focus will help us explore a wide variety of “movements”, negotiations, and transgressions taking place in the Latin American Cinema of the last three decades. Fall or Spring
Also Offered As: CIMS 3652, SPAN 3652
1 Course Unit

LALS 3682 Staging Gender in Latin America
This course is based on an understanding of theater as a social space and a cultural practice that allows a collectivity—in its most concrete sense, the audience—to think in public about itself and about the fundamental forces facing and shaping it. In this course, we will mainly read contemporary Latin American and Latinx theatrical texts produced by women and queer authors. Our focus will be to discuss how, in the last approximately four decades, the stage as space and performance as practice have been used in Latin America as vehicles to represent and discuss issues related to gender and sexuality, to reconfigure the parameters of these debates, to examine and question existing social structures and attitudes, to propose and rehearse alternative solutions to the problems faced by marginalized subjects, and overall to explore the transformative capabilities of theater. We will also examine how conceptions and representations of gender and sexuality intersect with other identitarian coordinates, such as race, class, and nationality. Not Offered Every Year
Also Offered As: SPAN 3682
1 Course Unit

LALS 3684 Theatrical Modernity and Postmodernity in Latin America
This course will focus on the theatrical tradition of Latin America during the twentieth and twenty-first centuries. In addition to reading some of the most influential playwrights of the region, we will discuss the aesthetic theories and sociohistorical contexts that have shaped contemporary Latin American and Latino theater and performance practices. We will also explore how the stage has served as a space in which to represent, debate, negotiate, and complicate issues related to national, gender, political, and ethnic communities and identities. Not Offered Every Year
Also Offered As: SPAN 3684
1 Course Unit

LALS 3700 Abolitionism: A Global History
This class develops a transnational and global approach to the rise of abolitionism in the nineteenth century. In a comparative framework, the class traces the rise of abolitionism in Europe, the Americas, Africa, and Asia, examining the suppression of the transatlantic slave trade, the rise of colonialism in Africa, and the growth of forced labor in the wake of transatlantic slave trade. We will deal with key debates in the literature of African, Atlantic and Global histories, including the causes and motivations of abolitionism, the relationship between the suppression of the slave trade and the growth of forced labor in Africa, the historical ties between abolitionism and the early stages of colonialism in Africa, the flow of indentured laborers from Asia to the Americas in the wake of the slave trade. This class is primarily geared towards the production of a research paper. *Depending on the research paper topic, History Majors and Minors can use this course to fulfill the US, Europe, Latin America or Africa requirement.*
Fall or Spring
Also Offered As: AFRC 3700, HIST 3700
1 Course Unit
LALS 3701 Studies in Colonial Latin American Literature and Culture
The colonial period in Latin America spans more than 400 years. In this course, we study the culture of the Spanish-speaking Americas from the moment Christopher Columbus arrived in the Caribbean to the Latin American wars of independence during the 19th century. We analyze the role that religion and race played in the emergence of colonial societies and the development of national revolutionary discourses. We reflect on the tensions between indigenous populations and Spanish settlers and study the literary culture that developed in the New World. Course content may vary. Please see the department website for current course offerings: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies
Not Offered Every Year
Also Offered As: SPAN 3700
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

LALS 3702 Feminism in the Americas
Students in this seminar will choose their own research topic in the history of feminism. With guidance and support each person will produce a twenty-page paper based on intensive work with primary sources. Readings will range across Latin America, the Caribbean, and the United States. We'll take a long view, beginning in the sixteenth century, and use an expansive frame. Our purpose will not be to decide who was or wasn't 'a feminist' but instead to try to understand actors within their contexts. Readings include scholarship on Sor Juana Ines de la Cruz, Sojourner Truth, the struggle for voting rights across national lines, opposition to dictatorship, and organizing against racism and homophobia. *For History Majors and Minors: Geographic requirement fulfilled by this seminar is dependent on research paper topic.
Fall or Spring
Also Offered As: GSWS 3702, HIST 3702
1 Course Unit

LALS 3704 There Will Be Blood: The Spanish Conquistador in Latin America
Who was the Spanish conquistador? A brave soldier, a devoted religious man or a voracious murderer? An enemy or a benefactor? This course will study the Spanish "conquest" of the so-called New World through the analysis of a variety of cultural artifacts, from early modern chronicles, poems, and paintings, to contemporary literature and film. We will also reflect on the many forms in which Spanish colonialism is still visible in the present in Latin America and the United States.
Not Offered Every Year
Also Offered As: SPAN 3702
1 Course Unit

LALS 3706 Oral History
From wax cylinders to reel-to-reel to digital video, recording technologies expanded the historical profession dramatically during the twentieth century. We will read some classics, such as Barbara Myerhoff's Number Our Days and Alessandro Portelli's Death of Luigi Trastulli, as well as scholarly pieces aimed at working historians. This course centers on methodology—students will learn about 'best practices' in the field and will work toward creating an interview record that can be housed in an archive and accessed by other researchers. All students will use digital video and will practice creating accessible links to both video and audio material, although your interviewees may choose an audio format.
Fall or Spring
Also Offered As: HIST 3706
1 Course Unit

LALS 3713 Singer-songwriters in the Cold War
This research seminar considers the overlapping political worlds of performers like Violeta Parra (b. Chile 1917), Pete Seeger (b. USA 1919), Miriam Makeba (b. South Africa 1932), Vladimir Vysotsky (b. USSR 1938), Gilberto Gil (b. Brazil 1942), Bob Marley (b. Jamaica 1945), Silvio Rodríguez (b. Cuba 1946), Waldemar Bastos (b. Angola 1954), and others. We will have shared readings about youth-identified musicians who brought Leftist politics on stage with them, as well as about the activism of anti-communists and anti-Stalinists in different geographic spaces. Each participant will produce a 15-20 page page based on primary sources. Throughout the semester, in-class work will be designed to support the research process. Students will work through multiple drafts and share their writing with one another. Faculty members from Music, Comparative Literature, and other departments will be invited as guest speakers, as will folklorists, performers, and members of other Philadelphia-area communities.
Also Offered As: HIST 3713
1 Course Unit

LALS 3730 Studies in Modern and Contemporary Latin American and Latinx Literature
Studies in Modern and Contemporary Latin American and Latinx Literature is an upper-division seminar taking a literary-studies approach to Latin American cultural production of the 19-21st centuries. Traditions covered may include Spanish American, Brazilian, and U.S. Latinx literature. Course content may vary. Please see the department website for current course offerings: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies
Not Offered Every Year
Also Offered As: SPAN 3730
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

LALS 3732 New Women's Writing in Latin America
Something unprecedented has been happening lately in the Latin American literary market and scene. Women writers in great numbers have been publishing without encountering major constraints or pressures, and their fictional work has been receiving more awards and critical accolades than ever before. Hence, the assertion made by a critic in El País that “the other Latin American Boom is female” (“El otro ‘boom’ latinoamericano es femenino”) merits to be considered and unpacked. For example, compared to their literary precursors, have the 21st-century female authors presented the customary topics of family, motherhood, sexuality, illness, etc. in a radical new way? Which are the social, political, economic, and aesthetic conditions that have given rise to this proliferation of female authors and the wide acceptance of their fictional worlds? How do these conditions differ from the Latin American literary Boom of the 20th century? These are among the questions we will explore.
Not Offered Every Year
Also Offered As: SPAN 3732
1 Course Unit
LALS 3734 The Boom in Latin American Literature
Why has Latin American narrative of the 1960s and 70s enjoyed such popular and critical success? What distinguishes this literature from that which was written earlier or later or outside Latin America? Who were the major writers of the boom generation, and what unites or separates them? In this course we will consider these questions as we read important works of fiction by authors such as Cortázar, Donoso, Fuentes, García Márquez, and Vargas Llosa as well as criticism that sheds light on the phenomenon of the boom.
Not Offered Every Year
Also Offered As: SPAN 3734
1 Course Unit

LALS 3736 Gabriel García Marquez and Contemporary Latin American Literature
The publication of Cien años de soledad in 1967 was one of the highest moments in 20th century Latin American literature. Behind this masterpiece was the arduous and tireless work of a writer that had been searching for a personal style during almost a decade. This search also has a continental dimension. In García Marquez’s work, readers find the main topics, aesthetic quests, and political conflicts that hold the Latin American imagination, from the “crónicas de conquista” to the artistic vanguard adventures of the middle of the century. His narrative brings together early discussions about magical realism and the literary boom, anthropological inquiries rooted in transculturation and critical regionalism, as well as questions on class, race, and gender. In this course we will read different moments of his work, from his early short stories to some of his major novels. In addition, we will compare his writing to some of their contemporaries’, in order to have a comprehensive idea about the formation of the Latin American contemporary canon.
Not Offered Every Year
Also Offered As: SPAN 3736
1 Course Unit

LALS 3738 Coming of Age in Latin America
This course examines contemporary narratives of childhood and adolescence from Latin America. These stories critique the forces that shape young people as they attempt to define themselves in societies marked by racial, ethnic, gender, and class divisions. Texts for the course will be drawn from different geographical regions and will include novels, short stories, and films from the second half of the twentieth century through the present.
Not Offered Every Year
Also Offered As: SPAN 3738
1 Course Unit

LALS 3740 Latin American Non-Fiction
Non-fiction is a narrative mode that presents an account of a subject as fact, but it is a label that began to be used to describe narratives dealing with real events and real people fairly recently. This course studies the boundaries and tensions between facts and fiction in Latin America from a historical perspective. We start by analyzing early modern writing by the Spanish conquistadors: cannibals, human sacrifices, sirens, sea monsters, and El Dorado are just a few subjects that 16th-century “non-fiction” presents as facts. We move then to discuss 19th-century journalism about cosmopolitanism and urban modernization. Technological innovations blur the boundaries between fact and fiction, something that film, narrative journalism, and literary chronicles would exploit thought-out the 20th century. Finally, we study non-fictional narratives in contemporary podcasts and social media.
Not Offered Every Year
Also Offered As: SPAN 3740
1 Course Unit

LALS 3742 Detectives, Criminals, and Writers in Latin American Fiction
Born as a sub-genre, crime fiction (a denomination which encompasses a wide number of texts: classical detective stories, hard-boiled, true-crimes and the non investigative crime novel) has become one of the most attractive literary forms for writers, and one of the favorites for readers. Because it is built around topics like the crime and the law, the search of the truth and the unstable identity of the subject in mass societies, it has become an ideal vehicle for the expression of the anxieties and fears that dominate the contemporary culture. Its versatility has been used by many Latin-American authors to express the social and political conflicts of the continent, as well as to explore its literary possibilities through formal searches, characterized by parody, meta-literary and auto referential games. The aims of this course are, on the one hand, to offer a panoramic vision of the crime fiction in Latin America through the reading of some representative authors; and, on the other, to explore how they can be can be read from different theoretical approaches.
Not Offered Every Year
Also Offered As: SPAN 3742
1 Course Unit

LALS 3800 Studies in Modern and Contemporary Latin American and Latinx Culture
Studies in Modern and Contemporary Latin American and Latinx Culture is an upper-division seminars focusing on significant issues or historical moments in Latin American and Latinx culture. Course content may vary. Please see specific Section Details.
Not Offered Every Year
Also Offered As: SPAN 3800
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit
LALS 3802 Rural Modernity in Latin America
This course focuses on literary representations of rural Latin America in the 19th and 20th centuries. While it remains common to understand rural societies as traditional or backward in contrast with the city (considered the true center of modernity), this course approaches rural social orders as sites of modernity and modernization in their own right. We will be primarily concerned with examining how works of Latin American literature and film created rural visions of modernity, particularly in relation to land reform, political revolution, and capitalist agriculture. While our principal focus will be literature, we will also consider how other forms such as painting, film, and political documents envisioned rural transitions.
Not Offered Every Year
Also Offered As: SPAN 3802
1 Course Unit

LALS 3804 Mexico: Revolution and Culture
Studies the central role played by cultural production in forging and imagining national revolutionary projects, from the 1910s to the 1970s. Focusing on literature, photography, painting, and film, we will examine the works of figures such as Diego Rivera, JosÃ© Vasconcellos, Tina Modotti, Sergei Eisenstein, Octavio Paz, Juan Rufino, Rosario Castellanos, Nellie Campobello, JosÃ© Emilio Pacheco, and Carlos MonsivÃ¡is, among others.
Not Offered Every Year
Also Offered As: SPAN 3804
1 Course Unit

LALS 3806 Representations of Dictatorship in Latin America
This course explores the phenomenon of Latin American dictatorship through literature, film, graphic novels, and visual and public art, asking how these different media and genres depict and respond to state violence, censorship, and trauma.
Not Offered Every Year
Also Offered As: CIMS 3806, SPAN 3806
1 Course Unit

LALS 3808 Urban Life in Latin American Literature
Cities exist not just in their geography, but in their spirit, and that spirit is captured in literature. In this course we will read compelling works from Mexico City, Lima, and Buenos Aires that represent life in these Latin American capitals at different points between 1950 and the present. As we explore fiction and non-fiction writing by both established authors and emerging writers, we will learn about the forces and events that have shaped narratives of the urban experience in Latin America.
Not Offered Every Year
Also Offered As: SPAN 3808
1 Course Unit

LALS 3810 Jungle Narratives: la selva
The Amazon evokes opposing images. It has been described alternately as paradise lost and green hell, a place to retreat from the restraints of civilization or to be devoured by savage men and beasts, a land of natural abundance and environmental degradation. Our objective in this course is not to determine which of these descriptions is most accurate, but to understand how these opposing visions were created and what they aim to communicate. As we explore the Amazon through works of fiction we will gain an appreciation of the problems and promise of the region as well as greater knowledge of important authors, themes, and techniques of Latin American literature.
Not Offered Every Year
Also Offered As: SPAN 3810
1 Course Unit

LALS 3812 Afro-Latin America: Culture, History, and Society
A transnational and interdisciplinary examination of the black experience in Latin America and the Spanish, French and English-speaking Caribbean, since slavery to the present. Combining cultural analysis with the study of fundamental theoretical works on race and racialization, students will gain a thorough comprehension of historical, political and sociocultural processes shaping the existence of Afro-descendants in the Americas. The scrutiny of systemic racial exclusion and marginalization will allow the understanding of how these dividing practices condition cultural production.
Fall or Spring
Also Offered As: AFRC 3812, SPAN 3812
1 Course Unit

LALS 3814 The Caribbean and Its Diaspora: Culture, History, and Society
A thorough panorama of contemporary Caribbean societies and their diasporic communities, this course enhances the students' knowledge of the region's main historical, political, and sociocultural trends. We will examine Caribbean multiple narratives of survival and resilience within a global context, through the study of 20th and 21st-centuries literary, cinematographic, musical, visual and performative works. The cultural analysis will be supported by a theoretical framework encompassing critical Caribbean theories on identity and identification.
Fall or Spring
Also Offered As: AFRC 3814, SPAN 3814
1 Course Unit

LALS 3820 Rel & Pol in Latin Amer
This course offers an introductory examination of the political and social role that the Catholic Church has played in Latin America from the time of the Spanish and Portuguese conquests in the 16th century to the end of the 20th century. Throughout this five-century period, the Catholic Church has not acted as a monolithic institution. Some members of the church have been associated with governments and those in power in order to exert control and domination over the population. Others have been among the few individuals or institutions that have spoken up against the injustices and oppression both of colonial governments in the 16th to 18th centuries, and of authoritarian regimes of independent republics in the 19th and 20th centuries. In this latter period, our analysis will include the churches role in defending human, civil, political, and indigenous rights and in promoting the transition from the period of military or civilian dictatorships that ruled a good part of the region starting in the 1960s to civilian democratic regimes in the 1980s and 1990s. We will analyze six countries, three of which were under national security regimes: Brazil, Chile, and Argentina, and three others that experienced internal wars between guerrillas and military-backed civilian juntas: Guatemala, El Salvador, and Nicaragua.
Fall or Spring
1 Course Unit

LALS 3840 Cuban Visual Culture
This course will focus on the urban history and cultural politics of contemporary Cuba with an emphasis on contemporary art and contemporary developments in the city of Havana. Students will learn about the Spanish influence on early colonial art, the development of formal academic art training and the changes to art instruction and the form and content of art created since the Revolution.
Not Offered Every Year
Also Offered As: AFRC 3840, ARTH 3840
1 Course Unit
LALS 3902 What Is Mexico? Questioning Mexican Icons
This course studies Mexico through many lenses. From history to art, from anthropology to pop culture, from literature to film, our primary objective is to question current and past iconicity to develop a more complex and nuanced understanding of Mexican history and culture.
Not Offered Every Year
Also Offered As: SPAN 3902
1 Course Unit

LALS 3904 Latin American Marxisms
This course examines Marxist thought in Latin America, from the early twentieth century to the present. We will study a range of materials from across Spanish America, including essays, novels, films and speeches. We will ask after the specificities of Latin American Marxist thought (on the land and indigenous questions, dependency, guerrilla warfare, etc), at the same time as we contextualize those specificities within a wider Marxist tradition. We will also inquire into the waning and resurgence of Marxism in recent decades in the region.
Not Offered Every Year
Also Offered As: SPAN 3904
1 Course Unit

LALS 3906 The Ethnographer in Latin American Literature and Film
This course asks students to read ethnographic accounts as literature and to read literature in light of interdisciplinary concerns surrounding representation and cultural difference. The course is transhistorical and transatlantic but with a strong focus on Latin America.
Not Offered Every Year
Also Offered As: SPAN 3906
1 Course Unit

LALS 3908 Body and Soul: Hispanic Perspectives on Health, Illness, and Healthcare
TBD
Not Offered Every Year
Also Offered As: SPAN 3908
1 Course Unit

LALS 3910 Sustainable Development And Culture in Latin America
This interdisciplinary course exposes students to the three dimensions of sustainable development - environmental, economic, and social- through an examination of three products -peyote, coca, and coffee- that are crucial in shaping modern identity in areas of Latin America. The course integrates this analysis of sustainable development in relation to cultural sustainability and cultural practices associated with peyote, coca, and coffee and their rich, traditional heritage and place in literature, film, and the arts. This is an upper level seminar open to majors and minors of Spanish and those who have completed Pre-requisite SPAN 1800 or SPAN 1900 or permission of the Undergraduate Chair.
Fall, even numbered years only
Also Offered As: ENVS 3053, SPAN 3910
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

LALS 3912 Labor in Contemporary Latin American Literature and Film
This course studies different forms of cultural production (film, novel, short story, critical essay) as entry-points into new settings and conditions for work in Latin America, in four sectors that have become especially salient in the region: services, finance, agro-industry and the informal economy (particularly drug trafficking). We will pay particular attention to how cultural production allows us to envision the coordinates of the larger, indeed global, economy into which workers are inserted. We will examine how cultural production allows us to map shifting class structures; we will also track how gender and race shape national and international divisions of labor.
Not Offered Every Year
Also Offered As: CIMS 3912, SPAN 3912
1 Course Unit

LALS 3914 Madness and Women in Contemporary Hispanic Culture
The first goal of this course is to examine different “cases” of mental disturbances suffered by women in Hispanic cultures as they have been depicted in novels, short stories and films in the last 50 years. We will study “cases” of female madness precipitated by maternity, domesticity, sexuality, creativity, historical events, and biculturalism. Secondly, we will focus on the “causes” psychoanalysts, authors and literary critics have proposed for those mental illnesses. Additional readings on a wide range of disciplines --feminism, literary theory, psychology and psychoanalysis-- will enhance our understanding of the works selected for the course and will help us identify their political and ideological underpinnings.
Not Offered Every Year
Also Offered As: SPAN 3914
1 Course Unit

LALS 3916 Contemporary Latin American and Latinx Cultural Production
This course provides an insightful understanding of the main aesthetic, socioeconomic, political and cultural dynamics at play in the 20th and 21st centuries Latin American societies and Latinx communities in the United States. Combining the analysis of literary, cinematic, musical, visual and performative works with theoretical readings, students will discuss issues on national, racial, gender and sexual identifications; pervasive inequalities, the impact of globalization and new technologies; migration, violence, terror, revolutions, dictatorships, the Cold War, and the implementation and effects of Neoliberalism.
Not Offered Every Year
Also Offered As: SPAN 3916
1 Course Unit
LALS 3930 Latinx Environmental Justice
This course explores the involvement of the Latinx environmental justice movement since the 1960s. It addresses theories and concepts of environmental racism and environmental justice, underscoring how Latinx have challenged, expanded, and contributed to the environmental justice discourse. In this course, students will explore national case studies of environmental and racial injustice as they bear on Latinx communities both in rural areas and in urban barrios throughout the United States. The course will analyze these case studies through the lens of Latinx artistic and literary texts (essays, paintings, short stories, documentaries, and short films) as they provide a unique historic and multicultural perspective of the Latinx experience with environmental injustice and of how Latinxs imagine alternative transitions and responses to environmental marginalization. In addition, the works of Latinx artists and writers will serve as case studies to deconstruct racial stereotypes of Latinxs as unconcerned about environmental issues, shedding light on how they share a broad engagement with environmental ideas. The case studies analyzed in this course emphasize race and class differences between farmworkers and urban barrio residents and how they affect their respective struggles. The unit on farmworkers will focus on workplace health issues such as toxic chemicals and collective bargaining contracts. The unit on urban barrios will focus on gentrification, affordable housing, and toxic substances in the home. We will also review current and past programs that have been organized to address the aforementioned problems. This is an Academically Based Community Service Course (ABCS course) through which students will learn from and provide support to a Latinx-serving organization in the City of Philadelphia on preventing exposure to hazardous substances, thus bridging the information gap on environmental justice issues in the Latinx community in Philadelphia. Information dissemination and education efforts will be conducted by collaborating with Esperanza Academy Charter School in Philadelphia to implement lessons on preventing exposure to hazardous substances. Studying environmental justice and pairing it with community service will heighten students’ awareness of the complexities of culture, race, gender, and class while providing them with an invaluable experience of cross-cultural understanding.

Fall or Spring
Prerequisite: SPAN 1800 AND SPAN 1900
1 Course Unit

LALS 3999 Independent Study
Individual research to be taken under the direction of a faculty member. Students wishing to do an independent study should contact the Latin American and Latino Studies program.
Fall or Spring
1 Course Unit

LALS 4020 U.S.- Latin American Relations
Why has and does foreign policy between the U.S. and Latin America matter? Why is there a historical legacy of tension, violence, and limits to the friendship between the US and its neighbors to the south? How do historical perspectives help us understand contemporary inter-American relations? How do theories of neocolonialism, neorealism, and neoliberal institutionalism inform discussion, debate and understanding between the North and the South? To what extent and in what way do global trends influence inter-American affairs? The course explores answers to all of these questions through the analysis of historical and current events of the US-Latin America relationship and develops students’ critical thinking through their insertion into debates that reflect alternative perspectives.
1 Course Unit

LALS 4240 Latinx Communities and the Role of CBO’s in Social Change
The purpose of this course to create a Latino Studies/Service Learning ABCS course that cultivates dialogue and knowledge about the social, political, cultural and historical complexities of the Latinx experience in the United States (Philadelphia in particular) and the roles Latinx CBO’s play in meeting the needs of Latinx communities and in impacting social change.
Fall
Also Offered As: SOCI 2931
1 Course Unit

LALS 4250 Latinx Cultural History
This course takes a multi-disciplinary approach to the study of the resiliency and impact of Latinx cultural and artistic contributions, esthetics, expressions and institution building int he United Stats from the Civil Rights Era to the present. We will explore how Latinxs arugiculturally defining being "American", how their artistic expressions fit and influence the creativity and productivity of American and global Arts & Cultural expressions; and the Latinx interactions of race, culture, society, economy and politics in the U.S.
Also Offered As: SOCI 2932
1 Course Unit

LALS 4387 Black Feminist Approaches to History & Memory
Topics vary. Black Feminist Approaches to History & Memory - The term black feminism emerged in public discourse amid the social, political, and cultural turbulence of the 1960s. The roots of black feminism, however, are much older, easily reaching back to the work of black women abolitionists and social critics of the nineteenth century. The concept continued to grow and evolve in the work of twentieth century black women writers, journalists, activists, and educators as they sought to document black women’s lives. Collectively, their work established black feminism as a political practice dedicated to the equality of all people. More recently, black feminism has been deployed as a tool for theoretical and scholarly analysis that is characterized by an understanding that race, class, gender, and sexuality are inextricably interconnected. Using materials such as slave narratives, social criticism, and archival sources, this course will explore the theoretical and practical applications of black feminist thought in nineteenth and twentieth century North American culture and politics. In particular, we will consider the symbols and practices (storytelling, myth-making, art, archival research) that black women use to document lives. We will ask: how do these methods of documentation inform our understanding of the past and the production of historical knowledge? How can we understand black feminism as both theory and practice? And what are the implications of black feminist approaches for current research and scholarship? We will give particular attention to concepts such as gender, race, memory, the archive, and embodied knowledge to complicate our understanding of historical documentation, epistemology, and authenticity. The course material will include scholarship by Harriet Jacobs, Audre Lorde, Saidiya Hartman, Hazel Carby, Hershini Young, Evelyn Brooks Higginbotham, Toni Morrison, and others. (Image: From In Praise of Shadows, Kara Walker (2009). See the Africana Studies Department’s website at https://aficana.sas.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: AFRC 4387, GSWS 4387, HIST 0817
1 Course Unit
LALS 4517 One Series—Love and Rockets: The Great American Comic Book
This One Series course explores Love and Rockets, an anthology comic book series created by the collective known as Los Bros Hernandez and published continuously since 1978. We will approach the series through the lenses of Comics Studies and Latinx Studies. Is it true, as one scholar says, that, “Love and Rockets is the closest thing we have to ‘The Great American Comic Book?’” How does the series continue or challenge the legacy of the underground comix movement of the 1960s and 1970s? We will consider how Love and Rockets incorporates elements of the anarchist LA punk scene, challenges notions of Latinidad, and expands the visual vernacular of gender & sexuality in American comics. Alongside two representative volumes from Love and Rockets, we will read criticism, watch documentaries, incorporate our own comics research, and write comics of our own. Assignments will include brief research exercises and short writing in various forms. For the final projects, students will have the choice of a critical essay or creative project. Students will come away from the class with increased visual literacy as well as a basic theoretical framework for ethnic studies writ large.
Also Offered As: ENGL 4517
1 Course Unit

LALS 4650 Race and Racism in the Contemporary World
This undergraduate seminar is for advanced undergraduates seeking to make sense of the upsurge in racist activism, combined with authoritarian populism and neo-fascist mobilization in many parts of the world. Contemporary manifestations of the phenomena noted above will be examined in a comparative and historical perspective to identify patterns and anomalies across various multiple nation-states. France, The United States, Britain, and Italy will be the countries examined.
Not Offered Every Year
Also Offered As: AFRC 4650, PSCI 4190
1 Course Unit

LALS 4910 The Inclusive City: Participatory Design at Taller Puertorriqueno
The Inclusive City: Participatory Design at Taller Puertorriqueno seminar will provide students in and beyond the Architecture department with the opportunity to learn from and with Taller Puertorriqueno about community, spacemaking, and memorialization in the built environment. Students will learn about a neighborhood and engage in collaborative participatory design, engaging primary sources in the Taller archives, and working on a collaborative design project. Starting from a general (region-urban) to particular (neighborhood) methodology research on site across several categories, and engaging primary sources in the Taller archives, the students will generate relational territorial cartographies and mappings, allowing them to develop a master architectural plan that includes urban strategies, as well as dynamic processes of community development. As a truly interdisciplinary course, students will utilize design concepts, historical methods, and ethnoriclal lenses of analysis to collaborate with Taller Puertorriqueno to develop targeted architectural solutions that align with the organization’s programmatic goals.
Not Offered Every Year
Also Offered As: AFRC 4920, HIST 0874, URBS 4910
1 Course Unit

LALS 5000 CLALS Seminar 1
This is a placeholder for a possible CLALS course.
1 Course Unit

LALS 5001 Center for Latin American and Latinx Studies Seminar
This is a placeholder for a possible fall course.
1 Course Unit

LALS 5010 Norte, Desierto, Frontera: Countertopographies of the NAFTA Era
Analyzing Mexican, Central American, and Chicana/o cultural production, this course examines the uneven reconfiguration of the U.S.-Mexico borderland in the era of the North American Free Trade Agreement. Drawing from critical geography, migration and border studies, and the environmental humanities, we consider how different cultural artifacts have imagined, projected, and challenged the political and socioeconomic boundaries of the Americas. Likewise, we consider how trans-border bodies, spaces and species can help us interrogate the history of the nation-state as well as the social, emotional, and economic toll experienced on both sides of the border from the early 1990s onward. Interdisciplinary in methods and scope, this course strives to develop an understanding of how cultural production responds to and, at the same time, participates in the process of the production of social space. Particularly, we consider how the production of desert and border as sites of socio-ecological devastation prefigures a new paradigm in the relationship between the environment, migration, and the global circulation of capital. Special attention is given to demographic trends and new patterns of forced migration that arose in the aftermath of the so-called Mexican “War on Drugs” (2006). Assignments include presentations, discussion facilitation, and a seminar paper. Alongside readings and class discussions, students will work as a group on a digital timeline/story map using a platform of their choosing (StoryMapJS, ArcGIS StoryMaps, etc.) The goal is to create an annotated cartography of North America’s recent history. The class is structured around four units, each refers to a particular concept that specifies the relation between spatial literary studies and the regional integration of North America: 1. North. Focusing on the entanglements between industrial agriculture and the rise of the maquila industry, we ask how labor and labor relations across the U.S.-Mexico border evolved during the last decade of the 20th century. We consider how urbanization and patterns of residential differentiation affected populations on both sides of the border, while allowing for the consolidation of Northern Mexican and Chicana/o identities. 2. Desert. Moving beyond the city as a spatial referent, we consider how the representation of the desert biome in contemporary Mexican and Central American narratives refracts the increased use of violence as a stabilizing agent for capital accumulation. We consider the novel’s ecological imagination and the valences of form to think through the ecological crisis associated with the urban climatic. 3. Border. Studying how neoextractivism intersects with new patterns of international forced migration, we analyze changes in public space, gender, and ethnic identities derived from the contemporary proliferation of borders (political, economic, geographical). We consider the role cultural production plays in the changing border and migration regimes across the Americas. 4. Countertopographies. Finally, we study how memorialization, nostalgia, and loss in contemporary Mexican, Central American, and Chicanos/a cultural production become spatial vectors that extend the sense of belonging in geographical form. We consider how literary form delineates a countertopography to NAFTA’s ideal of globalization.
Fall
Also Offered As: SPAN 5010
1 Course Unit
LALS 5020 Brujas and Blackness: Transnational Feminist Perspectives of AfroLatinidad

Blackness and brujería are taboo topics within Latinx communities; both typically connote negative imagery and are actively avoided. Recently, the bruja identity has been reclaimed by many AfroLatinx women who see it as an outward expression of their AfroLatinidad and source of personal empowerment. Lara (2005) describes this as a bruja positionality – "the re-membering, revising, and constructing of knowledge as well as participation in other forms of social change...built on healing the internalized desconocimientos that demonize la Bruja and the transgressive spirituality and sexuality that she represents" (p 13). Latinx spiritual practices such as espiritismo, Santeria, Palo Monte, among others, will become avenues through which will explore key themes in Black/Latina/Chicana feminisms, including the politics of representation, stigmatization, multiple forms of state and interpersonal violence, intersecting forms of oppression, economic justice, reproductive justice, queerness/sexuality/lesbianism, and strategies of empowerment and resistance. Through a variety of course materials – academic articles, personal reflections, performance, and art – we will critically examine the construction of Afro-indigenous feminist identities within the contexts of Latin America and the diaspora.

Fall, Spring, and Summer Terms
Also Offered As: AFRC 5020, GSWS 5020
1 Course Unit

LALS 5030 Race in Latin America

In this course, we will examine historical, scholarly and community narratives about race and racialized communities in Latin America. Course texts and discussions will center Black and Indigenous histories and contemporary identities across the region. Our journey this semester will span from the pre-Columbian era to the present day, and will cover multiple Latin American geographies: the Caribbean, Central America, and South America. While we will focus most closely on the Spanish-speaking populations, we will also incorporate texts and discussion about populations speaking other languages in the region (Portuguese, French, Quechua, Kreyol, and English, for example). Finally, the diasporas of Latin America, particularly in the United States, will also figure in the discussions as sites of Latin American convergence, community and interaction in which race functions in various ways. As such, we will engage with a wide range of texts including books, articles (scholarly and popular), video, primary sources, and interviews.

Also Offered As: AFRC 5030
1 Course Unit

LALS 5050 Women and Urban Struggles in Latin America

In Latin America, 80% of the population lives in a city. As many of these cities enter the worldwide competition for attracting networks and capitals—and to join the select club of the so-called global cities—many city residents become progressively dispossessed and excluded to the peripheries, where urban services are rarely adequate. Power relations of class, race, and gender play an essential role in how dispossession is orchestrated in the city and experienced by its residents. This course focuses on how women, specifically, find ways to “endure” in the cities of Latin America, exploring different cases of urban struggles led by women. Across the region, many have been pointing out the extraordinary leadership of women in a wide variety of political struggles - from occupying public places, to denouncing the disappearance of loved ones, and to community organizing that helps build necessary infrastructure in their neighborhoods. Women are also at the forefront of environmental and ecological transformations, leading initiatives to green their city through urban agriculture, reforestation, recycling, and compost projects. Addressed through a holistic approach to caring, these initiatives are embedded in broader struggles for housing, security, and wellness, specifically in the urban peripheries. The contingency of these projects is, at their core, multifaceted: they are typically part of women’s implication in popular education, activism, and human rights defense. During this course, we will explore and analyze how the specific urban contexts of Latin America affect women and their political subjectivities and how, through their struggles, they play an essential role in re-shaping their cities.

Not Offered Every Year
Also Offered As: GSWS 5050, URBS 5050
1 Course Unit

LALS 5100 Inner Outer Space Travel Writing: A Creative Writing Workshop

Inner Outer Space Travel Writing is a creative writing workshop focused on writing work within the science fiction/speculative fiction/alternative futurities, science/land/travel writing, and creative-critical nonfiction traditions. Students will work within a variety of genres, with an emphasis on the essay, the short story, screen/tele-play, play, blog and performance. Students will read recommended texts from within their particular interests, and the course will culminate in both a public performance and dissemination/publication via another media platform (zine, website, podcast, etc). All levels of experience, from none/first-time writer to published writers, are encouraged to register for the course.

Not Offered Every Year
Also Offered As: GSWS 5100
1 Course Unit
LALS 5110 Ethics, Archaeology, and Cultural Heritage
This seminar will explore some of the most important issues that are now a central part of archaeological, anthropological and historical research throughout the world. The identification and control of cultural heritage is a central part of the framework for research within other communities. Issues for this course will also include cultural identity, human rights, repatriation, colonialism, working with communities and many other topics. Field research today must be based upon a new series of ethical standards that will be discussed and examined within this class. Major topics include: cultural heritage - definitions and constructs, cosmopolitanism and collecting, archaeology and looting, cultural heritage preservation, museums - universal and national, museum acquisition policies, cultural identity, international conventions (including underwater issues), national laws of ownership, community based development, cultural tourism, development models, and human rights.
Not Offered Every Year
Also Offered As: ANTH 5110
1 Course Unit

LALS 5120 Latin American Politics
This graduate level course will be embedded in course PSCI/LALS 213. In other words, graduate students taking this course will have to attend lectures twice a week, but instead of discussing materials in recitations will meet with the professor either weekly (one hour) or biweekly (two hours), to discuss the main topics of the course and research questions and proposals related to the course.
Fall
Also Offered As: PSCI 5120
1 Course Unit

LALS 5121 Passion Projects: Radical Experiments in Writing Plays, Screenplays, and Pilots
This creative writing workshop will focus on writing for screen, stage and internet and is open to undergraduate and graduate students at every level of writing experience. The course will be writing intensive and also include the reading and analysis of feminist, trans, queer, working class and racially liberatory plays, films, television and performance as models of inspiration. Meditation, drawing, theater games, improv exercises, screenings and outings to see work on and off campus will round out this holistic and experimental approach to making work that illuminates and entertains audiences from across the US and global audience spectrum.
Also Offered As: GSWS 5120
1 Course Unit

LALS 5140 Writing Towards Transformation
Writing Towards Transformation is a critical and creative writing workshop focused on developing works across genres that express and elaborate upon current and historical conditions of crisis and injustice. Using guided meditation, critical feedback and healthy, ethical discussion, the students of the class will develop manuscripts of poems, short stories, essays, plays and/or screenplays that in some way articulate their analysis of the present and the past towards a transformative future. We will read essays, manifestos, theater and fiction as well as view films that will hopefully inspire each student to develop texts and scripts of hope. Writers used as models of inspiration will include Gary Indiana, Valerie Solanas, June Jordan, Bertolt Brecht, Cherrie Moraga, Leslie Feinberg and Toni Cade Bambara, among many others. This is a graduate level course open to undergraduates by permission of the instructor.
Also Offered As: GSWS 5140
1 Course Unit

LALS 5220 Transitional Justice in Latin America
Latin America, a region where many countries transitioned to democracy since the mid-20th century or emerged from years of civil war, often serves as a model for transitional justice, the process of dealing with past human rights abuses. This online class explores the nature, history, and context of transitional justice across the region through class dialogue on film, case studies, first-hand accounts, and scholarly research. Engaging in comparative analyses of countries including Argentina, Chile, Brazil, Guatemala, El Salvador, Peru and Colombia, students will consider such topics as the extent to which countries have moved from impunity to accountability for previous human rights violations, the effectiveness of transitional justice mechanisms, such as trials versus truth commissions, and the theoretical, empirical, and historical arguments for transitional justice. Finally, students will learn about transitional justice models and processes worldwide, including the case of South Africa and the workings of the International Criminal Court, and analyze them according to the Latin American examples.
1 Course Unit

LALS 5240 Latinxs and the Law
Based in concepts and principles of Constitutional law and critical race theory, this course explores the interpretation and impact of seminal court cases in U.S. history as applied to Latinxs in the United States and abroad. With a particular focus on the 20th century, students will examine how court decisions have affected civil rights, immigration policies, welfare, political incorporation, education, and other important issues affecting Latinxs. Students will also explore additional themes including the status and treatment of Latinxs in the criminal justice system, representation of Latinxs in the judiciary and how Supreme Court decisions have affected U.S. foreign policy with Latin America.
Summer Term
1 Course Unit

LALS 5270 Market Women, Madames, Mistresses and Mother Superior
Market Women, Madames, Mistresses & Mother Superior studies gender, labor, sexuality, and race in the Caribbean. In our historical examination of primary source documents alongside literature, and popular media, we will question some of the iconic representations of Caribbean and Latin American women in order to understand the meaning, purpose and usages of these women's bodies as objects of praise, possession, obsession and/or ridicule by communities, governments and religions within and outside of the region. Beginning in the late-18th century and ending with contemporary migration narratives, this course considers the relationship between slave society and colonial pasts on gender performance in the modern Caribbean, Latin America, and their diasporas.
Fall or Spring
Also Offered As: AFRC 5270, GSWS 5270
1 Course Unit

LALS 5300 Latin American Sexual Movements
This course explores significant sexual movements in Latin America that destabilized the idea of nation formation and its frames of citizenship. From the 1960s and on, we will analyze and study homosexual, lesbian, and feminist irruptions of contestation from Argentina, Chile, Mexico, and U.S. and how their interruption in the social, public, and political sphere changed sexual and reproductive rights.
Summer Term
Also Offered As: GSWS 5300
1 Course Unit
LALS 5420 Parallel Plagues: Infectious Diseases and their Control in Peru and The United States
Infectious agents continue to emerge, killing and harming humans and animals with unrelenting regularity. The emergence and control of these agents are, in some ways, remarkably different in different geographies. In other ways the patterns and consequences of infectious agents are very similar. The course will be structured around a series of pairings of infectious disease problems that affect Peru and the United States. Some pairings will be in terms of the agents themselves; others will be more thematic. In each case we will trace two lines of inquiry, one in each country, but always with an eye to the harmonics—where these lines resonate—even if they do not interact. The primary goal of the course is to investigate the historical, political and economic forces driving infectious disease in Peru and the US. A co-primary goal is to bring students and faculty from Penn and our partner institutions in Peru, Universidad Peruana Cayetano Heredia, to work their way through topics in infectious disease control, which are inherently challenging. The course will be taught in English but a workable knowledge of Spanish will be helpful.
Fall
Also Offered As: PUBH 5420
1 Course Unit

LALS 5430 Migration, Displacement, and Education
This course examines the effects of migration (forced and voluntary) on education in a variety of contexts across the world (including the United States). The course reviews sociological and anthropological theories of immigrant incorporation and inclusion. Such frameworks are then applied to migration through case studies of im/migrants, refugees, and displaced persons in order to consider educational practices, programs and policies that address the effects of migration and displacement on education in diverse contexts.
Fall
Also Offered As: EDUC 5430
1 Course Unit

LALS 5570 Archaeology of Landscapes
Traditionally, archaeological research has focused on the "site" or "sites." Regional investigation tends to stress settlement pattern and settlement system determined through archaeological site survey. This seminar will stress the space between the sites or "points" on the landscape. Most previous attempts at "landscape archaeology" tended to focus on the relationship of sites and the natural environment. This course will highlight the cultural, "anthropogenic," or "built environment"—in this case human modification and transformation of the natural landscape in the form of pathways, roads, causeways, monuments, walls, agricultural fields and their boundaries, gardens, astronomical and calendrical alignments, and water distribution networks. Features will be examined in terms of the "social logic" or formal patterning of cultural space. These can provide insights into indigenous structures such as measurement systems, land tenure, social organization, engineering, cosmology, calendars, astronomy, cognition, and ritual practices. Landscapes are also the medium for understanding everyday life, experience, movement, memory, identity, time, and historical ecology. Ethnographic, ethnohistorical, and archaeological case studies will be investigated from both the Old and New Worlds.
Not Offered Every Year
Also Offered As: AAMW 5570, ANTH 5570
1 Course Unit

LALS 5640 Poverty, Race and Health
This course is designed to introduce students to current literature on race/ethnic difference in health and mortality in the United States, covering such topics as explanations for why some race/ethnic groups fare better than others, how inner city poverty and residential segregation may contribute to racial/ethnic differences in health outcomes, and health of immigrants versus native-born populations. Current policy debated and recent policy developments related to health are also briefly discussed. The course is organized as a seminar with a combination of lectures and class discussions.
Also Offered As: SOCI 5640
1 Course Unit

LALS 5680 Contemporary Immigration in the U.S.
While this course will engage immigration issues more broadly, we will centrally focus on questions of immigrant incorporation and the effects of U.S immigration policy. We will start with the broad question of what should be done about the estimated 10.5 million undocumented immigrants living in the United States. Then, we will take a deeper look at the ways in which macro-level forces such as our laws and institutions shape the micro-level, everyday lives of undocumented immigrants and those living in mixed-status families. We will pay close attention to the circumstances of young people, including their experiences of exclusion and belonging across social and educational contexts. More specifically, we will examine how these factors might affect young people's development, schooling experiences, academic trajectories and aspirations, assimilation and ethnic identity, family dynamics, civic engagement, and employment.
Fall or Spring
Also Offered As: SOCI 5680
Mutually Exclusive: LALS 2680, SOCI 2680
1 Course Unit

LALS 5791 Globalism and National Identity in the Americas
This course examines the way that issues of universal, global, and national identity have been negotiated and challenged in art and visual culture of the Americas. It also aims to give students an introduction to the various theories and methodological practices that have been used to critique and explain these images and objects since the end of WWII. This course is open to graduate students and undergraduate students with permission of the instructor.
Not Offered Every Year
Also Offered As: AFRC 5791, ARTH 5791, GSWS 5791
1 Course Unit

LALS 5792 Biography and Art History
Beginning with the ancient Greeks, people have created specific biographical structures as a way to understand and explain the artistic process. Artists have often been labeled as natural prodigies possessing creative powers on par with the divine. This seminar will examine the role that biography plays in the assessment of visual art and the creative process over time and across European and American culture. During the semester we will read art historical texts, watch biographical films, and debate the historical and post-structuralist critical theory that has helped to shape the current cultural construction of the artist. Throughout the seminar we will discuss the underlying debates around these various approaches to biography. This course is open to graduate students and undergraduate students with permission of the instructor.
Not Offered Every Year
Also Offered As: AFRC 5792, ARTH 5792, CIMS 5792, GSWS 5792
1 Course Unit
LALS 5830 Art, Sex and the Sixties
With a distinct emphasis on performance, film, installation art, video and painting, this course explores the explosion of body-based, nude and erotic work from the 1950 to the 1970s, with particular focus on the 1960s. And it seeks to explore this dynamic not only within the familiar confines of North America and Europe but within Latin America and Asia, too, in what was a nearly simultaneous international emergence of the erotic as a political force in the art world. Reading a range of key voices from Frankfurt School philosopher Herbert Marcuse, to performance artists Carolee Schneemann and Yoko Ono, Neo-Freudian theorist Norman O. Brown and Brazilian theorist and poet Oswald de Andrade, we will examine how and why sexuality became a privileged form of politics at this historical juncture in a range of different contexts across the globe. We will pay particular attention to how and why an art about sex became a camouflaged form of political dissidence in the confines of repressive political dictatorships, as were then rising in Brazil, Argentina and ultimately Chile. Students interested in feminist, gender or queer theory, Latin American Studies, social revolution, performance studies, post war art and Frankfurt School thought should find the course particularly appealing, but it assumes no background in any of these fields.
Fall or Spring
Also Offered As: ARTH 5830, CIMS 5830, GSWS 5200
1 Course Unit

LALS 6106 Democracy in Comparative Perspective
This graduate seminar focuses on issues of political regime change and democratization, as studied in the comparative politics literature. The course is structured in three parts. In the first part, we scrutinize conceptualizations and measurements of democracy that are used in comparative politics. In the second part, we study political economy and comparative historical theories about the causes of democratization.
We assess the relative strength of theories that focus on economic development, inequality (whether of income, land, or labor), social class actors, insurgency, institutions, and/or strategic choices and interactions. In the final part of the course, political regimes in action, we study different aspects of democratization as they relate to current and salient issues of comparative politics.
Not Offered Every Year
Also Offered As: PSCI 6106
1 Course Unit

LALS 6550 Black Political Thought: Difference And Community
This course is designed to familiarize graduate students with some of the key texts and debates in Africana Studies concerning the relationship between racial slavery, modernity and politics. Beginning with the Haitian Revolution, much of black political thought (thinking and doing politics) has advocated group solidarity and cohesion in the face of often overwhelming conditions of servitude, enslavement and coercion within the political economy of slavery and the moral economy of white supremacy. Ideas and practices of freedom however, articulated by political actors and intellectuals alike, have been as varied as the routes to freedom itself. Thus, ideas and practices of liberty, citizenship and political community within many African and Afro-descendant communities have revealed multiple, often competing forms of political imagination. The multiple and varied forms of political imagination, represented in the writings of thinkers like Eric Williams, Richard Wright, Carole Boyce Davies and others, complicates any understanding of black political thought as having a single origin, genealogy or objective. Students will engage these and other authors in an effort to track black political thought's consonance and dissonance with Western feminisms, Marxism, nationalism and related phenomena and ideologies of the 20th and now 21st century.
Also Offered As: AFRC 6550, GSWS 6550
1 Course Unit

LALS 6560 Politics and Social Movements in Contemporary Afro-Latin America
Over the past two decades there has been an explosion of research into Afro-Latin American populations in South America and the Caribbean. During this period a generation of scholars who were largely unsatisfied with the research methods and normative agendas of many scholars, activists and politicians of prior eras began to pose distinct research questions and methodological approaches to various subject matter. Afro-Latin identification and identity (as both separate from and entangled with national identity) is a major theme in the new literature. Race, racism and inequality, Afro-Latin involvement in social movements, political parties and other forms of political articulation have also been prominent themes. In previous eras, scholars largely emphasized various iterations of purportedly racial and ostensibly cultural mixture such as Mestizaje and Democracia Racial to explain why race and racism did not play a prominent role in social and political mobilization. Contemporary sociologists and anthropologists, however, have found ways to identify attitudes, behaviors, demographic and socio-economic indicators that belie imagery and ideologies of social and political equality achieved through miscegenation (cultural and physical) in Latin America.
Fall
Also Offered As: AFRC 6560, PSCI 6120
1 Course Unit

LALS 6610 Language Diversity and Education
Exploration of issues affecting educational policy and classroom practice in multilingual, multicultural settings, with an emphasis on ethnographic research. Selected U.S. and international cases illustrate concerns relating to learners’ bilingual/bicultural/biliterate development in formal educational settings. Topics include policy contexts, program structures, teaching and learning in the multilingual classroom, discourses and identities in multilingual education policy and practice, and the role of teachers, researchers, and communities in implementing change in schools.
Fall
Also Offered As: EDUC 5252
1 Course Unit

LALS 6610 Language Diversity and Education
Exploration of issues affecting educational policy and classroom practice in multilingual, multicultural settings, with an emphasis on ethnographic research. Selected U.S. and international cases illustrate concerns relating to learners’ bilingual/bicultural/biliterate development in formal educational settings. Topics include policy contexts, program structures, teaching and learning in the multilingual classroom, discourses and identities in multilingual education policy and practice, and the role of teachers, researchers, and communities in implementing change in schools.
Fall
Also Offered As: EDUC 5252
1 Course Unit
LALS 6670 Latin American Art
The numerous traditions of Latin American art have been formed from the historical confluence of Indigenous, European, African, and Asian cultural traditions, each one impacting the others. This lecture course serves as an introduction to these hybrid New World art forms and movements by both providing a large chronological sweep (1492-present) and focusing on several specific countries, including Brazil, Mexico, Cuba, Peru, and Argentina.
Not Offered Every Year
Also Offered As: ARTH 6670
Mutually Exclusive: ARTH 2670
1 Course Unit

LALS 6770 International Migration
A comprehensive review of theories and research on international migration. The course introduces the basic precepts of neoclassical economics, the new economics of labor migration, segmented labor market theory, world systems theory, social capital theory and the theory of cumulative causation. Readings examine patterns and processes of global migration during the classic age from 1800/1914 as well as during the postwar period from 1945 to the present. The course also covers a history and evaluation of immigration policies around the world, and devotes signification attention to theoretical and empirical perspectives on immigrant adaptation. Within this larger topic, we will also discuss internal migration and urbanization; the relationship between gender and migration; the spatial distribution of immigrants within the United States, immigrant communities, and ethnic enclaves; and the undocumented population in the United States.
Not Offered Every Year
Also Offered As: SOCI 6770
1 Course Unit

LALS 6830 Collective Violence, Trauma, and Representation
This seminar is organized as a laboratory space for graduate students and faculty working in a number of adjacent fields and problems. Seminar discussions will be led not only by the primary instructors, but also by a number of guests drawn from the Penn faculty. For the first weeks of the course, we will focus on seminal works in the interlinked areas of history and memory studies, cultural representations of collective violence, trauma studies, and other related topics. Beginning with the 18th week of the course, we will turn to case studies in a variety of geographic, cultural and historical contexts. Additionally, some later sessions of the course will be devoted to a presentation and discussion of a work in progress of a Penn graduate student, faculty member or a guest lecturer.
Not Offered Every Year
Also Offered As: COML 6830
1 Course Unit

LALS 6900 Studies in 19th- and 20th-Century Spanish American Literature
Topics vary. Please see the Spanish Department’s website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
Also Offered As: SPAN 6900
1 Course Unit

LALS 6920 Colonial Literature of Spanish America
Topics vary. Please see the Spanish Department’s website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
Also Offered As: SPAN 6920
1 Course Unit

LALS 6940 Spanish and Latin American Cinema
Topics vary. Please see the Spanish Department’s website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
Also Offered As: SPAN 6940
1 Course Unit

LALS 6970 Studies in Latin American Culture
Topics vary. Please see the Spanish Department’s website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
Also Offered As: SPAN 6970
1 Course Unit

LALS 6971 Afro-Latin America
In-depth analysis of the black experience in Latin America and the Spanish, French and English-speaking Caribbean, since slavery to the present. The course opens with a general examination of the existence of Afro-descendants in the Americas, through the study of fundamental historical, political and sociocultural processes. This panoramic view provides the basic tools for the scrutiny of a broad selection of literary, musical, visual, performance, and cinematic works, which leads to the comprehension of the different ethical-aesthetic strategies used to express the Afro-diasporic experience. Essential concepts such as negritude, creolite, and mestizaje, as well as the most relevant theories on identity and identification in Latin America and the Caribbean, will be thoroughly examined, in articulation with the interpretation of artistic works. Power, nationalism, citizenship, violence, religious beliefs, family and community structures, migration, motherhood and fatherhood, national and gender identities, eroticism, and sexuality are some of the main issues discussed in this seminar.
Not Offered Every Year
Also Offered As: AFRC 6971, ENGL 7971, SPAN 6971
1 Course Unit

LALS 9215 Genealogies of Race and Language in Educational Research
This course explores the historical and contemporary co-construction of race and language in educational research. As opposed to treating race and language as self-evident and universal concepts, the course adopts a genealogical perspective that examines their historical development within the context of European colonialism and critically analyzes the legacy of these colonial ideologies in contemporary educational research, policy and practice. Students engage with a range of foundational theoretical and methodological texts to develop a robust understanding of the historical and contemporary relationship between race and language. Students also read, analyze and critique educational research that has sought to apply these theoretical and methodological insights. The course will culminate in students undertaking genealogical research projects on questions of race and language connected to their own educational research interests.
Fall
Also Offered As: EDUC 9215
1 Course Unit

Law (LAW)
Browse Penn Law’s courses by various criteria including instructor, subject area, and title using Penn Law’s Course Finder (https://goat.law.upenn.edu/cf/coursefinder/).
The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).

**LEAD 1010 Leadership Theory, Practice and Purpose**

Using an innovative combination of academic theory, empirical research, and self-reflection, this course is an intensive introduction to multiple and competing concepts of leadership. Students will critically analyze texts and research related to effective leadership and leaders and, at the same time, develop their own, individualized leadership traits and skills profile. A culminating biographical analysis paper requires students to compare and contrast their own distinctive leadership traits and skills to those of an admired leader. The course concludes with each student crafting a 5-year leadership and communication career plan.

1 Course Unit

**LEAD 1020 Leadership Theory and Practice**

Using an innovative combination of academic theory, empirical research, and self-reflection, this course is an intensive introduction to multiple and competing concepts of leadership. Students will critically analyze texts and related to effective leadership and leaders and, at the same time, develop their own, individualized leadership traits and skills profile. A culminating biographical analysis paper requires students to compare and contrast their own distinctive leadership traits and skills to those of an admired leader. The course concludes with each student crafting a 5-year leadership and communication career plan.

1 Course Unit

**LEAD 1040 Professional Communication and Personal Development**

This writing-intensive course is designed to enhance each student's ability to communicate effectively in the workplace and other professional settings. Students will critically analyze texts and related to effective leadership and leaders and, at the same time, develop their own, individualized leadership traits and skills profile. A culminating biographical analysis paper requires students to compare and contrast their own distinctive leadership traits and skills to those of an admired leader. The course concludes with each student crafting a 5-year leadership and communication career plan.

1 Course Unit

**LEAD 2020 Leadership Lessons from Social Sciences**

Drawing on several social science fields and subfields, from economics to psychology and more, this course is an introduction to leadership as studied and applied in various scholarly disciplines in the social sciences. Academic texts will introduce students to several social science fields, while case studies will offer them the opportunity to consider the practical and organizational applications of the theories being studied. Students' papers will synthesize the material of the course in thoughtful ways, and apply it to to problems of leadership. You have the option to enroll in the individual course without committing to the entire Certificate in Leadership and Communication, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests.

1 Course Unit

**LEAD 2030 Leadership Lessons from Humanities**

Using philosophy, literature, religious studies and biographies of famous public leaders, students conduct a searching examination of competing ideas and concepts regarding leadership, moral reasoning and ethical action. Students reflect on the complexities of problem-solving through an ethical lens and further define their individual interpretations and approaches to ethical decision-making. As an integral part of this simultaneously academic and practical exploration of leadership ethics, students co-author a mini-biography assessing the ethics of a famous (or infamous) public leader. Prerequisite: This course counts toward the Certificate in Leadership and Communication and degree concentration.

Prerequisite: LEAD 1010 OR LEAD 3040

1 Course Unit

**LEAD 3040 Professional Communication and Personal Development**

This writing-intensive course is designed to enhance each student's ability to communicate effectively in the workplace and other professional settings. Students will critically analyze texts and related to effective leadership and leaders and, at the same time, develop their own, individualized leadership traits and skills profile. A culminating biographical analysis paper requires students to compare and contrast their own distinctive leadership traits and skills to those of an admired leader. The course concludes with each student crafting a 5-year leadership and communication career plan.

1 Course Unit

**LEAD 3080 Leadership and Public Administration**

In LEAD 3100, Leadership and Public Administration, students are introduced to both classic and contemporary studies of how public laws and policies are translated into effective action, how and why government reform efforts succeed or fail, and complete an original case study on the ongoing revolution in public management theory and practice favoring public-private partnerships and collaborative governance.

1 Course Unit

**LEAD 3200 Leadership and Business Organization**

In LEAD 3200, Leadership and Business Organization, students interactively and critically study five of the most influential books ever published regarding why for-profit enterprises succeed or fail, do an original 'management consulting' report on an actual business firm; and write a final paper on what, if any, particular individual styles or institutional structures predictably and reliably enable one to 'succeed in business.'

1 Course Unit
LEAD 3300 Leadership and Nonprofit Management
In LEAD 3300, Leadership and Nonprofit Management, students are immersed in research that profiles America's vast and varied, large and growing independent sector, exploring what works (and what doesn't) when it comes to leadership and innovation in the non-governmental, not-for-profit organizations (charities, churches, private colleges, hospitals, and others) that, even if only counting the about 1.4 million registered with the IRS, now have more $2 trillion a year in annual revenues, more than $5 trillion in total assets, and more than 14 million full-time employees.
1 Course Unit

LEAD 4000 Global Leadership and Problem-Solving
According to research sponsored by the Organization for Economic Cooperation and Development (OECD), over the last 200 years, human beings in virtually every corner of the globe have become ever more likely to live longer, healthier, wealthier, and more personally satisfying lives. But global progress in improving human well-being has been neither linear nor universal. For instance, measured at living on just $5.50 a day per person, nearly 3.5 billion people still live in extreme poverty. Moreover, humankind now faces several unprecedented existential threats to human life itself such as global warming and the persistence or spread of drug-resistant infectious diseases including ones once thought to be nearly eradicated. In this course, students are introduced to multiple and competing concepts and empirical theories on each of two interrelated questions regarding global leadership and problem-solving: (1) What, if any, particular approaches (for example, "collaborative governance" or "boundary-spanning leadership") might predictably and reliably increase the odds that the next century-long chapter in the annals of global human well-being—the chapter to be written between now and the decade that will begin in 2120—will be a tale of greater wealth, health, and happiness for all or most people worldwide? (2) Under what, if any, conditions can diverse institutions—families and social networks; neighborhood and community groups; nonprofit or social sector organizations; for-profit firms; and local, national, and transnational government institutions—act, either independently or in tandem with each other, to maintain or improve human well-being? Each student quasi-independent researches and writes a capstone research paper describing, analyzing, and assessing an existing policy or program pertaining to one of the following three challenges: elder care with a focus on China; education with a focus on Africa; or economic development with a focus on Latin America. The prerequisites for this course are LEAD 1010, LEAD 1040/3040, LEAD 2020, LEAD 2030, LEAD 3100, LEAD 3200, and LEAD 3300, plus one of the following: DATA 1010, MTHS 1000, MTHS 2000, or MTHS 2200. Prerequisite: LEAD 1010 AND LEAD 1040 AND LEAD 3040 AND LEAD 2020 AND LEAD 2030 AND LEAD 3100 AND LEAD 3300 AND (DATA 1010 OR MTHS 1000 OR MTHS 2000 OR MTHS 2200)
1 Course Unit

Legal Studies & Business Ethics (LGST)

LGST 1000 Ethics and Social Responsibility
This course explores business responsibility from rival theoretical and managerial perspectives. Its focus includes theories of ethics and their application to case studies in business. Topics include moral issues in advertising and sales; hiring and promotion; financial management; corporate pollution; product safety; and decision-making across borders and cultures.
Fall or Spring
Mutually Exclusive: LGST 1008
1 Course Unit

LGST 1008 Ethics and Social Responsibility
This course explores business responsibility from rival theoretical and managerial perspectives. Its focus includes theories of ethics and their application to case studies in business. Topics include moral issues in advertising and sales; hiring and promotion; financial management; corporate pollution; product safety; and decision-making across borders and cultures.
Mutually Exclusive: LGST 1000
1 Course Unit

LGST 1010 Law and Social Values
This course presents law as an evolving social institution, with special emphasis on the legal regulation of business in the context of social values. It considers basic concepts of law and legal process, in the U.S. and other legal systems, and introduces the fundamentals of rigorous legal analysis. An in-depth examination of contract law is included.
Fall or Spring
Mutually Exclusive: LGST 1018
1 Course Unit

LGST 1018 Law and Social Values
This course presents law as an evolving social institution, with special emphasis on the legal regulation of business in the context of social values. It considers basic concepts of law and legal process, in the U.S. and other legal systems, and introduces the fundamentals of rigorous legal analysis. An in-depth examination of contract law is included.
Mutually Exclusive: LGST 1010
1 Course Unit

LGST 2020 Law of Corporate Management and Finance
This course provides an introduction to the law of corporate management and finance. The course covers the roles of directors and managers under state corporate law and the federal securities laws. It also considers the rights and responsibilities of other major stakeholders including shareholders, creditors, and employees. Particular attention is given to the law of mergers and acquisitions. Focus in on public corporations, but application of the law to venture firms is also discussed. Alternative organizational forms, such as LLCs, partnerships, and DAOs, are considered. Format: Socratic conversation and some lecture.
Fall or Spring
Mutually Exclusive: LGST 8020
1 Course Unit
LGST 2040 Real Estate Law
This course examines the fundamentals of real estate finance and development from a legal and managerial perspective. The course serves as a foundation course for real estate majors and provides an introduction to real estate for other students. It attempts to develop skills in using legal concepts in a real estate transactional setting. The course will be of interest to students contemplating careers in accounting, real estate development, real estate finance, city planning, or banking. The main topics covered may include the following: land acquisition, finance; choice of entity; tax aspects; management (leasing, environmental); disposition of real property (sale of mortgaged property, foreclosures, wraparound mortgages, sale-leasebacks); and recent legal developments. Lectures and class discussion required.
Fall or Spring
Also Offered As: REAL 2040
1 Course Unit

LGST 2050 Innovation, Marketing Strategy, and Antitrust
This course considers business strategy and law, particularly the role of antitrust and intellectual property law in managing innovation. We will examine several highly innovative firms in technology rich areas, considering how they adapt their strategies to the competitive and legal environment, and asking whether antitrust law promotes or hinders innovation. The strategies of both current firms such as Uber, Google, Apple, and Microsoft and historical examples such as American Can Company, Standard Oil, Brown & Williamson Tobacco Co., and Kodak will provide context and source materials for the course. We will pay special attention to the role of intellectual property rights in fostering or hindering innovation. The legal focus is primarily on U.S. law, but the course will occasionally address foreign regimes as well. The course is useful to students interested in marketing or competitive business strategy, and, more broadly, to anyone desiring to understand the legal and public policy issues relating to competition and innovation.
Fall or Spring
Also Offered As: MKTG 2600
1 Course Unit

LGST 2070 The Sports Industry: Business and Legal Aspects
This course examines various business disciplines as they apply to the sports industry. The course provides the student with an overview of the business of the intercollegiate, Olympic and professional sports enterprises. In addition, the course investigates the business related issues encountered by managers of sports organizations and covers how business principles can be applied to effectively address these issues.
Fall or Spring
1 Course Unit

LGST 2080 The Law at Work: Employment Law for Managers
This course is based on the principle that knowledge and understanding of employment law facilitate (1) promotion of a workforce with a high degree of commitment to reaching business goals, (2) the development of practical business solutions to problems arising in the workplace, (3) effective human resources policy and procedures that comply with applicable laws, and (4) justice for workers. The course provides students with an introduction to the law of the workforce and examines the balance between business goals and employment law compliance. The course examines the various employment laws with which businesses must comply and the legal rights and responsibilities of employees and employers. The emphasis is on laws concerning equal employment opportunity with respect to discrimination and harassment because of sex, race, national origin, religion, sexual orientation, age, disability and other characteristics protected by workforce laws; constitutional -- and especially free speech -- rights at work; work-related privacy including investigations, electronic communication and social media; classifying workers in the gig economy; diversity and affirmative action; and the legal and regulatory environment regarding immigration, wage and hour, leaves of absence, hiring, termination and afterwards; and labor/management relations and collective bargaining.
Fall or Spring
Mutually Exclusive: LGST 8080
1 Course Unit

LGST 2120 Economic Analysis of Law
This course provides an introduction to the economic analysis of law and legal institutions. Our goal is develop intuitions about the ways law simultaneously shapes and responds to private behavioral incentives. In the first half of the course, we will survey the application of key economic concepts to basic features of the Anglo-American common law of property, contract, and tort. In the second half of the course, we will use the tools developed in our survey to focus in depth on the law of intellectual property.
Fall or Spring
Also Offered As: BEPP 2120
1 Course Unit

LGST 2130 Legal Aspect of Entrepreneurship
This practically oriented course examines the critical legal issues confronting start-ups with a focus on innovation and disruption. Cutting edge topics include blockchain, fintech, AI, digital and mobile based issues. Students will learn to use the law to manage risk, deploy resources and maximize value. The course covers the entire lifecycle of a business, including confidentiality, non-competition and invention assignment clauses, intellectual property (IP) including patent, trade secrets, copyrights and trademarks, tax advantages of limited liability companies (LLC) vs. corporations or partnerships, securities law strategy for raising angel financing, convertible debt and venture capital (covering SAFEs and KISSes), independent contractor vs. employee concerns, discrimination laws, merger and acquisition exit plans, as well as restructuring and bankruptcy. Students will emerge from the course with the skills and tools to draft term sheets and contracts, negotiate deals tailored to their business models, as well as mitigate liability via risk-protective policies, insurance and management of litigation. The course fulfills elective requirements for 5 Concentrations, Majors, or Minors: * Wharton Legal Studies and Business Ethics; * Wharton Entrepreneurship and Innovation/Management; * Wharton Social Impact and Responsibility; * SAS Legal Studies Minor; * SAS STSC Major (Science, Technology and Society)--with permission.
Fall or Spring
1 Course Unit
LGST 2140 International Business Transactions
This course aims to familiarize students with and prepare students for the conduct of international transactions. Students will work their way through a series of hypothetical trade transactions, placed against a background of concepts and general theories. Students will take a hypothetical firm through a series of possible transnational investments, again after discussion of concepts and general theories. Throughout, the course will discuss issues of importance to emerging economies. Students should be able to make thoughtful choices rather than simply reciting bullet points about international business transactions.
Not Offered Every Year
Mutually Exclusive: LGST 8140
1 Course Unit

LGST 2150 Environmental Management: Law & Policy
This course provides an introduction to environmental management by focusing on foundational concepts of environmental law and policy and how they affect business decisions. The primary aim of the course is to give students a deeper practical sense of the important relationship between business and the natural environment, the existing legal and policy framework of environmental protection, and how business managers can think about managing their relationship with both the environment and the law.
Fall or Spring
Mutually Exclusive: LGST 8150
1 Course Unit

LGST 2160 Emerging Economies
This course explores important issues in conducting business internationally in and with emerging economies. Much of the course attempts to define emerging economies and to understand the changes occurring in these countries. The course also examines the position of emerging economies in the global context, and how broad social issues affect the development of emerging economies and the ability to establish relationships or conduct business in emerging economies.
Fall or Spring
1 Course Unit

LGST 2180 Diversity and the Law
The goal of this course is to study the role the law has played, and continues to play, in addressing the problems of racial discrimination in the United States. Contemporary issues such as racial profiling, affirmative action, and diversity will all be covered in their social and legal context. The basis for discussion will be assigned texts, articles, editorials and cases. In addition, interactive videos will also be used to aid class discussion. Course requirements will include a term paper and class case presentations.
Fall or Spring
Also Offered As: AFRC 2180
1 Course Unit

LGST 2190 Law and Policy in International Business
This course introduces students to the legal frameworks for regulating international business - national, regional, and international. Topics include mechanisms for dispute resolution, different standards on assigning nationality, jurisdictional and choice of law problems, controversies regarding the treatment of incoming foreign direct investment and expropriation of foreign-owned businesses, patterns in extraterritoriality, problems of clashing legal standards affecting areas like labor and the environment, and projects for creating more uniform rules governing the conduct of international business. Throughout students will be encouraged to evaluate the policy dimensions of laws and to develop their own critical perspectives regarding these.
Fall or Spring
1 Course Unit

LGST 2200 International Business Ethics
This course is a multidisciplinary, interactive study of business ethics within a global economy. A central aim of the course is to enable students to develop a framework to address ethical challenges as they arise within and across different countries. Alternative theories about acting ethically in global environments are presented, and critical current issues are introduced and analyzed. Examples include bribery, global sourcing, environmental sustainability, social reports, intellectual property, e-commerce, and dealing with conflicting standards and values across cultures. As part of this study, the course considers non-Western ethical traditions and practices as they relate to business.
Fall or Spring
1 Course Unit

LGST 2210 Constitutional Law and Free Enterprise
The course explores the fundamentals of U.S. constitutional doctrine and adjudication, with an emphasis on commercial and business issues and implications of constitutional law. The course starts by considering the Constitution and the structure and relationship of the governmental entities it establishes and upon which it depends. Special attention is given to the role of the federal courts, especially the Supreme Court, in interpreting and applying constitutional principles. From this foundation, the course moves on to examine in detail the major economic and business implications of constitutional law in different eras of the nation’s history. A core theme is how historical events and changing notions of public policy have affected and been affected by the evolution of constitutional doctrine.
Fall or Spring
1 Course Unit

LGST 2220 Internet Law, Privacy, and Cybersecurity
This course examines the complex and often novel legal issues surrounding the development and current state of the Internet, information privacy, and cybersecurity. Topics include federal- and state-level regulation and enforcement of Internet and privacy legal concepts, data breaches, online privacy protections, how to legally manage a borderless Internet, and the liability of intermediaries such as network operators, social media services, and search engines.
Fall or Spring
Also Offered As: OIDD 2220
1 Course Unit
LGST 2230 Securities Regulation
The course examines the federal securities laws and the operation of the Securities Exchange Commission. The legal responsibilities of corporate managers, accountants, underwriters, and broker-dealers, occasioned by the securities regulatory scheme, will be investigated. Students will be encouraged to evaluate, from a managerial perspective, the various aspects of securities regulation studied. The course will discuss the recent financial crisis and ask the question whether enhanced securities regulation will prevent such a crisis in the future. The material covered in the course will provide familiarity with the basic legal structure of securities law and will assist in understanding the current policy issues in securities law. The course should help students to develop the ability to read and learn further in the field and to improve their effectiveness of communication with attorneys. It will also suggest ways of detecting instances in which an attorney should be consulted. The course is particularly useful for those students pursuing careers in corporate finance, investment banking, mergers and acquisitions, sales and trading, venture capital, private equity, entrepreneurship, accounting, corporate management, and real estate.
Fall or Spring
Mutually Exclusive: LGST 8070
1 Course Unit

LGST 2240 Human Rights and Globalization
The 2000 UN Global Compact has confirmed the role of TNCs as central actors in the UN system of international human rights law, but whether their role should be voluntary or legally mandated remains in dispute. This course introduces students to how globalization has led to projects for expanding international human rights law to capture the operations of TNCs and why this development is opposed in many quarters. Competing perspectives on the pros and cons of imposing human rights responsibilities on TNCs and on the respective roles that businesses and governments should play will be examined. The Positions of various governments, businesses, international institutions, academics, and NGOs will be considered, and a number of illustrative case studies will be analyzed.
Fall or Spring
Mutually Exclusive: LGST 5240
1 Course Unit

LGST 2260 Markets, Morality & the Future of Capitalism
This course invites students to carefully evaluate one of the fundamental building blocks of capitalism, namely the institution of markets. What is the point of markets? In what ways do markets free us and in what ways do they constrain us? Are there some goods for which it is wrong to have a market? Are markets somehow undemocratic? Is equality compatible with the existence of markets? In reflecting on these questions we will necessarily also be reflecting on the basic structure of our own societies. This course will develop your ability to make and evaluate arguments, both in writing and in conversation, and thereby help you think clearly and critically about politics and society. It will also expose you to an array of arguments from across the political spectrum that will present powerful challenges to your existing beliefs and thereby force you to consider what you really believe and why. Grades will be based on two papers and class participation.
Fall or Spring
1 Course Unit

LGST 2270 Literature of Success
This course explores the history, literature, and philosophy of two age-old questions: what does it mean to be successful and how does one achieve this elusive goal? It surveys some of the classics of the "success" genre - from Benjamin Franklin's Autobiography in the 18th century to Dale Carnegie's How to Win Friends and Influence People and Marcus Buckingham's Now, Discover Your Strengths in the 20th and 21st centuries. Case studies of remarkable achievements in business and society and Arthur Miller's play Death of a Salesman provide additional contexts within which to reflect on the questions at the center of the course. Students will keep a personal journal and use web-based tools to examine their own character strengths, talents, and achievement orientations. Grading is based on class attendance and participation, reading response papers, personal journals on assigned topics involving self reflection, a mid-term paper on an assigned research subject related to success, and a final, longer paper exploring, based on course readings and original research, each students personal philosophy of success. No final exam.
Fall or Spring
1 Course Unit

LGST 2280 Sports Law
This course focuses on the areas of association, contract, constitutional, labor, antitrust, and agency law as they apply to the sports industry. This course exposes the student to many of the legal issues facing stakeholders in sport organizations. Special attention is given to the regulation of professional sports leagues promoting competitive balance, as well as antitrust law and labor-management relations dealing with the organization structure of sports leagues. The course also takes an inside look at previous and newly formed collective bargaining agreements and the use of Salary Cap or lack thereof in professional sports leagues. The development of effective communication skills will be emphasized through class presentations, written assignments, and quizzes; leadership and interpersonal communications will be cultivated through small group projects and meetings, and critical thinking and problem solving skills will be fostered through the careful study of case law impacting the sports industry in a variety of facets.
Fall or Spring
1 Course Unit

LGST 2300 Social Impact and Responsibility: Foundations
What role can business play in helping to meet global societal needs, whether it involves the environment, improving health, expanding education or eradicating poverty? Is there any responsibility on the part of business to help meet those needs? What are models of successful business engagement in this area? How should success be measured? Are there limits to what businesses can and should do, and what institutional changes will enable businesses and entrepreneurs to better succeed? This survey course provides students the opportunity to engage in the critical analysis of these and other questions that lie at the foundation of social impact and responsibility as an area of study. The course involves case studies, conceptual issues, and talks by practitioners. The course is designed to help students develop a framework to address the question: How should business enterprises and business thinking be engaged to improve society in areas not always associated with business? The course is required for the secondary concentration in Social Impact and Responsibility
1 Course Unit
LGST 2410 Theories of Business Enterprise
What is a business firm? How did various forms of business, including the corporation, arise historically? How do contemporary economic and financial theories explain how business firms evolve, grow, and die? What are the legal underpinnings of the forms of business enterprise, ranging from sole proprietorships to partnerships to family-owned enterprises to multinational corporate groups? How do business firms relate to politics and government, as well as religion? What about the environment? This interdisciplinary course offers an introduction to pursuing answers to these questions. Students will gain perspective on the nature of business enterprises from different points of view that will be useful in further research, as well as having practical application. Ubiquitous economic concepts such as agency costs, principal-agent relationships, transaction costs, and influence costs will be studied. Different legal structures of firms will also be introduced, including new hybrid organizations such as benefit corporations, which seek to meld non-profit and profit objectives. In the course, we will read high-profile U.S. Supreme Court cases such as Citizens United and Hobby Lobby and debate appropriate boundaries (or not) between business and politics, as well as business and religion. Business ethics and the nature of any social responsibilities owed by business and business people will be topics too.
Fall or Spring
Mutually Exclusive: LGST 6410, LGST 9410
1 Course Unit

LGST 2420 Big Data, Big Responsibilities: The Law and Ethics of Business Analytics
Significant technologies always have unintended consequences, and their effects are never neutral. A World of ubiquitous data, subject to ever more sophisticated collection, aggregation, and analysis, creates massive opportunities for both financial gain and social good. It also creates dangers in areas such as privacy, security, discrimination, exploitation, and inequality, as well as simple hubris about the effectiveness of management by algorithm. Firms that anticipate the risks of these new practices will be best positioned to avoid missteps. This course introduces students to the legal, policy, and ethical dimensions of big data, predictive analytics, and related techniques. It then examines responses—both private and governmental—that may be employed to address these concerns.
0.5 Course Units

LGST 2430 Other People’s Money: The Law, Politics, and History of Financial Institutions
We learn in introductory economics courses that money is fungible: that is, one dollar is as good as the next. Indeed, using money as a “medium of exchange” is one of its defining characteristics. But what happens when we take a big pile of money and put it in different buckets. On one bucket we might write “hedge fund”; on another, “central bank”; on still another, “payday lender.” Then money starts to change in ways defined by law, history, ethics, and politics. This course will take you on a tour of these different buckets—different kinds of financial institutions, broadly defined—throughout the modern financial system. We will look at hedge funds, insurance companies, investment banks, sovereign wealth funds, central banks, consumer banks, payday lenders, state-sponsored enterprises (like the Export-Import Bank in the United States and much of the financial system in China), and the cutting edge of fintech, including crowd-funded lending, digital currencies, and more. In each case, students will be exposed to a series of specialized questions: Where did this institution come from? What problem is it trying to solve that other alternatives could not resolve? What is the basic business (or, where relevant, regulatory) model for each institution? How is each institution regulated, and by whom? What are the ethical considerations in each context? What are the political considerations that each market participant faces?
Fall or Spring
Mutually Exclusive: LGST 6430
1 Course Unit

LGST 2440 Blockchain & Cryptocurrencies: Business, Legal, and Regulatory Considerations
Blockchain technology is a form of decentralized database that allows for the secure exchange of value without reliance on trusted intermediaries. Blockchain is the foundation for cryptocurrencies such as Bitcoin, as well as for distributed ledger platforms used by enterprise consortia in various industries. Many believe that blockchain solutions have revolutionary potential. They promise to replace legal enforcement with technical mechanisms of cryptographic consensus as the means of generating trust. The technology has generated significant excitement, investment, and entrepreneurial activity in recent years. However, the business value of blockchain-based solutions is uncertain, cryptocurrency valuations are speculative, and there are serious legal, regulatory, and governance challenges to be addressed. This course is designed to give students the tools for critical assessment of ongoing developments in this evolving area.
Mutually Exclusive: LGST 6440
1 Course Unit

LGST 2450 Business, Law, and Democracy
What is the relationship between business and democracy? Do institutions of free enterprise depend on democratic government and vice versa? Do more democratic decision-making structure enhance efficient outcomes? What principles inform shareholder democracy? What is the relationship of business, democracy, and the rule of law? This course explores various dimensions of the relationship between business and democracy. Particular attention is given to legal structures that govern the relationship, but ethical considerations are examined as well.
Fall or Spring
Mutually Exclusive: LGST 6450
1 Course Unit
LGST 2460 Corporate Distress and Reorganization Law
This course will introduce students to the law of corporate financial distress and its resolution. This course aims to do three things: (1) to acquaint students with the conceptual and historical foundations of American law’s response to financial distress; (2) to build knowledge of workout and bankruptcy law as they commonly apply in modern corporate settings, with special attention to how common patterns of resolution impact investors across the capital structure; and (3) to introduce cutting-edge legal issues at the forefront of distressed investing and restructuring today.
Fall or Spring
Mutually Exclusive: LGST 6460
1 Course Unit

LGST 2470 Value of Values: Contemporary Ethical Issues in Business
This course explores the concepts of value and values in economic life. All strategic and many tactical decisions begin with a value proposition of some kind. Investors, customers, employees, suppliers, and community members are potential sources of value in the creation, exchange, distribution and sale of a good or service. This course examines different conceptions of "value/values" in business life and the role they play in interpreting issues such as artificial intelligence, corporate governance, business and professional education, international business, value theory, and personal values. The class will utilize a combination of theoretical readings, class exercises, student presentations and case discussions.
Fall or Spring
1 Course Unit

LGST 2600 Climate & Environmental Leadership in Action: Building a Sustainable Future
This course aims to engage undergraduate students at Wharton with fundamental questions at the intersection of climate change, environmental management, ethics, and leadership. Important questions we will address include: (1) What can we learn about leadership from being in “the environment” or “the field” that we cannot as easily learn in other settings? (2) What does it mean to be a leader in the area of climate change and environmental management at a for-profit business firm? A non-profit organization? A social enterprise/benefit corporation? Within this overarching theme of environmental and climate leadership, the course examines a concrete set of timely topics through readings, discussions, guest speakers, and written assignments, including: environmental management and a circular economy; product stewardship; extended producer responsibility; environmental personhood; greenwashing; and the different types of firms and organizations in this space, including for-profit corporations, benefit corporations/social enterprises; and non-profits. The course begins with six classroom sessions on these issues with assignments and readings run and graded by Professor Light. The culminating event of the course is a weeklong Leadership Venture — a camping expedition during spring break that will include a combination of cycling, paddling, hiking and discussions about leadership and the environment.
Spring
0.5 Course Units

LGST 2910 Negotiations
This course examines the art and science of negotiation, with additional emphasis on conflict resolution. Students will engage in a number of simulated negotiations ranging from simple one-issue transactions to multi-party joint ventures. Through these exercises and associated readings, students explore the basic theoretical models of bargaining and have an opportunity to test and improve their negotiation skills.
Fall or Spring
Also Offered As: MGMT 2910, OIDD 2910
1 Course Unit

LGST 2920 Advanced Negotiation
This course is designed to teach negotiation principles and to enable students to develop their negotiation skills. This course assumes familiarity with the basic negotiation concepts covered in the prerequisite for this course: Negotiations. In this course, we extend the study and practice of negotiations and we develop a deeper understanding for how specific aspects of the negotiation process (e.g., emotions, deadlines, trust violations) impact outcomes. Through course lectures, readings, and case exercises, students will develop a rich framework for thinking about the negotiation process and acquire tools for guiding the negotiation process.
Fall or Spring
Also Offered As: MGMT 2920, OIDD 2920
Prerequisite: LGST 2910 OR OIDD 2910 OR MGMT 2910
1 Course Unit

LGST 2990 Seminar in Law and Society
A study of the nature, functions, and limits of law as an agency of societal policy. Each semester an area of substantive law is studied for the purpose of examining the relationship between legal norms developed and developing in the area and societal problems and needs. Please see department for current offerings.
Fall or Spring
Mutually Exclusive: LGST 7990
0.5-1 Course Unit

LGST 4010 Global Social Enterprise Consulting Project
This undergraduate capstone course, sponsored by the Legal Studies and Business Ethics Department, is a 7-week, .5 cu class designed to give Wharton seniors the chance to connect academic theory with complex real-world issues arising within the context of award-winning social enterprise projects identified by the World Bank's "Ideas for Action Initiative." The course by the Legal Studies and Business Ethics Department is jointly sponsored by the World Bank and Wharton's Zicklin Center for Business Ethics Research. The aim of the course is to integrate and strengthen students’ academic skills by applying them in cross-functional ways to the production of real-world consulting reports for project founders. The course will also require students to grapple with current ethical and legal challenges that business organizations face, such as defining the purpose of a business, determining how to incorporate global standards like the Sustainable Development Goals or other Environmental, Social, and Governance (ESG) standards into a business plan, and designing mechanisms to promote ethical behavior and combat such systemic challenges as corruption.
Fall or Spring
Prerequisite: (LGST 1000 OR LGST 1008 OR LGST 1010 OR LGST 1018) AND WH 1010 AND WH 2010 AND MGMT 3010
0.5 Course Units
LGST 5240 Human Rts & Globalization

The 2000 UN Global Compact has confirmed the role of TNCs as central actors in the UN system of international human rights law, but whether their role should be voluntary or legally mandated remains in dispute. This course introduces students to how globalization has led to projects for expanding international human rights law to capture the operations of TNCs and why this development is opposed in many quarters. Competing perspectives on the pros and cons of imposing human rights responsibilities on TNCs and on the respective roles that businesses and governments should play will be examined. The positions of various governments, businesses, international institutions, academics, and NGOs will be considered, and a number of illustrative case studies will be analyzed.

Fall or Spring
Mutually Exclusive: LGST 2240
1 Course Unit

LGST 6110 Responsibility in Global Management

This course uses the global business context to introduce students to important legal, ethical and cultural challenges they will face as business leaders. Cases and materials will address how business leaders, constrained by law and motivated to act responsibly in a global context, should analyze relevant variables to make wise decisions. Topics will include an introduction to the basic theoretical frameworks used in the analysis of ethical issues, such as right-based, consequentialist-based, and virtue-based reasoning, and conflicting interpretations of corporate responsibility. The course will include materials that introduce students to basic legal (common law vs. civil law) and normative (human rights) regimes at work in the global economy as well as sensitize them to the role of local cultural traditions in global business activity. Topics may also include such issues as comparative forms of corporate governance, bribery and corruption in global markets, human rights issues, diverse legal compliance systems, corporate responses to global poverty, global environmental responsibilities, and challenges arising when companies face conflicting ethical demands between home and local, host country mores. The pedagogy emphasizes globalized cases, exercises, and theoretical materials from the fields of legal studies, business ethics and social responsibility.

Fall or Spring
0.5 Course Units

LGST 6120 Responsibility in Business

This course introduces students to important ethical and legal challenges they will face as leaders in business. The course materials will be useful to students preparing for managerial positions that are likely to place them in advisory and/or agency roles owing duties to employers, clients, suppliers, and customers. Although coverage will vary depending on instructor, the focus of the course will be on developing skills in ethical and legal analyses that can assist managers as they make both individual-level and firm-level decisions about the responsible courses of action when duties, loyalties, rules, norms, and interests are in conflict. For example, the rules of insider trading may form the basis for lessons in some sections. Group assignments, role-plays, and case studies may, at the instructor's discretion, be used to help illustrate the basic theoretical frameworks. Course materials will highlight industry codes and professional norms, as well as the importance of personal and/or religious values.

Fall or Spring
0.5 Course Units

LGST 6130 Business, Social Responsibility, and the Environment

This half-credit (.5 cu) course presents students with the opportunity to explore an alternative perspective to what some might consider the traditional or standard model of business. A starting point of the course is to ask whether business firms owe a “social responsibility” that includes, but goes beyond, maximizing profits. The course begins with overreaching questions including to whom a business firm owes legal and ethical duties, how to balance or trade-off obligations owed to different stakeholders when they may conflict, and how to consider the distributional and other socially important implications of business decisions. Different sections of this course will examine questions about the responsibility of business toward a number of pressing environmental and social issues, including for example, climate change, fresh water availability, green marketing claims, democratic values, racial and gender diversity, human rights, poverty reduction, and global health issues such as access to medicine. These topics will be treated primarily through the lenses of law and ethics. Please consult individual instructors’ syllabi in the Wharton syllabus repository for further details on what will be covered in each individual section, and please note that topics change over time and in response to student and faculty interests. Finally, students should expect to prepare and present in groups to colleagues in classes on selected issues of business responsibility. This course fulfills the MBA Flex Core requirement in Legal Studies and Business Ethics.

Fall or Spring
0.5 Course Units

LGST 6410 Theories of Business Enterprise

What is a business firm? How did various forms of business, including the corporation, arise historically? How do contemporary economic and financial theories explain how business firms evolve, grow, and die? What are the legal underpinnings of the forms of business enterprise, ranging from sole proprietorships to partnerships to family-owned enterprises to multinational corporate groups? How do business firms relate to politics and government, as well as religion? What about the environment? This interdisciplinary course offers an introduction to pursuing answers to these questions. Students will gain perspective on the nature of business enterprises from different points of view that will be useful in further research, as well as having practical application. Ubiquitous economic concepts such as agency costs, principal-agent relationships, transaction costs, and influence costs will be studied. Different legal structures of firms will also be introduced, including new hybrid organizations such as benefit corporations, which seek to meld non-profit and profit objectives. In the course, we will read high-profile U.S. Supreme Court cases such as Citizens United and Hobby Lobby and debate appropriate boundaries (or not) between business and politics, as well as business and religion. Business ethics and the nature of any social responsibilities owed by business and business people will be topics too.

Fall or Spring
Mutually Exclusive: LGST 2410
1 Course Unit
LGST 6420 Big Data, Big Responsibilities: The Law and Ethics of Business Analytics

Significant technologies always have unintended consequences, and their effects are never neutral. A world of ubiquitous data, subject to ever more sophisticated collection, aggregation, and analysis, creates massive opportunities for both financial gain and social good. It also creates dangers in areas such as privacy, security, discrimination, exploitation, and inequality, as well as simple hubris about the effectiveness of management by algorithm. Firms that anticipate the risks of these new practices will be best positioned to avoid missteps. This course introduces students to the legal, policy, and ethical dimensions of big data, predictive analytics, and related techniques. It then examines responses—both private and governmental—that may be employed to address these concerns.

Fall or Spring
0.5 Course Units

LGST 6430 Other People’s Money: The Law, Politics, and History of Financial Institutions

We learn in introductory economics courses that money is fungible: that is, one dollar is as good as the next. Indeed, using money as a “medium of exchange” is one of its defining characteristics. But what happens when we take a big pile of money and put it in different buckets. On one bucket we might write “hedge fund”; on another, “central bank”; on still another, “payday lender.” Then money starts to change in ways defined by law, history, ethics, and politics. This course will take you on a tour of these different buckets—different kinds of financial institutions, broadly defined—throughout the modern financial system. We will look at hedge funds, insurance companies, investment banks, sovereign wealth funds, central banks, consumer banks, payday lenders, state-sponsored enterprises (like the Export-Import Bank in the United States and much of the financial system in China), and the cutting edge of fintech, including crowd-funded lending, digital currencies, and more. In each case, students will be exposed to a series of specialized questions: Where did this institution come from? What problem is it trying to solve that other alternatives could not resolve? What is the basic business (or, where relevant, regulatory) model for each institution? How is each institution regulated, and by whom? What are the ethical considerations in each context? What are the political considerations that each market participant faces?

Fall or Spring
Mutually Exclusive: LGST 2430
1 Course Unit

LGST 6440 Blockchain and Cryptocurrencies: Business, Legal and Regulatory Considerations

Blockchain technology is a form of decentralized database that allows for the secure exchange of value without reliance on trusted intermediaries. Blockchain is the foundation for cryptocurrencies such as Bitcoin, as well as for distributed ledger platforms used by enterprise consortia in various industries. Many believe that blockchain solutions have revolutionary potential. They promise to replace legal enforcement with technical mechanisms of cryptographic consensus as the means of generating trust. The technology has generated significant excitement, investment, and entrepreneurial activity in recent years. However, the business value of blockchain-based solutions is uncertain, cryptocurrency valuations are speculative, and there are serious legal, regulatory, and governance challenges to be addressed. This course is designed to give students the tools for critical assessment of ongoing developments in this evolving area.

Mutually Exclusive: LGST 2440
0.5-1 Course Unit

LGST 6450 Business, Law, and Democracy

What is the relationship between business and democracy? Do institutions of free enterprise depend on democratic government—and vice versa? Do more democratic decision-making structure enhance efficient outcomes? What principles inform shareholder democracy? What is the relationship of business, democracy, and the rule of law? This course explores various dimensions of the relationship between business and democracy. Particular attention is given to legal structures that govern the relationship, but ethical considerations are examined as well.

Fall or Spring
Mutually Exclusive: LGST 2450
1 Course Unit

LGST 6460 Corporate Distress and Reorganization Law

This course will introduce students to the law of corporate financial distress and its resolution. This course aims to do three things: (1) to acquaint students with the conceptual and historical foundations of American law’s response to financial distress; (2) to build knowledge of workout and bankruptcy law as they commonly apply in modern corporate settings, with special attention to how common patterns of resolution impact investors across the capital structure; and (3) to introduce cutting-edge legal issues at the forefront of distressed investing and restructuring today.

Fall or Spring
Mutually Exclusive: LGST 2460
1 Course Unit

LGST 6470 The Business and Governance of Water

Virtually every business imaginable—from oil refining to semiconductor manufacturing to cloud computing—requires copious supplies of fresh water. However, there is a fixed amount of water on earth. As climate change makes many parts of the world hotter and drier, it is increasingly important for today’s business leaders to be able to understand water challenges and to implement solutions that will enable businesses to thrive in the future.

In addition to understanding and navigating water quality and quantity challenges, business leaders thinking about water operate in a highly regulated environment at the local, national, and global levels. It is therefore important to understand who the key external stakeholders—both public and private—are and how to engage with them productively. Students are not expected to have any previous experience with the water industry. This course will begin by focusing on global water risks and global, national, and local water governance. It will introduce students to how governments at many levels make and implement water policy and how business leaders need to navigate managing water risks and opportunities within that environment. It will also cover private governance and water—considering how to engage with NGOs like the World Resources Institute and the CDP (formerly Carbon Disclosure Project) that operate on behalf of multiple stakeholders, including investors in this space. The course will examine the duties of corporate officers and directors in developing and implementing a firm's water sustainability program, how major water projects are financed, and the business ethics issues surrounding “doing the right thing” in a module on water and ESG (environmental, social and governance factors). It will conclude with an “H2O Shark Tank” exercise where student groups pitch their best ideas for sustainable water solutions to a panel of potential funders, including investment banks, corporate executives, and foundation leaders.

Spring
1 Course Unit
LGST 6920 Advanced Topics Negotiation
This is a course that builds on the basic Negotiation course. In this course, we explore a wide range of negotiation topics from crisis and hostage negotiations, to the role of emotions including anxiety, envy and anger in negotiations, to backlash effects for women in negotiations, and the role of alcohol in negotiations. We will survey many aspects of current negotiation research, discuss historic negotiation cases, and students will participate in role-play exercises. Many of the role play exercises will involve multi-party negotiations and afford opportunities to hone skills in team-based negotiations.
Fall or Spring
Also Offered As: MGMT 6920, OIDD 6920
0.5-1 Course Unit

LGST 6930 Influence
Building, protecting and using influence is critical for achieving your goals. This requires good personal decision making as well as understanding others' decision-making, proficiency at the negotiation table as well as with the tacit negotiations before and after sitting at the table. In this course, we focus on building your facility with a wide range of influence tools to help with these efforts. Topics include power and status, informal networks, coalitions and persuasion.
Fall or Spring
Also Offered As: OIDD 6930
0.5 Course Units

LGST 7290 Intellectual Property Strategy for the Innovation-Driven Enterprise
Announcing the first iPhone at Macworld 2007, Apple CEO Steve Jobs famously boasted: "And boy, have we patented it!" How, and to what extent, do patents and intellectual property really provide competitive advantage for innovative technology companies? What makes an IP asset strategically powerful? How do patents impact, and even drive, corporate decisions including M&A, venture funding and exits, and entry into new markets? In this course, students will learn to critically analyze and answer these questions, gaining insights they can leverage in their future roles as innovation industry executives, entrepreneurs, strategists and investors. The course includes three major units. In Unit 1, Patents and Innovation Value, we examine closely the relationship between competitive advantage, value proposition, and intellectual property (particularly patents). We will apply our understanding of that relationship to critique and sharpen patent strategy to protect examples of cutting-edge technologies. In Unit 2, Patent Leverage and the Corporate Playbook, we study theory and examples of how intellectual property leverage strategically informs corporate transactions and decisions, for established companies as well as for start-ups. In unit 3, Limits and Alternatives to Patents, we confront the recent legal trend toward reigniting the power and scope of patents. We also consider the growing importance of data as a proprietary technology asset, and discuss options for adapting intellectual property strategy appropriately. Throughout, students will learn and practice applying the concepts we learn to decision-making in examples based on innovative real-world technologies and businesses.
Also Offered As: MGMT 7290
0.5 Course Units

LGST 7620 Environmental Sustainability and Value Creation
This course provides an overview of topics related to corporate sustainability with a focus on how environmentally sustainable approaches can create value for the firm. The course explores trends in corporate practices and students consider specific examples of such practices to examine the interactions between the firm and the environment. This course has three objectives: to increase students' knowledge of sustainability practices and their impact on firm performance; to teach students to think strategically and act entrepreneurially on environmental issues; and to help students design business approaches to improve environmental outcomes, while simultaneously creating value.
Fall or Spring
Also Offered As: OIDD 7620, OIDD 7620
0.5 Course Units

LGST 7850 Business Strategy & Corp
This course explores strategic, business and legal decision making in a fluid real world corporate context. Classes will cover a series of timely financial and legal subjects as well as case studies that deal with topical problems in corporate governance, investment strategy, finance, private equity, executive compensation, and potential corporate and criminal behavior. Press, public market reaction, and governmental/political considerations will be integrated into the discussion. All students will be required to participate in one major and two minor team projects. An equal number of graduate law and business students will be enrolled in this class.
Also Offered As: FNCE 7850
Prerequisite: FNCE 6110
1 Course Unit

LGST 7990 Seminar in Law & Society
A study of the nature, functions, and limits of law as an agency of societal policy. Each semester an area of substantive law is studied for the purpose of examining the relationship between legal norms developed and developing in the area and societal problems and needs.
Fall or Spring
Mutually Exclusive: LGST 2990
0.5-1 Course Unit

LGST 8020 Law of Corporate Management and Finance
This course provides an introduction to the law of corporate management and finance. The course covers the roles of directors and managers under state corporate law and the federal securities laws. It also considers the rights and responsibilities of other major stakeholders, including shareholders, creditors, and employees. Particular attention is given to the law of mergers and acquisitions. Focus is on public corporations, but application of the law to venture firms is also discussed. Alternative organizational forms, such as LLCs, partnerships, and DAOs, are considered. Format: Socratic conversation and some lecture.
Fall or Spring
Mutually Exclusive: LGST 2020
1 Course Unit
LGST 8040 Real Estate Law
This course examines the fundamentals of real estate finance and development from a legal and managerial perspective. The course serves as a foundation course for real estate majors and provides an introduction to real estate for other students. It attempts to develop skills in using legal concepts in a real estate transactional setting. The course will be of interest to students contemplating careers in accounting, real estate development, real estate finance, city planning, or banking. The main topics covered may include the following: land acquisition, finance; choice of entity; tax aspects; management (leasing, environmental); disposition of real property (sale of mortgaged property, foreclosures, wraparound mortgages, sale-leasebacks); and recent legal developments. Lectures and class discussion required.
Fall or Spring
Also Offered As: REAL 8040
1 Course Unit

LGST 8050 Innovation, Marketing Strategy, and Antitrust
This course considers business strategy and law, particularly the role of antitrust and intellectual property law in managing innovation. We will examine several highly innovative firms in technology rich areas, considering how they adapt their strategies to the competitive and legal environment, and asking whether antitrust law promotes or hinders innovation. The strategies of both current firms such as Uber, Google, Apple, and Microsoft and historical examples such as American Can Company, Standard Oil, Brown & Williamson Tobacco Co., and Kodak will provide context and source materials for the course. We will pay special attention to the role of intellectual property rights in fostering or hindering innovation. The legal focus is primarily on U.S. law, but the course will occasionally address foreign regimes as well. The course is useful to students interested in marketing or competitive business strategy, and, more broadly, to anyone desiring to understand the legal and public policy issues relating to competition and innovation.
Fall or Spring
Also Offered As: MKTG 7600
1 Course Unit

LGST 8060 Negotiations
This course examines the art and science of negotiation, with additional emphasis on conflict resolution. Students will engage in a number of simulated negotiations ranging from simple one-issue transactions to multi-party joint ventures. Through these exercises and associated readings, students explore the basic theoretical models of bargaining and have an opportunity to test and improve their negotiation skills. Crosslisted with MGMT 6910/OIDD 6910/LGST 8060. Format: Lecture, class discussion, simulation/role play, and video demonstrations. Materials: Textbook and course pack.
Fall or Spring
Also Offered As: MGMT 6910, OIDD 6910
1 Course Unit

LGST 8070 Securities Regulation
The course examines the federal securities law and the operation of the Securities Exchange Commission. The legal responsibilities of corporate managers, accountants, underwriters, and broker-dealers, occasioned by the securities regulatory scheme, will be investigated. Students will be encouraged to evaluate, from a managerial perspective, the various aspects of securities regulation studied. The course will discuss the recent financial crisis and ask the question whether enhanced securities regulation will prevent such a crisis in the future. The material covered in the course will provide familiarity with the basic legal structure of securities regulation and will assist in understanding the current policy issues in securities law. The course should help students to develop the ability to read and learn further in the field and to improve their effectiveness of communication with attorneys. It will also suggest ways of detecting instances in which an attorney should be consulted. The course is particularly useful for those students pursuing careers in corporate finance, investment banking, mergers and acquisitions, sales and trading, venture capital, private equity, entrepreneurship, accounting, corporate management and real estate. Requirements: Midterm and final exam. Materials: Text, pamphlet of statutes and rules, and study guide.
Fall or Spring
Mutually Exclusive: LGST 2230
1 Course Unit

LGST 8080 Employment Law
This course is based on the principle that knowledge and understanding of employment law facilitate (1) promotion of a workforce with a high degree of commitment to reaching business goals, (2) the development of practical business solutions to problems arising in the workplace, (3) effective human resources policy and procedures that comply with applicable laws, and (4) justice for workers. The course provides students with an introduction to the law of the workplace and examines the balance between business goals and employment law compliance. The course examines the various employment laws with which businesses must comply and the legal rights and responsibilities of employees and employers. The emphasis is on laws concerning equal employment opportunity with respect to discrimination and harassment because of sex, race, national origin, religion, sexual orientation, age, disability and other characteristics protected by workplace laws; constitutional – and especially free speech – rights at work; work-related privacy including investigations, electronic communication and social media; classifying workers in the gig economy; diversity and affirmative action; and the legal and regulatory environment regarding immigration, wage and hour, leaves of absence, hiring, termination and afterwards; and labor/management relations and collective bargaining.
Fall or Spring
Mutually Exclusive: LGST 2080
1 Course Unit

LGST 8090 Sports Business Management
This course examines various business disciplines as they apply to the sports industry. The course provides the student with an overview of the business of the intercollegiate, Olympic and professional sports enterprises. In addition, the course investigates the business related issues encountered by managers of sports organizations and covers how business principles can be applied to effectively address these issues. This course is crosslisted with MGMT8150.
Fall or Spring
Also Offered As: MGMT 8150
0.5,1 Course Unit
LGST 8130 Legal and Transactional Aspects of Entrepreneurship
Legal and Transactional Aspects of Entrepreneurship is a practical and intensive course that examines the critical legal and transactional issues confronting start-up and emerging growth companies. Although the context of the course is early stage companies, many of the concepts studied are equally applicable to more mature, established companies. The course provides perspective on how to use the law strategically to manage risk, deploy resources and maximize shareholder value. Topics include the enforceability of confidentiality, non-competition and other restrictive covenants in employment agreements; choice of business form including the legal, financial and tax advantages and disadvantages of general partnerships, limited partnerships, corporations and limited liability companies; tax and securities law; legal aspects of raising capital including structuring venture capital and private equity financing; entrepreneurial acquisition structures, employment law, and intellectual property law including trade secrets, copyrights, patents, and trademarks. Format: Lecture and discussion with coverage of legal cases and materials. Requirements: Class participation, midterm and final exam. Materials: Course pack.
Fall or Spring
0.5-1 Course Unit

LGST 8150 Environmental Management: Law and Policy
This course provides an introduction to environmental management with a focus on law and policy as a basic framework. The primary aim of the course is to give students a deeper practical sense of the important relationship between business and the natural environment and to think critically about how best to manage this relationship.
Fall or Spring
Mutually Exclusive: LGST 2150
1 Course Unit

LGST 8200 International Business Ethics
This course is a multidisciplinary, interactive study of business ethics within a global economy. A central aim of the course is to enable students to develop a framework to address ethical challenges as they arise within and across different countries. Alternative theories about acting ethically in global environments are presented, and critical current issues are introduced and analyzed. Examples include bribery, global sourcing, environmental sustainability, social reports, intellectual property, e-commerce, and dealing with conflicting standards and values across cultures. As part of this study, the course considers non-Western ethical traditions and practices as they relate to business.
Fall or Spring
Mutually Exclusive: LGST 2200
1 Course Unit

LGST 8300 Social Impact and Responsibility: Foundations
What role can business play in helping to meet global societal needs, whether it involves the environment, improving health, expanding education or eradicating poverty? Is there any responsibility on the part of business to help meet those needs? What are models of successful business engagement in this area? How should success be measured? Are there limits to what businesses can and should do, and what institutional changes will enable businesses and entrepreneurs to better succeed? This course provides students the opportunity to engage in the critical analysis of these and other questions that lie at the foundation of social impact and responsibility as an area of study. The course involves class studies, conceptual issues, and talks by practitioners. The course is designed to help students develop a framework to address the question: "How should business enterprises and business thinking be engaged to improve society in areas not always associated with business?"
0.5 Course Units

LGST 9200 Ethics in Business and Economics
The seminar explores the growing academic literature in business ethics. It also provides participants an opportunity to investigate an ethical issue of their choosing in some depth, using their field of specialty as context. The seminar assumes no previous exposure to business ethics. Different business ethics theories and frameworks for investigating issues will be discussed, including corporate social responsibility, corporate moral agency, theories of values, and corporate governance. In turn, these theories will be applied to a range of issues, both domestic and international. Such issues include: corruption in host countries, the management of values in modern corporations, the ethical status of the corporation, ethics in sophisticated financial transactions (such as leveraged derivative transactions), and gender discrimination in the context of cultural differences. Literature not only from business ethics, but from professional and applied ethics, law, and organizational behavior will be discussed. Often, guest speakers will address the seminar. At the discretion of the class, special topics of interest to the class will be examined. Students will be expected to write and present a major paper dealing with a current issue within their major field. The course is open to students across fields, and provides integration of ideas across multiple business disciplines.
Not Offered Every Year
1 Course Unit

LGST 9210 Foundations of Business Law
This course will introduce students to basic jurisprudential discussions and debates that relate to understanding business in society. Topics will include a general overview of the nature of law and its relationship to ethics; history of legal thought, business in society; theories of contract, torts, and property; criminal law as it applies to business situations; and theories of the business enterprise and its regulation. Selected topics will also be chosen in accordance with the interest of participants in the seminar.
Not Offered Every Year
1 Course Unit

University of Pennsylvania Undergraduate Catalog 1371
LING 0001 Introduction to Linguistics
A general introduction to the nature, history and use of human language, speech and writing. Topics include the biological basis of human language, and analogous systems in other creatures; relations to cognition, communication, and social organization; sounds, forms and meanings in the world’s languages; the reconstruction of linguistic history and the family tree of languages; dialect variation and language standardization; language and gender; language learning by children and adults; the neurology of language and language disorders; the nature and history of writing systems. Intended for any undergraduate interested in language or its use, this course is also recommended as an introduction for students who plan to major in linguistics.
Fall or Spring
1 Course Unit

LING 0060 Language and Social Identity
Language is an important part of both human cognition as well as social organization. Our identities, our societies, and our cultures are all informed by and how we use language. Language interacts with the social, political and economic power structures in crucial ways. This course will focus on the ways in which language and the social facts of life are dependent upon each other. In this course, we will examine issues related to class, race, gender, culture and identity, as well as how language exists to both challenge and uphold systems of power.
Fall
1 Course Unit

LGST 9410 Theories of Business Enterprise
What is a business firm? How did various forms of business, including the corporation, arise historically? How do contemporary economic and financial theories explain how business firms evolve, grow, and die? What are the legal underpinnings of the forms of business enterprise, ranging from sole proprietorships to partnerships to family-owned enterprises to multinational corporate groups? How do business firms relate to politics and government, as well as religion? What about the environment? This interdisciplinary course offers an introduction to pursuing answers to these questions. Students will gain perspective on the nature of business enterprises from different points of view that will be useful in further research, as well as having practical application. Ubiquitous economic concepts such as agency costs, principal-agent relationships, transaction costs, and influence costs will be studied. Different legal structures of firms will also be introduced, including new hybrid organizations such as benefit corporations, which seek to meld non-profit and profit objectives. In the course, we will read high-profile U.S. Supreme Court cases such as Citizens United and Hobby Lobby and debate appropriate boundaries (or not) between business and politics, as well as business and religion. Business ethics and the nature of any social responsibilities owed by business and business people will be topics too.
Fall or Spring
Mutually Exclusive: LGST 2410
1 Course Unit

LING 0004 Bilingualism in History
This course introduces the foundations of linguistics - the scientific study of language - through exploration of multilingualism in the USA and in different societies around the world. Contacts between groups of people speaking different languages are documented from earliest records, and around the world it remains the norm to find more than one language in regular use in a single community. In this course we will see that multilingualism is a catalyst for linguistic change: sometimes languages are lost; sometimes new languages are created; sometimes the structure of a language is radically altered. We will consider: Which parts of linguistic structure are most susceptible to change under conditions of bilingualism? Does language contact - whether as a result of trade, education, migration, conquest, or intermarriage - influence language structure in predictable ways? How do individual speakers handle multiple languages? How do we know? Reconstruction of the Proto-Indo-European language, one of the triumphs of comparative and historical linguistics in the 19th and 20th centuries, allows us a glimpse into the society of this prehistoric people. In this seminar students will, through comparison of modern and ancient languages, learn the basis of this reconstruction – the comparative method of historical linguistics – as well as explore the culture and society of the Proto-Indo-Europeans and their immediate descendants. In addition, we will examine the pseudo-scientific basis of the myth of Aryan supremacy, and study the contributions of archaeological findings in determining the “homeland” of the Indo-Europeans. No prior knowledge of any particular language is necessary. This seminar should be of interest to students considering a major in linguistics, anthropology and archaeology, ancient history or comparative religion. (Also fulfills Cross-Cultural Analysis.)
Not Offered Every Year
1 Course Unit

LING 0051 Proto-Indo-European Language and Society
Most of the languages now spoken in Europe, along with some languages of Iran, India and central Asia, are thought to be descended from a single language known as Proto-Indo-European, spoken at least six thousand years ago, probably in a region extending from north of the Black Sea in modern Ukraine east through southern Russia. Speakers of Proto-Indo-European eventually populated Europe in the Bronze Age, and their societies formed the basis of the classical civilizations of Greece and Rome, as well as of the Celtic, Germanic and Slavic speaking peoples. What were the Proto-Indo-Europeans like? What did they believe about the world and their gods? How do we know? Reconstruction of the Proto-Indo-European language, one of the triumphs of comparative and historical linguistics, allows us a glimpse into the society of this prehistoric people. In this seminar students will, through comparison of modern and ancient languages, learn the basis of this reconstruction – the comparative method of historical linguistics – as well as explore the culture and society of the Proto-Indo-Europeans and their immediate descendants. In addition, we will examine the pseudo-scientific basis of the myth of Aryan supremacy, and study the contributions of archaeological findings in determining the “homeland” of the Indo-Europeans. No prior knowledge of any particular language is necessary. This seminar should be of interest to students considering a major in linguistics, anthropology and archaeology, ancient history or comparative religion. (Also fulfills Cross-Cultural Analysis.)
Not Offered Every Year
1 Course Unit

LING 0054 Bilingualism in History
This course introduces the foundations of linguistics - the scientific study of language - through exploration of multilingualism in the USA and in different societies around the world. Contacts between groups of people speaking different languages are documented from earliest records, and around the world it remains the norm to find more than one language in regular use in a single community. In this course we will see that multilingualism is a catalyst for linguistic change: sometimes languages are lost; sometimes new languages are created; sometimes the structure of a language is radically altered. We will consider: Which parts of linguistic structure are most susceptible to change under conditions of bilingualism? Does language contact - whether as a result of trade, education, migration, conquest, or intermarriage - influence language structure in predictable ways? How do individual speakers handle multiple languages? How do we know? Reconstruction of the Proto-Indo-European language, one of the triumphs of comparative and historical linguistics in the 19th and 20th centuries, allows us a glimpse into the society of this prehistoric people. In this seminar students will, through comparison of modern and ancient languages, learn the basis of this reconstruction – the comparative method of historical linguistics – as well as explore the culture and society of the Proto-Indo-Europeans and their immediate descendants. In addition, we will examine the pseudo-scientific basis of the myth of Aryan supremacy, and study the contributions of archaeological findings in determining the “homeland” of the Indo-Europeans. No prior knowledge of any particular language is necessary. This seminar should be of interest to students considering a major in linguistics, anthropology and archaeology, ancient history or comparative religion. (Also fulfills Cross-Cultural Analysis.)
Not Offered Every Year
1 Course Unit

LING 0056 Language and Social Identity
Language is an important part of both human cognition as well as social organization. Our identities, our societies, and our cultures are all informed by and how we use language. Language interacts with the social, political and economic power structures in crucial ways. This course will focus on the ways in which language and the social facts of life are dependent upon each other. In this course, we will examine issues related to class, race, gender, culture and identity, as well as how language exists to both challenge and uphold systems of power.
Fall
1 Course Unit
LING 0130 Introduction to Language: Language Structure and Verbal Art
The purpose of this course is to explore the relationship between linguistic structure and the use of language for artistic purposes. The syllabus is organized as a sequence of units, each built around a particular theme. These include the sound structure of poetry (meter, rhyme, and other linguistic patterns in Jabberwocky, the Odyssey, Shakespeare, the Troubadours, and others); how precise linguistic data can be used to solve an outstanding literary problem (determining the approximate date when Beowulf was composed); and the structure of folktales of various cultures and of narratives of everyday experience.
Fall
1 Course Unit

LING 0150 Writing Systems
The historical origin of writing in Sumer, Egypt, China, and Mesoamerica; the transmission of writing across languages and cultures, including the route from Phoenician to Greek to Etruscan to Latin to English; the development of individual writing systems over time; the traditional classification of written symbols (ideographic, logographic, syllabic, alphabetic); methods of decipherment; differences between spoken and written language; how linguistic structure influences writing, and is reflected by it; social and political aspects of writing; literacy and the acquisition of writing.
Fall
1 Course Unit

LING 0500 Introduction to Formal Linguistics
In this course, we study formal mathematical tools for the analysis of language that help us understand and classify the complex structures and rules that constitute language and grammar. These tools include set theory, formal language and automata theory, as well as aspects of logic, and will be applied to the syntax and semantics of natural language. In addition to learning something about formal tools for analyzing language, this will also enhance your general skills in analytical reasoning.
Spring
1 Course Unit

LING 0600 Introduction to Sociolinguistics
Human language viewed from a social and historical perspective. Students will acquire the tools of linguistic analysis through interactive computer programs, covering phonetics, phonology and morphology, in English and other languages. These techniques will then be used to trace social differences in the use of language, and changing patterns of social stratification. The course will focus on linguistic changes in progress in American society, in both mainstream and minority communities, and the social problems associated with them. Students will engage in field projects to search for the social correlates of linguistic behavior, and use quantitative methods to analyze the results.
Spring
1 Course Unit

LING 0650 Talkin' Black: Language, Power & Identity
Soda, pop, or coke? Buggy or shopping cart? Y'all, Y'alls, y'all'd've, y'all'd've'y'I'd've'? Do you talk black, speak Appalachian - maybe both? Is your vernacular spectacular? Does anyone talk 'normal'? What does your accent say about you? We use language every day, but don't always take the time to stop and talk about the language we use. Language can both be a powerful tool for communication, and also a means to mock and disempower the 'other' (such as using the Southern accent to portray stereotypes). It can be used to draw people in (I'm lookin at you, broth, sister) and dividing (you ain't from around here, aren ya?) And, even if we share the exact same language - or think we do - miscommunications still seem to abound. This course will bring a sociolinguistic perspective to language: how we use it, how we speak and write multiple versions of the same language, and how it reflects our identities, particularly with regards to race, class, gender, and regional backgrounds. We will explore deep questions of language as a medium of communication with consequences and impact in political, social, and personal realms. In addition to producing a research paper, we will also explore codeswitching and codemeshing techniques. This course, open to majors and non-majors, will explore language in social interactions, both as a means for humans to inflict power, but also as a site for deploying resistance. Language, at the intersections of power and identity, is not neutral. This sociolinguistic course will apply linguistic principles to literary forms, to explore how Black novelists such as Toni Morrison, James Baldwin, Ken Saro-Wiwa, M. NourbeSe Philip, bell hooks, and others, incorporate their voices across the Black diaspora to explore the ways that Black voices are expressed - or silenced - when accounting for agency and power relations.
Spring
1 Course Unit

LING 0700 Data Science for Studying Language and the Mind
Data Science for studying Language and the Mind is an entry-level course designed to teach basic principles of data science to students with little or no background in statistics or computer science. Students will learn to identify patterns in data using visualizations and descriptive statistics; make predictions from data using machine learning and optimization; and quantify the certainty of their predictions using statistical models. This course aims to help students build a foundation of critical thinking and computational skills that will allow them to work with data in all fields related to the study of the mind (e.g. linguistics, psychology, philosophy, cognitive science).
Fall
Also Offered As: PSYC 2314
1 Course Unit

LING 0750 Language and Thought
This course describes current theorizing on how the human mind achieves high-level cognitive processes such as using language, thinking, and reasoning. The course discusses issues such as whether the language ability is unique to humans, whether there is a critical period to the acquisition of a language, the nature of conceptual knowledge, how people perform deductive reasoning and induction, and how linguistic and conceptual knowledge interact.
Fall or Spring
Also Offered As: PSYC 1310
Prerequisite: PSYC 0001 OR COGS 1001
1 Course Unit
LING 1005 Introduction to Cognitive Science
How do minds work? This course surveys a wide range of answers to this question from disciplines ranging from philosophy to neuroscience. The course devotes special attention to the use of simple computational and mathematical models. Topics include perception, learning, memory, decision making, emotion and consciousness. The course shows how the different views from the parent disciplines interact and identifies some common themes among the theories that have been proposed. The course pays particular attention to the distinctive role of computation in such theories and provides an introduction to some of the main directions of current research in the field. It is a requirement for the BA in Cognitive Science, the BAS in Computer and Cognitive Science, and the minor in Cognitive Science, and it is recommended for students taking the dual degree in Computer and Cognitive Science.
Fall
Also Offered As: CIS 1400, COGS 1001, PHIL 1840, PSYC 1333
1 Course Unit

LING 1100 The History of Words
It is sometimes said that every word has its own history. But there are also general factors affecting how words change over time. In this course, we explore both aspects of the history of words. On the one hand, we explore the ways in which the saying is true, by investigating taboo words, euphemisms, shibboleths, doublets, folk etymology, idioms, paradigm gaps, reanalysis, and other word-specific processes. On the other hand, we discuss the general factors, such as regular sound change (for instance, the Great Vowel Shift), word frequency, and others, as time and interest permit.
Spring, even numbered years only
1 Course Unit

LING 1250 The Phonetics of Music
Singing is an instance of human voice production, and as such can be studied in the way that speech is studied by speech scientists. The scientific study of singing is a small but growing field that uses methods from speech physiology and acoustics to characterize differences among singing voices and performances. This course will introduce students to methods for quantifying aspects of voice production, so that voice samples can be compared across singers, styles, etc. We will also discuss the scientific basis for some of the vocal techniques. Every aspect of voice presented in class will be explored through hands-on lab work with computer programs. We will mostly look at recorded samples of professional singers, but we will sometimes look at students’ own vocal productions. However, this is not a course about improving one’s singing, and no skill or talent is required to participate.
Not Offered Every Year
1 Course Unit

LING 1500 The Keys to Language Structure (and How to Use Them)
The purpose of this course is to introduce students to the basic concepts of sentence structure in a "pretheoretical" framework, demonstrating that any natural human language must have certain structures and must choose the rest from a restricted universal set. The textbook, which was written for this course, discusses each set of structures with examples from six languages: English, Spanish, Latin, Biblical Hebrew, Mandarin, and Navajo. The instructor will add languages from among those with which the students are familiar, within the limits of his competence. This course will help students not only to learn foreign languages, but also to improve their own writing skills, by making the structures that they must use more explicit and intelligible.
Fall, even numbered years only
1 Course Unit

LING 1700 Experimental Approaches to the Study of Language
Controlled experiments are a key element of empirical research, and they play an increasingly important role in the study of language and communication. This course will be divided into two halves. In the first half, students will be introduced to the fundamentals of how to conduct an experiment, along with a basic introduction to statistical methods. The emphasis will be on understanding the basic logic of experimental design, but special lectures will focus on the application of particular methods to the study of language. In the second half, classes will become more like lab meetings as students develop their own experimental projects from the ground up. At the end of the semester they will write up these projects as papers.
Not Offered Every Year
1 Course Unit

LING 1720 Language, Cognition and Culture
This is a course on how language relates to other cognitive systems. We will discuss the question of whether and how the language one speaks affects the way one thinks, the relation between words and concepts, the link between language acquisition and conceptual development in children, and the potential role of language in shaping uniquely human concepts. The course incorporates cross-linguistic, cross-cultural and developmental perspectives and combines readings from linguistics, psychology, philosophy, neuroscience and other fields within cognitive science.
Fall
1 Course Unit

LING 1750 Psychology of Language
This course describes the nature of human language, how it is used to speak and comprehend, and how it is learned. The course raises and discusses issues such as whether language ability is innate and unique to humans, whether there is a critical period for the acquisition of a language, and how linguistic and conceptual knowledge interact.
Fall or Spring
Also Offered As: PSYC 2310
Prerequisite: PSYC 1310 OR LING 0001
1 Course Unit

LING 2041 Language in Native America
This course is an introduction to linguistic perspectives on the languages native to the Americas (their nature and distribution, typological similarities and differences), with an emphasis on North America. The diverse languages of this region will be examined from the point of view of particular linguistic phenomena, such as phonology, morphology, and syntax; and in addition we will study their historical development and their place in culture, society, and thought.
Not Offered Every Year
1 Course Unit

LING 2042 Construct a Language
In this course, students construct their own language, one that is compatible with what is known about possible human languages. To this end, the course investigates language typology through lectures and examination of grammars of unfamiliar languages. Topics include language universals, points of choice in a fixed decision space, and dependencies among choices.
Not Offered Every Year
1 Course Unit
LING 2047 Structure of American Sign Language
This course covers the linguistic structure of American Sign Language (ASL), including its phonology (articulatory features, phonological constraints, nonmanuals), morphology (morphological constraints, compounds, incorporation, borrowing), and syntax (syntactic categories, basic phrase structure, common sentence types). Also discussed are the topics of classifiers and deixis. In keeping with the comparative perspective of linguistic theory, parallels and differences between ASL and other (primarily spoken) languages are pointed out where appropriate. Historical and sociolinguistic issues are addressed where they are relevant to elucidating linguistic structure. Though the course focuses on ASL, it necessarily touches on issues concerning sign languages more generally, notably the possible effects of modality (sign vs. speech) on linguistic structure and the implications of the signed modality for general linguistics. Although the course does not presuppose knowledge of ASL, it does require acquaintance with basic concepts of linguistics.
Not Offered Every Year
Also Offered As: ASLD 2047
Prerequisite: LING 0001
1 Course Unit

LING 2100 Introduction to Language Change
This course covers the principles of language change and the methods of historical linguistics on an elementary level. The systematic regularity of change, the reasons for that regularity, and the exploitation of regularity in linguistic reconstruction are especially emphasized. Examples are drawn from a wide variety of languages, both familiar and unfamiliar. The prerequisite for the course is any course in phonetics or phonology, or Ling 001, or permission of the instructor. Note that this course does NOT satisfy any sector requirement.
Not Offered Every Year
Prerequisite: LING 0001
1 Course Unit

LING 2170 Origins and Evolution of Language
While communication is abundant throughout the living world, the human system we call language seems to stand out. Indeed, if humans themselves can be said to stand out among other species on Earth, it may well be language that played the crucial role in getting us here. So where does language come from? This question has been dubbed the hardest problem in science, but the last three decades have seen a notable renaissance in scientific attempts to answer it. This seminar will examine both the results of this multidisciplinary endeavor and the tools that have been employed in it. It will involve discussions of the nature of language and its place among other communication systems and will touch on fundamental questions of what it means to be human.
Not Offered Every Year
1 Course Unit

LING 2190 Language games and cultural evolution
This is a course about how language and communication can be thought of as games. When people use language to communicate, they are following rules to perform actions that have an effect on the world, including other people. These actions might achieve goals, and they might prompt further actions, and so on. Perhaps more interestingly, these communicative actions can, over time, lead to changes in the environment and even the rules of the game itself. In other words, the playing field changes dynamically as a result of the actions performed on it. This way of looking at language is not new, and this is also a course about how thinking about language this way can inspire (and has inspired) formal models and laboratory experiments that help us to understand how humans use language and how it evolves. In doing so we will also situate this approach to studying language in a broader context of studying the cultural evolution of complex behavioral systems more generally.
Fall
1 Course Unit

LING 2210 Phonetics I: Experimental
This course focuses on experimental investigations of speech sounds. General contents include: the fundamentals of speech production and perception; speech analysis tools and techniques; and topics in phonetic studies. The course consists of integrated lectures and laboratory sessions in which students learn computer techniques for analyzing digital recordings.
1 Course Unit

LING 2220 Phonetics II: Data Science
This is a methodology course, which focuses on how to conduct phonetics research using very large speech corpora. Topics include scripting and statistical techniques, automatic phonetic analysis, integration of speech technology in phonetics studies, variation and invariability in large speech corpora, and revisiting classic phonetic and phonological problems from the perspective of corpus phonetics.
Spring
Prerequisite: LING 5210 AND LING 2200
1 Course Unit

LING 2250 Computer Analysis and Modeling of Biological Signals and Systems
A hands-on signal and image processing course for non-EE students needing these skills. We will go through all the fundamentals of signal and image processing using computer exercises developed in MATLAB. Examples will be drawn from speech analysis and synthesis, computer vision, and biological modeling.
Spring
Mutually Exclusive: LING 5250
1 Course Unit

LING 2300 Sound Structure of Language
An introduction to phonetics and phonology. Topics include articulatory phonetics (the anatomy of the vocal tract; how speech sounds are produced); transcription (conventions for representing the sounds of the world’s languages); classification (how speech sounds are classified and represented cognitively through distinctive features); phonology (the grammar of speech sounds in various languages: their patterning and interaction) and syllable structure and its role in phonology.
Spring
Prerequisite: LING 0001 OR COGS 1001
1 Course Unit
LING 2500 Introduction to Syntax
This course is an introduction to current syntactic theory, covering the principles that govern phrase structure (the composition of phrases and sentences), movement (dependencies between syntactic constituents), and binding (the interpretation of different types of noun phrases). Although much of the evidence discussed in the class will come from English, evidence from other languages will also play an important role, in keeping with the comparative and universalist perspective of modern syntactic theory.
Fall
Mutually Exclusive: LING 5500
1 Course Unit

LING 2700 Language Acquisition
An introduction to language acquisition in children and the development of related cognitive and perceptual systems. Topics include the nature of speech perception and the specialization to the native language; the structure and acquisition of words; children's phonology; the development of grammar; bilingualism and second language acquisition; language learning impairments; the biological basis of language acquisition; the role in language learning in language change. Intended for any undergraduate interested in the psychology and development of language.
Not Offered Every Year
1 Course Unit

LING 2980 Transfer or Credit Away Free Elective
Course number for use in XCAT
1 Course Unit

LING 3020 Linguistic Field Methods
Instruction and practice in primary linguistic research, producing a grammatical sketch and a lexicon through work with a native-speaker consultant and some reference materials. Consultant work is shared with LING 5020.
Not Offered Every Year
Prerequisite: LING 2300 AND LING 2500
1 Course Unit

LING 3040 Structure of a Language
This class focuses on an in-depth study of the grammar of a given language, typically one that is understudied or that has particularly interesting grammatical properties. Different aspects of grammar will be considered, drawing on features of the sound system, morphology, syntax and semantics as appropriate.
Not Offered Every Year
1 Course Unit

LING 3090 Language and Computation
The computational study of natural language and its implications for linguistic theories. Topics include finite state tools, computational morphology and phonology, grammar and parsing, computational models of language learning in children and machines.
Not Offered Every Year
1 Course Unit

LING 3100 History of the English Language
This course traces the linguistic history of English from its earliest reconstructable ancestor, Proto-Indo-European, to the present. We focus especially on significant large-scale changes, such as the restructuring of the verb system in Proto-Germanic, the intricate interaction of sound changes in the immediate prehistory of Old English, syntactic change in Middle English, and the diversification of English dialects since 1750.
Not Offered Every Year
1 Course Unit

LING 3110 Old English I
The main purpose of this course is to teach students to read Old English ("Anglo-Saxon"), chiefly but not exclusively for research in linguistics. Grammar will be heavily emphasized; there will also be lectures on the immediate prehistory of the language, since the morphology of Old English was made unusually complex by interacting sound changes. In the first eight weeks we will work through Moore and Knott's "Elements of Grammar" and learn the grammar; the remainder of the term will be devoted to reading texts.
Not Offered Every Year
1 Course Unit

LING 3410 Morphology I
This course will explore some issues concerning the internal structure of words. After a brief introduction to some basic terms and concepts, we will discuss the interaction of morphology with phonology. We will look both at how morphology conditions phonological rules and how phonology conditions morphology. Then we will turn to the interaction of syntax and morphology. We will look at some problems raised by inflectional morphology, clitics and compounds. The main requirement for the class will be a series of homework exercises in morphological analysis and a short paper at the end of the semester.
Not Offered Every Year
1 Course Unit

LING 3420 Morphology II
This course takes a detailed look at a number of central topics in morphological theory. The material examined in the course consists of primary readings and reviews, covering a number of central topics in the field. These topics include (but are not restricted to) allomorphy, blocking, the interface of phonology and morphology, syncretism, affixation, the syntax-morphology interface, and compounding. The primary requirements for the class involve short assignments that are based on the readings, in the form of both problem sets and critical appraisals of core theoretical positions. In addition to this, students will write a short paper at the end of the semester.
Not Offered Every Year
Prerequisite: LING 3410
1 Course Unit

LING 3430 Introduction to Syntax
This course takes a detailed look at a number of central topics in morphological theory. The material examined in the course consists of primary readings and reviews, covering a number of central topics in the field. These topics include (but are not restricted to) allomorphy, blocking, the interface of phonology and morphology, syncretism, affixation, the syntax-morphology interface, and compounding. The primary requirements for the class involve short assignments that are based on the readings, in the form of both problem sets and critical appraisals of core theoretical positions. In addition to this, students will write a short paper at the end of the semester.
Not Offered Every Year
Prerequisite: LING 3410
1 Course Unit

LING 3500 Linguistic Theory
This course will explore some issues concerning the internal structure of words. After a brief introduction to some basic terms and concepts, we will discuss the interaction of morphology with phonology. We will look both at how morphology conditions phonological rules and how phonology conditions morphology. Then we will turn to the interaction of syntax and morphology. We will look at some problems raised by inflectional morphology, clitics and compounds. The main requirement for the class will be a series of homework exercises in morphological analysis and a short paper at the end of the semester.
Not Offered Every Year
Prerequisite: LING 3410
1 Course Unit

LING 3640 Experimental Sociolinguistics
How do people form social impressions of others based on subtle patterns in their linguistic behavior? How do people shape their use of language to adapt to different social contexts and reflect their own identities? And what kinds of cognitive processes allow people to learn and use these sociolinguistic skills? Sociolinguists are increasingly turning to experimental methods to answer these exciting but complex questions. In this class, students will gain an up-to-date familiarity with major results in the experimental sociolinguistics literature, an awareness of the wide range of methods for sociolinguistic experimentation, and hands-on experience with the tools needed to create sociolinguistic experiments.
Fall, even numbered years only
Mutually Exclusive: LING 5640
Prerequisite: LING 0600 OR LING 0060
1 Course Unit

LING 3640 Experimental Sociolinguistics
How do people form social impressions of others based on subtle patterns in their linguistic behavior? How do people shape their use of language to adapt to different social contexts and reflect their own identities? And what kinds of cognitive processes allow people to learn and use these sociolinguistic skills? Sociolinguists are increasingly turning to experimental methods to answer these exciting but complex questions. In this class, students will gain an up-to-date familiarity with major results in the experimental sociolinguistics literature, an awareness of the wide range of methods for sociolinguistic experimentation, and hands-on experience with the tools needed to create sociolinguistic experiments.
Fall, even numbered years only
Mutually Exclusive: LING 5640
Prerequisite: LING 0600 OR LING 0060
1 Course Unit
LING 3650 Sociophonetics
This course will build on students’ existing knowledge of sociolinguistic variation and phonetics to allow them to explore differences in the perception and production of different language and language varieties. In this course, students will learn the primary skills of sociophonetic analysis, including learning to design their own perception and production studies. Students will also gain experience with methods in sociophonetics and common tools for analysis such as ELAN, Praat, FAVE and R. The course is open to graduate and undergraduate students, but all students will have the opportunity to conduct an independent sociophonetic research project.
Mutually Exclusive: LING 5650
Prerequisite: LING 0600 OR LING 2200
1 Course Unit

LING 3670 Language Contact
To this day, we have found no evidence of a language developing in total isolation from other languages. Most languages are in constant contact with other languages with the consequence that they can shape and influence each other. However, every language evolves in a distinct linguistic ecology and this means that the circumstances of language contact and the sociocultural relationships involved in each contact situation vary considerably, leading to a range of different outcomes. This course offers a thorough introduction to the field of contact linguistics including a detailed overview of contact situations and their linguistic and social consequences. The topics under study are: bilingualism (including code switching), multilingualism, morphi-syntactic and phonological transfer, structural diffusion, convergence, pidginization & creolization, language shift and language death. We will particularly focus on the cognitive processes involved in contact situations and will explore them, using descriptive, theoretical and experimental approaches.
Mutually Exclusive: LING 5670
1 Course Unit

LING 3740 Neurolinguistics
This course is an upper level undergraduate/graduate seminar in neurolinguistics. We will explore language in the brain through readings and discussions.
1 Course Unit

LING 3750 Psycholinguistics Seminar
This course examines how people use language. We will focus on Herb H. Clark’s book “Using Language” (1996). In this book, Clark proposes that language use is a form of joint action, and extensively develop what this claim entails and how it accounts for people’s linguistic behavior. The course will consist of a detailed examination of Clark’s thesis.
Also Offered As: PSYC 3310
Prerequisite: PSYC 1310 OR PSYC 2310 OR LING 0001
1 Course Unit

LING 3810 Semantics I
This course provides an introduction to formal semantics for natural language. The main aim is to develop a semantic system that provides a compositional interpretation of natural language sentences. We discuss various of the aspects central to meaning composition, including function application, modification, quantification, and binding, as well as issues in the syntax-semantics interface. The basic formal tools relevant for semantic analysis, including set theory, propositional logic, and predicate logic are also introduced.
Fall
Mutually Exclusive: LING 5810
Prerequisite: LING 2500
1 Course Unit

LING 3850 Experiments in the Study of Meaning
This course provides an introduction to the experimental study of meaning in natural language. We begin by introducing some basic notions of formal semantics and pragmatics and review relevant technical background. Next we discuss recent developments in studying meaning-related phenomena experimentally, which, in addition to theoretical questions, involve issues in the acquisition and processing of semantic information. In the course of this, we will also introduce the basics of experimental design and relevant psycholinguistic methodology. In addition to readings and homework assignments, students will embark on a small research project (individually or jointly), which will be presented in class at the end of the semester and written up as a term paper.
Not Offered Every Year
Prerequisite: LING 0500 OR LING 1700 OR LING 2500 OR LING 3810 OR LING 5810 OR LING 5510
1 Course Unit

LING 3860 Experiments in the Study of Meaning II
This course continues the introduction to Experiments in the study of meaning in natural language from LING 455. A large focus will be practical aspects of designing and implementing experiments, while covering a range of current topics from the experimental semantics and pragmatics literature (and exploring new avenues) along the way, e.g., pronouns and definite reference, presuppositions, quantifiers and domain restriction, generics. We’ll start with some basic aspects of experimental design, including counter-balancing, controlling for confounds, utilizing fillers, as well as a range of key experimental task paradigms, such as simple truth- value judgments and picture sentence matching, acceptability ratings, reading time studies, and visual world eye tracking. For implementation, we will introduce the PCIbex platform at https://farm.pcibex.net and its relevant functionalities. Students will select a topic area, either individually or in small groups, and start from a survey article or recent journal paper to familiarize themselves with current issues. Next, they will formulate their own question, decide on a suitable task paradigm, and begin fleshing out a full experiment implementation, with the goal of collecting data at the end of the semester (if at all possible). The project will then be written up in a term paper. This provides students with the opportunity to engage in a scientific investigation of their own early on in their career in a domain that is easily accessible and yet central to the general enterprise of the cognitive sciences.
Spring
1 Course Unit

LING 3999 Independent Study in Linguistics
An independent study for majors in linguistics.
Fall or Spring
1 Course Unit

LING 4000 Tutorial in Linguistics
This tutorial allows students to deal in a concentrated manner with selected major topics in linguistics by means of extensive readings and research. Two topics are studied during the semester, exposing students to a range of sophisticated linguistic questions.
Fall
1 Course Unit

LING 4098 Senior Thesis
Credit for working on a Senior Thesis with a faculty advisor
Fall or Spring
1 Course Unit
LING 5000 Research Workshop
This course is intended for advanced graduate students who are interested in developing a research paper. Each student will present his or her topic several times during the semester as the analysis develops, with feedback from the instructor and other students to improve the organization and content of the analysis. The goal is an end product appropriate for delivery at a national conference or submission to a journal.
Fall
1 Course Unit

LING 5020 Linguistic Field Methods
Instruction and practice in primary linguistic research, producing a grammatical sketch and a lexicon through work with a native-speaker consultant and some reference materials. Consultant work is shared with LING 3020.
Not Offered Every Year
1 Course Unit

LING 5090 Language and Computation
The computational study of natural language and its implications for linguistic theories. Topics include finite state tools, computational morphology and phonology, grammar and parsing, computational models of language learning in children and machines.
Not Offered Every Year
1 Course Unit

LING 5100 Historical and Comparative Linguistics
Fall
1 Course Unit

LING 5110 Old English
The main purpose of this course is to teach students to read Old English ("Anglo-Saxon"), chiefly but not exclusively for research in linguistics. Grammar will be heavily emphasized; there will also be lectures on the immediate prehistory of the language, since the morphology of Old English was made unusually complex by interacting sound changes. In the first eight weeks we will work through Moore and Knott's "Elements of Grammar" and learn the grammar; the remainder of the term will be devoted to reading texts.
Not Offered Every Year
1 Course Unit

LING 5150 Dynamics of Language
This course introduces the tools, techniques, as well as current research on the approach to language as a dynamical system, which seeks to fruitfully integrate linguistic theory, psycholinguistics, corpus linguistics, and historical linguistics through the means of mathematical modeling. Topics include: string processing, dynamical systems and stability, stochastic processes, mathematical models of population dynamics, and dynamical models of language learning, processing, and change.
Fall or Spring
Prerequisite: LING 5100
1 Course Unit

LING 5170 Evolutionary Linguistics
Evolutionary linguistics Scholars have been interested in the origins and evolution of language for hundreds of years, and work was published on the topic throughout the twentieth century. The end of the century, however, saw a considerable upsurge in serious scientific interest, leading to increasing interdisciplinary communication on the topic and the development of new empirical tools. This course offers an introduction to the literature in this field, bringing together research from a diverse range of disciplines, and laying out what questions remain and how they might possibly be answered.
Fall or Spring
1 Course Unit

LING 5210 Phonetics I: Experimental
Speech: its linguistic transcription, its quantitative physical description, and its relationship to the categories and dimensions of language structure and use. The physical basis of speech: acoustics, vocal tract anatomy and physiology, hearing and speech perception, articulation and motor control. Phonetic variation and change. Prosody: stress, intonation, phrasing speech rate. Phonetic instrumentation, the design and interpretation of phonetic experiments, and the use of phonetic evidence in linguistic research, with emphasis on computer techniques. Introduction to speech signal processing. Speech technology: introduction to speech recognition, text-to-speech synthesis, speech coding. This course will emphasize the phonetics of natural speech, and its connections to issues in other areas of linguistics and cognitive science.
Fall
Prerequisite: LING 0001
1 Course Unit

LING 5220 Phonetics II: Data Science
This is a methodology course, which focuses on how to conduct phonetics research using very large speech corpora. Topics include scripting and statistical techniques, automatic phonetic analysis, integration of speech technology in phonetics studies, variation and invariability in large speech corpora, and revisiting classic phonetic and phonological problems from the perspective of corpus phonetics.
Spring
Prerequisite: LING 5210
1 Course Unit

LING 5250 Computer Analysis and Modeling of Biological Signals and Systems
A hands-on signal and image processing course for non-EE graduate students needing these skills. We will go through all the fundamentals of signal and image processing using computer exercises developed in MATLAB. Examples will be drawn from speech analysis and synthesis, computer vision, and biological modeling.
Fall
Mutually Exclusive: LING 2250
1 Course Unit

LING 5300 Sound Structure of Language
An introduction to phonetics and phonology. Topics include articulatory phonetics (the anatomy of the vocal tract; how speech sounds are produced); transcription (conventions for representing the sounds of the world's languages); classification (how speech sounds are classified and represented cognitively through distinctive features); phonology (the grammar of speech sounds in various languages: their patterning and interaction) and syllable structure and its role in phonology.
Spring
1 Course Unit
LING 5310 Phonology I
First half of a year-long introduction to the formal study of phonology. Basic concepts in articulatory phonetics; the distribution of sounds (phonemes and allophones); underlying and surface forms, and how to relate them using both ordered-rule and surface-constraint approaches. The survey of theoretical topics in this term includes distinctive features (context, organization, underspecification); the autosegmental representation of tone; and the theory of phonological domains and their interaction with morphological and syntactic constituency. Emphasizes hands-on analysis of a wide range of data.
Fall
Prerequisite: LING 5300
1 Course Unit

LING 5320 Phonology II
Second half of a year-long introduction; continues LING 530. Topics to be surveyed include syllable structure and moraic theory; the prosodic hierarchy; the properties and representation of geminates; templatic and prosodic morphology; reduplication and emergence of the unmarked; and metrical phonology (properties of stress, foot typology, and issues of constituency). Emphasizes hands-on analysis of a wide range of data.
Spring
Prerequisite: LING 5310
1 Course Unit

LING 5410 Morphology I
This course will explore some issues concerning the internal structure of words. After a brief introduction to some basic terms and concepts, we will discuss the interaction of morphology with phonology. We will look both at how morphology conditions phonological rules and how phonology conditions morphology. Then we will turn to the interaction of syntax and morphology. We will look at some problems raised by inflectional morphology, clitics and compounds. The main requirement for the class will be a series of homework exercises in morphological analysis and a short paper at the end of the semester.
Not Offered Every Year
1 Course Unit

LING 5420 Morphology II
This course takes a detailed look at a number of central topics in morphological theory. The material examined in the course consists of primary readings and reviews, covering a number of central topics in the field. These topics include (but are not restricted to) allomorphy, blocking, the interface of phonology and morphology, syncretism, affixation, the syntax-morphology interface, and compounding. The primary requirements for the class involve short assignments that are based on the readings, in the form of both problem sets and critical appraisals of core theoretical positions. In addition to this, students will write a short paper at the end of the semester.
Not Offered Every Year
1 Course Unit

LING 5450 Mental Lexicon
An investigation of the psychological representations and processing of words. Topics include: the extraction of words from speech; lexical access and production; the induction of morphological and phonological regularities in word learning; decomposition of morphologically complex words; frequency effects in morphological processing; storage vs. computation in the lexicon; the past tense debate; morphological change. This course makes extensive use of linguistic corpora. Students will also be familiarized with experimental design issues in the psycholinguistic study of the lexicon.
Not Offered Every Year
1 Course Unit

LING 5500 Introduction to Syntax
This course is an introduction to current syntactic theory, covering the principles that govern phrase structure (the composition of phrases and sentences), movement (dependencies between syntactic constituents), and binding (the interpretation of different types of noun phrases). Although much of the evidence discussed in the class will come from English, evidence from other languages will also play an important role, in keeping with the comparative and universalist perspective of modern syntactic theory.
Fall
1 Course Unit

LING 5510 Syntax I
A general introduction at the graduate level to the analysis of sentence structure. The approach taken is that of contemporary generative-transformational grammar.
Fall
1 Course Unit

LING 5520 Syntax II
The second half of a year-long introduction to the formal study of natural language syntax. Topics to be covered include grammatical architecture; derivational versus representational statement of syntactic principles; movement and locality; the interface of syntax and semantics; argument structure; and other topics. The emphasis is on reading primary literature and discussing theoretical approaches, along with detailed case-studies of specific syntactic phenomena in different languages.
Spring
Prerequisite: LING 5510
1 Course Unit

LING 5560 Historical Syntax
Introduction to the study of the syntax of languages attested only in historical corpora. The course will cover methods and results in the grammatical description of such languages and in the diachronic study of syntactic change.
Not Offered Every Year
Prerequisite: LING 5520
1 Course Unit

LING 5600 Language Variation & Change
Speech communities as a focus for the understanding of language evolution and change: language variation in time and space. The relationship between language structure and language use; between language change and social change. Populations as differentiated by age, sex, social class, race, and ethnicity, and the relationship of these factors to linguistic differentiation.
Spring
1 Course Unit

LING 5620 Quantitative Study of Linguistic Variation
This course provides students with the opportunity to hone their statistical, computational, and organizational skillsets while conducting original linguistic research on data gathered in continuing fieldwork in the speech community. Topics include forced alignment and vowel extraction, auditory and automated variable coding, the application of linear and logistic regression, and techniques for effective data visualization.
Fall, odd numbered years only
Prerequisite: LING 5660 OR STAT 5000 OR STAT 5010
1 Course Unit
LING 5640 Experimental Sociolinguistics
How do people form social impressions of others based on subtle patterns in their linguistic behavior? How do people shape their use of language to adapt to different social contexts and reflect their own identities? And what kinds of cognitive processes allow people to learn and use these sociolinguistic skills? Sociolinguists are increasingly turning to experimental methods to answer these exciting but complex questions. In this class, students will gain an up-to-date familiarity with major results in the experimental sociolinguistics literature, an awareness of the wide range of methods for sociolinguistic experimentation, and hands-on experience with the tools needed to create sociolinguistic experiments.
Fall, even numbered years only
Mutually Exclusive: LING 3640
1 Course Unit

LING 5650 Sociophonetics
This course will build on students’ existing knowledge of sociolinguistic variation and phonetics to allow them to explore differences in the perception and production of different language and language varieties. In this course, students will learn the primary skills of sociophonetic analysis, including learning to design their own perception and production studies. Students will also gain experience with methods in sociophonetics and common tools for analysis such as ELAN, Praat, FAVE and R. The course is open to graduate and undergraduate students, but all students will have the opportunity to conduct an independent sociophonetic research project.
Mutually Exclusive: LING 3650
Prerequisite: LING 0600 AND LING 2200
1 Course Unit

LING 5660 The Study of the Speech Community: Field Methods
For students who plan to carry out research in the speech community. Techniques and theory derived from sociolinguistic studies will be used to define neighborhoods, enter the community, analyze social networks, and obtain tape-recorded data from face-to-face interviews. Students will work in groups and study a single city block.
Fall or Spring
1 Course Unit

LING 5670 Language Contact
To this day, we have found no evidence of a language developing in total isolation from other languages. Most languages are in constant contact with other languages with the consequence that they can shape and influence each other. However, every language evolves in a distinct linguistic ecology and this means that the circumstances of language contact and the sociocultural relationships involved in each contact situation vary considerably, leading to a range of different outcomes. This course offers a thorough introduction to the field of contact linguistics including a detailed overview of contact situations and their linguistic and social consequences. The topics under study are: bilingualism (including code switching), multilingualism, morphosyntactic and phonological transfer, structural diffusion, convergence, pidginization & creolization, language shift and language death. We will particularly focus on the cognitive processes involved in contact situations and will explore them, using descriptive, theoretical and experimental approaches.
Mutually Exclusive: LING 3670
1 Course Unit

LING 5700 Developmental Psycholinguistics
The generative literature on language acquisition has produced many accurate and insightful descriptions of child language, but relatively few explicit accounts of learning that incorporate the role of individual experience into the knowledge of specific languages. Likewise, the experimental approach to language development has identified processes that could provide the bridge between the data and the grammar, but questions remain whether laboratory findings can sufficiently generalize to the full range of linguistic complexity. This course is an overview of research in language acquisition with particular focus on the important connection between what children know and how they come to know it.
Spring
1 Course Unit

LING 5740 Neurolinguistics
This course is an upper level undergraduate/graduate seminar in neurolinguistics. We will explore language in the brain through readings and discussions.
Fall
1 Course Unit

LING 5750 The Acquisition of Meaning
This course is an overview of research in language acquisition with particular focus on the acquisition of first language by children. We will discuss the acquisition of the meanings of words and sentences, and the pragmatic and social interpretation of sentences in context. We will also consider how language relates to other cognitive systems and to human social reasoning. Particular emphasis will be placed on discovering the mechanisms children possess that enable them to learn and use language.
Not Offered Every Year
1 Course Unit

LING 5810 Semantics I
This course provides an introduction to formal semantics for natural language. The main aim is to develop a semantic system that provides a compositional interpretation of natural language sentences. We discuss various of the aspects central to meaning composition, including function application, modification, quantification, and binding, as well as issues in the syntax-semantics interface. The basic formal tools relevant for semantic analysis, including set theory, propositional logic, and predicate logic are also introduced.
Fall
Prerequisite: LING 5510
1 Course Unit

LING 5820 Semantics II
The first part of the course expands the system from LING 580 to include intensional contexts. In particular, we discuss analyses of modal, attitude verbs, and conditionals, as well as the scope of noun phrases in modal environments. The second part of the course discusses a selection of topics from current work in semantics, such as the semantics of questions, tense and aspect, donkey anaphora, indefinites, genericity, degree constructions, events and situations, domain restriction, plurality and focus.
Spring
Prerequisite: LING 5520
1 Course Unit
LING 5850 Experiments in the Study of Meaning
This course provides an introduction to the experimental study of meaning in natural language. We begin by introducing some basic notions of formal semantics and pragmatics and review relevant technical background. Next we discuss recent developments in studying meaning-related phenomena experimentally, which, in addition to theoretical questions, involve issues in the acquisition and processing of semantic information. In the course of this, we will also introduce the basics of experimental design and relevant psycholinguistic methodology. In addition to readings and homework assignments, students will embark on a small research project (individually or jointly), which will be presented in class at the end of the semester and written up as a term paper.
Not Offered Every Year
1 Course Unit

LING 5860 Experiments in the Study of Meaning II
This course continues the introduction to Experiments in the study of meaning in natural language from LING 455. A large focus will be practical aspects of designing and implementing experiments, while covering a range of current topics from the experimental semantics and pragmatics literature (and exploring new avenues) along the way, e.g., pronouns and definite reference, presuppositions, quantifiers and domain restriction, generics. We'll start with some basic aspects of experimental design, including counter-balancing, controlling for confounds, utilizing fillers, as well as a range of key experimental task paradigms, such as simple truth-value judgments and picture sentence matching, acceptability ratings, reading time studies, and visual world eye tracking. For implementation, we will introduce the PCIbex platform at https://farm.pcbex.net and its relevant functionalities. Students will select a topic area, either individually or in small groups, and start from a survey article or recent journal paper to familiarize themselves with current issues. Next, they will formulate their own question, decide on a suitable task paradigm, and begin fleshing out a full experiment implementation, with the goal of collecting data at the end of the semester (if at all possible). The project will then be written up in a term paper. This provides students with the opportunity to engage in a scientific investigation of their own early on in their career in a domain that is easily accessible and yet central to the general enterprise of the cognitive sciences.
Spring
1 Course Unit

LING 6000A Second Year Seminar
The goal of this course is divided into two main components: First, it provides a setting in which second year PhD students in Linguistics will develop the skills that are essential to communicating and advancing their research; and second, it provides professional support in a number of areas, including (but not limited to) abstract writing, preparing papers for publication, dealing with reviews, and related topics. At the beginning of each semester, the students will determine which of their research projects will be central to the seminar; this is the one that they will regularly present on during course meetings. One possibility is that students will be simultaneously enrolled in an independent study for their project, but that is by no means necessary. The course will be flexible enough so that students can have certain days devoted to the specific professional activities that they are engaged in. For example, we might spend part of a session providing feedback on an abstract that one of the participants is preparing to submit. The small size of the course will ensure that specific occasions like this can be addressed in course meetings throughout the course of the year.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

LING 6000B Second Year Seminar
The goal of this course is divided into two main components: First, it provides a setting in which second year PhD students in Linguistics will develop the skills that are essential to communicating and advancing their research; and second, it provides professional support in a number of areas, including (but not limited to) abstract writing, preparing papers for publication, dealing with reviews, and related topics. At the beginning of each semester, the students will determine which of their research projects will be central to the seminar; this is the one that they will regularly present on during course meetings. One possibility is that students will be simultaneously enrolled in an independent study for their project, but that is by no means necessary. The course will be flexible enough so that students can have certain days devoted to the specific professional activities that they are engaged in. For example, we might spend part of a session providing feedback on an abstract that one of the participants is preparing to submit. The small size of the course will ensure that specific occasions like this can be addressed in course meetings throughout the course of the year.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

LING 6100 Seminar in Historical and Comparative Linguistics
Selected topics either in Indo-European comparative linguistics or in historical and comparative method.
Fall or Spring
1 Course Unit

LING 6110 Comparative Indo-European Grammar I
A survey of phonology and grammar of major ancient Indo-European languages and the reconstruction of Proto-Indo-European. A knowledge of at least one ancient Indo-European language is required.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

LING 6120 Comparative Indo-European Grammar II
A survey of phonology and grammar of major ancient Indo-European languages and the reconstruction of Proto-Indo-European. A knowledge of at least one ancient Indo-European language is required.
Fall or Spring
1 Course Unit
LING 6170 Topics in the Cultural Evolution of Language
Readings in the cultural evolution of language. This encompasses research on the contribution of processes of cultural change to the emergence of language in the human species, the emergence of new languages, and language change viewed as a cultural-evolutionary process. There will be an emphasis on research employing empirical methods, particularly experimentation. Otherwise focus varies from term to term.
Not Offered Every Year
1 Course Unit
LING 6200 Topics in Phonetics
Topics in Phonetics
Not Offered Every Year
1 Course Unit
LING 6300 Topics in Phonology
Topics are chosen from such areas as featural representations; syllable theory; metrical structure; tonal phonology; prosodic morphology; interaction of phonology with syntax and morphology.
Not Offered Every Year
Prerequisite: LING 5310 OR LING 5320
1 Course Unit
LING 6400 Seminar in Morphology
Readings in modern morphological theory and evaluation of hypotheses in the light of synchronic and diachronic evidence from various languages.
Not Offered Every Year
Prerequisite: LING 5310
1 Course Unit
LING 6500 Topics in Natural-Language Syntax
Detailed study of topics in syntax and semantics, e.g., pronominalization, negation, complementation. Topics vary from term to term.
Fall or Spring
Prerequisite: LING 5520
1 Course Unit
LING 6580 Topics in the Syntax-Semantics Interface
Topics in the Syntax-Semantics Interface
Fall
1 Course Unit
LING 6600 Research Seminar in Sociolinguistics
Students approaching the dissertation level will explore with faculty frontier areas of research on linguistic change and variation. Topics addressed in recent years include: experimental investigation of the reliability of syntactic judgments; the development of TMA systems in creoles; transmission of linguistic change across generations. The course may be audited by those who have finished their course work or taken for credit in more than one year.
Not Offered Every Year
1 Course Unit
LING 6620 Topics in Experimental Sociolinguistics
Topics in Experimental Sociolinguistics
Not Offered Every Year
1 Course Unit
LING 6700 Topics in Psycholinguistics
Topics in Psycholinguistics
1 Course Unit
LING 6750 Language and Cognition
This is a seminar on how language relates to perception and cognition. The seminar pays particular attention to the question of whether and how language might affect (and be affected by) other mental processes, how different languages represent the mental and physical world, and how children acquire language-general and language-specific ways of encoding human experience. The course incorporates cross-linguistic, cognitive and developmental perspectives on a new and rapidly changing research area.
Spring
1 Course Unit
LING 6800 Topics in Semantics and Pragmatics
Topics in Semantics & Pragmatics
Not Offered Every Year
1 Course Unit
LING 6960 Pragmatics Workshop
Pragmatics Workshop
Not Offered Every Year
1 Course Unit
LING 6999A Independent Research Project
PhD students undertake an independent research project over the course of a year. Designed to be optionally paired with LING 6000A/B, Second Year Seminar.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units
LING 6999B Independent Research Project
PhD students undertake an independent research project over the course of a year. Designed to be optionally paired with LING 6000A/B, Second Year Seminar.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units
LING 9999 Independent Study and Research
Independent Study and Research
Fall or Spring
1 Course Unit
Logic, Information and Computation (LGIC)
LGIC 1710 Introduction to Logic
This course provides an introduction to some of the fundamental ideas of logic. Topics will include truth functional logic, quantificational logic, and logical decision problems.
Fall or Spring
Also Offered As: PHIL 1710
Mutually Exclusive: PHIL 5710
1 Course Unit
LGIC 2100 Discrete Mathematics I
Topics will be drawn from some subjects in combinatorial analysis with applications to many other branches of math and science: graphs and networks, generating functions, permutations, posets, asymptotics.
Not Offered Every Year
Also Offered As: MATH 3400
1 Course Unit
LGIC 2200 Discrete Mathematics II
Topics will be drawn from some subjects useful in the analysis of information and computation: logic, set theory, theory of computation, number theory, probability, and basic cryptography.
Also Offered As: MATH 3410
1 Course Unit

LGIC 3100 Logic and Computability 1
This graduate course focuses on topics drawn from the central areas of mathematical logic: model theory, proof theory, set theory, and computability theory.
Not Offered Every Year
Also Offered As: PHIL 4721
1 Course Unit

LGIC 3200 Logic and Computability 2
The course is a continuation of PHIL 4721. Cross-list with MATH5710 and LGIC3200.
Not Offered Every Year
Also Offered As: PHIL 4722
Prerequisite: PHIL 4721 OR PHIL 6721 OR MATH 5700
1 Course Unit

LGIC 4960 Topics in Mathematical Logic
The course focuses on topics drawn from the central areas of mathematical logic: model theory, proof theory, set theory, and computability theory.
Not Offered Every Year
Also Offered As: PHIL 4720
1 Course Unit

LGIC 4999 Independent Study
Student arranges with a faculty member to pursue an independent research project on a suitable topic.
1 Course Unit

Malagasy (MALG)

MALG 0100 Elementary Malagasy
The main objective of this course is to allow students to study an African language of their choice, depending on the availability of the instructor. The course will provide students with lingustics tools which will facilitate their research work in the target country. Cultural aspects of the speakers of the language will be introduced and reinforced.
Fall or Spring
1 Course Unit

MALG 0200 Elementary Malagasy II
Continuation of AFST 490.
Fall or Spring
1 Course Unit

MALG 0201 Malagasy (Elementary II) Language in a Cultural Context
This class will create a communicative language environment where students will explore the language and culture of Madagascar. The course offers a unique opportunity for students to deepen their understanding of an island that has remained largely isolated from the rest of the world while fulfilling a language requirement. Emphasis will be placed on exposing students to Malagasy culture through speaking, reading, writing and listening, and students will be expected to use the target language in class as much as possible. At the end of the semester, students will travel to become fully immersed in the Malagasy language and to deepen their understanding of the history, environment, and unique culture of Madagascar. Students who are interested in taking this seminar must complete Malagasy Elementary I or Malagasy Intermediate I in the preceding fall. Malagasy Elementary I is available to all students.
Not Offered Every Year
Prerequisite: MALG 0100
1 Course Unit

MALG 0300 Intermediate Malagasy I
Intermediate level courses in a variety of African languages: Igbo, Shona, Wolof, Malagasy, Chichewa, Setswana, Manding, Afrikaans, Setswana. Focus on oral proficiency and productive language skills. All course are language specific and follow ACTFL proficiency guidelines.
Fall
1 Course Unit

MALG 0400 Intermediate Malagasy II
Continuation of AFST 492.
Spring
1 Course Unit

MALG 0401 Intermediate Malagasy II: Language in a Cultural Context
As part of this Intermediate II levels of Malagasy, the content will create a communicative language environment where students will explore the language and culture of Madagascar. The course offers a unique opportunity for students to deepen their understanding of an island that has remained largely isolated from the rest of the world while fulfilling a language requirement. Emphasis will be placed on exposing students to Malagasy culture through speaking, reading, writing and listening, and students will be expected to use the target language in class as much as possible. At the end of the semester, students will travel to become fully immersed in the Malagasy language and to deepen their understanding of the history, environment, and unique culture of Madagascar. Students who are interested in taking this seminar must complete Malagasy Intermediate I in the preceding fall. .
Not Offered Every Year
Prerequisite: MALG 0300
1 Course Unit
MALG 0496 Malagasy (Elementary II/Intermediate II): Language in a Cultural Context
Combining the Elementary II and Intermediate II levels of Malagasy, this class will create a communicative language environment where students will explore the language and culture of Madagascar. The course offers a unique opportunity for students to deepen their understanding of an island that has remained largely isolated from the rest of the world while fulfilling a language requirement. Emphasis will be placed on exposing students to Malagasy culture through speaking, reading, writing and listening, and students will be expected to use the target language in class as much as possible. At the end of the semester, students will travel to become fully immersed in the Malagasy language and to deepen their understanding of the history, environment, and unique culture of Madagascar. Students who are interested in taking this seminar must complete Malagasy Elementary I or Malagasy Intermediate I in the preceding fall. Malagasy Elementary I is available to all students.
Not Offered Every Year
Also Offered As: AFRC 0496
1 Course Unit

MALG 1100 Advanced Malagasy I
Language specific sections for students interested in doing country-specific research in a target language. Courses cover project-based skills for AFST research.
Fall
1 Course Unit

MALG 1200 Advanced Malagasy II
Continuation of AFST 494.
Spring
1 Course Unit

Malayalam (MLYM)

MLYM 0100 Beginning Malayalam Part I
This course is designed to develop skills in reading, writing, and speaking. It will focus on the alphabet, basic vocabulary, nouns (cases, gender and number), verbs and their basic tenses, numerals, rules of joining words, adjectives, adverbs, and sentence structure. Guided conversation will be a part of every class. Students will receive considerable training in speaking and writing their own sentences and paragraphs.
Fall
1 Course Unit

MLYM 0200 Beginning Malayalam Part II
This course is designed to develop skills in reading, writing, and speaking. It will focus on the alphabet, basic vocabulary, nouns (cases, gender and number), verbs and their basic tenses, numerals, rules of joining words, adjectives, adverbs, and sentence structure. Guided conversation will be a part of every class. Students will receive considerable training in speaking and writing their own sentences and paragraphs.
Spring
Prerequisite: MLYM 0100 OR MLYM 5100
1 Course Unit

MLYM 0300 Intermediate Malayalam Part I
This course is designed to further the language skills learned in Beginning Malayalam. Direct and indirect speech, passive voice, postpositions, and rules of joining words, will be included. Reading and discussion of texts from current Malayalam literature (essays, narration, short stories, and poems) will be a major portion of the course.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

MLYM 0400 Intermediate Malayalam Part II
This course is designed to further the language skills learned in Beginning Malayalam. Direct and indirect speech, passive voice, postpositions, and rules of joining words, will be included. Reading and discussion of texts from current Malayalam literature (essays, narration, short stories, and poems) will be a major portion of the course.
Spring
Prerequisite: MLYM 0300 OR M500
1 Course Unit

MLYM 5100 Beginning Malayalam Part I
This course is designed to develop skills in reading, writing, and speaking. It will focus on the alphabet, basic vocabulary, nouns (cases, gender and number), verbs and their basic tenses, numerals, rules of joining words, adjectives, adverbs, and sentence structure. Guided conversation will be a part of every class. Students will receive considerable training in speaking and writing their own sentences and paragraphs.
Fall
1 Course Unit

MLYM 5200 Beginning Malayalam Part II
This course is designed to develop skills in reading, writing, and speaking. It will focus on the alphabet, basic vocabulary, nouns (cases, gender and number), verbs and their basic tenses, numerals, rules of joining words, adjectives, adverbs, and sentence structure. Guided conversation will be a part of every class. Students will receive considerable training in speaking and writing their own sentences and paragraphs.
Spring
1 Course Unit

MLYM 5300 Intermediate Malayalam Part I
This course is designed to further the language skills learned in Beginning Malayalam. Direct and indirect speech, passive voice, postpositions, and rules of joining words, will be included. Reading and discussion of texts from current Malayalam literature (essays, narration, short stories, and poems) will be a major portion of the course. Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

MLYM 5400 Intermediate Malayalam Part II
This course is designed to further the language skills learned in Beginning Malayalam. Direct and indirect speech, passive voice, postpositions, and rules of joining words, will be included. Reading and discussion of texts from current Malayalam literature (essays, narration, short stories, and poems) will be a major portion of the course.
Spring
1 Course Unit
Management (MGMT)

MGMT 0001 Principles of Management
Organizations emerge because individuals can't (or don't want to) accomplish their goals alone. Management is the art and science of helping individuals achieve their goals together. Managers in an organization determine where their organization is going and how it gets there. More formally, managers formulate strategies and implement those strategies. This 0.5 credit unit course provides a framework for understanding the opportunities and challenges involved in formulating and implementing strategies. We examine multiple aspects of how managers address their environments, strategy, structure, culture, tasks, people, and outputs, and how managerial decisions made in these various domains interrelate. The course will help you begin to understand and analyze how managers can formulate and implement strategies effectively. Please note that this 0.5 CU course does not fulfill the Wharton MGMT 1010 requirement.

0.5 Course Units

MGMT 0004 Work, Power, and Inequality
From the immigrant shirtwaist sewers' strike of 1909 to the 2021 union declaration by engineers Google, MGMT004 examines imbalances of power in the workplace and responses to perceived abuses of employer power. We investigate, via an exploration of government regulations and an examination of movements like #MeToo, how government and firm-level human capital policies shape workforce inequalities of race and gender. Throughout the course, we compare the United States with other countries to assess how national institutions influence both productivity and profitability (for firms) and fairness and stability (for workers).

Fall, Spring, and Summer Terms
0.5 Course Units

MGMT 1010 Introduction To Management
We all spend much of our lives in organizations. Most of us are born in organizations, educated in organizations, and work in organizations. Organizations emerge because individuals can't (or don't want to) accomplish their goals alone. Management is the art and science of helping individuals achieve their goals together. Managers in an organization determine where their organization is going and how it gets there. More formally, managers formulate strategies and implement those strategies. This course provides a framework for understanding the opportunities and challenges involved in formulating and implementing strategies by taking a "system" view of organizations, which means that we examine multiple aspects of how managers address their environments, strategy, structure, culture, tasks, people, and outputs, and how managerial decisions made in these various domains interrelate. The course will help you to understand and analyze how managers can formulate and implement strategies effectively. It will be particularly valuable if you are interested in management consulting, investment analysis, or entrepreneurship - but it will help you to better understand and be a more effective contributor to any organizations you join, whether they are large, established firms or startups. This course must be taken for a grade.

Fall or Spring
1 Course Unit

MGMT 1110 Multinational Management
Most successful firms go global in some way; why do they go global, and how do they navigate across international borders? This is the question at the core of multinational management. In this course, you will learn about topics such as how firms choose where and how to invest abroad, how shifts in the political economy landscape affect firm strategy, and how firms respond to restrictions on the movement of both physical and human capital across borders. The class utilizes economics and global strategy frameworks to provide students with an understanding of how to formulate multinational firm strategy. Fulfills the Global Economy, Business, and Society requirement. This course has a mandatory attendance policy.

Prerequisite: WH 1010 OR MGMT 1010
1 Course Unit

MGMT 1170 Global Growth of Emerging Firms
Emerging firms are a critical element of economic growth, and a key source of gains in innovation and social welfare. This course is designed to depart from the U.S.-centric conversation on startups - with its outsized focus on Silicon Valley - and train a critical eye on some of the unique innovations emerging from new regional hotspots across the globe, with a particular focus on developing and emerging economies. We will discuss the challenges faced by founders in different global contexts, the components of a robust institutional ecosystem, and the ways in which creative solutions may flourish in response to local problems. Along the way, students will gain a virtual view into global startup communities, and personalized insights from firm founders operating around the world - from Bogota to Nairobi to Jakarta. The course will be structured in three primary parts. The first and longest section will discuss the Key Challenges for emerging firm growth across the globe, such as access to talent and resources, political risk, and legal institutions. The second section will highlight particularly active areas of Context-Driven Innovation that are thriving in various regions, such as financial technology, mobile health products, and clean energy. The final section will train Regional Spotlights on different geographic areas in turn, so that we may focus on the challenges and opportunities specific to various parts of the world.

1 Course Unit

MGMT 1980 Special Topics in Management
Courses offered of various topics and points of focus, ranging across multiple concentrations of Management, (i.e., Entrepreneurial, Strategy, Organizational Effectiveness, etc.).

Fall or Spring
Mutually Exclusive: MGMT 7990
0.5-1 Course Unit

MGMT 2050 Multinational Corporate Strategies
This course focuses on the creation of competitive advantage in the multinational firm. It examines the nature of global competition by exploring the characteristics of global versus non-global industries and firms. We also explore different types of international strategy and structure and examine the specific challenges of managing in multiple countries and markets. Finally, we consider the strategic allocation of resources along the value chain and the role of strategic alliances as a crucial element of an effective global strategy.

Spring
Prerequisite: MGMT 1010 AND MGMT 1110 AND WH 1010
1 Course Unit
MGMT 2080 Globalization and International Political Economy
Managing Globalization and Anti-Globalization provides students with a solid foundation in the economic history of globalization and anti-globalization, the institutions that manage the global economy, and the current challenges these institutions are facing. Students in this class will develop their own worldview about the powerful forces shaping today's international political economy and build a solid foundation for understanding the future of organizational strategy. The first half of the course focuses on the historical trajectory of globalization and learning about the institutions that seek to manage it. The second half of the course explores how institutions manage present-day global governance challenges ranging from global migration, the rise of populist anti-globalization movements, the collapse of communism, and global inequality, to disruptive technologies such as bitcoin. Format: Lectures and discussion structured to encourage maximum student participation. Requirements: midterm and final exam, a final course paper of 10-20 pages and short reaction papers dealing with the readings for the week. Supplemental activities include map quizzes, small group projects, and current events analysis. Spring 1 Course Unit

MGMT 2090 The Political Environment of the Multinational Firm
The share of executives, board members, and investment managers who consider climate risk, racial justice and other ESG issues as well as stakeholder's opinions of the firm to be material to their business decisions has risen dramatically. If this business case for engagement with stakeholders on ESG issues can be demonstrated to mainstream investors, pools of capital can be mobilized to harness grand societal challenges. However, executives, board members, and investment managers are actually growing less confident in the ESG data available to guide capital allocations and strategic decisions. ESG scores have been demonstrated to be unreliable, incomplete and biased and often lean on outdated and/or incomplete information obtained through voluntary unaudited disclosure. This course provides students the latest tools to assess and map stakeholder opinions as well as integrate them into financial valuation. It also offers behavioral skills critical for stakeholder engagement including trust building, strategic communications and shaping organizational culture. In short, it prepares students to engage in Corporate Diplomacy (i.e., to influence external stakeholders' opinions of the acceptability of a company's operations at a moment in time and to convince internal stakeholders to adapt their behaviors, systems and outputs when necessary to support an organizational mission). 1 Course Unit

MGMT 2110 Competitive Strategy
This is an advanced course in competitive strategy. The course will apply the tools of industrial organization economics and game theory to examine the strategic decisions that managers make. We will examine those decisions concerning pricing, capacity investment, advertising, new product introductions, and research and development. Emphasis will be placed on the strategic interaction among rival sellers. In particular we will look at the various methods of entry deterrence and strategic commitment. The course will attempt to integrate traditional economic models with case study materials. In addition to prerequisites, some knowledge of microeconomics is suggested. The course will be discussion oriented and based largely on case materials and mini-lectures. Fall Prerequisite: WH 1010 AND MGMT 1010 1 Course Unit

MGMT 2120 Social Entrepreneurship
This is a course on creating a business to attack a social problem and thereby accomplish both social impact and financial sustainability. For this course, social entrepreneurship is defined as entrepreneurship used to profitably confront social problems. This definition therefore views social entrepreneurship as a distinct alternative to public sector initiatives. The basic thesis is that many social problems, if looked at through an entrepreneurial lens, create opportunity for someone to launch a venture that generates profits by alleviating that social problem. This sets in motion a virtuous cycle - the entrepreneur is incented to generate more profits and in so doing, the more the profits made, the more the problem is alleviated. Even if it is not possible to eventually create a profit-making enterprise, the process of striving to do so can lead to a resource-lean not-for-profit entity. Creating a profitable social entrepreneurship venture is by no means a simple challenge. Cross-listed with MGMT 812. Fall Mutually Exclusive: MGMT 8120 0.5 Course Units

MGMT 2130 Entrepreneurship through Acquisition
The objective of this course is to study the process of entrepreneurship through the acquisition of existing operating businesses. We will study this process through a series of lectures, assigned readings, case studies, and a final project which will follow the acquisition process. Freshmen require instructor's permission. Prerequisite: FNCE 1000 AND ACCT 1010 0.5 Course Units

MGMT 2140 Market Dynamics and Technical Change
The course is designed to meet the needs of future managers, entrepreneurs, consultants and investors who must analyze and develop business strategies in technology-based industries. The emphasis is on learning conceptual models and frameworks to help navigate the complexity and dynamism in such industries. This is not a course in new product development or in using information technology to improve business processes and offerings. We will take a perspective of both established and emerging firms competing through technological innovations, and study the key strategic drivers of value creation and appropriation in the context of business ecosystems. There is definitely an overlap in content with other courses in intermediate microeconomics, or managerial economics. Nevertheless, the treatment is sufficiently distinctive to make it complementary to those other treatments for a student who is particularly interested in economic change, or is otherwise interested in acquiring a broader view of economics. 1 Course Unit
MGMT 2230 Business Strategy
This course encourages students to analyze the problems of managing the total enterprise in the domestic and international setting. The focus is on the competitive strategy of the firm, examining issues central to its long- and short-term competitive position. Students act in the roles of key decision-makers or their advisors and solve problems related to the development or maintenance of the competitive advantage of the firm in a given market. The first module of the course develops an understanding of key strategic frameworks using theoretical readings and case-based discussions. Students will learn concepts and tools for analyzing the competitive environment, strategic position and firm-specific capabilities in order to understand the sources of a firm’s competitive advantage. In addition, students will address corporate strategy issues such as the economic logic and administrative challenges associated with diversification choices about horizontal and vertical integration. The second module will be conducted as a multi-session, computer-based simulation in which students will have the opportunity to apply the concepts and tools from module 1 to make strategic decisions. The goal of the course is for students to develop an analytical tool kit for understanding strategic issues and to enrich their appreciation for the thought processes essential to incisive strategic analysis. This course offers students the opportunity to develop a general management perspective by combining their knowledge of specific functional areas with an appreciation for the requirements posed by the need to integrate all functions into a coherent whole. Students will develop skills in structuring and solving complex business problems. In addition to prerequisites, enrollment is limited to seniors and juniors that have completed introductory courses in finance, marketing, and accounting. Prerequisite: WH 1010 AND MGMT 1010
1 Course Unit

MGMT 2240 Leading Diversity in Organizations
People in the workplace are constantly interacting with peers, managers, and customers with very different backgrounds and experiences. When harnessed effectively, these differences can be the catalyst for creative breakthroughs and the pathway to team and organizational learning and effectiveness; but when misunderstood, these differences can challenge employees’ values, performance, workplace relationships, and team effectiveness. This course is designed to help students navigate diverse organizational settings more effectively and improve their ability to work within and lead diverse teams and organizations. It also offers students the opportunity to develop their critical thinking on topics such as identity, relationships across difference, discrimination and bias, equality, and equity in organizations and society and how they relate to organizational issues of power, privilege, opportunity, inclusion, creativity and innovation and organizational effectiveness. Class sessions will be experiential and discussion-based. Readings, self-reflection, guest speakers from organizations, case studies and a final project will also be emphasized. By the end of this course, you should be able to: 1) Evaluate the aspects of your identity and personal experiences that shape how you interact and engage with others and how they interact and engage with you in organizations 2) Explain how issues of power, privilege, discrimination, bias, equality, and equity influence opportunity and effectiveness in organizations 3) Propose ways to make relationships across difference in organizations more effective 4) Describe current perspectives on the relationships among diversity, inclusion, creativity, and innovation in organizations 5) Analyze a company’s current approach to leading diversity and use content from this course to propose ways to enhance learning and effectiveness in that company. Fall or Spring 0.5 Course Units

MGMT 2250 Value Creation and Value Capture in American Business History
This course examines how the kind of firms in which most Wharton students will spend the next stage of their careers came to be as they are today. At a superficial level, the course’s objectives are descriptive and narrative. But history, considered thoughtfully and critically, is never just description and a narrative and the course’s deeper purpose is to give students some idea of how to think about the future evolution of firms and industries. In this the course is as much an applied strategy course as it is a historical survey. The course considers the development of the business enterprise as an economic institution. It also covers the evolution of competition and strategy, marketing institutions, some aspects of the history of operations management, and corporate finance. Issues arising in these different management disciplines are considered in part for the purpose of showing off their interrelationships. Questions of how value can be created and captured at the enterprise level form the core of the perspective. The course’s focus is on American developments, since many of the innovations took place here, but there is scope for comparison with Japan and the leading European economies if there is student interest. Chronologically the course runs from Franklin’s days through the early twenty-first century. The individual classes proceed through discussion of actual business decisions and performance in a series of challenging and otherwise interesting moments in the evolution of the American business environment. The materials are unusual for the Wharton School—they are not just often case-like but wherever possible draw on documents contemporary to the decisions such as correspondence, internal memoranda, minutes of meetings, old newspaper and magazine stories, and eyewitness accounts. The objective in this is to give students as minimally mediated access as is feasible to what the embedded actors knew and thought. The materials require thoughtful preparation. Weekly short writing assignments during the first twelve weeks of the term develop students’ skill in turning such preparation into crisp analytical prose. (This will be valuable to most students in the early phases of their post-Wharton careers.) The course as a process is much more focused on the students than many and the most productive experience of it demands that the students both engage with the materials when they prepare and then take an active role in the class discussion. The largest single element in the grading is a substantial term paper on a topic agreeable to both the student and the instructor. (To everyone’s surprise, the lack of easy access Mutually Exclusive: MGMT 7140
1 Course Unit
**MGMT 2290 Intellectual Property Strategy for the Innovation-Driven Enterprise**

Announcing the first iPhone at Macworld 2007, Apple CEO Steve Jobs famously boasted: "And boy, have we patented it!" How, and to what extent, do patents and intellectual property really provide competitive advantage for innovative technology companies? What makes an IP asset strategically powerful? How do patents impact, and even drive, major corporate decisions including M&A, venture funding and exits, and entry into new markets? In this course, students will learn to critically analyze and answer these questions, gaining insights they can leverage in their future roles as innovation industry executives, entrepreneurs, strategist and investors. The course includes three major units. In Unit 1, Patents and Innovation Value, we examine closely the relationship between competitive advantage, value proposition, and intellectual property (particularly patents). We will apply our understanding of that relationship to critique and sharpen patent strategy to protect examples of cutting-edge technologies. In Unit 2, Patent Leverage and the Corporate Playbook, we study theory and examples of how intellectual property leverage strategically informs corporate transactions and decisions, for established companies as well as for start-ups. In unit 3, Limits and Alternatives to Patents, we confront the recent legal trend toward reigning in the power and scope of patents. We also consider the growing importance of data as a proprietary technology asset, and discuss options for adapting intellectual property strategy appropriately. Throughout, students will learn and practice applying the concepts we learn to decision-making in examples based on innovative real-world technologies and businesses.

0.5 Course Units

**MGMT 2300 Entrepreneurship**

How do you take a good idea and turn it into a successful venture? Whether you plan to become a founder, investor, mentor, partner, or early employee of a startup company, this course will take you through the entire journey of new venture creation and development. MGMT 230 is a project-based survey course designed to provide an overview of the entrepreneurial process and give you practical hands-on experience with new venture development. You and a team will have the chance to ideate, test, and develop a pitch for an early-stage startup by incorporating material from class lectures, simulations, labs, and class discussions. By the end of the course, you will have a better understanding of what it takes to create a successful startup, as well as proven techniques for identifying and testing new market opportunities, acquiring resources, bringing new products and services to market, scaling, and exiting new ventures.

0.5 Course Units

**MGMT 2310 Entrepreneurship Launchpad**

This advanced course on entrepreneurship focuses on taking your venture from a good idea to a fundable business. Participants need to come to the class with a validated idea that they are committed to pursuing commercially. The course is entirely oriented toward applying concepts and frameworks to advance your venture and provides practical guidance for testing the product or service, forming the entity, establishing partnerships, and engaging with investors. Students must have successfully completed MGMT 801 before enrolling (or obtain the permission of the instructor). Format: Highly interactive Requirements: Class participation, interim assignments.

Mutually Exclusive: MGMT 8310

Prerequisite: MGMT 8010

0.5-1 Course Unit

**MGMT 2320 Business Model Innovation Strategy**

Business Model Innovation Strategy is a half semester MBA elective course which centers on the conceptualization, design, analysis and implementation of novel business models by incumbent and by new venture leaders as well as on the organizational challenges associated with a business model innovation strategy. Students will be introduced to a framework for developing and implementing a new business model. The framework will be brought to life through a combination of lectures, in-class exercises, numerous illustrations and case discussions. Fall

Mutually Exclusive: MGMT 8320

0.5 Course Units

**MGMT 2330 Strategies and Practices of Family-Controlled Companies**

This course is designed for those persons who desire to understand the distinct strategies and practices of family-controlled companies and family wealth creation. It will focus on stakeholder decision making; financial and resource driven options for long-run competitiveness; organizational structures, management team issues; strategic planning from a resource-based perspective; transition planning for the corporate entity; family dynamics and communication issues; and leadership empowerment. The course is intended for those who plan to consult or provide professional services to family-controlled companies and for those planning a career in a family firm. The class is structured around topical lectures with frequent utilization of case studies requiring active class participation, as well as on-site and off-site project work time. Submission of several written case studies, and a term project are required. Open to Wharton undergraduate & MBA students, as well as Penn graduate students. Format: The class is structured around topical lectures with frequent utilization of case studies. There will be in-class discussion, as well as on-site and off-site project work time.

Mutually Exclusive: MGMT 8330

1 Course Unit

**MGMT 2370 Management of Technology**

The course is designed to meet the needs of the future managers, entrepreneurs, consultants and investors who must analyze and develop business strategies in technology-based industries. The emphasis is on learning conceptual models and frameworks to help navigate the complexity and dynamism in such industries. This is not a course in new product development or in using information technology to improve business processes and offerings. We will take a perspective of both established and emerging firms competing through technological innovations, and study the key strategic drivers of value creation and appropriation in the context of business ecosystems. In addition to prerequisites, this course is exclusively reserved for Management and Technology students. Spring

Prerequisite: WH 1010 AND MGMT 1010

1 Course Unit

**MGMT 2380 Organizational Behavior**

Management 238 is an organizational behavior course, examining individual, interpersonal, and group effectiveness at work. Topics range from decision-making, motivation, and personality to networks, influence, helping, leadership, teamwork, and organizational culture. The learning method is heavily experiential, with a focus on applying key principles to the human side of management in role-play exercises, simulations, a mini-TED talk, and group projects in local organizations. Other Information: This course is open to juniors and seniors across Penn. This course also has a first-day mandatory attendance policy. Fall

1 Course Unit
MGMT 2410 Knowledge for Social Impact: Analyzing Current Issues & Approaches
Inequality. Poverty. Racism. Climate change. COVID. Violence. Crime. And so much more. The list of societal challenges in the United States and around the globe is daunting. Like many other students, you may hope to make a positive difference in the world. But, where and how? This course is designed to help you begin to answer this question.
We will meet with for-profit and nonprofit leaders working to make a difference, drawing lessons from their successes, failures, evolution, and resilience. We will read and discuss rigorous social science research that ensures that we move from hunches to facts, from simplistic and ineffective solutions to systems knowledge. We will investigate impact measurement strategies, asking “What is feasible and beneficial to monitor and measure, and why?” And, we will take a deep dive into two of the complex societal challenges facing the US States today: (1) barriers to college access, completion, and post-college employment; and (2) barriers to employment following incarceration.

1 Course Unit

MGMT 2420 Corporate Governance, Executive Compensation and the Board
This course examines the relationships between corporate managers, the boards of directors charged with overseeing them, and investors. We'll review the responsibilities of the board, including financial statement approval, CEO performance assessment, executive compensation, and succession planning. While boards are legally bound to represent the interests of equity investors, in the course of carrying out this role they are often called on to respond to the needs of numerous other stakeholders, including customers, employees, government and society at large. With global brands at risk and mistakes instantly transmitted via Internet and social media, the reputational stakes are very high.

The course is a combination of lecture, guest lecture, discussion, case analysis, and in-class research workshops. We will review some of the theory underlying modern governance practice, drawing from theories and evidence provided by research across diverse fields, including finance, sociology, and organization and management theory. We'll study specific situations where boards and management teams faced governance challenges, and assess the strategies used to deal with them. Finally, we'll examine the ways in which governance arrangements and external stakeholder involvement in governance affects corporate social behavior and global citizenship.
Prerequisite: WH 1010 AND MGMT 1010
1 Course Unit

MGMT 2430 Work and Technology: Choices and Outcomes
That technology affects work is a commonplace - but we accept technology's impact too readily as inevitable and unchangeable. This 0.5 CU course challenges the mindset of technological determinism and explores what choice points are available to managers implementing new technologies as well as the engineers who design them. • Module 1: "Technology and Its Impact on Jobs and Skills" considers which technologies deserve the characterization of "revolutionary" due to their capacity to change entire organizations - and even societies - vs. those that only substitute narrowly for past technologies. We'll examine past anxieties related to automation and evaluate the extent to which the "worst-case" scenarios about employment loss have or have not come to pass - and evaluate claims of "this time it's different". • Module 2: "Intelligent Technologies: How Will They Affect Work and Organizations?" explores how Artificial Intelligence (AI) is changing core "managing people" activities (e.g., hiring and performance appraisal) – plus shifting the locus of management away from human bosses and into algorithms. We'll examine controversies around "gig work", i.e., the positives of worker schedule flexibility vs. the negatives of algorithmic control. We'll also consider the metaverse and its potential for unleashing human creativity and fostering richer and more nuanced virtual communication - as well as providing organizations with new ways to monitor and control.
• Module 3: "Technology and Policy" examines three policy issues. First, how can we inject more ethical criteria into the development of artificial intelligence and algorithms affecting work? Second, what are the pros and cons of "universal basic income", whose premise is that technological change will soon lead to an unprecedented amount of job elimination? Third, how does "technology make us dumber"? How can we avoid the obsolescence of critical human skills? Take this course to be ready to manage the strategic and analytic issues involving the design and implementation of technology at work - and for a preview of your own future work life. Requirements include: class participation; in-class quizzes; interviewing someone you know to ask how technology has affected their work life; and the "In Hindsight" group assignment looking back on past scares about a particular technology's impact on work - and what actually happened.
Spring
0.5 Course Units

MGMT 2480 How to be the Boss
Despite the press accounts about the "gig" economy, the Bureau of Labor Statistics calculates that about 92 percent of the people working in the US are employees who are supervised by someone. That figure has remained roughly the same for decades. The term "supervisor" is sometimes used for the first-level of supervision in an organization, but in fact that role - and indeed the title? goes all the way up to the very top of any employer organization. Even CEO’s are the supervisor of their direct reports. When people talk about their "boss," they almost always are referring to the person who supervises them. Stepping into a supervisor position is challenging, exceptionally so the first time. That time comes relatively soon for Wharton grads. Undergrads pursuing consulting jobs typically find themselves supervising new hires by their third year, those working for corporations find themselves in those roles even sooner. Roughly three-quarters of our MBA students report that they had been required to supervise subordinates after college and before arriving here. In this class, we examine the role of the supervisor and the unique tasks associated with performing that role. We pay special attention to the unique challenges of taking on that role for the first time.
Not Offered Every Year
0.5 Course Units

2023-24 Catalog | Generated 08/02/23
MGMT 2490 Mergers and Acquisitions
This interactive, applied, and case-based course explores the various modes of corporate development available to managers to drive firm growth and change, including alliances, outsourcing, corporate venturing, and particularly mergers and acquisitions. The objectives are three-fold: (1) to arm the student with a set of tools to facilitate the selection of the appropriate growth strategy in a given situation; (2) to provide insights as to how to manage partnerships like alliances, outsourcing, and corporate venturing; and, (3) to develop a comprehensive framework for executing M&As, from initiation to implementation. The emphasis is on strategic and operational aspects of these transactions, rather than financial considerations. Please note that you must fulfill the prerequisites in order to enroll in this class.
Fall
Prerequisite: WH 1010 AND MGMT 1010
1 Course Unit

MGMT 2510 Consulting to Growth Companies
This course offers students a unique opportunity to develop consulting skills and entrepreneurial expertise by working as consultants to thriving entrepreneurial ventures in the Philadelphia area. This capstone course combines both fieldwork and class work and allows students to apply knowledge and skills acquired through other course work to real world issues that must be addressed by operating companies. An understanding of characteristics producing rapid entrepreneurial growth and skills related to effective communications and management of a business relationship are emphasized. Team term consulting assignment, lectures, case analysis, and small group discussions.
Fall
1 Course Unit

MGMT 2640 Venture Capital and Entrepreneurial Management
This course focuses on venture capital management issues in the context of a high-growth potential start-up company. The course is motivated by rapid increases in both the supply of and demand for private equity over the past two decades. The topic is addressed from two distinct perspectives: issues that relate to the demand for private equity and venture capital (the entrepreneur's perspective) on the one hand, and issues that relate to the supply of capital (the investor's perspective) on the other. As well, we will address management issues that relate to how the VC and the entrepreneur work together once an investment has been made, compensation issues, and governance issues in the privately held venture capital backed company. Format: Case/discussion format, supplemented by lectures and guest speakers.
Fall
1 Course Unit

MGMT 2650 Culture of Technology: Culture & Institutions of the Tech Sector--Bridging Research and Practice
Academics, students and practitioners alike are fascinated by the culture of tech sector - its people, practices, and organization. In this course we explore this sector using a combination of research papers, press coverage, and practitioner involvement. Each class session will be devoted to discussion of a single research article, during which we will be joined via state-of-the-art videoconferencing by a Wharton alum from the tech sector whose expertise is relevant to the paper topic. Therefore, the learning objectives half-credit course are to: 1) understand the managerial, organizational, and regional institutions that characterize the tech sector, with particular emphasis on the case of Silicon Valley 2)Bridge research and practice by critical analysis of academic research papers in conjunction with practitioner input 3) Forge connections with tech sector practitioners, particularly with our west coast alumni base.
0.5 Course Units

MGMT 2670 Entrepreneurship and Technological Innovation
Building a new firm around technology innovation can mean different choices and challenges for entrepreneurs. The goals and outcomes of technology entrepreneurship vary as much as the innovations that inspire them. MGMT 267 will take you through the questions that entrepreneurs should address as they go from a technology innovation idea to founding and funding a tech startup. The course will appeal to individuals who have a desire to become technology entrepreneurs at some stage of their career, as well as others interested in the startup ecosystem such as investors, early employees, other professional service providers, etc. Through a combination of individual and team work, you will examine what is different when technology is at the core of an entrepreneurial opportunity and how to move a technology-based venture forward.
0.5 Course Units

MGMT 2720 Power and Politics in Organizations
"If you want to test a (person's) character, give (him/her) power." These famous words articulate one of the many tensions of exercising power. Regardless of whether you have an appetite for power or disdain it, power and politics are likely to play an important role in your career. The purpose of this course is to introduce you to concepts that are useful for understanding, analyzing, and developing your political skill. But beyond discovering ways to extend your own power in organizations, we will also uncover lessons about ways in which power and politics can blind you, and how to navigate situations in which you are up against powerful people. Using a range of scholarly articles, cases, exercises, assessments and simulations, we will extract a variety of lessons relevant to your role in organizations. Topics include diagnosing power in organizations, building coalitions, change management, understanding networks, coping with intolerable bosses and incivility, and downsizing. Students will be expected to engage in field research for their coursework and final paper, and the course requires that students submit assignments for almost every class session. Organizations are inherently political arenas that require social astuteness, and an understanding of the "rules of the game." This course is designed for students aiming to develop their leadership, general management and career skills through a better understanding of power and politics, and relates to other courses on these topics in the Management department.
0.5 Course Units

MGMT 2750 Comparative Capitalism
While we often debate capitalism as a system, the nature of capitalist economies differ from country to country and rarely match up to the ideal. Why do these differences arise? Is there a pure form of capitalism? What is the nature of capitalism in advanced and emerging economies? Why are capitalist economies often embedded in other social systems? Why do some economies grow faster than others? How do international institutions and interdependencies affect national capitalist institutions? How are the strategies of multinational corporations (MNCs) influenced by their country of origin? And how is the nature of capitalism changing today? This course provides insight into these questions as it explores the nature of capitalism around the world, with specific reference to Brazil, Russia, Ukraine, China, Hungary, Nigeria, South Africa, Singapore, Israel, Argentina, and the advanced OECD countries. Students will leave this class with understanding key differences in how capitalist economies are organized and competition over the future of the world economy.
Mutually Exclusive: MGMT 8750
1 Course Unit
MGMT 2760 Cultivating Judgment Skills: Forecasting in Business Politics
This course will explore the diverse ways in which scholars and practitioners have defined "good judgment." And it will introduce students to practical tools for assessing and improving judgment, with special emphasis on probabilistic reasoning. Students will have the opportunity both to fine-tune their personal judgment skills as well as to master and then weave together insights from several bodies of scientific knowledge, including frequentist and Bayesian statistics, psychological work on judgment and choice, group dynamics, organizational behavior and political science (key concepts discussed in Tetlock's (2015) book "Superforecasting"). We will focus on bottom-line accuracy in sizing up real world problems. Class work will be primarily exercises, including working as an individual and in teams. You will have opportunities to forecast on a wide range of political, business, and macro-economic questions, which we will use as feedback tools to help you calibrate your judgment. Assessments include a weekly concept test and a final group presentation aimed to help you improve your judgment. The goal is to launch you on the lifelong process of learning how much trust you should place in your judgments of trustworthiness.
1 Course Unit

MGMT 2870 Global Management of Digital Businesses
Digital businesses enable users to communicate, interact, share, and engage in transactions. They enable individuals to shop, work, play, and learn, and they offer companies new ways of organizing their value chains, reaching customers, collecting and analyzing information, and creating value. This half-semester, 0.5-credit class deals with the international expansion of businesses through the use of digital technologies. The focus is on the tension between the eminent scalability facilitated by digital technologies and the ruggedness of the international landscape, shaped as it is by demographics, consumer preferences, culture, regulatory structures, and network effects operating at the local, national, regional, and global levels. The class covers both companies launched as digital businesses and traditional companies undergoing a digital transformation. Topics include industry dynamics, the impact of network effects, the sequence of foreign market entry, regulatory risk, strategic interaction, and global versus local strategies for both new digital businesses and established firms undergoing digital transformation. While there are no specific requirements, knowledge of the fundamental concepts of competitive strategy and global strategy is essential to follow this class. Students will learn through interactive class discussions, team-based exercises, and self-made short videos to pitch novel new ideas about digital businesses.
0.5-1 Course Unit

MGMT 2880 Managing and Competing in China
The business environment in China is characterized by both uncertainty and complexity. On the one hand, it is changing fast; on the other hand, it is influenced by deep-rooted political, economic, and cultural forces that exhibit tremendous inertia. This course will help students—potential managers, entrepreneurs, and investors—gain the knowledge and analytical skills necessary to compete effectively in China. We will discuss various types of firms in the Chinese economy—from large state-owned enterprises (SOEs) to newly minted Internet giants, from prominent multinational companies (MNCs) to virtually anonymous local suppliers—and the unique institutions in which these firms operate. Such discussions will also help managers whose firms compete or collaborate with Chinese firms on the global stage. We will use a combination of lectures, cases, debates, and role play in class. You will also have the opportunity to apply your learning to real business scenarios.
Mutually Exclusive: MGMT 7880
1 Course Unit

MGMT 2910 Negotiations
This course examines the art and science of negotiation, with additional emphasis on conflict resolution. Students will engage in a number of simulated negotiations ranging from simple one-issue transactions to multi-party joint ventures. Through these exercises and associated readings, students explore the basic theoretical models of bargaining and have an opportunity to test and improve their negotiation skills.
Fall or Spring
Also Offered As: LGST 2910, OIDD 2910
1 Course Unit

MGMT 2920 Advanced Negotiation
This course is designed to teach negotiation principles and to enable students to develop their negotiation skills. This course assumes familiarity with the basic negotiation concepts covered in the prerequisite for this course: Negotiations. In this course, we extend the study and practice of negotiations and we develop a deeper understanding for how specific aspects of the negotiation process (e.g., emotions, deadlines, trust violations) impact outcomes. Through course lectures, readings, and case exercises, students will develop a rich framework for thinking about the negotiation process and acquire tools for guiding the negotiation process.
Fall or Spring
Also Offered As: LGST 2920, OIDD 2920
Prerequisite: LGST 2910 OR OIDD 2910 OR MGMT 2910
1 Course Unit

MGMT 2930 People Analytics
This course examines the use of data to understand and improve how people are managed in organizations. People really are organizations’ most important asset, providing the critical link in converting strategy and capital into value. Yet throughout most of our history, most organizations have relied on long-standing traditions, hearsay, political expediency, prejudice and gut instinct to make decisions about how those people should be managed. Recent years have seen a growing movement to bring more science to how we manage people. In some cases, that means ensuring that whatever practices and approaches we adopt are backed up by solid evidence as to their effectiveness. Often, organizations will seek to go further, analyzing their own data to identify problems and learn what is working and what is not in their own context. This course applies the insights of the people analytics movement to help students become better managers and more critical analysts within their organizations. The course aims to develop students in three specific ways. First, it will provide students with an up-to-the-minute grounding in current evidence about managing people, providing a knowledge base that can ensure that their future management is guided by best practices. Second, we will develop the skills and understanding necessary to be thoughtful, critical consumers of evidence on people management, allowing them to make the most of the analysis available to them as they make people decisions. Third, we will provide guidance and practice in conducting people analytics, preparing students to gather data of their own, and making them more skilled analysts. We will pursue these goals through a mixture of lecture, case discussion, and hands on exploration of a variety of data sets.
Spring
Also Offered As: OIDD 2930
1 Course Unit
MGMT 2940 Understanding Careers & Managerial Labor Markets
The class will examine a variety of aspects of careers. The first few sessions explore the basic building blocks of the career, outlining our knowledge on the different orientations that individuals take to their careers, how approaches to the career change as people get older, and how different kinds of job moves within and across firms advance careers. We will complement academic research by also hearing from an experienced executive who can talk about the issues that she dealt with as her career unfolded, and how she approached major decisions. The second part of the course explores in more detail the social resources that affect careers. Much research has examined how the structure of social networks affect success in the workplace and access to job. We will review this evidence with an eye to understanding how effective relationships can be developed. We will also examine some of the most critical relationships for shaping careers - those involving mentors and sponsors. The third section of the course then examines part of the most important and difficult issues affecting modern careers. We explore one of the most difficult transitions that forms part of many careers, moving into management from an individual contributor role. We will also explore important social psychological conditions and strategies that allow individuals to persist and succeed in their career pursuit, especially in the face of obstacles, such as career setbacks and employer rejections. We then turn to issues of gender and careers. There is much evidence on the particular challenges that have faced women managers and executives in moving up the corporate ladder. We examine that evidence and discuss possible responses by managers and by organizations. We also discuss how individuals and organizations can manage the challenges of balancing work and personal life throughout the career.

Fall or Spring
0.5 Course Units

MGMT 3010 Teamwork and Interpersonal Influence
Organizations emerge because individuals cannot (or do not want to) accomplish their goals alone. Likewise, employees pursue projects in teams and other small units because there is strength in numbers. For example, over 80% of Fortune 1,000 companies use teams to accomplish their goals. As such, collaboration - in relationships and in teams - is the building block of organizational effectiveness. In addition, most of your work each day will occur in a social context, and it will require you to influence others, and be influenced by, others. In this course we will use the latest evidence from the science of organizations to understand key tactics that can help you work more effectively with others and better influence and lead them as you strive to attain shared goals. We will cover topics such as team coordination, team decision making, interpersonal influence, leader effectiveness, and ethics. This course is the third module of the four-module set that comprises the Wharton Leadership Journey. MGMT 301 assumes exposure to MGMT 101 content. As of Fall 2022 MGMT 101 will become a formal prerequisite for the class.

Fall or Spring
0.5 Course Units

MGMT 3530 Wharton Field Challenge FLCP
Do you want to make a real difference in the lives of a student? Do you want to set kids on a path to becoming financially literate? Do you want to learn leadership skills in the classroom? Here at the Financial Literacy Community Project (FLCP) we are able to create an experience that achieves all three. We partner with various public schools around the West Philadelphia area and teach concepts integral to financial literacy. We teach a wide range of grades from middle school to high school, and work with students to help them learn how to be financially responsible. In addition to teaching in neighboring high schools, we also have group class meetings run by Professor Keith Weigelt on Mondays from 7:00 PM-8:30 PM. We learn about the disparity of wealth and how to best address it while also learning teaching techniques, classroom strategies, and overall basic financial literacy. A basic understanding of personal financial literacy is required.

1 Course Unit

Mutually Exclusive: MGMT 8880
Prerequisite: MGMT 2300 OR MGMT 2670

MGMT 3880 Venture Acceleration Lab
This Lab emphasizes experiential learning in evaluating and contributing to "live" startup ventures. The goal of the Lab is to accelerate the development of ventures by providing a structured curricular setting in which mentors with industry expertise as operators and investors provide guidance to full-time venture founders. Undergraduate and MBA students learn through witnessing these interactions and through helping ventures structure their value creation and capture strategies. The latter is facilitated via instructor-led classes on focused venture development concepts. This unique Lab therefore brings together communities which rarely mix: startup founders, enrolled students as potential venture "joiners" and consultants, venture mentors, and technical/academic specialists.

Mutually Exclusive: MGMT 8880

1 Course Unit

MGMT 3910 Advanced Study-Smgt
Fall or Spring
0.25-1 Course Unit

MGMT 3980 Managing and Motivating Talent
People are the most valuable asset of any business, but they are also the most unpredictable, and the most difficult, asset to manage. And although managing people well is critical to the health of any organization, most managers don't get the training they need to make good management decisions. Now, award-winning authors and renowned management Professors Mike Useem and Peter Cappelli of the Wharton School have designed this course to introduce you to the key elements of managing people. Based on their popular course at Wharton, this course will teach you how to motivate individual performance and design reward systems, how to design jobs and organize work for high performance, how to make good and timely management decisions, and how to design and change the your organization's architecture. By the end of this course, you'll have developed the skills you need to start motivating, organizing, and rewarding people in your organization so that you can thrive as a business and as a social organization. This course can also only be applied towards unrestricted electives at the undergraduate level.

Mutually Exclusive: MGMT 7980

0.25 Course Units
MGMT 4010 Growing Social Impact
This course seeks to address a gap at the core of contemporary entrepreneurship: despite a growing desire to pursue prosocial goals and affect positive change in the world, most founders have little understanding of how to measure, manage, and scale their impact. This creates the risk that financial goals will play an outsized role in decision-making, particularly as the venture scales, leading founders to drift away from social impact aims - or to pursue goals that fail to deliver on their intended impacts. MGMT 401 fulfills the Wharton capstone requirement with a hands-on approach to addressing these issues. Students will work hand-in-hand with the founding teams of pre-selected startups from the Wharton venture community to develop a strategy for measuring social impact, and ensuring fidelity to social goals as the venture goes to market and begins to scale. Projects will be group-based, and will ask students to integrate learnings on social enterprise, impact measurement, and impact investing, with prior coursework on entrepreneurship, social impact, business ethics, leadership, team dynamics, and venture finance. Students will leave the class with a deeper appreciation of the potential for business to be a force for good in the world, and the difficulties that this can pose during the founding and growth stages of a new business. The class will be of value to students who are interested in creating socially impactful businesses, as well as to those who want to work in the ecosystem that supports such ventures (e.g., consulting, or impact investing).
Prerequisite: MGMT 1010 AND WH 1010 AND WH 2010 AND MGMT 3010
0.5 Course Units

MGMT 4020 Service Learning Client Project
MGMT 4020 builds on the foundation established by the pre-requisites in the Leadership Journey. As seniors, you will draw on the self-awareness you acquired in WH1010, the speaking skills you practiced in WH2010, and the teamwork and interpersonal skills you honed in MGMT3010. Moreover, MGMT 4020 serves as a capstone course by giving you the opportunity to work with a robust nonprofit and in order to frame the problems and address the challenges your host organization faces; in the process, you will use your creative and critical thinking skills, apply what you have learned, and reflect on your growth and development through iterative feedback and constructive coaching. As a highly experiential course, MGMT 4020 is relatively unstructured, giving you ample opportunity to demonstrate leadership by providing direction and teamwork by pulling together to deliver results for your host. MGMT 4020 will enable you to draw on your Wharton undergraduate education and apply what you have learned in a way that promises to provide real impact for your host organization and a meaningful and memorable experience for you. It is only open to Wharton seniors. In short, MGMT 4020 gives Wharton seniors the opportunity to: 1. Engage in a service learning and experiential course - Demonstrate leadership and work as a team on a real, host engagement - Think creatively, critically, and practically for the benefit of your host - Refine your interpersonal communication and presentation skills - Heighten your self-awareness through feedback and reflection.
Spring
Prerequisite: MGMT 1010 AND WH 1010 AND WH 2010 AND MGMT 3010
0.5 Course Units

MGMT 4090 Huntsman Capstone Study
The objective of the capstone study is to provide participants with the opportunity to integrate the knowledge gained in various courses Huntsman students take in Wharton and the College in a focused application to a specific project. The project would have sufficient breadth and depth to require participants to draw upon multiple analytical perspectives, theoretical lenses, and stocks of empirical data to collaboratively develop distinctive insights in relation to a given problem. The end product is a paper summarizing the research/application journey of the students, as well as a group presentation highlighting key findings as well as their theoretical and practical implications. Prerequisite: This course is only open to students in the Huntsman Program.
0.5 Course Units

MGMT 4180 The India Startup Ecosystem
The objective of OIDD/MGMT 418 and the Wharton India Fellows program is to introduce Penn juniors to the entrepreneurship and innovation ecosystem in India through a course covering topics in entrepreneurship, innovation, venture capital and technology in India and then matching students to a specific short-term project with a Bangalore-based early-stage startup or rapidly scaling company. Students will complete preliminary work on the project assignment during the course, and then travel as a group to Bangalore with the instructor for a week immersion in the company to which they have been assigned for their entrepreneurship project. Penn Wharton Entrepreneurs will cover airfare and lodging expenses for students selected as Wharton India Fellows for the duration of the 2 week immersion in India. For more information: https://entrepreneurship.wharton.upenn.edu/wharton-india-fellows/
Also Offered As: OIDD 4180
0.5 Course Units

MGMT 6100 Foundations of Teamwork and Leadership
MGMT 610 is the first core course in the MBA Program and it cannot be waived. The first week of the fall term (in August) is dedicated to this formative and foundational experience. This course focuses on developing students' knowledge and skill set for teamwork and leadership. It is meant to be an intense immersion experience that draws strongly on the pedagogy of the Wharton Teamwork and Leadership Simulation, a team-based, highly interactive simulation that was custom-designed specifically to allow students to experience the core concepts they learn in this class. The three goals of this course are for students to learn: 1. Leadership behaviors: how to enact the skills that contribute to a team's effective performance. 2. Team dynamics: how to be an effective team member, as well as how to best design work teams; 3. Organizational awareness: understanding organizational culture. Format: A custom-designed Wharton-only simulation is paired with course sessions to deliver a unique learning experience. Classes will include experiential learning combined with debriefings, lectures, readings, class discussion and personal and group performance feedback. This course reflects the realities that informal leadership occurs in teams on an ongoing basis, that being a good team player is a part of leadership, and that many of one's early experiences with leadership will occur while working on teams. Because of the team-based nature of this course, and time intensive nature of this experience, attendance is mandatory for ALL five sessions of this class.
0.5 Course Units
MGMT 6110 Managing Established Enterprises
This course is about managing large enterprises that face the strategic challenge of being the incumbent in the market and the organizational challenge of needing to balance the forces of inertia and change. The firms of interest in this course have moved past the purely entrepreneurial phase and need to systematically formalize strategies and organizational processes to reach maturity and stability, but they still lack the resources of a mature firm. The class is organized around three distinct but related topics that managers of established firms must consider: strategy, human and social capital, and global strategy.
1 Course Unit

MGMT 6120 Management of Emerging Enterprises
This course is about managing during the early stages of an enterprise, when the firm faces the strategic challenge of being a new entrant in the market and the organizational challenge of needing to scale rapidly. The enterprises of interest in this course have moved past the purely entrepreneurial phase and need to systematically formalize strategies and organizational processes to reach maturity and stability, but they still lack the resources of a mature firm. The class is organized around three distinct but related topics that managers of emerging firms must consider: strategy, human and social capital, and global strategy.
1 Course Unit

MGMT 6130 Managing the Enterprise
Fall or Spring
1 Course Unit

MGMT 6240 Leading Diversity in Organizations
People in the workplace are constantly interacting with peers, managers, and customers with very different backgrounds and experiences. When harnessed effectively, these differences can be the catalyst for creative breakthroughs and the pathway to team and organizational learning and effectiveness; but when misunderstood, these differences can challenge employees' values, performance, workplace relationships, and team effectiveness. This course is designed to help students navigate diverse organizational settings more effectively and improve their ability to work within and lead diverse teams and organizations. It also offers students the opportunity to develop their critical thinking on topics such as identity, relationships across difference, discrimination and bias, equality, and equity in organizations and society and how they relate to organizational issues of power, privilege, opportunity, inclusion, creativity and innovation and organizational effectiveness. Class sessions will be experiential and discussion-based. Readings, self-reflection, guest speakers from organizations, case studies and a final project will also be emphasized. By the end of this course, you should be able to: 1) Evaluate the aspects of your identity and personal experiences that shape how you interact and engage with others and how they interact and engage with you in organizations 2) Explain how issues of power, privilege, discrimination, bias, equality, and equity influence opportunity and effectiveness in organizations 3) Propose ways to make relationships across difference in organizations more effective 4) Describe current perspectives on the relationships among diversity, inclusion, creativity, and innovation in organizations 5) Analyze a company's current approach to leading diversity and use content from this course to propose ways to enhance learning and effectiveness in that company.
Not Offered Every Year
0.5 Course Units

MGMT 6250 Corporate Governance, Executive Compensation and the Board
This course examines the relationships between corporate managers, the boards of directors charged with overseeing them, and investors. We'll review the responsibilities of the board, including financial statement approval, CEO performance assessment, executive compensation, and succession planning. While boards are legally bound to represent the interests of equity investors, in the course of carrying out this role they are often called on to respond to the needs of numerous other stakeholders, including customers, employees, government and society at large. With global brands at risk and mistakes instantly transmitted via Internet and social media, the reputational stakes are very high. The course is a combination of lecture, guest lecture, discussion, case analysis and in-class research workshops. We will review some of the theory underlying modern governance practice, drawing from theories and evidence provided by research across diverse fields, including finance, sociology, and organization and management theory. We'll study specific situations where boards and management teams faced governance challenges, and assess the strategies used to deal with them. Finally, we'll examine the ways in which governance arrangements and external stakeholder involvement in governance affects corporate social behavior and global citizenship.
0.5 Course Units

MGMT 6560 Global Immersion Program
The Global Immersion Program is a pass/fail, 0.5 credit course that is designed to provide students with an in-depth exposure to international business practices and first-hand insights into a foreign culture. In past years, programs were offered in India, the Middle East, China, South America, Southeast Asia, and Africa. The program offers students the opportunity to learn about a foreign business environment by way of academic lectures and a multi-week study tour, allowing students to visit with corporate and government officials, network with alumni, and take cultural excursions.
Spring
0.5 Course Units

MGMT 6710 Executive Leadership
Leaders mobilize resources toward valued goals. In this course, the focus is on growing the student's capacity as a leader in all parts of life. The purpose is to learn practical and customized lessons about how to improve performance and results at work, at home, in the community, and in the private self (mind, body, spirit) by finding mutual value among these four domains. The core idea is that leadership is about making a difference in all aspects of one's life. This course offers students the opportunity to practice the skills needed to do so, now and in the future. Students learn and apply key leadership principles and actively explore what it means for them to be real (to act with authenticity by clarifying what's important), to be whole (to act with integrity by respecting the whole person), and to be innovative (to act with creativity by experimenting with how things get done). This course is only available to WEMBA students.
Spring
1 Course Unit
**MGMT 6900 Managerial Decision Making**
The course is built around lectures reviewing multiple empirical studies, class discussion, and a few cases. Depending on the instructor, grading is determined by some combination of short written assignments, tests, class participation and a final project (see each instructor’s syllabus for details).
Fall or Spring
Also Offered As: OIDD 6900
1 Course Unit

**MGMT 6910 Negotiations**
This course examines the art and science of negotiation, with additional emphasis on conflict resolution. Students will engage in a number of simulated negotiations ranging from simple one-issue transactions to multi-party joint ventures. Through these exercises and associated readings, students explore the basic theoretical models of bargaining and have an opportunity to test and improve their negotiation skills. Cross-listed with MGMT 6910/OIDD 6910/LGST 8060. Format: Lecture, class discussion, simulation/role play, and video demonstrations. Materials: Textbook and course pack.
Fall or Spring
Also Offered As: LGST 8060, OIDD 6910
1 Course Unit

**MGMT 6920 Advanced Topics Negotiation**
This is a course the builds on the basic Negotiation course. In this course, we explore a wide range of negotiation topics from crisis and hostage negotiations, to the role of emotions including anxiety, envy and anger in negotiations, to backlash effects for women in negotiations, and the role of alcohol in negotiations. We will survey many aspects of current negotiation research, discuss historic negotiation cases, and students will participate in role-play exercises. Many of the role play exercises will involve multi-party negotiations and afford opportunities to hone skills in team-based negotiations.
Fall or Spring
Also Offered As: LGST 6920, OIDD 6920
0.5-1 Course Unit

**MGMT 7010 Strategy and Competitive Advantage**
This course is concerned with strategy issues at the business unit level. Its focus is on the question of how firms can create and sustain a competitive advantage. A central part of the course deals with concepts that have been developed around the notions of complementarities and fit. Other topics covered in the course include the creation of competitive advantage through commitment, competitor analysis, different organizational responses to environmental changes, modularity, and increasing returns. An important feature of the course is a term-length project in which groups of students work on firm analyses that require the application of the course concepts.
Prerequisite: MGMT 6110 OR MGMT 6120
0.5 Course Units

**MGMT 7110 Competitive Strategy and Industrial Structure**
This is a course in analyzing competitive interactions. The course emphasizes a vision of strategy in which each competitor simultaneously chooses its strategy, taking into account the strategies of its opponents. Crucial to this vision is the anticipation of the moves of your opponent and, in particular, the expectation that your opponent is (almost) as smart as you are. Equal attention will be given to the development of techniques for analyzing competitive interactions and to the application of those techniques. Game theory and the economics of industrial organization provide the basis for the theoretical constructs developed in the course. Topics that will be explored include: market failures and profitability, competitive bidding, signaling, entry deterrence, agenda setting, regulations, and price wars.
Fall
1 Course Unit

**MGMT 7120 Managing Strategic Partnerships**
This course explores the management of strategic partnerships between firms, which have surged in recent years in response to globalization, technological evolution, deregulation, shortened product life cycles, and intensified competition. Today's alliances drive corporate growth and change, and vary greatly in terms of partner type, commitment, equity investment, degree of control, between scale, and scope. They range from bilateral arrangements to ecosystems to outsourcing, often blurring traditional organizational boundaries and leading to the creation of globally distributed enterprises. In view of these contemporary developments, the objectives of the course are two-fold: (1) to arm you with a set of tools to facilitate the selection of an appropriate alliance strategy in a given situation; and, (2) to provide you with frameworks to help the initiate and implement different kinds of partnerships. The emphasis lies on strategic and organizational aspects in the formation and management of these transactions, rather than financial considerations. Alternative growth strategies to strategic alliances (e.g., acquisitions), the impact of these partnerships on competition within an industry, and regulatory constraints will also be discussed. In terms of its pedagogical approach, this is designed to be an interactive, applied, case-based course with accompanying conceptual readings to help structure your thinking. Given the nature of the course, we will also apply the lessons from the cases to understand the challenges and implications of relevant recent and on-going deals. In addition, guest speakers with experience in investment banking, consulting, and industry will be invited to share their perspectives. A group project is intended to give you the opportunity to apply your learning from the course to a context that is most interesting and relevant to you.
Not Offered Every Year
Prerequisite: MGMT 6110 OR MGMT 6120
0.5 Course Units
MGMT 7140 Value Creation and Value Capture in American Business History
This course examines how the kind of firms in which most Wharton students will spend the next stage of their careers came to be as they are today. At a superficial level, the course’s objectives are descriptive and narrative. But history, considered thoughtfully and critically, is never just description and a narrative and the course’s deeper purpose is to give students some idea of how to think about the future evolution of firms and industries. In this the course is as much an applied strategy course as it is a historical survey. The course considers the development of the business enterprise as an economic institution. It also covers the evolution of competition and strategy, marketing institutions, some aspects of the history of operations management, and corporate finance. Issues arising in these different management disciplines are considered in part for the purpose of showing off their interrelationships. Questions of how value can be created and captured at the enterprise level form the core of the perspective. The course’s focus is on American developments, since many of the innovations took place here, but there is scope for comparison with Japan and the leading European economies if there is student interest. Chronologically the course runs from Franklin’s days through the early twenty-first century. The individual classes proceed through discussion of actual business decisions and performance in a series of challenging and otherwise interesting moments in the evolution of the American business environment. The materials are unusual for the Wharton School—they are not just often case-like but wherever possible draw on documents contemporary to the decisions such as correspondence, internal memoranda, minutes of meetings, old newspaper and magazine stories, and eyewitness accounts. The objective in this is to give students as minimally mediated access as is feasible to what the embedded actors knew and thought. The materials require thoughtful preparation. Weekly short writing assignments during the first twelve weeks of the term develop students’ skill in turning such preparation into crisp analytical prose. (This will be valuable to most ex-students in the early phases of their post-Wharton careers.) The course as a process is much more focused on the students than many and the most productive experience of it demands that the students both engage with the materials when they prepare and then take an active role in the class discussion. The largest single element in the grading is a substantial term paper on a topic agreeable to both the student and the instructor. (To everyone’s surprise, the lack of easy access Mutually Exclusive: MGMT 2250
1 Course Unit

MGMT 7150 Political Environment of the Multinational Firm
All successful firms go global. This course provides a broad introduction to international business. You will learn about who loses and who gains from trade, what are the effects of tariffs and non-tariff barriers, the World Trade Organization (WTO), regional trading blocs, and NAFTA. The course then turns to the international financial architecture, focusing on exchange rate risk. We then move to multinational firm strategies, including a discussion of the reasons for why firms choose to do business globally through trade or FDI, international tax strategy, joint ventures, technology transfer, different ways to be a multinational firm, and ethical dilemmas. The class is a mix of lectures and cases that allow students to synthesize the extensive materials on multinational management, international institutions, economic policies, and politics with a goal towards formulating multinational firm strategy.
0.5 Course Units

MGMT 7170 Deals: The Economic Structure of Transactions
This course focuses on the role of professionals, including lawyers of all types (corporate, tax, securities, etc.), direct private equity investors, corporate business development officers, and investment bankers, in creating value through transaction engineering. The overall goal of the course is to explore how private parties could order their commercial interactions, to develop a theory of how they ought to do this, and to gain a thorough understanding of how business deals are actually done. The course is offered in springtime terms only. The long first half of the course is devoted to analyzing impediments to transacting, including asymmetric information, exogenous risk and uncertainty, difficulties intrinsic to contracting over time, enforceability, and various forms of strategic behavior, all with a view to understanding the logic of the variety of techniques used to ameliorate them and more broadly to create distributable value through transaction structuring. These Part I classes are accompanied by exercises of various sorts. In the second part of the course, student teams apply the conceptual tools and techniques developed in the first half to analyzing the fine detail of a series of recently completed and interestingly complex transactions. Each team is given access to the original documents implementing their deal. A week of class time is devoted to each transaction. In the first (Monday) session, the student teams present their deal to the class, laying out strategic motivations, analyzing key structuring moves, and exploring the advantages and disadvantages of proceeding in the way the participants did. In the second, on the Wednesday, one or (usually) more of the professionals who worked on it will present the deal from the participant perspective, address the always interesting process questions, and take questions from the class. The requirements for the class are regular attendance, active participation in class discussions, a series of homework assignments and a short individual paper in Part I, the group presentation project and a group memorandum from each deal team on what there was to be learned from the Wednesday presentation their week in Part II, and a six-hour take-home exam.
1 Course Unit

MGMT 7200 Corporate Diplomacy
The share of executives, board members, and investment managers who consider climate risk, racial justice and other ESG issues as well as stakeholder’s opinions of the firm to be material to their business decisions has risen dramatically. If this business case for engagement with stakeholders on ESG issues can be demonstrated to mainstream investors, pools of capital can be mobilized to harness grand societal challenges. However, executives, board members, and investment managers are actually growing less confident in the ESG data available to guide capital allocations and strategic decisions. ESG scores have been demonstrated to be unreliable, incomplete and biased and often lean on outdated and/or incomplete information obtained through voluntary unaudited disclosure. This course provides students the latest tools to assess and map stakeholder opinions as well as integrate them into financial valuation. It also offers behavioral skills critical for stakeholder engagement including trust building, strategic communications and shaping organizational culture. In short, it prepares students to engage in Corporate Diplomacy (i.e., to influence external stakeholders’ opinions of the acceptability of a company’s operations at a moment in time and to convince internal stakeholders to adapt their behaviors, systems and outputs’ when necessary to support an organizational mission).
0.5,1 Course Unit
MGMT 7210 Corporate Development: Mergers and Acquisitions
This interactive, applied, and case-based course explores the various modes of corporate development available to managers to drive firm growth and change, including alliances, outsourcing, corporate venturing, and particularly mergers and acquisitions. The objectives are three-fold: (1) to arm the student with a set of tools to facilitate the selection of the appropriate growth strategy in a given situation; (2) to provide insights as to how to manage partnerships like alliances, outsourcing, and corporate venturing; and, (3) to develop a comprehensive framework for executing M&As, from initiation to implementation. The emphasis is on strategic and operational aspects of these transactions, rather than financial considerations. Please note that you must fulfill the prerequisites in order to enroll in this class.
Fall or Spring
Prerequisite: MGMT 6110 OR MGMT 6120
0.5-1 Course Unit

MGMT 7230 Strategy and Environmental Sustainability
Environmental sustainability issues are one of the defining problems of our time. While governments and NGOs will have to play important roles, without active involvement of businesses it will be impossible to make sufficient progress on these issues. Globalization and Digitization have been two major disruptive developments that organizations have faced (and are still facing). ESG (Environmental, Social, and Governance) issues are the latest large-scale development that will shape companies' futures. This course will focus on the "E" of ESG. As with any large change, environmental sustainability poses significant business challenges but also tremendous opportunities. We will study these issues both from the perspective of incumbent firms that have to adapt their business practices and from firms (incumbents and new start-ups) that will take advantage of the new opportunities that are being created.
0.5-1 Course Unit

MGMT 7290 Intellectual Property Strategy for the Innovation-Driven Enterprise
Announcing the first iPhone at Macworld 2007, Apple CEO Steve Jobs famously boasted: "And boy, have we patented it!" How, and to what extent, do patents and intellectual property really provide competitive advantage for innovative technology companies? What makes an IP asset strategically powerful? How do patents impact, and even drive, major corporate decisions including M&A, venture funding and exits, and entry into new markets? In this course, students will learn to critically analyze and answer these questions, gaining insights they can leverage in their future roles as innovation industry executives, entrepreneurs, strategist and investors. The course includes three major units. In Unit 1, Patents and Innovation Value, we examine closely the relationship between competitive advantage, value proposition, and intellectual property (particularly patents). We will apply our understanding of that relationship to critique and sharpen patent strategy to protect examples of cutting-edge technologies. In Unit 2, Patent Leverage and the Corporate Playbook, we study theory and examples of how intellectual property leverage strategically informs corporate transactions and decisions, for established companies as well as for start-ups. In unit 3, Limits and Alternatives to Patents, we confront the recent legal trend toward reigning in the power and scope of patents. We also consider the growing importance of data as a proprietary technology asset, and discuss options for adapting intellectual property strategy appropriately. Throughout, students will learn and practice applying the concepts we learn to decision-making in examples based on innovative real-world technologies and businesses.
Also Offered As: LGST 7290
0.5 Course Units

MGMT 7310 Technology Strategy
The course is designed to meet the needs of future managers, entrepreneurs, consultants and investors who must analyze and develop business strategies in technology-based industries. The emphasis is on learning conceptual models and frameworks to help navigate the complexity and dynamism in such industries. This is not a course in new product development or in using information technology to improve business processes and offerings. We will take a perspective of both established and emerging firms competing through technological innovations, and study the key strategic drivers of value creation and appropriation in the context of business ecosystems. The course uses a combination of cases, simulation and readings. The cases are drawn primarily from technology-based industries. Note, however, that the case discussions are mainly based on strategic (not technical) issues. Hence, a technical background is not required for fruitful participation.
0.5-1 Course Unit

MGMT 7430 Work and Technology: Choices and Outcomes
This course is situated at the intersection of technological and social/human issues involving work. The first module "Technology and Its Impact on Jobs and Skills" considers the types of technologies whose impact concerns us and probes which deserve the characterization of "revolutionary". We'll examine past anxieties related to automation and evaluate the extent to which the "worst-case" scenarios about, for example, employment loss have or have not come to pass. In the process, we'll sharpen our lens for which technological changes have effects on entire organizations rather than simply individual jobs. The second module "Intelligent Technologies: How Will They Affect Work and Organizations?" explores how these technologies are changing the structure, performance, and experience of work amid changes in how organizations are managing people. We consider how these technologies provide managers new ways to enact control and to induce commitment - and how workers (both employees and contractors) react. In the third module "Technology and Policy" we will examine the ethics of algorithms and artificial intelligence, proposals for a "universal basic income" (UBI) premised on the idea that technological change will lead to an unprecedented amount of job displacement, and the premise that "technology makes us dumber" by taking tasks away that have helped humans maintain a certain level of competence. Take this course to be ready to manage the strategic and analytic issues involving the design and implementation of technology at work - and if you want a glimpse into the future of your own work life. Students will be evaluated on class participation, in-class quizzes, written work and a group assignment.
0.5 Course Units
MGMT 7480 How to Be the Boss
Despite the press accounts about the "gig" economy, the Bureau of Labor Statistics calculates that about 92 percent of the people working in the US are employees who are supervised by someone. That figure has remained roughly the same for decades. The term "supervisor" is sometimes used for the first-level of supervision in an organization, but in fact that role - and indeed the title - goes all the way up to the very top of any employer organization. Even CEO's are the supervisor of their direct reports. When people talk about their "boss," they are almost always referring to the person who supervises them. Supervisors are the central actors in accomplishing work tasks, especially in projects where they also have autonomy over what is done and how it is done. They have an extraordinary amount of power and influence over their direct reports and considerable responsibility toward them. There is considerable truth to the aphorism that people quit bosses, not organizations, as employee dissatisfaction with supervisors rates as one of the leading causes of turnover. There is little doubt that a bad boss can make the life of a subordinate miserable, while a good boss can do the opposite, i.e. improving job design to make work more motivating, providing support during difficult periods of learning new tasks and facing performance pressures, helping chart a career path, and mentoring in organizational realities. Being a supervisor is not the same as leading a team of peers. Supervisors have formal authority over subordinates that we never have with peers. Supervisors also have decisions they cannot delegate, and are personally accountable for them. Stepping into a supervisor position is challenging, especially so when it comes with a promotion in the same organization having to manage direct reports who were peers. In this class, we examine the role of the supervisor and the unique tasks associated with performing that role.
Spring
0.5 Course Units

MGMT 7510 Strategic Management of Human Assets
Successful firms often excel in the capability of employing and deploying human assets (resources) to achieve the effective implementation of business strategy. To understand this capability, this course will address two central themes: 1) How to think systematically and strategically about various aspects of managing the organization's human assets; and 2) What really needs to be done to implement these policies and achieve competitive advantage. In order to think "systematically" about this topic for any particular organization, we will consider the bundles of work practices and human resources processes that make up the overall system for managing people and evaluate whether these are internally consistent and aligned ("internal fit"). To think "strategically," we will then assess the relationship between practices/processes of managing people and the firm's strategy and strategic context, e.g. industry structure, competitive landscape, political, social, and economic environment -- for evidence of external fit. By paying attention to implementation, we will recognize that although many organizations recognize the importance of managing the workforce effectively (and even "know" what approaches have been effective elsewhere), firms and managers very often fail to implement these approaches. The course is organized in four sections: 1) Setting out basic frameworks for viewing the strategic management of human assets as a source of competitive advantage for firms; 2) Comparing and contrasting four different approaches to organizing human assets: "Control", "Commitment" model, "Talent" model, and "Collaborative", 3) Addressing the "make" vs. "buy" decision for human assets, i.e. when to upgrade the internal skills of existing employees (including promotion from within) in order to boost capabilities and compete in new areas vs. when to hire people who already have the necessary skills, via external hires and/or hiring individuals on contract; and 4) Analyzing the relationships among culture, HR systems, and organization change when faced with strategic shifts; leadership crises; rapid growth, and global expansion. The strategic management of human assets is only one source of competitive advantage. Yet many managers recognize (and many successful organizations embody) the reality that the competitive edge gained from the newest technology, the latest marketing strategy, or the most creative product design may be relatively short-lived as competitors rush to imitate and follow. Prerequisite: MGMT 6110 OR MGMT 6120
0.5 Course Units

MGMT 7650 Venture Capital and Entrepreneurial Management: Practices and Institutions of Silicon Valley
This elective half-semester course will highlight venture capital and entrepreneurship in general and will explore selected aspects of this industry, including: industry trends and dynamics in Silicon Valley and the South of Market area (SOMA) of San Francisco; the recent emergence of alternative sources of startup financing, including incubators/accelerators and crowdfunding platforms, angel groups and stage-agnostic institutional investors; business and operational aspects of early stage companies in transition to mezzanine-level stages of growth; and company "exits," including both initial public offerings and merger/sale transactions. MGMT765 and MGMT804 cover separate issues within the same general industry and are not redundant. This course addresses issues faced by later stage VC backed firms, while MGMT804 centers on early stage, pre-revenue startups. It is recommended students take MGMT 801 before enrolling in this course. The format of this course relies heavily on site visits and recognized leaders within the Bay Area to bring forth on-the-ground perspectives of a changing and important industry. While MGMT804 is not a prerequisite, the two courses are complementary.
0.5 Course Units
MGMT 7720 Power and Politics in Organizations

"If you want to test a (person's) character, give (him/her) power." These famous words articulate one of the many tensions of exercising power. Regardless of whether you have an appetite for power or disdain it, power and politics are likely to play an important role in your career. The purpose of this course is to introduce you to concepts that are useful for understanding, analyzing, and developing your political skill. But beyond discovering ways to extend your own power in organizations, we will also uncover lessons about ways in which power and politics can blind you, and how to navigate situations in which you are up against powerful people. Using a range of scholarly articles, cases, exercises, assessments and simulations, we will extract a variety of lessons relevant to your role in organizations. Topics include diagnosing power in organizations, building coalitions, change management, understanding networks, coping with intolerable bosses and incivility, and downsizing. Students will be expected to engage in field research for their coursework and final paper, and the course requires that students submit assignments for almost every class session. Thematically, this course highlights how your relationships with organizational stakeholders and an understanding of the organizational context are crucial to successfully navigating the political terrain of organizations. Organizations are inherently political arenas that require social astuteness, and an understanding of the "rules of the game." This course is designed for students aiming to develop their leadership, general management and career skills through a better understanding of power and politics, and relates to other courses on these topics in the Management department.

0.5 Course Units

MGMT 7730 Managing Organizational Change

This course focuses on the nature and process of organization change, and how to be successful as a leader, implementer, and recipient of change. It emphasizes the forces for change, the change implementation process, the skills of successful change leaders, and the behavioral theories and management practices of how individuals and organizations change. All of this will help you to better diagnose, orchestrate, and implement the change agendas of organizations. After the initial session that introduces many of the topics and discussions of the course, Module 1 presents the foundations of successful transformations. The goal here is for you to get an understanding for how these major types of transformations unfold, how the motivation for change affects the type of transformation, how well the changes were instituted, sources of resistance, and how leaders are involved in the whole endeavor. Module II focuses on applications to learn the ingredients for successful change management and implement concepts from Module I. We will start with a merger integration implementation. Next, you will make a series of decisions to manage recipients of change by focusing on downsizing and privatization. Finally, you will test your implementation acumen in a real world-based simulation. Module III has two parts. The first is designed to expand your insights and apply them to the experiences of early career professionals who initiate, drive, and experience change as members of larger organizations or as startup founders. The course ends on how to build organizations that have the capacity to successfully change. To teach this course I use cases, simulations, and readings that integrate findings from academic research with practitioner experiences and insights. Importantly, the value of the class is maximized when you integrate your own experiences, and I am excited in anticipation of the discussions and debates we will have.

Prerequisite: MGMT 6110 OR MGMT 6120

0.5-1 Course Unit

MGMT 7780 Strategic Implementation

Much more is known about strategy formulation than its implementation, yet valid, sensible strategies often fail because of problems on the implementation side. This course provides you with tools to turn good strategy into successful reality. It covers the choices, structure, and conditions that enable the successful attainment of strategic objectives. Students learn from rigorous academic research on successful implementation, as well as a series of seasoned business leaders who will visit to share their own experience from the front lines.

Prerequisite: MGMT 6110 OR MGMT 6120

0.5-1 Course Unit

MGMT 7840 Managerial Economics and Game Theory

The purpose of this course is to develop students’ abilities to apply game theory to decision making. Development of the tools of game theory and the application of those tools is emphasized. Game theory has become an important tool for managers and consultants in analyzing and implementing tactical as well as strategic actions. This course will primarily focus on examples useful for developing competitive strategy in the private sector (pricing and product strategy, capacity choices, contracting and negotiating, signaling and bluffing, takeover strategy, etc.). Game theory can also be used to address problems relevant to a firm’s organizational strategy (e.g., internal incentives and information flow within a firm) and to a firm’s non-market environment (e.g., strategic trade policies, litigation and regulation strategy). Recommended background in intermediate microeconomics or equivalent. It is expected that the student has been introduced to some basic game theory. There will be a quick review of the basics and some recommended supplemental readings for those who have little or no background in game theory.

Prerequisite: MGE 6110

0.5 Course Units

MGMT 7860 Reforming Mass Incarceration and the Role of Business

This half-semester course introduces current and future leaders to mass incarceration in the U.S., and its effect on employment and entrepreneurship prospects for formerly incarcerated people. We will explore both the challenges of our correctional system as well as potential solutions. For example, over 600,000 people return home from U.S. prisons each year. For most, the return is short-lived as two-thirds are re-incarcerated within three years of release. We will consider many of the reasons why this occurs, including research indicating that the lack of employment opportunities is a major contributor. We will also hear from those directly impacted by the justice system. By the end of the course, you will be among the more educated leaders not just on mass incarceration, but on how to think about ways that the business community can contribute to the success of those impacted by the criminal justice system. This course will also serve as a prerequisite for a follow-up experiential course where we will teach business skills and financial acumen justice-impacted people, as well as help with their employment and entrepreneurship opportunities.

0.5-1 Course Unit
MGMT 7870 Global Management of Digital Businesses
Digital businesses enable users to communicate, interact, share, and engage in transactions. They enable individuals to shop, work, play, and learn, and they offer companies new ways of organizing their value chains, reaching customers, collecting and analyzing information, and creating value. This half-semester, 0.5-cu class deals with the international expansion of businesses through the use of digital technologies. The focus is on the tension between the eminent scalability facilitated by digital technologies and the ruggedness of the international landscape, shaped as it is by demographics, consumer preferences, culture, regulatory structures, and network effects operating at the local, national, regional, and global levels. The class covers both companies launched as digital businesses and traditional companies undergoing a digital transformation. Topics include industry dynamics, the impact of network effects, the sequence of foreign market entry, regulatory risk, strategic interaction, and global versus local strategies for both new digital businesses and established firms undergoing digital transformation. While there are no specific requirements, knowledge of the fundamental concepts of competitive strategy and global strategy is essential to follow this class. Students will learn through interactive class discussions, team-based exercises, and self-made short videos to pitch novel new ideas about digital businesses.

0.5-1 Course Unit

MGMT 7880 Managing and Competing in China
The business environment in China is characterized by both uncertainty and complexity. On the one hand, it is changing fast; on the other hand, it is influenced by deep-rooted political, economic, and cultural forces that exhibit tremendous inertia. This course will help students--as potential managers, entrepreneurs, and investors--gain the knowledge and analytical skills necessary to compete effectively in China. We will discuss various types of firms in the Chinese economy--from large state-owned enterprises (SOEs) to newly minted Internet giants, from prominent multinational companies (MNCs) to virtually anonymous local suppliers--and the unique institutions in which these firms operate. Such discussions will also help managers whose firms compete or collaborate with Chinese firms on the global stage. We will use a combination of lectures, cases, debates, and role play in class. You will also have the opportunity to apply your learning to real business scenarios.

Mutually Exclusive: MGMT 2880

1 Course Unit

MGMT 7930 People Analytics
This course examines the use of data to improve how people are managed within organizations. Recent years have seen a growing movement to bring more science to how we manage people. In some cases, that means ensuring that whatever practices and approaches we adopt are backed up by solid evidence as to their effectiveness. Often, organizations will seek to go further, analyzing their own data to identify problems and learn what is working and what is not in their own context. This course applies the insights of the people analytics movement to help students become better managers and more critical analysts within their organizations. The course aims to develop students in three specific ways. First, it provides students with an up-to-the-minute grounding in current evidence about managing people, providing a knowledge base that can ensure that their future management is guided by best practices. Second, it develops the skills and understanding necessary to be thoughtful, critical consumers of evidence on people management, allowing them to make the most of the analysis available to them as they make people decisions. Third, it provides guidance and practice in conducting people analytics, preparing students to gather data of their own, and making them more skilled analysts. The course addresses these topics through a mixture of lecture, case discussion, and hands on exploration of a variety of data sets.

Also Offered As: OIDD 7930

0.5 Course Units

MGMT 7940 Understanding Careers and Executive Labor Markets
This course examines the structure of executive careers in order to help understand how those careers can be managed most effectively. By drawing on extensive economic, sociological and psychological research on careers, we will examine such questions as when executives should move on to the next job or even change fields altogether, and what are effective means of finding jobs, achieving promotions, managing networks, and achieving work-life balance. The first few sessions of the course explore the basic building blocks of the career, outlining our knowledge on the different orientations that individuals take to their careers, how approaches to the career change as people get older, and how different kinds of job moves within and across firms advance careers. The second part of the course explores in more detail the social resources that affect careers, notably social networks and relationships with mentors. The third section of the course then examines a number of the most important and difficult issues affecting modern careers, including making successful transitions, the effects of gender on careers, work life balance, and international careers.

0.5 Course Units
**MGMT 7980 Managing and Motivating Talent**

People are the most valuable asset of any business, but they are also the most unpredictable, and the most difficult, asset to manage. And although managing people well is critical to the health of any organization, most managers don’t get the training they need to make good management decisions. Now, award-winning authors and renowned management Professors Mike Useem and Peter Cappelli of the Wharton School have designed this course to introduce you to the key elements of managing people. Based on their popular course at Wharton, this course will teach you how to motivate individual performance and design reward systems, how to design jobs and organize work for high performance, how to make good and timely management decisions, and how to design and change the organization’s architecture. By the end of this course, you’ll have developed the skills you need to start motivating, organizing, and rewarding people in your organization so that you can thrive as a business and as a social organization. This course can also only be applied towards unrestricted electives at the undergraduate level. Mutually Exclusive: MGMT 3980

0.25 Course Units

**MGMT 7990 Special Topics in MGMT**

Courses offered of various topics and points of focus, ranging across multiple concentrations of Management, (i.e., Entrepreneurial, Strategy, Organizational Business, etc.).

Mutually Exclusive: MGMT 1980

0.25-1 Course Unit

**MGMT 8010 Entrepreneurship**

MGMT 801 is the foundation course in the Entrepreneurial Management program. The purpose of this course is to explore the many dimensions of new venture creation and growth. While most of the examples in class will be drawn from new venture formation, the principles also apply to entrepreneurship in corporate settings and to non-profit entrepreneurship. We will be concerned with content and process questions as well as with formulation and implementation issues that relate to conceptualizing, developing, and managing successful new ventures. The emphasis in this course is on applying and synthesizing concepts and techniques from functional areas of strategic management, finance, accounting, managerial economics, marketing, operations management, and organizational behavior in the context of new venture development. The class serves as both a stand alone class and as a preparatory course to those interested in writing and venture implementation (the subject of the semester-long course, MGMT 806). Format: Lectures and case discussions

0.5 Course Units

**MGMT 8020 Change, Innovation & Entrepreneurship**

Designed for students with a serious interest in entrepreneurship, this course will provide you with an advanced theoretical foundation and a set of practical tools for the management of startups and entrepreneurial teams in fast-changing and innovative environments. Building on the skills of MGMT 801, every class session is built around an experience where you have to put learning into practice, including the award-winning Looking Glass entrepreneurial simulation, role-playing exercises, and a variety of other games and simulations. The goal is to constantly challenge you to deal with entrepreneurial or innovative experiences, as you learn to navigate complex and changing environments on the fly, applying what you learned to a variety of scenarios. MGMT 802 is built to be challenging and will require a desire to deal with ambiguous and shifting circumstances. It is recommended students take MGMT 801 before enrolling in this course. Format: Lectures, discussion, interim reports, class participation, readings report, and presentations, and an innovation assessment in PowerPoint format.

0.5 Course Units

**MGMT 8040 Venture Capital and Entrepreneurial Management**

This elective half-semester course focuses on venture capital management issues in the context of the typical high-growth potential early stage start-up company. The course is fundamentally pragmatic in its outlook. It will cover seven principal areas relevant to the privately held high-growth start-up which include: commentary on the venture capital industry generally, as well as a discussion of the typical venture fund structure and related venture capital objectives and investment strategies; common organizational issues encountered in the formation of a venture backed start-up, including issues relating to initial capitalization, intellectual property and early stage equity arrangements; valuation methodologies that form the basis of the negotiation between the entrepreneur and the venture capitalist in anticipation of a venture investment; the challenges of fundraising, financing strategies and the importance of the business plan and the typical dynamics that play out between VC and entrepreneur. It is recommended students take MGMT 801 before enrolling in this course. Typical investment terms found in the term sheet and the dynamics of negotiation between the entrepreneur and the venture capitalist; compensation practices in a venture capital backed company; and corporate governance in the context of a privately-held, venture capital-backed start-up company and the typical dynamics that play out between VC and entrepreneur in an insider-led, "down round" financing.

0.5 Course Units
MGMT 8060 Venture Implementation
This advanced course on entrepreneurship focuses on developing a validated opportunity or concept into a venture that is ready for seed financing and/or launching the product or service. Participants in this course must previously have developed a validated opportunity, either in a previous course or through independent efforts. Students may participate as a team of up to three people. Ideally, participants are committed to pursuing their opportunity commercially, or at least to seriously explore that possibility. The course provides a practical guidance for developing the product or service, forming the entity, raising capital to build the team, establishing partnerships, and sourcing professional services. After completing the course, you will be "pitch ready" - whether submitting to campus venture competitions or to outside investors. Most coursework is focused on applying concepts and frameworks to project tasks in developing the venture. Students must have successfully completed MGMT 8010 before enrolling in this course (or obtain the permission of the instructor). Format: Highly interactive Requirements: Class participation, interim assignments.
Prerequisite: MGMT 8010
0.5-1 Course Unit

MGMT 8090 Private Equity in Emerging Markets
This course investigates the private equity industry in emerging markets. The goal of the course is to give students a realistic understanding of the roles, responsibilities and analytical skills required of market practitioners, as well as the tensions that arise between various stakeholders, including government officials, investors, entrepreneurs and the press. The underlying premise is that the basic rules for private equity in those countries are similar to the rules in more industrialized countries, but market participants face a broader range of issues in areas such as valuations, governance, legal structures, contract enforcement and regulatory transparency. To provide students with a practical grasp of the issues, classes will be a mix of lectures, expert guest speakers and business cases. Cases will highlight the challenges and tasks at each stage of the investment cycle, such as structuring and launching a new fund, originating new deals, conducting due diligence, creating value, monitoring the performance of portfolio companies and exiting. Each class will focus on a specific topic, ranging from the basics of how and why private equity funds operate to complex issues such as fund governance and adding value to family firms.
Prerequisite: FNCE 6110
0.5 Course Units

MGMT 8110 Entrepreneurship Through Acquisition
MGMT 811 focuses on the theoretical, strategic, analytics, and practical issues of acquiring a business. Topics include: locating a business, due diligence, reviewing and analyzing data, valuing, raising capital/financing the deal, search funds, structuring the acquisition, letters of intent, contracts/asset purchase agreements, integrating the target, acquisition growth strategies, and transitioning/exiting the acquisition. Format: The class consists of lectures, in-class discussions of cases, assigned readings, homework problems, case studies, and a group or individual project. It is recommended students take MGMT 801 before enrolling in this course.
0.5 Course Units

MGMT 8120 Social Entrepreneurship
This is a course on creating a business to attack a social problem and thereby accomplish both social impact and financial sustainability. For this course, social entrepreneurship is defined as entrepreneurship used to profitably confront social problems. This definition therefore views social entrepreneurship as a distinct alternative to public sector initiatives. The basic thesis is that many social problems, if looked at through an entrepreneurial lens, create opportunity for someone to launch a venture that generates profits by alleviating that social problem. This sets in motion a virtuous cycle - the entrepreneur is incented to generate more profits and in so doing, the more the profits made, the more the problem is alleviated. Even if it is not possible to eventually create a profit-making enterprise, the process of striving to do so can lead to a resource-lean not-for-profit entity. Creating a profitable social entrepreneurship venture is by no means a simple challenge. Cross-listed with MGMT 212.
Fall
Mutually Exclusive: MGMT 2120
0.5 Course Units

MGMT 8140 Search Fund Entrepreneurship
The objective of this course is to study the path to entrepreneurship through the acquisition of an existing operating business using the Search Fund private equity model. We will study the process through a series of lectures, guest presentations, assigned readings, case studies, and a final project.
0.5-1 Course Unit

MGMT 8150 Sports Business Management
This course examines various business disciplines as they apply to the sports industry. The course provides the student with an overview of the business of the intercollegiate, Olympic and professional sports enterprises. In addition, the course investigates the business related issues encountered by managers of sports organizations and covers how business principles can be applied to effectively address these issues. This course is crosslisted with MGMT8150.
Fall or Spring
Also Offered As: LGST 8090
0.5,1 Course Unit

MGMT 8160 Building Human Assets in Entrepreneurial Ventures
The success of entrepreneurial endeavors depends, even more so than in larger more bureaucratic organizations, on the ability to locate and manage talent effectively. Specifically, on the need to find the right people and keep them engaged in working on the organization's goals. We focus in this course on leading, building, and maintaining human assets in start-up and small, growing operations. The course is designed with several key components, these are: conceptual and practical readings relevant to the topic; case studies illustrating key concepts and issues; lecture on practical application and examples; and lastly every class will also feature a presentation by and conversation with an outside expert whose work is relevant to guiding or advising start-ups and fast-growing small firms. We will focus on the following objectives: identifying the talent needed to initiate and sustain an entrepreneurial endeavor; structuring human resource policies and corporate culture to prepare for and facilitate firm growth; assessing the human assets of valuing entrepreneurial companies; and responding to conflict and organizational threats within nascent firms. This course will apply recent research from strategic human resource management, personnel economics and organizational behavior to the practical issues of building and managing human assets in new ventures.
0.5 Course Units
MGMT 8170 Global Growth of Emerging Firms
Emerging firms are a critical element of economic growth, and a key source of gains in innovation and social welfare. This course is designed to depart from the U.S.-centric conversation on startups - with its outsized focus on Silicon Valley - and train a critical eye on some of the unique innovations emerging from new regional hotspots across the globe, with a particular focus on developing and emerging economies. We will discuss the challenges faced by founders in different global contexts, the components of a robust institutional ecosystem, and the ways in which creative solutions may flourish in response to local problems. Along the way, students will gain a virtual view into global startup communities, and personalized insights from firm founders operating around the world - from Bogota to Nairobi to Jakarta. The course will be structured in three primary parts. The first and longest section will discuss the Key Challenges for emerging firm growth across the globe, such as access to talent and resources, political risk, and legal institutions. The second section will highlight particularly active areas of Context-Driven Innovation that are thriving in various regions, such as financial technology, mobile health products, and clean energy. The final section will train Regional Spotlights on different geographic areas in turn, so that we may focus on the challenges and opportunities specific to various parts of the world. This course is relevant to both U.S. and non-U.S. students, and it is expected that students will bring their own backgrounds and experiences to contribute to lively class discussions. The course will culminate with a group project done in teams of four, in which groups will give short presentations to the class.
Fall or Spring
1 Course Unit

MGMT 8310 Entrepreneurship Launchpad
This advanced course on entrepreneurship focuses on taking your venture from a good idea to a fundable business. Participants need to come to the class with a validated idea that they are committed to pursuing commercially. The course is entirely oriented toward applying concepts and frameworks to advance your venture and provides practical guidance for testing the product or service, forming the entity, establishing partnerships, and engaging with investors. Students must have successfully completed MGMT 801 before enrolling (or obtain the permission of the instructor). Format: Highly interactive Requirements: Class participation, interim assignments.
Mutually Exclusive: MGMT 2310
Prerequisite: MGMT 8010
0.5-1 Course Unit

MGMT 8320 Business Model Innovation Strategy
Business Model Innovation Strategy is a half-semester MBA elective course which centers on the conceptualization, design, analysis and implementation of novel business models by incumbent and by new venture leaders as well as on the organizational challenges associated with a business model innovation strategy. Students will be introduced to a framework for developing and implementing a new business model. The framework will be brought to life through a combination of lectures, in-class exercises, numerous illustrations and case discussions.
Fall
Mutually Exclusive: MGMT 2320
0.5 Course Units

MGMT 8330 Strategies and Practices of Family-controlled Companies
This course is designed for those persons who desire to understand the distinct strategies and practices of family-controlled companies and family wealth creation. It will focus on stakeholder decision making; financial and resource driven options for long-run competitiveness, organizational structures, management team issues; strategic planning from a resource-based perspective; transition planning for the corporate entity, family dynamics, communication issues; and leadership empowerment. The course is intended for those who plan to consult or provide professional services to family-controlled companies and for those planning a career in a family firm. The class is structured around topical lectures with frequent utilization of case studies requiring active class participation, as well as on-site and off-site project work time. Submission of several written case studies, and a term project are required. Open to Wharton MBA and Penn graduate students.
Mutually Exclusive: MGMT 2330
1 Course Unit

MGMT 8710 Advanced Global Strategy
This class is designed to develop world class, globally-minded managers. Many of the most important business issues of today are global in nature. Both "macro" phenomena (e.g. nationalism, protectionism, demographic change) and "micro" trends (e.g. competition within and from emerging markets, distributed talent and innovation, digitization and automation) are inherently international issues. They require firms and managers to think, innovate, and organize globally. This class offers a comprehensive set of tools to evaluate opportunities and challenges in global markets, to leverage cross-country differences to enhance innovation and performance, to manage the complexities of a business spread across multiple countries, and to win against foreign rivals. The course will focus on both the formulation and execution of global strategy, with a heavy emphasis on current events and hands on activities. Sample topics include: quantifying opportunities and risks of foreign investments; formulating and executing strategies that balance local responsiveness, global efficiency, and innovation; exploiting differences across countries to enhance innovation while protecting intellectual property; managing organizational structure, culture, and people in multinational organizations; structuring and managing cross-national and cross-cultural teams; developing a global mindset among managers and employees. This course builds on the global management portion of MGMT 611 or MGMT 612, but taking those classes is not a prerequisite for MGMT 871.
Fall
0.5-1 Course Unit
MGMT 8750 Comparative Capitalism
While we often debate capitalism as a system, the nature of capitalist economies differ from country to country and rarely match up to the ideal. Why do these differences arise? Is there a pure form of capitalism? What is the nature of capitalism in advanced and emerging economies? Why are capitalist economies often embedded in other social systems? Why do some economies grow faster than others? How do international institutions and interdependencies affect national capitalist institutions? How are the strategies of multinational corporations (MNCs) influenced by their country of origin? And how is the nature of capitalism changing today? This course provides insight into these questions as it explores the nature of capitalism around the world, with specific reference to Brazil, Russia, Ukraine, China, Hungary, Nigeria, South Africa, Singapore, Israel, Argentina, and the advanced OECD countries. Students will leave this class with understanding key differences in how capitalist economies are organized and competition over the future of the world economy.
Mutually Exclusive: MGMT 2750
1 Course Unit

MGMT 8880 Venture Acceleration Lab
This Lab emphasizes experiential learning in evaluating and contributing to "live" startup ventures. The goal of the Lab is to accelerate the development of ventures by providing a structured curricular setting in which mentors with industry expertise as operators and investors provide guidance to full-time venture founders. Undergraduate and MBA students learn through witnessing these interactions and through helping ventures structure their value creation and capture strategies. The latter is facilitated via instructor-led classes on focused venture development concepts. This unique Lab therefore brings together communities which rarely mix: startup founders, enrolled students as potential venture "joiners" and consultants, venture mentors, and technical/academic specialists.
Mutually Exclusive: MGMT 3880
1 Course Unit

MGMT 8900 Advanced Study-Ind
Fall or Spring
0.5-1 Course Unit

MGMT 8910 Advanced Study Project - Strategic Management
Fall or Spring
Mutually Exclusive: MGMT 3910
0.25-1 Course Unit

MGMT 8920 Advanced Study Project - Collaborative Innovation Program
Business success is increasingly driven by a firm's ability to create and capture value through innovation. Thus, the processes used by firms to develop innovations, the choices they make regarding how to commercialize their innovations, the changes they make to their business models to adapt to the dynamic environment, and the strategies they use to position and build a dominate competitive position are important issues facing firms. In MGMT. 892, you will learn to address these issues through an action learning approach. MGMT. 892 is a 1.0-credit course conducted in the spirit of an independent study. By working on consulting projects for leading global companies, you will develop and then apply your knowledge about innovation management and help these firms better understand the challenges and opportunities posed by emerging technologies and markets.
0.5-1 Course Unit

MGMT 8930 Advanced Study Project for Entrepreneurial Management
0.5-1 Course Unit

MGMT 8940 Advanced Study Project - Multinational Management
ASP topics can be individually selected by the student with the advice and consent of any instructor in the management Department. All ASP registrations require the written consent of the instructor and appropriate course and section number on the registration form. If the student has the instructor's written permission, he/she is not required to obtain written consent from the Department. Students, however, should send an email to MGMT-Courseinfo@wharton.upenn.edu to request the course and section numbers
0.25-1 Course Unit

MGMT 8960 Decision Making in the Leadership Chair
Contact the Management Department for additional information at: Courseinfo@wharton.upenn.edu. Decision making in the leadership chair is a complex task and one that is difficult to teach in a business school setting. To bridge this gap, Mr. William P. Lauder and invited executives will bring their experiences into the classroom, primarily addressing key decision they made, how they weighed their options, and what they learned from the outcomes. The framework for the class centers around two crucial aspects of decision making in the leadership chair: the need to manage many groups of stakeholders, and the need to play many roles when doing this. This course is by application only to second-year Wharton MBAs and a maximum of 48 students will be selected. A communication will be sent regarding the application details.
0.5 Course Units

MGMT 8970 Global Modular Course A
Special course arranged for Wharton MBA students, focused on global business, management and innovation.
Mutually Exclusive: WH 2120
0.5 Course Units

MGMT 8980 Global Modular Course B
removing WH 898 as erroneous crosslist.
0.5 Course Units

MGMT 9000 Economic Foundations of Management
This course examines some of the central questions in management with economic approaches as a starting point, but with an eye to links to behavioral perspectives on these same questions. Economics concerns itself with goal directed behavior of individuals interacting in a competitive context. We adopt that general orientation but recognize that goal directed action need not take the form of maximizing behavior, particularly for organizations comprised of individuals with possibly divergent interests and distinct sub-goals. Further, we treat competitive processes as playing out over meaningful periods of calendar time and, in general, not equilibrating instantaneously. A central property of firms, as with any organization, is the interdependent nature of activity within them. Thus, understanding firms as "systems" is quite important, a perspective which has important implications for understanding processes of organizational adaptation. Among the sorts of questions we explore are the following: What underlies a firm's capabilities? How does individual knowledge aggregate to form collective capabilities? What do these perspectives on firms say about the scope of a firm's activities, both horizontally (diversification) and vertically (buy-supply relationships)? As a "foundations" course, readings will cover key conceptual foundations, but also provide an arc to current work — an "arc" that will be developed more fully in our in-class discussions.
Fall
0.5 Course Units
**MGMT 9180 Personnel Economics A**

This is a half-semester PhD course in the Management Department that is also open to any current PhD students at Wharton. The canonical model in economics views an agent as a fully rational, atomistic individual making optimal choices under scarcity. This approach has been very powerful theoretically and empirically to explain and to predict behavior in the workplace. This model has also been enriched to accommodate other phenomena arguably affecting behavior in the workplace like the social context (e.g. peer effects, altruism, or social comparison), non-standard time preferences, loss aversion, and cognitive costs. Incorporating these ideas into the standard model can be accomplished in various ways but the real stress test for these theories is whether they predict behavior more generally (i.e. we don’t just use theory to explain one choice but choices more generally) and to generate empirical predictions that can be tested using experiments. In this mini-course we start-off with a tour de force of the fundamental principal-agent model and the various behavioral extensions. The core of the course is, however, not theoretical but a practical course on how to design field experiments to test these ideas.

0.5 Course Units

**MGMT 9190 Personnel Economics B**

This is a half-semester PhD course in the Management Department that is also open to any current PhD students at Wharton. It is a continuation and builds on MGMT 918 - please see the course description for MGMT 918. As in MGMT 918 we expand on the canonical model in economics and introduce views from behavioral economics and introduce views from behavioral economics to derive novel theories with empirically testable implications on workplace behavior and individual performance in labor markets and health. In this mini-course the focus is on continuing our review of the literature but the primary aim is to work towards a project description and paper that can be developed into a PhD chapter or journal article.

0.5 Course Units

**MGMT 9200 Seminar in Human Resources Research**

The class is organized around understanding labor and work. For management students trained in social science disciplines, there is a considerable gap between what we can learn about the workplace from economics, which relies on markets and incentives for its explanations, and psychology, which relies on dispositional attributes and social interactions. Managing people is arguably the biggest topic in the social sciences each with its own subgroups: labor economists in economics, I/O and personnel psychologists in psychology and organizational behavior researchers use the workplace as their central research context, work and occupations and career students in sociology. For the most part, these fields talk past each other and are largely unaware of what the others are doing. We try to bridge that gap a bit in this class, although by no means do we attempt to span the range of topics represented across these quite different fields. In most contexts, the employer has considerable discretion as to the arrangements that are chosen for influencing the behavior of workers and, in turn, their outcomes and subsequent attitudes. The management practices they choose are our main focus. They drive many of the most important outcomes in society - who gets access to the most important and powerful jobs, how much income will people have and how it is distributed, whether and to what extent we have control over our lives at work, and so forth. Most of the attention still goes to employment, but it is not the only arrangement for doing work, though. We consider others, especially various forms of contracting and the gig work organized around electronic platforms. To the extent that there is a common conceptual orientation across the class, it is analysis at the organization-level, typically used for independent variables although often for outcomes and dependent variables as well, and power as a mechanism. Many of the most important and exciting topics in public discourse are in our focus, from remote work to gig work to the influence of artificial intelligence. The range of new issues to explore is enormous. A caveat: the phrase “human resources” is a contemporary business term that began as a description of the set of management practices coming out of the “great corporations” and the lifetime employment model for managing non-union employees. Many of these are within the domain of I/O and personnel psychology, such as employee selection tests, succession planning exercises, and so forth. The use of these practices has declined dramatically and are now only one approach to addressing the practical problems that lie ahead.

0.5 Course Units

**MGMT 9250 Seminar in Corporate Strategy**

This course explores current research on corporate strategy. Over the past two decades, research in the area of corporate strategy has evolved considerably. The fundamental focus of the field has been on sources of competitive advantage at the of the firm, and the process of building and maintaining competitive advantage. In this class, we explore current research articles that best represent the development of rent-generating resources at the level of the firm. Topics addressed include the concept of strategy, research on the evolution of firm capabilities, competitive interaction, top management teams and strategy formation, and changes in firm scope through acquisitions, divestitures and alliances.

Spring

0.5 Course Units
MGMT 9260 Seminar in Strategy and Organization Design
This half-semester course examines one of the foundational questions in strategy: the role of organizational structure in both supporting and shaping strategy. As Winston Churchill famously said: "We shape our buildings, and afterwards our buildings shape us." This course examines this proposition from two traditions, the "institutional economics" and "information processing" schools of organizational design. We will examine foundational works from both schools, such as Coase, Williamson, Simon, March, and others, and then proceed to recent work in the area. Some of the questions that we will explore in the class are: why do firms exist? What determines their boundaries? What determines formal and informal structures within firms? How does the strategic context shape the answers to these questions? How might the nature of the firm and its boundaries relate to innovation, human capital, and knowledge creation? The aim of this class is to provide students with a grounding in the fundamental questions and contributions in this area, and to spark ideas for research in their own graduate work. 0.5 Course Units

MGMT 9270 Technology & Innovation Strategy
This quarter-length doctoral seminar deals with major streams of management research in technology strategy and innovation. We will focus on both classical topics such as incumbents’ management of technological change and industry evolution, and new emergent topics such as ecosystems and platforms. The emphasis will be on understanding the link between technologies and firms in terms of both strategy choices and performance outcomes. 0.5 Course Units

MGMT 9320 Proseminar in Management in Qualitative Methods
This course is designed to provide students with an understanding of the methodological approaches we commonly think of as qualitative, with special emphasis on ethnography, semi-structured interviews, case studies, content analysis, and mixed-methods research. The course will cover the basic techniques for collecting, interpreting, and analyzing qualitative (i.e. non-numerical) data. In the spring quarter, the course will operate on two interrelated dimensions, one focused on the theoretical approaches to various types of qualitative research, the other focused on the practical techniques of data collection, such as identifying key informants, selecting respondents, collecting field notes and conducting interviews. In the fall semester, the course will operate on two interrelated dimensions, one focused on the theoretical approaches on building arguments and theory from qualitative data, the other focused on the practical techniques of data collection, such as analyzing data, writing, and presenting findings. Note: This class is part of a two-part sequence which focuses on qualitative data collection and analysis. The first of this course, offered in the Spring, focuses on data collection and the second half of the course, offered the following Fall, will focus on qualitative data analysis. Each course is seven weeks long. Students may take either class independently or consecutively. Two Term Class, Student may enter either term; credit given for either Also Offered As: SOCI 9320 0.5 Course Units

MGMT 9330 Psychological Foundations of Research in Management
This seminar-based course, with active discussion and analysis, is required of all first-year doctoral students in Management and open to other Penn students with instructor permission. The purpose of this course is to examine and understand basics in the theory and empirical research in the field of micro organizational behavior and to build an understanding of people’s behavior in organizations and across organizations. The course covers a blend of classic and contemporary literature so that we can appreciate the prevailing theories and findings in various areas of organizational behavior. This course covers micro-organizational behavior, focused on topics such as influence/status, virtual teams, job design, organizational culture and socialization, identity in organizations and overall look on where the field of micro-organizational behavior is going. Fall or Spring 0.5 Course Units

MGMT 9340 Foundations of Organizational Theory
This seminar-based course, with active discussion and analysis, is required of all first-year doctoral students in Management and open to other Penn students with instructor permission. The purpose of this course is to examine and understand basics in the theory and empirical research in the field of macro organizational behavior and to build an understanding of people's behavior in organizations and across organizations. The course covers a blend of classic and contemporary literature so that we can appreciate the prevailing theories and findings in various areas of organizational behavior. This course covers macro-organizational behavior, covering the topics of organizational ecology, institutional theory, organizational status and reputation, impression management, social networks and social movements. Fall 0.5 Course Units

MGMT 9350 Network Theory and Applications
This course explores network models and their applications to organizational phenomena. By examining the structure of relations among actors, network approaches seek to explain variations in beliefs, behaviors, and outcomes. The beauty of network analysis is its underlying mathematical nature - network ideas and measures, in some cases, apply equally well at micro and macro levels of analysis. Therefore, we read and discuss articles both at the micro level (where the network actors are individuals within organizations) and at the macro level (where the network actors are organizations within larger communities) that utilize antecedents or consequences of network constructs such as small worlds, cohesion, structural equivalence, centrality, and autonomy. We begin by examining the classic problem of contagion of information and behaviors across networks, and follow by considering the various underlying models of network structure that might underlie contagion and other processes The next two sessions address a variety of mechanisms by which an actor’s position in a network affects its behavior or performance. Then, the following two sessions address antecedents of network ties via the topics of network evolution and network activation. We close with a “grab bag” session of articles chosen to match class interests. 0.5 Course Units
MGMT 9370 Entrepreneurship Research Seminar
The seminar seeks to expose students to theoretical and empirical perspectives on entrepreneurship research. We will focus on the main questions that define the field and attempt to critically examine how, using a range of methodologies, researchers have approached these questions. As we review the literature, we will seek to identify promising research areas, which may be of interest to you in the context of your dissertation research. In addition to addressing the content of the received literature, we will examine the process of crafting research papers and getting them published in top-tier journals. Towards that end we will characterize the key elements of high-impact papers and review the development process of such studies. Students are expected to come fully prepared to discuss and critique the readings that are assigned to each class meeting (see details below). Each student will serve as the discussion leader for one or more of the class sessions. Discussion leaders are expected to critically review several articles, identify new insights in the research that is being reviewed and evaluate its contribution to the literature, position the articles within the literature on the subject matter, raise discussion questions, and act as the discussion moderator for the class session. Each discussion leader is asked to prepare a one or two-page summary of the assigned papers which includes a statement of the main research question(s), the methodology, data set if any, summary of findings, a commentary with your thoughts on the reading, and proposed discussion questions. Prior to each class, the discussion leader will meet the instructor to help plan the class meeting. Towards the end of each class meeting, each student will be asked to articulate a research question that emerged from the session and describe the research design used to investigate the issue.
0.5 Course Units

MGMT 9380 Seminar in Social Entrepreneurship
This half-semester course examines how social enterprise organizations emerge, attract resources, and affect society. The course will bridge micro and macro theoretical perspectives to provide insight into the unique challenges faced by social enterprises, while also showing how the study of such organizations can help to advance mainstream entrepreneurship research. Individual sessions will focus on defining social entrepreneurship, the tensions and tradeoffs that emerge in organizations that pursue social and financial goals, impact investing and other sources of finance, and the role of incubators/accelerators in supporting the development of these organizations. This is a seminar-based course with active discussion and analysis.
0.5 Course Units

MGMT 9390 Seminar in Entrepreneurial Innovation
This quarter-length course explores key topics at the intersection of entrepreneurship and innovation. While the course primarily draws from established theory and empirics from management and economics, it will also include discussions of emerging phenomena in this rapidly evolving field. We will begin by reviewing the basic properties of ideas that uniquely shape the sources and dynamics of entrepreneurship and innovation. Subsequently, we will explore innovation-related challenges and opportunities for startups. Special focus will be placed on research application in which students design and present their own research proposal broadly in the area of entrepreneurship and innovation. Students are highly encouraged to take this course in sequence with MGMT 937.
0.5 Course Units

MGMT 9510 Special Topics in OB: Theories and Methods
The purpose of this half-semester course is to examine and understand theory and empirical research in the field of micro-organizational behavior to build an understanding of people’s behavior in organizations. The course covers a blend of classic and contemporary literature to appreciate the prevailing theories and findings in various areas of micro-organizational behavior. We will cover topics such as identity, diversity/inclusion, work design/proactivity, extra-role behaviors, behavioral ethics/organizational justice, and an overall look at where the field of micro-organizational behavior is heading. This is a seminar-based course with active discussion and analysis.
0.5 Course Units

MGMT 9520 Seminar in Macro-Organizational Behavior
Organizations are ubiquitous, and so is organization. This half-semester course explores organization theory (OT) from the 1960s through the end of the 20th century. We will examine the proliferation of organizational theories during this time period (such as contingency theory, resource dependence theory, ecological theory, and institutional theory) and understand how each theory attempts to relate structure and action over varying levels of analysis. We will determine one or two additional schools to add once we discuss your exposure in other management classes to other potential topics such as behavioral decision theory, sense-making and cognition, organizational economics, corporate governance, social networks, and the like.
0.5 Course Units

MGMT 9530 Seminar in Research Design
This is an introductory doctoral seminar on research methods in management. The course is designed to help you define your research interests, to strengthen your grasp of research design choices and standards, and to move you further along on the path to becoming a skilled, accomplished, engaged, and independent research scholar. We will read about, discuss, and in some cases practice: framing of research questions, writing for publication, defining and meeting research standards, and conducting experimental, archival, survey-based, and qualitative research suitable for publication in top-tier management journals.
0.5 Course Units

MGMT 9550 Foundations of Multinational Management
The goal of the course is to provide you with a foundation in some of the major research areas that underpin the study of Multinational Management. International Business (and the study of MNCs) is an interdisciplinary field. As such, our survey of the seminal articles in the field will span a number of different theoretical and empirical approaches (i.e., economic, managerial, organizational and institutional). Much of our seminar discussions will focus on identifying and developing interesting research questions raised by this interdisciplinary literature, which offers many opportunities for systematic empirical study.
0.5 Course Units
MGMT 9570 Applied Research Methods and Data Analysis in Organizational Behavior
This is a half semester course where we review and apply fundamental lessons related to empirical research (both methods and analyses) in organizational behavior. The course will focus primarily on quantitative research. We will begin by covering the link between theory and empirics as well as core concepts in methods and statistics, including causality, validity, reliability, and statistical power. We will then shift to research methods, including design, sampling, pre-registration, and data collection. A key focus will be on maximizing different forms of validity, with an emphasis on multi-method research designs. Finally, we will consider a variety of the most important analytical approaches in organizational behavior, including regression, structural equation modeling, and multi-level analyses. This is an applied methods course, which means that we will be applying the lessons directly by using statistical software to compile and analyze datasets. The course will introduce you to the broad array of methods and analyses that OB scholars are expected to master in order to consistently publish in the field's top journals.
0.5 Course Units

MGMT 9600 Non-Market Strategy
This course builds on the foundational material presented in MGMT 955 with a deeper focus on current research examining institutional influences on multinational management. These include regulative supports (e.g., laws, regulations, contracts and their enforcement through litigation, arbitration of incentive compatible self-regulation) but also normative (e.g., socially shared expectations of appropriate behavior, and social exchange processes) and cognitive (e.g., creating shared identity to bridge differences in values, beliefs and framing) elements of the institutional environment. We will examine not only strategic responses in the market environment but also influence strategies of multinational and domestic firms that seek to alter the institutional environment in which they operate. We will draw not only upon the international business literature but also related literatures including political economy, sociology, law, finance, communications, institutional theory, strategic corporate social responsibility, social movements, network theory and the management of extractive industries.
0.5 Course Units

MGMT 9610 Special Topics in OB: Making a Contribution
This is a complement course to MGMT 951, and it has the same purpose to examine and understand basics in the theory and empirical research in the field of micro-organizational behavior and to increase our understanding of people's behavior in organizations. To do so, we will cover a blend of classic and contemporary literature so that we can appreciate the prevailing theories and findings in various areas of micro-organizational behavior. In addition, for each topic we will then try to go beyond the existing literature. We will work to increase our understanding by re-framing the research variables, altering the perspective, bringing in new theory, and comparing levels of analysis. The purpose of this course is not meant to be exhaustive, rather it covers approximately half of the organizational behavior literature. For a more complete understanding of the basics of organizational behavior it is mandatory for organizational behavior students to have taken MGMT 951 which covers the remaining topics in basic organizational behavior. However, it is not mandatory to have taken MGMT 951 before MGMT 961 as they cover different sets of topics.
Not Offered Every Year
0.5 Course Units

MGMT 9620 Multinational Firms Global Economy A
This is a graduate course focusing on the empirical aspects of multinational firms and international trade. The goal of the course is to familiarize graduate students with empirical work on multinational firms in the global economy, by reviewing the recent as well as older literature on this topic. Econometrics and statistical techniques for doing empirical work in international trade will also be discussed. We will focus on a variety of issues that are related to the multinational firm, beginning with trends in multinational activity, then moving to both horizontal and vertical theories of the multinational firm. Topics over the course of the semester will include patterns in the expansion of multinational firms, horizontal and vertical multinational firms; the linkages between openness to trade and investment and growth; trade orientation and firm performance; technology transfer and spillovers; innovation and productivity; immigration; labor markets and multinational firms; and global value chains. This course has a mandatory attendance policy.
0.5 Course Units

MGMT 9630 Multinational Firms Global Economy B
This is continuation of Multinational Firms in Global Economies (A). It is a graduate course focusing on the empirical aspects of multinational firms and international trade. The goal of the course is to familiarize graduate students with empirical work on multinational firms in the global economy, by reviewing the recent as well as older literature on this topic. Econometrics and statistical techniques for doing empirical work in international trade will also be discussed. We will focus on a variety of issues that are related to the multinational firm, beginning with trends in multinational activity, then moving to both horizontal and vertical theories of the multinational firm. Topics over the course of the semester will include patterns in the expansion of multinational firms, horizontal and vertical multinational firms; the linkages between openness to trade and investment and growth; trade orientation and firm performance; technology transfer and spillovers; innovation and productivity; immigration; labor markets and multinational firms; and global value chains. This course has a mandatory attendance policy.
0.5 Course Units

MGMT 9700 Research Methods in Management
Students taking the course will be introduced to the seminal readings on a given method, have a hands-on discussion regarding their application often using a paper and dataset of the faculty member leading the discussion. The goal of the course is to make participants more informed users and reviewers of a wide variety of methodological approaches to Management research including Ordinary Least Squares, Discrete Choice, Count Models, Panel Data, Dealing with Endogeneity, Survival/failure/event history and event studies, experiments, factor analysis and structural equation modeling, hierarchical linear modeling, networks, comparative qualitative methods, coding of non-quantitative data, unstructured text and big data simulations.
0.5 Course Units
Managerial Economics (MGEC)

MGEC 6110 Microeconomics for Managers: Foundations
This course establishes the micro-economic foundations for understanding business decision-making. The course will cover consumer theory and market demand under full information, market equilibrium and government intervention, production theory and cost optimization, producing in perfectly competitive and monopoly markets, vertical relations, and game theory, including simultaneous, sequential, and infinitely repeated games. Students are expected to have mastered these materials before enrolling in the second quarter course: Microeconomics for Managers: Advanced Applications.
Fall or Spring
0.5 Course Units

MGEC 6120 Microeconomics for Managers: Advanced Applications
This course will cover the economic foundations of business strategy and decision-making in market environments with other strategic actors and less than full information, as well as advanced pricing strategies. Topics include oligopoly models of market competition, creation, and protection, sophisticated pricing strategies for consumers with different valuations or consumers who buy multiple units (e.g. price discrimination, bundling, two-part tariffs), strategies for managing risk and making decisions under uncertainty, asymmetric information and its consequences for markets, and finally moral hazard and principle-agent theory with application to incentive contracts.
Fall or Spring
0.5 Course Units

Marathi (MRTI)

MRTI 0100 Beginning Marathi I
The first year course in Marathi begins with learning the Devnagari script which is common for other important languages like Hindi and Nepali. With proper emphasis on grammar, vocabulary, and phonetics, the syllabus will see the student becoming able to speak conversational Marathi, read Marathi data from the Internet, and compose simple short essays on selected topics.
Fall
1 Course Unit

MRTI 0200 Beginning Marathi II
Simple sentences in the present tense, narration (spoken as well written) of day to day activities, expressing likes & dislikes, culturally appropriate greetings and addressing, ability to describe events happening in present and present incomplete tense, consolidation of reading and writing skill acquired in the previous semester as well as proper pronunciations of common usage words and phrases. Speaking practices based upon the My Marathi Text book created by University of Mumbai.
Spring
Prerequisite: MRTI 0100 OR MRTI 5100
1 Course Unit

MRTI 0300 Intermediate Marathi I
Intermediate Marathi builds up upon the Beginning Level of Marathi. Gaining ability to speak about past and future is the most important skill in the intermediate course. Students learn the grammar, vocabulary, sentence structures to narrate and write in simple language about their experiences, short anecdotes, their observations and opinions and future plans.
Fall
Prerequisite: MRTI 0200 OR MRTI 5200
1 Course Unit

MRTI 0400 Intermediate Marathi Part II
In the syllabus for the fourth semester Marathi course gaining language inputs regarding Marathi culture and day to day daily life in Maharashtra becomes one important topic. Day to day communication skills necessary to survive in Maharashtra on the street like interaction with a grocery store clerk or a vegetable sales woman in the market, a rikshaw driver, a policeman, a commoner, asking and providing directions on the street and various day to day real life situations are improvised and practiced. Vocabulary, sentence structures and associated grammar is acquired during practice and real life situations based exercises.
Spring
Prerequisite: MRTI 0300 MRTI 5300
1 Course Unit

MRTI 1500 Advanced Marathi
Theater and Films, Literature and poetry, Folk Songs, Dance and Music; this one semester course will explore the rich Marathi culture as well as will work on increasing the spoken, listening, reading and written proficiency of the students. News stories from the Marathi print media as well as glimpses from Marathi Television, News as well as Serials and popular comedy shows become the authentic materials in this course. Students learn the linguistic as well as cultural aspect of the variety of material through discussions, presentations in which students acquire and use the language to describe, narrate, express their opinions, evaluate, critique and appreciate these aspects of Marathi urban and rural culture.
Not Offered Every Year
1 Course Unit

MRTI 5100 Beginning Marathi I
The first year course in Marathi begins with learning the Devnagari script which is common for other important languages like Hindi and Nepali. With proper emphasis on grammar, vocabulary, and phonetics, the syllabus will see the student becoming able to speak conversational Marathi, read Marathi data from the Internet, and compose simple short essays on selected topics.
Fall
1 Course Unit

MRTI 5200 Beginning Marathi II
Simple sentences in the present tense, narration (spoken as well written) of day to day activities, expressing likes & dislikes, culturally appropriate greetings and addressing, ability to describe events happening in present and present incomplete tense, consolidation of reading and writing skill acquired in the previous semester as well as proper pronunciations of common usage words and phrases. Speaking practices based upon the My Marathi Text book created by University of Mumbai.
Spring
Prerequisite: MRTI 0100 OR MRTI 5100
1 Course Unit

MRTI 5300 Intermediate Marathi I
Intermediate Marathi builds up upon the Beginning Level of Marathi. Gaining ability to speak about past and future is the most important skill in the intermediate course. Students learn the grammar, vocabulary, sentence structures to narrate and write in simple language about their experiences, short anecdotes, their observations and opinions and future plans.
Fall
1 Course Unit
MRTI 5400 Intermediate Marathi Part II
In the syllabus for the fourth semester Marathi course gaining language inputs regarding Marathi culture and day to day daily life in Maharashtra becomes one important topic. Day to day communication skills necessary to survive in Maharashtra on the street like interaction with a grocery store clerk or a vegetable sales woman in the market, a rikshaw driver, a policeman, a commoner, asking and providing directions on the street and various day to day real life situations are improvised and practiced. Vocabulary, sentence structures and associated grammar is acquired during practice and real life situations based exercises.

Fall
1 Course Unit

MRTI 5500 Advanced Marathi
Theater and Films, Literature and poetry, Folk Songs, Dance and Music; this one semester course will explore the rich Marathi culture as well as will work on increasing the spoken, listening, reading and written proficiency of the students. News stories from the Marathi print media as well as glimpses from Marathi Television, News as well as Serials and popular comedy shows become the authentic materials in this course. Students learn the linguistic as well as cultural aspect of the variety of material through discussions, presentations in which students acquire and use the language to describe, narrate, express their opinions, evaluate, critique and appreciate these aspects of Marathi urban and rural culture.

Not Offered Every Year
1 Course Unit

Marketing (MKTG)

MKTG 0001 Viral Marketing
Why do some products catch on and become popular while others fail? Why do apps and services take off while others languish? And why do certain ads, messages, or ideas stick in memory while others disappear the minute you hear them? Diffusion, social media, word of mouth, and viral marketing have become important topics for companies, brands, and organizations. Marketers want their product to be popular, organizations want their social change initiative to catch on, and entrepreneurs want their ideas to stick. This course investigates these and other topics as it explains how things catch on and become popular.

Fall, Spring, and Summer Terms
0.5 Course Units

MKTG 0002 Consumer Behavior
The purpose of this course is to provide students with working knowledge of the major theories and research findings in the area of consumer behavior. The goal of this course is for students to gain a deeper understanding of the psychologies behind behaviors, judgments, and decision-making, and to gain insight into how to apply them to influence behavior in the marketplace. By the end of this course, students should not only be familiar with a large body of consumer behavior literature, but should also be able to identify theories as they play out in the real world, and be able to apply behavioral principles to a variety of marketing problems.

0.5 Course Units

MKTG 1010 Introduction to Marketing
The objective of this course is to introduce students to the concepts, analyses, and activities that comprise marketing management, and to provide practice in assessing and solving marketing problems. The course is also a foundation for advanced electives in Marketing as well as other business/social disciplines. Topics include marketing strategy, customer behavior, segmentation, customer lifetime value, branding, market research, product lifecycle strategies, pricing, go-to-market strategies, promotion, and marketing ethics.

Fall or Spring
Mutually Exclusive: MKTG 1018
1 Course Unit

MKTG 1018 Introduction to Marketing
The objective of this course is to introduce students to the concepts, analyses, and activities that comprise marketing management, and to provide practice in assessing and solving marketing problems. The course is also a foundation for advanced electives in Marketing as well as other business/social disciplines. Topics include marketing strategy, customer behavior, segmentation, customer lifetime value, branding, market research, product lifecycle strategies, pricing, go-to-market strategies, promotion, and marketing ethics. (This is the honors section of MKTG 1010 open only to Joseph Wharton Scholars).

Mutually Exclusive: MKTG 1010
1 Course Unit

MKTG 2110 Consumer Behavior
This course is concerned with how and why people behave as consumers. Its goals are to: (1) provide conceptual understanding of consumer behavior, (2) provide experience in the application of buyer behavior concepts to marketing management decisions and social policy decision-making; and (3) to develop analytical capability in using behavioral research.

Fall or Spring
Mutually Exclusive: MKTG 7110
Prerequisite: MKTG 1010 or MKTG 1018
1 Course Unit

MKTG 2120 Data and Analysis for Marketing Decisions
This course introduces students to the fundamentals of data-driven marketing, including topics from marketing research and analytics. It examines the many different sources of data available to marketers, including data from customer transactions, surveys, pricing, advertising, and A/B testing, and how to use those data to guide decision-making. Through real-world applications from various industries, including hands-on analyses using modern data analysis tools, students will learn how to formulate marketing problems as testable hypotheses, systematically gather data, and apply statistical tools to yield actionable marketing insights.

Fall or Spring
Mutually Exclusive: MKTG 7120
Prerequisite: (MKTG 1010 OR MKTG 1018) AND (STAT 1010 OR STAT 1110 OR STAT 4300)
1 Course Unit

MKTG 2210 New Product Management
Examination of the marketing aspects of products or services exclusive of their promotion, pricing or distribution. Focuses on decisions regarding product introduction, positioning, improvements, and deletion, and the tools available for making these decisions.

Fall or Spring
Mutually Exclusive: MKTG 2620, MKTG 7210
Prerequisite: MKTG 1010 OR MKTG 1018
0.5 Course Units
MKTG 2240 Advertising Management
Immersion in the advertising development process and examination of the practice of advertising. Focuses on decisions regarding advertising objectives, copy selection, budget setting and media selection.
Fall or Spring
Mutually Exclusive: MKTG 2650, MKTG 7240
Prerequisite: MKTG 1010 OR MKTG 1018
0.5 Course Units

MKTG 2250 Principles of Retailing
This course is a cross-functional overview of retailing — from types of retailers to current trends and strategies. The objective is to familiarize students with the retail business model in its various forms — from pure store-based retailers, to digital natives, and everything in-between. Topics will include structures & organizational models, channels & formats, real estate & locations, marketing & customer relationship management, the full merchandising cycle (planning & buying to display & pricing), and operations & technology. This knowledge will be fundamental to careers working for retailers themselves (e-commerce or omnichannel), but also in consulting to retailers, in banking or investing in the retail sector, or even starting a brand or retail concept. Those seeking more depth in product design & development, buying, planning, pricing, and visual merchandising should consider taking Retail Merchandising (MKTG 3060). Those seeking more depth in sourcing, distribution, fulfillment, and store/site operations should consider taking Retail Supply Chain Management (OIDD 3970)
Fall
Mutually Exclusive: MKTG 7250
Prerequisite: MKTG 1010 OR MKTG 1018
0.5 Course Units

MKTG 2270 Digital Marketing and Electronic Commerce
The effect of the Internet and related technologies on business and social institutions is more profound than that of any prior invention, including the printing press and the internal combustion engine. Furthermore, marketing is critical to the success of firms that will shape the consumption-led economies that are fueled by these technologies. MKTG 2270 provides a research-based and framework-driven approach to succeeding in this environment, through a rigorous approach to understanding digital marketing and electronic commerce. The course is organized into two sections and utilizes relevant theory, empirical analysis, and practical examples, to develop the key learning points. Guest speakers will participate as well, as appropriate.
Spring
Mutually Exclusive: MKTG 2700, MKTG 7270, MKTG 7700
Prerequisites: Using a spreadsheet, and basic statistics (linear regression)
0.5 Course Units

MKTG 2340 Idea Generation & the Systematic Approach for Creativity
The ability to solve problems creatively and generate change is a recognized standard of success and plays an important role in gaining a competitive advantage in many areas of business management. This course is designed to teach students several creative problem solving methodologies that complement other managerial tools acquired in undergraduate and graduate studies. The course offers students the opportunity to learn how to solve problems, identify opportunities, and generate those elusive ideas that potentially generate enormous benefits to organizations. The objectives of this course are to enhance the students’ (a) creativity, (b) ability to innovate and (c) ability to identify, recruit, develop, manage, retain, and collaborate with creative people. The course includes: 1. A review of the literature on creativity, creative people, innovation, and design as well as the leadership and management of creative people and innovation. 2. Hands on learning of approaches for generating creative ideas. Students will have the opportunity of implementing the techniques studied in class. 3. Applications of creativity to selected management domains - Approaches to the generation of creative options are not limited to the development of products and services or businesses, but can be applied to all areas of management, business, and life. The purpose of these sessions is to explore the applications of creative approaches to marketing, advertising, organizational design, negotiations, and other management challenges. 4. Integration - Both via individual assignments and a group project in which interdisciplinary teams of students generate a creative product/service/customer.
Fall
Mutually Exclusive: MKTG 7340
0.5 Course Units

MKTG 2370 Introduction to Brain Science for Business
This course provides an overview of contemporary brain science and its applications to business. Students are first rapidly introduced to the basic anatomy and physiology of the brain and become familiar with important techniques for measuring and manipulating brain function. The course then surveys major findings in neuroscience with applications to business, including vision, attention and advertising; valuation and marketing; decision making; learning, innovation and creativity; social influence, team-building, and leadership; and discussion of the ethical, legal, and societal implications of applying neuroscience to business. Applications to business, education, sports, law, and policy are discussed throughout.
Fall
Mutually Exclusive: MKTG 7370
0.5 Course Units
MKTG 2380 Consumer Neuroscience
How can studying the brain improve our understanding of consumer behavior? While neuroscience made tremendous strides throughout the past few decades, rarely were meaningful applications developed outside of medicine. Recently, however, breakthroughs in measurement and computation have accelerated brain science, and created an array of opportunities in business and technology. Currently, applications to marketing research and product development are experiencing explosive growth that has been met with both excitement and skepticism. This mini course provides an overview of the neuroscience behind and the potential for these developments. Topics will range from well-known and widely used applications, from eye-tracking measures in the lab and the field, to emerging methods and measures such as mobile technologies, face-reading, and neural predictors of market response. This course is self-contained and has no prerequisites. However, students with some background in business, economics, psychology, and/or neuroscience are likely to find some of the material covered in this course complementary to their existing knowledge. Much of the foundational work in consumer neuroscience and neuroeconomics involves laboratory experiments. Accordingly, we will read and discuss several experimental papers and the craft of designing an experiment will occasionally be discussed. However, we will not dedicate significant time to the methodology of experimental design and analysis. As will become clear as the course progresses, “consumer neuroscience” can be used to study almost any aspect of consumer behavior.
Fall
Mutually Exclusive: MKTG 3500, MKTG 7380, MKTG 8500
0.5 Course Units

MKTG 2390 Visual Marketing
As consumers, we are constantly exposed to advertisements and experience visual messages from product packages in stores, retail displays, and products already owned. In essence, visual marketing collateral is omnipresent and is an essential part of corporate visual identity, strategy, branding, and communication. Some of this falls to creative graphic design, but advertising, design, and marketing can also be significantly enhanced by knowledge of how visual information and its presentation context can be optimized to deliver desirable and advantageous messages and experiences. This course will emphasize how to measure, interpret, and optimize visual marketing. This course will use lectures, discussions, exercises and a group project, to help students understand the underlying processes that influence our visual perception and visual cognition. Students will learn about the theoretical processes and models that influence, attention and visual fluency. Students will also be exposed to eye-tracking instruments that help measure eye movement. Finally, we will explore how visual stimuli can influence consumer memory, persuasion, and choice. We will examine practical applications in marketing, advertising, packaging, retail, and design contexts.
Spring
Mutually Exclusive: MKTG 7390
1 Course Unit

MKTG 2410 Entrepreneurial Marketing
This course focuses on the real life marketing challenges involved in launching an entrepreneurial venture. The primary goal of the course will be to provide a roadmap for students seeking to actively engage as entrepreneurs, investors or managers in the startup culture. Many of the entrepreneurial marketing principles studied in this course will be equally applicable to mid-size and larger companies seeking new approaches to drive top-line growth. The course will address how start-ups, early growth stage and more mature companies have used entrepreneurial marketing as an essential competitive weapon to grow their businesses by gaining customers, driving revenue, acquiring funding and recruiting A-level employees, advisors and directors. Students will form teams and select an idea/concept for an entrepreneurial venture, and by the conclusion of the course will have developed a fully fleshed out and testable marketing plan. Preferably, the selected venture will be one that one or more members of the team would consider implementing, should their plan prove feasible.
Fall
Mutually Exclusive: MKTG 7410
Prerequisite: (MKTG 1010 OR MKTG 1018) AND MKTG 2120
0.5 Course Units

MKTG 2470 Marketing Strategy for Technology Platforms
This course focuses on the unique aspects of creating effective marketing and management strategies for technology-intensive on-line and off-line businesses. It addresses the effective competitive marketing strategies for winning in markets which are powered by technology: specifically, how firms create value for customers and how they can integrate technology in delivering a better consumer experience. While competitive marketing strategy is important for all managers, this course will be particularly useful to students who are planning to accept a position in leading technology companies, and marketing firms in which technology is likely to play an important role. In addition, the course will provide value to those who expect to work in consulting or investing in technology industries, and must analyze firm strategies. Course open to sophomores, juniors and seniors.
Spring
Mutually Exclusive: MKTG 7470
Prerequisite: MKTG 1010 or MKTG 1018
0.5 Course Units
MKTG 2520 Marketing Analytics
Companies are currently spending millions of dollars on data-gathering initiatives, but few are successfully capitalizing on all this data to generate revenue and increase profit. Converting data into increased business performance requires the ability to extract insights from data through analytics. This course covers the three pillars of analytics – descriptive, predictive, and prescriptive – within the marketing context. Descriptive Analytics examines different types of data and how they can be visualized, ultimately helping you communicate your findings and strengthen your team’s or organization’s decision making. Predictive Analytics explores the use of data for forecasting. You will learn to utilize various tools, including regression analysis, to estimate relationships among variables and predict future behavior. Prescriptive Analytics takes you through the final step — formulating concrete recommendations. These recommendations can be directed toward a variety of marketing actions, including pricing and social-platform outreach. Students will be exposed to several methods such as linear regression, logistic regression, multinomial regression, machine learning methods (e.g., neural networks and random forests). We will learn how to employ these methods for such managerial decisions as demand forecasting, pricing, and valuing customers. Overall, you will develop a data analytics mindset, learn new tools, and understand how to convert numbers into actionable insights.

Spring
Mutually Exclusive: MKTG 3520
Prerequisite: MKTG 1010 OR MKTG 1018 OR STAT 1010 OR STAT 1018
0.5 Course Units

MKTG 2540 Pricing Policy
The pricing decision process including economic, marketing, and behavioral phenomena which constitute the environment for pricing decisions and the information and analytic tools useful to the decision maker.

Spring
Mutually Exclusive: MKTG 2880, MKTG 7540
Prerequisite: MKTG 1010 or MKTG 1018
0.5 Course Units

MKTG 2500 Innovation, Marketing Strategy, and Antitrust
This course considers business strategy and law, particularly the role of antitrust and intellectual property law in managing innovation. We will examine several highly innovative firms in technology rich areas, considering how they adapt their strategies to the competitive and legal environment, and asking whether antitrust law promotes or hinders innovation. The strategies of both current firms such as Uber, Google, Apple, and Microsoft and historical examples such as American Can Company, Standard Oil, Brown & Williamson Tobacco Co., and Kodak will provide context and source materials for the course. We will pay special attention to the role of intellectual property rights in fostering or hindering innovation. The legal focus is primarily on U.S. law, but the course will occasionally address foreign regimes as well. The course is useful to students interested in marketing or competitive business strategy, and, more broadly, to anyone desiring to understand the legal and public policy issues relating to competition and innovation.

Fall or Spring
Also Offered As: LGST 2050
1 Course Unit

MKTG 2620 New Product Development
In this hands-on experiential course, students will partner with a local start-up to apply design thinking steps taught throughout the course. Students will learn how to uncover deep consumer needs, effectively ideate, and create rapid prototypes to test their ideas with real customers. This class is well suited for those interested in careers in innovation or management consulting, marketing, product management, technology, or entrepreneurship. No prior experience or requirements are needed for this course.

Not Offered Every Year
Mutually Exclusive: MKTG 2210
Prerequisite: MKTG 1010 OR MKTG 1018
1 Course Unit

MKTG 2650 Principles of Advertising
This course focuses on advertising via all media - print, digital, video, TV, Internet, etc. Emphasis is placed on understanding the communication development process and consumer behavior (psychology), the measurement and evaluation of advertising effects, and developing appropriate media plans.

Fall
Mutually Exclusive: MKTG 2210
Prerequisite: MKTG 1010 OR MKTG 1018
1 Course Unit

MKTG 2660 Marketing for Social Impact
Private and public sector firms increasingly use marketing strategies to engage their customers and stakeholders around social impact. To do so, managers need to understand how best to engage and influence customers to behave in ways that have positive social effects. This course focuses on the strategies for changing the behavior of a target segment of consumers on key issues in the public interest (e.g., health behaviors, energy efficiency, poverty reduction, fundraising for social causes). How managers partner with organizations (e.g., non-profits, government) to achieve social impact will also be explored.

Fall
Prerequisite: MKTG 1010
1 Course Unit

MKTG 2700 Digital Marketing, Social Media and E-Commerce
MKTG 2700 explores the digital marketing environment from both a consumer and business perspective. The course provides an overview of various online business models and delves into digital advertising and social media marketing techniques and technologies. A mixture of case studies, guest speakers and assignments, including one that uses real advertising data, translates theory into practice. It is recommended that students enrolling in the course be comfortable using Excel and are knowledgeable in applying regression analysis techniques. Students who would prefer a less technical course may wish to take MKTG 2270, Digital Marketing and Electronic Commerce, a half cu course offered by the department.

Fall or Spring
Mutually Exclusive: MKTG 2270, MKTG 7270, MKTG 7700
Prerequisite: MKTG 1010 OR MKTG 1018
1 Course Unit
**MKTG 2710 Models for Marketing Strategy**
The course develops students’ skills in using analytics to make better marketing decisions. Compared to other courses in marketing analytics, the focus is less on ‘what is happening?’ or ‘what will happen?’ and more on ‘what should we do?’ i.e., the course moves beyond descriptive and predictive analytics into prescriptive analytics. It covers a variety of topics, models and tools: (1) Marketing mix modeling & optimization, (2) Choice modeling, choice-based conjoint analysis & market simulators, (3) Modeling churn & maximizing customer lifetime value, and (4) Quantifying causal effects in marketing. The course requires familiarity with Excel and linear regression from the very first day, but is otherwise self-contained. Lectures are organized around a mini-case or illustrate the model/technique at hand through one or more real-life applications.

Fall
Mutually Exclusive: MKTG 7710
Prerequisite: (MKTG 1010 OR MKTG 1018) AND (STAT 1010 OR STAT 1018)
1 Course Unit

---

**MKTG 2770 Marketing Strategy**
This course views marketing as both a general management responsibility and an orientation of an organization that helps one to create, capture and sustain customer value. The focus is on the business unit and its network of channels, customer relationships, and alliances. Specifically, the course attempts to help develop knowledge and skills in the application of advanced marketing frameworks, concepts, and methods for making strategic choices at the business level.

Fall
Mutually Exclusive: MKTG 7770
1 Course Unit

---

**MKTG 2780 Strategic Brand Management**
Which brands make you happy? Apple? Amazon? Starbucks? Everlane? Soulcycle? Sweetgreen? What draws you into these brands? How do companies create compelling brand experiences? How could you cultivate a well-loved brand? This course explores such questions with the goal of identifying the ingredients for building an inspired brand. The course is created for students interested in building a brand and/or immersing themselves in the enhancement of an existing brand, and it is comprised of lectures, cases, guest speakers, discussions, in and out of class exercises, and a final project. Broadly, the course will be divided into four parts: 1) Understanding Brand, 2) Crafting Brand, 3) Measuring Brand, and 4) Managing Brand. The course will provide students with an appreciation of the role of branding and (taking a consumer-centric approach) will augment students’ ability to think creatively and critically about the strategies and tactics involved in building, leveraging, defending, and sustaining inspired brands.

Spring
Mutually Exclusive: MKTG 7780
Prerequisite: MKTG 1010 OR MKTG 1018
1 Course Unit

---

**MKTG 2790 Pricing Strategies**
This course is designed to equip students with the concepts, techniques, and latest thinking on pricing issues, with an emphasis on ways in which to help a firm improve its pricing. The orientation of the course is about practice of pricing, not theory. We will focus on how firms can improve profitability through pricing, look at how firms set their prices and how to improve current practices to increase profitability. The first part of the course focuses on how to analyze costs, customers, and competitors in order to formulate proactive pricing strategies. The second part focuses on price promotions, price bundling, price discrimination, versioning, nonlinear pricing, pricing through a distribution channel, dynamic pricing, etc.

Spring
Mutually Exclusive: MKTG 2540, MKTG 7540
Prerequisite: MKTG 1010 or MKTG 1018
1 Course Unit

---

**MKTG 3060 Retail Merchandising (Center Special Topic)**
As a follow-on to Principles of Retailing (MKTG 2250), this course delves more deeply into both the fundamentals and recent trends in the end-to-end retail merchandising process. The objective is to familiarize students with both the theory and practice of planning, buying, designing, pricing, and displaying merchandise to consumers. This knowledge will be fundamental to careers working for retailers themselves (e-commerce or omnichannel), but also in consulting to retailers, in banking or investing in the retail sector, or even starting a brand or retail concept. Those seeking more depth in sourcing, distribution, fulfillment, and store/site operations should consider taking Retail Supply Chain Management (OIDD 3970).

Spring
Mutually Exclusive: MKTG 8060
Prerequisite: MKTG 1010 OR MKTG 1018 OR MKTG 2250
0.5 Course Units
MKTG 3090 Special Topics: Experiments for Business Decision Making

EXPERIMENTS FOR BUSINESS DECISION MAKING: In the past decade, massive shifts in how companies interact with their customers have suddenly made field experiments an economically feasible way to learn about a variety of business questions such as what types of promotions are most effective, what products should be stocked at a store, how e-mail promotions should be designed, how sales staff should be compensated, etc. Many marketers engaged in online retailing, direct-marketing, online advertising, media management, etc. are rapidly embracing a "test and learn" philosophy and a number of platforms such as Google Website Optimizer, have been developed to facilitate rigorous field experiments in the online environment. Just as with the quality revolution in manufacturing during the 1980s and 1990s, the rapid rise of the "test and learn" philosophy in marketing has created a huge demand for those who can design, field, and analyze marketing experiments. Through this course, you will learn and practice a wide range of critical skills, from the statistical methods used to design and analyze experiments to the management and strategy required to execute an experiment and act on the results. Although the cases and examples will focus on marketing problems, the material covered can be applied in a number of other domains particularly operations management and product design.

Not Offered Every Year
Mutually Exclusive: MKTG 8090
Prerequisite: MKTG 1010
1 Course Unit

MKTG 3500 Special Topics - Consumer Neuroscience

CONSUMER NEUROSCIENCE: How can studying the brain improve our understanding of consumer behavior? While neuroscience made tremendous strides throughout the 20th century, rarely were meaningful applications developed outside of medicine. Recently, however, breakthroughs in measurement and computation have accelerated brain science and created a dizzying array of opportunities in business and technology. Currently, applications to marketing research and product development are experiencing explosive growth that has been met with both excitement and skepticism. This mini-course provides an overview of the neuroscience behind and the potential for these developments. Topics will range from well-known and widely used applications, such as eye-tracking measures in the lab and field, to emerging methods and measures, such as mobile technologies, face-reading algorithms, and neural predictors of marketing response. The course will also discuss applications in branding and product development, including wearable physiological devices and apps, sensory branding for foods and fragrances, pharmaceuticals and medical devices, and neuroscience-based products designed to enhance cognitive functions. These applications stem from many subfields of cognitive neuroscience, including attention, emotion, memory, and decision making. This course is self-contained and has no prerequisites. However, students with some background in business, economics, psychology, and/or neuroscience are likely to find the material covered in this course complementary to their existing knowledge.

Spring
Mutually Exclusive: MKTG 2380, MKTG 7380, MKTG 8500
0.5 Course Units

MKTG 3520 Special Topics - Marketing Analytics

MARKETING ANALYTICS: Companies are currently spending millions of dollars on data-gathering initiatives - but few are successfully capitalizing on all this data to generate revenue and increase profit. Moving from collecting data to analysis to profitable results requires the ability to forecast and develop a business rationale based on identified data patterns. Marketing Analytics will cover the three pillars of analytics - descriptive, predictive and prescriptive. Descriptive Analytics examines different types of data and how they can be visualized, ultimately helping you leverage your findings and strengthen your decision making. Predictive Analytics explores the potential uses of data once collected and interpreted. You will learn to utilize different tools, such as regression analysis, and estimate relationships among variables to predict future behavior. Prescriptive Analytics takes you through the final step - formulating concrete recommendations. These recommendations can be directed toward a variety of efforts including pricing and social-platform outreach.

Spring
Mutually Exclusive: MKTG 8520
Prerequisite: MKTG 1010 AND STAT 1010
0.5 Course Units

MKTG 3530 Special Topics: The Business of Wellness: Marketing and Consumption

Wellness relates to the active pursuit of activities, choices, and lifestyles that lead to a state of holistic health. The global wellness industry represents a rapidly expanding, multi-trillion-dollar market. The purpose of this course is to provide a better understanding of the marketing of wellness brands, services, and products and the consumer behavior of wellness. Throughout the course, we will explore: 1) The evolution of the wellness industry and its various sub-industries (e.g., fitness, beauty, mindfulness, mental health, food/drink, tourism, etc.); 2) How organizations “sell wellness” through marketing strategies and tactics; and 3) “Consuming wellness,” or the consumer psychology and behaviors that contribute to or detract from one’s personal wellness. We will also consider significant ethical and moral issues in the wellness industry, and how consumers can be more discerning of wellness offerings. These topics will be explored through the specific lenses of marketing, consumer culture, and consumer psychology. By the end of the semester, students should have a better understanding of the wellness industry, including its various stakeholders, evolution, the business opportunities and challenges, and consumer behaviors.

Spring
Prerequisite: MKTG 1010
1 Course Unit
MKTG 3550 Special Topics - AI in Our Lives: The Behavioral Science of Autonomous Technology

"AI in Our Lives: The Behavioral Science of Autonomous Technology" (or "AI in Our Lives" for short) takes a behavioral perspective on the topic of autonomous technology, such as Artificial Intelligence. It reviews new behavioral insights to help companies thrive in the dawning age of smart machines. We focus on both the behavior of consumers and how managers should make decisions about consumers. Related to the former, the emerging behavioral science of autonomous technology helps us understand barriers to consumer adoption and how to design captivating AI experiences. Related to the latter, we discuss how to improve decision-making with data and algorithms. This is a non-technical course. No coding or data science skills are required. The course uses interdisciplinary materials and a blend of pedagogical approaches, including interactive lectures, workshops, guest lectures, and case discussions. In addition to its many substantive insights, the course offers moments of reflection to help you understand how technology is changing our lives, and how each of us can help effect positive change in the world. The course bridges two perspectives. On one side, we acknowledge the tremendous value that autonomous technology can provide to firms and individual consumers. In many ways, automation defines progress. On the other side, we examine emerging risks for consumers in an AI-driven economy. The main theoretical lens will be offered by psychology, but we will also examine ideas from economics, management, history, statistics, computer science, art, sociology, and philosophy. The application contexts will be focused on marketing. While also relevant to other disciplines (e.g., operations, IT, innovation, or general management), this course is therefore especially suitable for students interested in a career in marketing (e.g., product management, brand management, service design, and customer experience management). The ultimate goal of the course is to help ensure that the amazing technologies currently being developed bring about positive change. The course will strive to achieve that by tackling the following UN Sustainable Development Goals: SDG9 (Innovation), SDG8 (Economic growth), SDG3 (Health and wellbeing), SDG10 (Reduced inequality), and SDG12 (Responsible consumption and production). The course complements the research activities of the new Wharton Human-Centered Technology Initiative.

Spring
Mutually Exclusive: MKTG 2790, MKTG 7790, MKTG 8550
Prerequisite: MKTG 1010 OR MKTG 1018
1 Course Unit

MKTG 3990 Independent Study
Fall or Spring
Mutually Exclusive: MKTG 8990
Prerequisite: MKTG 2120
1 Course Unit

MKTG 4010 Marketing Analytics Capstone: Learning by Doing

In this class students will (1) apply knowledge to practice for an actual client, with a focus on the synthesis of knowledge acquired across curriculum (2) Practice analytical thinking skills (analyzing and framing business problems and problem-solving techniques), including consideration of ethical issues. (3) Practice written and oral communication skills, as well as working in an (assigned) team environment, by leveraging the experience developed in earlier years of the leadership Journey. (4) Reflect on their own social and intellectual development over their time at Wharton and Penn.

Spring
Prerequisite: (MKTG 1010 OR MKTG 1018) AND WH 1010 AND WH 2010 AND MGMT 3010
0.5 Course Units

MKTG 4760 Applied Probability Models in Marketing

This course will expose students to the theoretical and empirical "building blocks" that will allow them to construct, estimate, and interpret powerful models of consumer behavior. Over the years, researchers and practitioners have used these models for a wide variety of applications, such as new product sales, forecasting, analyses of media usage, and targeted marketing programs. Other disciplines have seen equally broad utilization of these techniques. The course will be entirely lecture-based with a strong emphasis on real-time problem solving. Most sessions will feature sophisticated numerical investigations using Microsoft Excel. Much of the material is highly technical.

Spring
Also Offered As: STAT 4760
1 Course Unit

MKTG 6110 Marketing Management

This course addresses how to design and implement the best combination of marketing efforts to carry out a firm’s strategy in its target markets. Specifically, this course seeks to develop the student’s (1) understanding of how the firm can benefit by creating and delivering value to its customers, and stakeholders, and (2) skills in applying the analytical concepts and tools of marketing to such decisions as segmentation and targeting, branding, pricing, distribution, and promotion. The course uses lectures and case discussions, case write-ups, student presentations, and a comprehensive final examination to achieve these objectives.

Fall
0.5 Course Units

MKTG 6120 Dynamic Marketing Strategy

Building upon Marketing 611, the goal of this course is to develop skills in formulating and implementing marketing strategies for brands and businesses. The course will focus on issues such as the selection of which businesses and segments to compete in, how to allocate resources across businesses, segments, and elements of the marketing mix, as well as other significant strategic issues facing today’s managers in a dynamic competitive environment. A central theme of the course is that the answer to these strategic problems varies over time depending on the stage of the product life cycle at which marketing decisions are being made. As such, the PLC serves as the central organizing vehicle of the course. We will explore such issues as how to design optimal strategies for the launch of new products and services that arise during the introductory phase, how to maximize the acceleration of revenue during the growth phase, how to sustain and extend profitability during the mature phase, and how to manage a business during the inevitable decline phase.

Fall or Spring
Prerequisite: MKTG 6110
0.5 Course Units
MKTG 6130 Strategic Marketing Simulation
Building upon Marketing 611, Marketing 613 is an intensive immersion course designed to develop skills in formulating and implementing marketing strategies for brands and businesses. The central activity will be participation in a realistic integrative product management simulation named SABRE. In SABRE, students will form management teams that oversee all critical aspects of modern product management: the design and marketing of new products, advertising budgeting and design, sales force sizing and allocation, and production planning. As in the real world, teams will compete for profitability, and the success that each team has in achieving this goal will be a major driver of the class assessment. The SABRE simulation is used to convey the two foci of learning in the course: the changing nature of strategic problems and their optimal solutions as industries progress through the product life cycle, and exposure to the latest analytic tools for solving these problems. Specifically, SABRE management teams will receive training in both how to make optimal use of marketing research information to reduce uncertainty in product design and positioning, as well as decision support models to guide resource allocation.

Fall or Spring
Prerequisite: MKTG 6110
0.5 Course Units

MKTG 7110 Consumer Behavior
Marketing begins and ends with the customer, from determining customers' needs and wants to providing customer satisfaction and maintaining customer relationships. This course examines the basic concepts and principles in customer behavior with the goal of understanding how these can be used in marketing decision making. The class will consist of a mix of lectures, discussions, cases, assignments, project work and exams. Topics covered include customer psychological processes (e.g., motivation, perception, attitudes, decision-making) and their impact on marketing (e.g., segmentation, branding, and customer satisfaction). The goal is to provide you with a set of approaches and concepts to consider when faced with a decision involving understanding customer responses to marketing actions.

Fall or Spring
Mutually Exclusive: MKTG 2110
Prerequisite: MKTG 6110
0.5 Course Units

MKTG 7120 Data and Analysis for Marketing Decisions
This course introduces students to the fundamentals of data-driven marketing, including topics from marketing research and analytics. It examines the many different sources of data available to marketers, including data from customer transactions, surveys, pricing, advertising, and A/B testing, and how to use those data to guide decision-making. Through real-world applications from various industries, including hands-on analyses using modern data analysis tools, students will learn how to formulate marketing problems as testable hypotheses, systematically gather data, and apply statistical tools to yield actionable marketing insights.

Fall or Spring
Mutually Exclusive: MKTG 2120
Prerequisite: MKTG 6110 AND STAT 6130
0.5-1 Course Unit

MKTG 7210 New Product Management
This course provides a total immersion in the new product development process - from sourcing ideas and innovation, through new product sales forecasting. The focus is on collective learning, what works, what doesn’t, and why. While the primary focus is the new product development process within a corporate structure, some coverage is given to key issues surrounding start-ups.
Not Offered Every Year
Mutually Exclusive: MKTG 2210
Prerequisite: MKTG 6110
0.5 Course Units

MKTG 7240 Advertising Management
The purpose of this course is to provide students with an opportunity to learn and apply the major frameworks, theories, current research findings, principles and practices of effective advertising management as part of an Integrated Marketing Communications (IMC) program. By the end of this course, students should not only be familiar with a large body of advertising knowledge, but should also be able to apply this information to create and evaluate effective advertising strategies and tactics. The emphasis will be on: 1) understanding the psychology of customer motivation and persuasion; 2) crafting effective and creative messages; 3) making efficient selections and use of media; and 4) understanding metrics, all within the broader Integrated Marketing Communications perspective.

Fall or Spring
Mutually Exclusive: MKTG 2240
Prerequisite: MKTG 6110 AND (MKTG 6120 OR MKTG 6130)
0.5 Course Units

MKTG 7250 Principles of Retailing
This course provides an interdisciplinary overview of the retailing industry. Primary focus will be on the customer facing activities of retailers, including assortment planning, private-label development, and the management of in-store operations, and the back-door activities (forecasting and supply chain management) that support customer interaction. In addition, current issues facing retailers, such as customer relationship management, industry consolidation and supplier relations, will be explored. The course will also survey topics in finance, operations, information technology and real estate as they relate to retail.

Spring
Mutually Exclusive: MKTG 2250
Prerequisite: MKTG 6110 AND (MKTG 6120 OR MKTG 6130)
0.5 Course Units

MKTG 7270 Digital Marketing and Electronic Commerce
The effect of the Internet and related technologies on business and social institutions is more profound than that of any prior invention, including the printing press and the internal combustion engine. Furthermore, marketing plays a key role in shaping the modern consumption-led economies fueled by these technologies. MKTG 7270 provides a research-based and framework-driven approach to understanding digital marketing and electronic commerce. The course is organized into two sections and utilizes relevant theory, empirical analysis, and practical examples, to develop the key learning points. Guest speakers will participate as well, as appropriate.

Fall or Spring
Mutually Exclusive: MKTG 2270, MKTG 2700, MKTG 7700
Prerequisite: MKTG 6110
0.5 Course Units
MKTG 7330 Marketing for Social Impact
Private and public sector firms increasingly use marketing strategies to engage their customers and stakeholders around social impact. To do so, managers need to understand how best to engage and influence customers to behave in ways that have positive social effects. This course focuses on the strategies for changing the behavior of a target segment of consumers on key issues in the public interest (e.g., health behaviors, energy efficiency, poverty reduction, fund-raising for social causes). How managers partner with organizations (e.g., non-profits, government) to achieve social impact will also be explored.

Fall
Prerequisite: MKTG 6110
0.5 Course Units

MKTG 7340 Idea Generation and the Systematic Approach for Creativity
The ability to solve problems creatively and generate change is a recognized standard of success and plays an important role in gaining a competitive advantage in many areas of business management. This course is designed to teach students several creative problem solving methodologies that complement other managerial tools acquired in undergraduate and graduate studies. The course offers students the opportunity to learn how to solve problems, identify opportunities, and generate those elusive ideas that potentially generate enormous benefits to organizations. The objectives of this course are to enhance the students’ (a) creativity, (b) ability to innovate and (c) ability to identify, recruit, develop, manage, retain, and collaborate with creative people. The course includes: 1. A review of the literature on creativity, creative people, innovation, and design as well as the leadership and management of creative people and innovation. 2. Hands on learning of approaches for generating creative ideas. Students will have the opportunity of implementing the techniques studied in class. 3. Applications of creativity to selected management domains - Approaches to the generation of creative options are not limited to the development of products and services or businesses, but can be applied to all areas of management, business, and life. The purpose of these sessions is to explore the applications of creative approaches to marketing, advertising, organizational design, negotiations, and other management challenges. 4. Integration - Both via individual assignments and a group project in which interdisciplinary teams of students generate a creative product/service/customer.

Fall
Mutually Exclusive: MKTG 2340
0.5 Course Units

MKTG 7370 Introduction to Brain Science for Business
This course provides an overview of contemporary brain science and its applications to business. Students are first rapidly introduced to the basic anatomy and physiology of the brain and become familiar with important techniques for measuring and manipulating brain function. The course then surveys major findings in neuroscience with applications to business, including vision, attention and advertising; valuation and marketing; decision making; learning, innovation and creativity; social influence, team-building, and leadership; and discussion of the ethical, legal, and societal implications of applying neuroscience to business. Applications to business, education, sports, law, and policy are discussed throughout.

Spring
Mutually Exclusive: MKTG 2370
0.5 Course Units

MKTG 7380 Consumer Neuroscience
How can studying the brain improve our understanding of consumer behavior? While neuroscience made tremendous strides throughout the past few decades, rarely were meaningful applications developed outside of medicine. Recently, however, breakthroughs in measurement and computation have accelerated brain science, and created an array of opportunities in business and technology. Currently, applications to marketing research and product development are experiencing explosive growth that has been met with both excitement and skepticism. This mini course provides an overview of the neuroscience behind and the potential for these developments. Topics will range from well-known and widely used applications, from eye-tracking measures in the lab and the field, to emerging methods and measures such as mobile technologies, face-reading, and neural predictors of market response. This course is self-contained and has no prerequisites. However, students with some background in business, economics, psychology, and/or neuroscience are likely to find some of the material covered in this course complementary to their existing knowledge. Much of the foundational work in consumer neuroscience and neuroeconomics involves laboratory experiments. Accordingly, we will read and discuss several experimental papers and the craft of designing an experiment will occasionally be discussed. However, we will not dedicate significant time to the methodology of experimental design and analysis. As will become clear as the course progresses, “consumer neuroscience” can be used to study almost any aspect of consumer behavior.

Fall
Mutually Exclusive: MKTG 2380, MKTG 3500, MKTG 8500
0.5 Course Units

MKTG 7390 Visual Marketing
As consumers, we are constantly exposed to advertisements and experience visual messages from product packages in stores, retail displays, and products already owned. In essence, visual marketing collateral is omnipresent and is an essential part of corporate visual identity, strategy, branding, and communication. Some of this falls to creative graphic design, but advertising, design, and marketing can also be significantly enhanced by knowledge of how visual information and its presentation context can be optimized to deliver desirable and advantageous messages and experiences. This course will emphasize how to measure, interpret, and optimize visual marketing. This course will use lectures, discussions, exercises and a group project, to help students understand the underlying processes that influence our visual perception and visual cognition. Students will learn about the theoretical processes and models that influence, attention and visual fluency. Students will also be exposed to eye-tracking instruments that help measure eye movement. Finally, we will explore how visual stimuli can influence consumer memory, persuasion, and choice. We will examine practical applications in marketing, advertising, packaging, retail, and design contexts.

Spring
Mutually Exclusive: MKTG 2390
1 Course Unit
MKTG 7410 Entrepreneurial Marketing
This course focuses on the real life marketing challenges involved in launching an entrepreneurial venture. The primary goal of the course will be to provide a roadmap for students seeking to actively engage as entrepreneurs, investors or managers in the startup culture. Many of the entrepreneurial marketing principles studied in this course will be equally applicable to mid-size and larger companies seeking new approaches to drive top-line growth. The course will address how start-ups, early growth stage and more mature companies have used entrepreneurial marketing as an essential competitive weapon to grow their businesses by gaining customers, driving revenue, acquiring funding and recruiting A-level employees, advisors and directors. Students will form teams and select an idea/concept for an entrepreneurial venture, and by the conclusion of the course will have developed a fully fleshed out and testable marketing plan. Preferably, the selected venture will be one that one or more members of the team would consider implementing, should their plan prove feasible.

Fall
Mutually Exclusive: MKTG 2410
Prerequisite: MKTG 6110 AND (MKTG 6120 OR MKTG 6130) AND MKTG 7120
0.5 Course Units

MKTG 7470 Marketing Strategy for Technology Platforms
This course focuses on the unique aspects of creating effective marketing and management strategies for technology-intensive on-line and off-line businesses. It addresses the effective competitive marketing strategies for winning in markets which are powered by technology: specifically, how firms create value for customers and how they can integrate technology in delivering a better consumer experience. While competitive marketing strategy is important for all managers, this course will be particularly useful to students who are planning to accept a position in leading technology companies, and marketing firms in which technology is likely to play an important role. In addition, the course will provide value to those who expect to work in consulting or investing in technology industries, and must analyze firm strategies.

Spring
Mutually Exclusive: MKTG 2470
Prerequisite: MKTG 6110
0.5 Course Units

MKTG 7520 Marketing Analytics
Companies are currently spending millions of dollars on data-gathering initiatives, but few are successfully capitalizing on all this data to generate revenue and increase profit. Converting data into increased business performance requires the ability to extract insights from data through analytics. This course covers the three pillars of analytics – descriptive, predictive and prescriptive – within the marketing context. Descriptive Analytics examines different types of data and how they can be visualized, ultimately helping you communicate your findings and strengthen your team’s or organization’s decision making. Predictive Analytics explores the use of data for forecasting. You will learn to utilize various tools, including regression analysis, to estimate relationships among variables and predict future behavior. Prescriptive Analytics takes you through the final step – formulating concrete recommendations. These recommendations can be directed toward a variety of marketing actions, including pricing and social-platform outreach. Students will be exposed to several methods such as linear regression, logistic regression, multinomial regression, machine learning methods (e.g., neural networks and random forests). We will learn how to employ these methods for such managerial decisions as demand forecasting, pricing, and valuing customers. Overall, you will develop a data analytics mindset, learn new tools, and understand how to convert numbers into actionable insights.

Spring
Mutually Exclusive: MKTG 2520, MKTG 3520, MKTG 8520
Prerequisite: MKTG 6110 AND (MKTG 6120 OR MKTG 6130) AND STAT 6130
0.5 Course Units

MKTG 7540 Pricing Policy
The course provides a systematic presentation of the factors to be considered when setting price, and shows how pricing alternatives are developed. Analytical methods are developed and new approaches are explored for solving pricing decisions.

Spring
Mutually Exclusive: MKTG 2540, MKTG 2880
Prerequisite: MKTG 6110 AND (MKTG 6120 OR MKTG 6130)
0.5 Course Units

MKTG 7600 Innovation, Marketing Strategy, and Antitrust
This course considers business strategy and law, particularly the role of antitrust and intellectual property law in managing innovation. We will examine several highly innovative firms in technology rich areas, considering how they adapt their strategies to the competitive and legal environment, and asking whether antitrust law promotes or hinders innovation. The strategies of both current firms such as Uber, Google, Apple, and Microsoft and historical examples such as American Can Company, Standard Oil, Brown & Williamson Tobacco Co., and Kodak will provide context and source materials for the course. We will pay special attention to the role of intellectual property rights in fostering or hindering innovation. The legal focus is primarily on U.S. law, but the course will occasionally address foreign regimes as well. The course is useful to students interested in marketing or competitive business strategy, and, more broadly, to anyone desiring to understand the legal and public policy issues relating to competition and innovation.

Fall or Spring
Also Offered As: LGST 8050
1 Course Unit
MKTG 7680 Contagious: How Products, Ideas and Behaviors Catch On
Why do some products catch on and achieve huge popularity while others fail? Why do some behaviors spread like wildfire while others languish? How do certain ideas seem to stick in memory while others disappear the minute you hear them? More broadly, what factors lead to trends, social contagion, and social epidemics? Interactive media, word of mouth, and viral marketing are important issues for companies, brands, and organizations. This course looks at these and other topics as it examines how products, ideas, and behaviors catch on and become popular. Marketers want their product to be popular, organizations want their social change initiative to catch on and entrepreneurs want their ideas to stick. This course will touch on four main aspects: (1) Characteristics of products, ideas, and behaviors that lead them to be successful. (2) Aspects of individual psychology that influence what things are successful. (3) Interpersonal processes, or how interactions between individuals drive success. (4) Social networks, or how patterns of social ties influence success.

Not Offered Every Year
1 Course Unit

MKTG 7700 Digital Marketing, Social Media and E-Commerce
MKTG 7700 explores the digital marketing environment from both a consumer and business perspective. The course provides an overview of various online business models and delves into digital advertising and social media marketing techniques and technologies. A mixture of case studies, guest speakers and assignments, including one that uses real advertising data, translates theory into practice. It is recommended that students enrolling in the course be comfortable using Excel and are knowledgeable in applying regression analysis techniques. Students who would prefer a less technical course may wish to take MKTG 7270, Digital Marketing and Electronic Commerce, a half cu course offered by the department.

Fall or Spring
Mutually Exclusive: MKTG 2270, MKTG 2700, MKTG 7270
Prerequisite: MKTG 6110
1 Course Unit

MKTG 7710 Models for Marketing Strategy
The course develops students' skills in using analytics to make better marketing decisions. Compared to other courses in marketing analytics, the focus is less on "what is happening?" or "what will happen?" and more on 'what should we do?' i.e., the course moves beyond descriptive and predictive analytics into prescriptive analytics. It covers a variety of topics, models and tools: (1) Marketing mix modeling & optimization, (2) Choice modeling, choice-based conjoint analysis & market simulators, (3) Modeling churn & maximizing customer lifetime value, and (4) Quantifying causal effects in marketing. The course requires familiarity with Excel and linear regression from the very first day, but is otherwise self-contained. Lectures are organized around a mini-case or illustrate the model/technique at hand through one or more real-life applications.

Fall
Mutually Exclusive: MKTG 2710
Prerequisite: MKTG 6110 AND (MKTG 6120 OR MKTG 6130)
1 Course Unit

MKTG 7750 Managing Customer Value
As the concept of CRM becomes common parlance for every marketing executive, it is useful to take a step back to better understand the various different behaviors that underlie the development of successful CRM systems. These "behaviors" include customer-level decisions, firm actions, and the delicate but complex interplay between the two. Accordingly this course is comprised of four main modules. We start with the discussion of customer profitability - focusing on the concepts of "customer lifetime value" and "customer equity". We will examine how to measure long-run customer profitability in both business-to-customer and business-to-business environments, and the uses of these measures as major components assessing overall firm valuation. Second, we move to the value that the firm provides to its customers - better understanding the true nature of customer satisfaction and its non-trivial relationship with firm profitability. Third, we examine each of the three main components of the firm's management of its customer base: customer acquisition, development, and retention - and the complex resource allocation task that must be balanced across them. Finally, we conclude with a discussion of various tactical and organizational aspects of customer relationship management.

Spring
1 Course Unit

MKTG 7760 Applied Probability Models in Marketing
This course will expose students to the theoretical and empirical "building blocks" that will allow them to construct, estimate, and interpret powerful models of consumer behavior. Over the years, researchers and practitioners have used these models for a wide variety of applications, such as new product sales, forecasting, analyses of media usage, and targeted marketing programs. Other disciplines have seen equally broad utilization of these techniques. The course will be entirely lecture-based with a strong emphasis on real-time problem solving. Most sessions will feature sophisticated numerical investigations using Microsoft Excel. Much of the material is highly technical.

Spring
Also Offered As: STAT 7760
1 Course Unit

MKTG 7770 Marketing Strategy
This course views marketing as both a general management responsibility and an orientation of an organization that helps one to create, capture and sustain customer value. The focus is on the business unit and its network of channels, customer relationships, and alliances. Specifically, the course attempts to help develop knowledge and skills in the application of advanced marketing frameworks, concepts, and methods for making strategic choices at the business level.

Not Offered Every Year
Mutually Exclusive: MKTG 2770
Prerequisite: MKTG 6110 AND (MKTG 6120 OR MKTG 6130)
0.5-1 Course Unit
MKTG 7780 Strategic Brand Management
Which brands make you happy? Apple? Amazon? Starbucks? Everlane? Soulcycle? Sweetgreen? What draws you into these brands? How do companies create compelling brand experiences? How could you cultivate a well-loved brand? This course explores such questions with the goal of identifying the ingredients for building an inspired brand. The course is created for students interested in building a brand and/or immersing themselves in the enhancement of an existing brand, and it is comprised of lectures, cases, guest speakers, discussions, in and out of class exercises, and a final project. Broadly, the course will be divided into four parts: 1) Understanding Brand, 2) Crafting Brand, 3) Measuring Brand, and 4) Managing Brand. The course will provide students with an appreciation of the role of branding and (taking a consumer-centric approach) will augment students’ ability to think creatively and critically about the strategies and tactics involved in building, leveraging, defending, and sustaining inspired brands.
Spring
Mutually Exclusive: MKTG 2780
Prerequisite: MKTG 6110 AND (MKTG 6120 OR MKTG 6130)
0.5-1 Course Unit

MKTG 7790 AI in Our Lives: The Behavioral Science of Autonomous Technology
This course takes a behavioral perspective on the topic of autonomous technology, such as Artificial Intelligence. It reviews new insights to help companies thrive in the dawning age of smart machines. The emerging behavioral science of autonomous technology helps us understand barriers to consumer adoption and how to design captivating AI experiences. Moreover, we discuss how to improve managerial decision-making with data and algorithms. This is a non-technical course. No coding or data science skills are required. The course uses a blend of pedagogical approaches, including interactive lectures, workshops, guest lectures, and case discussions, to bridge two perspectives. On one side, we acknowledge the tremendous value that autonomous technology can provide to firms and individual consumers. In many ways, automation defines progress. On the other side, we examine emerging risks for consumers in an AI-driven economy. The main theoretical lens will be offered by psychology, but we will also examine ideas from economics, management, history, statistics, computer science, art, sociology, and philosophy. The application contexts will focus on marketing. While also relevant to other disciplines (e.g., operations, innovation), the course is therefore especially suitable for students interested in a career in marketing (e.g., product management, customer experience management).
Spring
Mutually Exclusive: MKTG 2790, MKTG 3550, MKTG 8550
Prerequisites: MKTG 6110 and MKTG 6120 or MKTG 6130
1 Course Unit

MKTG 8060 Retail Merchandising (Center Special Topic)
As a follow-on to Principles of Retailing (MKTG 7250), this course delves more deeply into both the fundamentals and recent trends in the end-to-end retail merchandising process. The objective is to familiarize students with both the theory and practice of planning, buying, designing, pricing, and displaying merchandise to consumers. This knowledge will be fundamental to careers working for retailers themselves (e-commerce or omnichannel), but also in consulting to retailers, in banking or investing in the retail sector, or even starting their a brand or retail concept. Those seeking more depth in sourcing, distribution, fulfillment, and store/site operations should consider taking Retail Supply Chain Management (OIDD 6970).
Spring
Mutually Exclusive: MKTG 3060
Prerequisite: MKTG 6110 OR MKTG 7250
0.5 Course Units

MKTG 8090 Experiments for Business Decision Making (Center Special Topic)
In the past decade, massive shifts in how companies interact with their customers have suddenly made field experiments an economically feasible way to learn about a variety of business questions such as what types of promotions are most effective, what products should be stocked at a store, how e-mail promotions should be designed, how sales staff should be compensated, etc. Many marketers engaged in online retailing, direct-marketing, online advertising, media management, etc. are rapidly embracing a "test and learn" philosophy and a number of platforms such as Google Website Optimizer, have been developed to facilitate rigorous field experiments in the online environment. Just as with the quality revolution in manufacturing during the 1980s and 1990s, the rapid rise of the "test and learn" philosophy in marketing has created a huge demand for those who can design, field, and analyze marketing experiments. Through this course, you will learn and practice a wide range of critical skills, from the statistical methods used to design and analyze experiments to the management and strategy required to execute an experiment and act on the results. Although the cases and examples will focus on marketing problems, the material covered can be applied in a number of other domains particularly operations management and product design.
Not Offered Every Year
Mutually Exclusive: MKTG 3090
Prerequisite: MKTG 6110
1 Course Unit
MKTG 8500 Special Topics - Consumer Neuroscience
CONSUMER NEUROSCIENCE: How can studying the brain improve our understanding of consumer behavior? While neuroscience made tremendous strides throughout the 20th century, rarely were meaningful applications developed outside of medicine. Recently, however, breakthroughs in measurement and computation have accelerated brain science and created a dizzying array of opportunities in business and technology. Currently, applications to marketing research and product development are experiencing explosive growth that has been met with both excitement and skepticism. This mini-course provides an overview of the neuroscience behind and the potential for these developments. Topics will range from well-known and widely used applications, such as eye-tracking measures in the lab and field, to emerging methods and measures, such as mobile technologies, face-reading algorithms, and neural predictors of marketing response. The course will also discuss applications in branding and product development, including wearable physiological devices and apps, sensory branding for foods and fragrances, pharmaceuticals and medical devices, and neuroscience-based products designed to enhance cognitive functions. These applications stem from many subfields of cognitive neuroscience, including attention, emotion, memory, and decision making. This course is self-contained and has no prerequisites. However, students with some background in business, economics, psychology, and/or neuroscience are likely to find the material covered in this course complementary to their existing knowledge.
Spring
Mutually Exclusive: MKTG 2380, MKTG 3500, MKTG 7380
0.5 Course Units

MKTG 8520 Special Topics - Marketing Analytics
MARKETING ANALYTICS: Companies are currently spending millions of dollars on data-gathering initiatives - but few are successfully capitalizing on all this data to generate revenue and increase profit. Moving from collecting data to analysis to profitable results requires the ability to forecast and develop a business rationale based on identified data patterns. Marketing Analytics will cover the three pillars of analytics - descriptive, predictive and prescriptive. Descriptive Analytics examines different types of data and how they can be visualized, ultimately helping you leverage your findings and strengthen your decision making. Predictive Analytics explores the potential uses of data once collected and interpreted. You will learn to utilize different tools, such as regression analysis, and estimate relationships among variables to predict future behavior. Prescriptive Analytics takes you through the final step - formulating concrete recommendations. These recommendations can be directed toward a variety of efforts including pricing and social-platform outreach.
Spring
Mutually Exclusive: MKTG 2520, MKTG 3520, MKTG 7520
Prerequisite: MKTG 6110 AND STAT 6130
0.5 Course Units

MKTG 8550 Special Topics - AI in Our Lives: The Behavioral Science of Autonomous Technology
"AI in Our Lives: The Behavioral Science of Autonomous Technology" (or "AI in Our Lives" for short) takes a behavioral perspective on the topic of autonomous technology, such as Artificial Intelligence. It reviews new behavioral insights to help companies thrive in the dawning age of smart machines. We focus on both the behavior of consumers and how managers should make decisions about consumers. Related to the former, the emerging behavioral science of autonomous technology helps us understand barriers to consumer adoption and how to design captivating AI experiences. Related to the latter, we discuss how to improve decision-making with data and algorithms. This is a non-technical course. No coding or data science skills are required. The course uses interdisciplinary materials and a blend of pedagogical approaches, including interactive lectures, workshops, guest lectures, and class discussions. In addition to its many substantive insights, the course offers moments of reflection to help you understand how technology is changing our lives, and how each of us can help effect positive change in the world. The course bridges two perspectives. On one side, we acknowledge the tremendous value that autonomous technology can provide to firms and individual consumers. In many ways, automation defines progress. On the other side, we examine emerging risks for consumers in an AI-driven economy. The main theoretical lens will be offered by psychology, but we will also examine ideas from economics, management, history, statistics, computer science, art, sociology, and philosophy. The application contexts will be focused on marketing. While also relevant to other disciplines (e.g., operations, IT, innovation, or general management), this course is therefore especially suitable for students interested in a career in marketing (e.g., product management, brand management, service design, and customer experience management). The ultimate goal of the course is to help ensure that the amazing technologies currently being developed bring about positive change. The course will strive to achieve that by tackling the following UN Sustainable Development Goals: SDG9 (Innovation), SDG8 (Economic growth), SDG3 (Health and wellbeing), SDG10 (Reduced inequality), and SDG12 (Responsible consumption and production). The course complements the research activities of the new Wharton Human-Centered Technology Initiative.
Spring
Mutually Exclusive: MKTG 2790, MKTG 3550, MKTG 7790
1 Course Unit

MKTG 8900 Advanced Study Project (ASP)
ADVANCED STUDY PROJECT (GENERAL): The principal objectives of this course are to provide opportunities for undertaking an in-depth study of a marketing problem and to develop the students' skills in evaluating research and designing marketing strategies for a variety of management situations. Selected projects can touch on any aspect of marketing as long as this entails the elements of problem structuring, data collection, data analysis, and report preparation. The course entails a considerable amount of independent work. (Strict library-type research is not appropriate) Class sessions are used to monitor progress on the project and provide suggestions for the research design and data analysis. The last portion of the course often includes an oral presentation by each group to the rest of the class and project sponsors. Along with marketing, the projects integrate other elements of management such as finance, production, research and development, and human resources.
Fall or Spring
Prerequisite: MKTG 6110 AND MKTG 7250
0.5-1 Course Unit
MKTG 8930 Advanced Study: MKTG in Emerging Economies: Understanding & MKTG to the Chinese and Indian Consumer

This course is a two part series. The first part concentrates on the Indian Consumer and the second part concentrates on the Chinese Consumer. India and China add up to half of the world’s population. Each presents its own challenges and opportunities. US and European MNCs have been in both countries for many years, but emerging market MNC’s are becoming stronger and in many cases overtaking US and European companies despite their strong brands and know-how. Marketing to the Indian Consumer will provide a careful understanding of: The opportunity and challenges in the Indian consumer market 2) Various segments within the Indian consumer market. 3) Consumer psychology and decision making processes in each segment 4) Distribution channels in Indi Media in India: Mass, Local and non-traditional. 6) Bottom of the pyramid consumers and rural markets. 7) Product design and development decisions. The course will focus on the following industries: consumer packaged goods, mobile phones, financial services (insurance and banking), healthcare, sports and entertainment, and transportation. The course will involve case studies from local and international companies, guest lecturers, and visits to consumer homes to observe their tastes, habits, and preferences.

Not Offered Every Year
Mutually Exclusive: WH 2160
0.5 Course Units

MKTG 8950 Global Business Week

GLOBAL BUSINESS WEEK: MKTG 895 is one in an array of Global Business Week (GBW) study tour courses offered by various departments across Wharton. Each of the GBW courses offered in a term, will entail travel to a different part of the world and address a different element of economic driver for a country or industry. A faculty member will drive the topic and curriculum associated with a study tour to a region of the world where the study of a topic will provide insights and clarity available only by being in country. In country lectures from the lead faculty and area experts in industry, academia and government will form much of the basis of class time. In addition, students will experience relevant company and cultural settings where they will again hear from industry experts. Each course will require an individual student paper, a participation component, and a pre-travel or in-country set of assignments. See course syllabus for details. CUSTOMER CENTRICITY AT THE LEADING EDGE OF ANALYTICS AND TECHNOLOGY: LEARNING FROM SCANDINAVIA. Instructor: Peter Fader. The concept of "customer centricity," i.e., that not all customers are created equal, is gaining credibility and traction. More and more firms are coming to the realization that understanding and leveraging the behavioral differences across customers can potentially be more sustainably profitable than more conventional product-centric thinking that continues to dominate today’s business landscape. At the heart of this transformation are three critical ingredients data, analytics, and technology. Using customer data at a granular level allows firms greater visibility into customer interactions, their use of social media, biometrics, and geolocation as tools to enhance business models and even create new ones. It allows a firm to be deliberate about which customers to go after and what kinds of services to provide them. For many, the key to profitable growth lies in successfully harnessing and developing the tools, organizational structures, and corporate cultures that create and enhance these capabilities.

Fall
0.5 Course Units

MKTG 8970 Advanced Study: Luxury Branding and Retailing - Bringing it into the 21st Century

The luxury industry has been heavily impacted by the Covid-19 pandemic, with some estimates suggesting a contraction of over 20%. Some of the changes in consumer behavior directly affected luxury in the short-term, but these changes in behavior may eventually revert to past history when the pandemic is over. Examples of these include the drop in tourism travel, work from home trends, reduced traffic to physical retail and malls, and the reduction of festive social activities (e.g., weddings). Other trends affected many industries and are likely to fundamentally change consumer behavior long-term: (1) net zero retail now, (2) digital by design, (3) thoughtful experience, (4) re-localization and (5) lead with purpose. This course explores the special challenges that are faced by luxury brands as they try to navigate rapidly evolving shopping behaviors in both the online and offline environments. In this course we will articulate the key principles for successful luxury branding & experiences and focus on the challenges and opportunities that luxury brands face. Although we will have some traditional lecture/discussion classes, the course is primarily experiential. We will explore luxury broadly across many product categories. We will learn from what we see on location, but we will also critically assess how companies are coping with the challenges of the post-covid retailing environment.

Not Offered Every Year
Mutually Exclusive: WH 2180
0.5 Course Units

MKTG 8990 Independent Study

A student contemplating an independent study project must first find a faculty member who agrees to supervise and approve the student’s written proposal as an independent study (MKTG 899). If a student wishes the proposed work to be used to meet the ASP requirement, he/she should then submit the approved proposal to the MBA adviser who will determine if it is an appropriate substitute. Such substitutions will only be approved prior to the beginning of the semester.

Fall or Spring
Mutually Exclusive: MKTG 3990
Prerequisite: MKTG 6110 AND (MKTG 6120 OR MKTG 6130)
0.5-1 Course Unit

MKTG 9400 Measurement and Data Analysis in Marketing - Part A

MKTG 9400 and MKTG 9410 provide an understanding and working knowledge of statistical data analysis for assessing how one variable is predicted (and possibly caused) by other variables. The courses focus on “funny Ys and messy X’s” and extend the students’ tool kit beyond classic linear regression and ANOVA in two directions. (1) Analyzing binary data, ordered response data, choice data, count data, truncated or censored data, and duration data; (2) Identifying and tackling causal identification challenges when analyzing non-experimental data. All assignments can be completed using R, SAS, or Stata.

Spring
0.5 Course Units

2023-24 Catalog | Generated 08/02/23
MKTG 9410 Measurement and Data Analysis in Marketing - Part B
MKTG 9400 and MKTG 9410 provide an understanding and working knowledge of statistical data analysis for assessing how one variable is predicted (and possibly caused) by other variables. The courses focus on "funny Y's and messy X's" and extend the students' tool kit beyond classic linear regression and ANOVA in two directions. (1) Analyzing binary data, ordered response data, choice data, count data, truncated or censored data, and duration data; (2) Identifying and tackling causal identification challenges when analyzing non-experimental data. All assignments can be completed using R, SAS, or Stata.

Fall
0.5 Course Units

MKTG 9420 Research Methods in Marketing - Part A
This course provides an introduction to the fundamental methodological issues that arise in experimental and quasi-experimental research. Illustrative examples are drawn from the behavioral sciences with a focus on the behavior of consumers and managers. Topics that are covered include: the development of research ideas; data collection and reliable measurement procedures; threats to validity; control procedures and experimental designs; and data analysis. Emphasis is placed on attaining a working knowledge of the use of regression methods for non-experimental and quasi-experimental data and analysis of variance methods for experimental data. The primary deliverable for this course is a meta-analysis of a research problem of the students choosing that investigates the effects of research methods on empirical results.

Fall
0.5 Course Units

MKTG 9430 Research Methods in Marketing - Part B
This course provides an introduction to the fundamental methodological issues that arise in experimental and quasi-experimental research. Illustrative examples are drawn from the behavioral sciences with a focus on the behavior of consumers and managers. Topics that are covered include: the development of research ideas; data collection and reliable measurement procedures; threats to validity; control procedures and experimental designs; and data analysis. Emphasis is placed on attaining a working knowledge of the use of regression methods for non-experimental and quasi-experimental data and analysis of variance methods for experimental data. The primary deliverable for this course is a meta-analysis of a research problem of the students choosing that investigates the effects of research methods on empirical results.

Fall
0.5 Course Units

MKTG 9500 Judgment and Decision Making Perspectives on Consumer Behavior - Part A
The purpose of this course is to provide a solid foundation for critical thinking and research on the judgment, decision-making and choice aspects of consumer behavior. There is a focus on how people process information when making judgments and choices and how the processes of judgment and choice might be improved. Topics of discussion include rationality, judgment under uncertainty, judgment heuristics and biases, risk taking, dealing with conflicting values, framing effects, prospect theory, inter-temporal choice, preference formation, and the psychology of utility. The focus will be on the individual decision-maker, although the topics will also have some applicability to group and organizational decision-making and behavioral research methodologies.

Fall
0.5 Course Units

MKTG 9510 Judgment and Decision Making Perspectives on Consumer Behavior - Part B
The purpose of this course is to build off MKTG 950, "Judgment and Decision Making Perspectives on Consumer Behavior - Part A" with a more specialized focus that will vary from year to year. This course is intended for those interested in deepening their study of Judgment and Decision Making beyond the basics.

Fall, odd numbered years only
0.5 Course Units

MKTG 9520 Contemporary Topics in Consumer Research - Part A
The purpose of this seminar is to provide graduate students with an overview of contemporary topics in consumer research. Depending on faculty, areas addressed may include basic research on consumer knowledge (learning and memory), goals, persuasion, and emotions, with applications to branding, consumer finance, human-technology interaction, and social influence. The course draws from the literature in marketing, psychology and economics. The course will enable students to conceptualize, operationalize, and develop research ideas. Therefore, the focus is on understanding theoretical and methodological approaches to various aspects of consumer behavior, as well as advancing this knowledge by developing testable hypotheses and theoretical perspectives that build on the current knowledge base.

Spring
0.5 Course Units

MKTG 9530 Contemporary Topics in Consumer Research - Part B
The purpose of this seminar is to provide graduate students with an overview of contemporary topics in consumer research. Depending on faculty, areas addressed may include basic research on consumer knowledge (learning and memory), goals, persuasion, and emotions, with applications to branding, consumer finance, human-technology interaction, and social influence. The course draws from the literature in marketing, psychology and economics. The course will enable students to conceptualize, operationalize, and develop research ideas. Therefore, the focus is on understanding theoretical and methodological approaches to various aspects of consumer behavior, as well as advancing this knowledge by developing testable hypotheses and theoretical perspectives that build on the current knowledge base.

Spring, even numbered years only
0.5 Course Units

MKTG 9540 Economic/OR Models of Marketing - Part A
This doctoral seminar reviews analytical models relevant to improving various aspects of marketing decisions such as new product launch, product line design, pricing strategy, advertising decisions, sales force organization and compensation, distribution channel design and promotion decisions. The primary focus will be on analytical models. The seminar will introduce the students to various types of analytical models used in research in marketing, including game theory models for competitive analysis, agency theory models for improving organization design and incentives within organizations, and optimization methods to improve decision making and resource allocation. The course will enable students to become familiar with applications of these techniques in the marketing literature and prepare the students to apply these and other analytical approaches to research problems that are of interest to the students.

Spring
0.5 Course Units
MKTG 9550 Economic/OR Models of Marketing - Part B
This is a continuation of MKTG 954. This doctoral seminar reviews analytical models relevant to improving various aspects of marketing decisions such as new product launch, product line design, pricing strategy, advertising decisions, sales force organization and compensation, distribution channel design and promotion decisions. The primary focus will be on analytical models. The seminar will introduce the students to various types of analytical models used in research in marketing, including game theory models for competitive analysis, agency theory models for improving organization design and incentives within organizations, and optimization methods to improve decision making and resource allocation. The course will enable students to become familiar with applications of these techniques in the marketing literature and prepare the students to apply these and other analytical approaches to research problems that are of interest to the students.
Spring, odd numbered years only
0.5 Course Units

MKTG 9560 Empirical Models in Marketing - Part A
This course is designed to generate knowledge of the use of quantitative statistical, econometric, and Machine Learning methods and their application to Marketing problems. A strong emphasis is also placed on the applied nature of applying these methods in terms of data requirements, exogenous versus endogenous variation, and computational challenges when using complex models. Students outside of Marketing are welcome, and we discuss how these models can be applied to other disciplines. By the end of the course, students should be familiar with the key issues and approaches in empirical marketing modeling.
Spring
0.5 Course Units

MKTG 9570 Empirical Models in Marketing - Part B
This course is designed to generate awareness and appreciation of the way several substantive topics in marketing have been studied empirically using quantitative models. This seminar reviews empirical models of marketing phenomena including consumer choice, adoption of new products, sales response to marketing mix elements, and competitive interaction. Applies methods and concepts developed in econometrics and statistics but focuses on substantive issues of model structure and interpretation, rather than on estimation techniques. Ultimately, the goals are a) to prepare students to read and understand the literature and b) to stimulate new research interests. By the end of the course, students should be familiar with the key issues and approaches in empirical marketing modeling.
Spring, even numbered years only
0.5 Course Units

MKTG 9710 Advanced Topics in Marketing - Part A
Taught collectively by the faculty members from the Marketing Department, this course investigates advanced topics in marketing. It is organized in a way that allows students to 1) gain depth in important areas of research identified by faculty; 2) gain exposure to various faculty in marketing and their research values and styles; and 3) develop and advance their own research interests.
Fall
0.5 Course Units

MKTG 9720 Advanced Topics in Marketing - Part B
Taught collectively by the faculty members from the Marketing Department, this course investigates advanced topics in marketing. It is organized in a way that allows students to 1) gain depth in important areas of research identified by faculty; 2) gain exposure to various faculty in marketing and their research values and styles; and 3) develop and advance their own research interests.
Spring
0.5 Course Units

MKTG 9730 Research Seminar in Marketing - Part A
This course is taught collectively by the faculty members from the Marketing Department. It is designed to expose Doctoral students to the cutting-edge research in marketing models in order to help them to define and advance their research interests. This course will offer in-depth discussions on some important topics in marketing by experts in respective areas; tools, and methodologies required for conducting research in those areas; broad exposure to our faculty members and their proven research styles.
Fall
0.5 Course Units

MKTG 9740 Research Seminar in Marketing - Part B
This course is taught collectively by the faculty members from the Marketing Department. It is designed to expose Doctoral students to the cutting-edge research in marketing models in order to help them to define and advance their research interests. This course will offer in-depth discussions on some important topics in marketing by experts in respective areas; tools, and methodologies required for conducting research in those areas; broad exposure to our faculty members and their proven research styles.
Spring
0.5 Course Units

MKTG 9940 Research Seminar in Marketing - Part B
This course is taught collectively by the faculty members from the Marketing Department. It is designed to expose Doctoral students to the cutting-edge research in marketing models in order to help them to define and advance their research interests. This course will offer in-depth discussions on some important topics in marketing by experts in respective areas; tools, and methodologies required for conducting research in those areas; broad exposure to our faculty members and their proven research styles.
Spring
0.5 Course Units

MKTG 9950 Dissertation
Fall or Spring
0 Course Units

MKTG 9990 Supervised Independent Study
Requires written permission of instructor and the department graduate adviser.
Fall or Spring
0.5-2 Course Units

Master of Applied Positive Psychology (MAPP)

MAPP 6000 Introduction to Positive Psychology
An introduction to the research, theory and intellectual history of positive psychology. This course is only open to students in Master of Applied Positive Psychology Program.
Fall
1 Course Unit

MAPP 6010 Research Methods and Evaluation
A methodology course exploring the valid and reliable assessment of positive states, such as positive emotions, and positive traits, such as character strengths. This course is only open to students in the Master of Applied Positive Psychology Program.
Fall
1 Course Unit
MAPP 6020 Foundations of Positive Interventions
An investigation into the theoretical, empirical and experiential nature of positive interventions. This course is only open to students in the Master of Applied Positive Psychology Program.
Fall
1 Course Unit

MAPP 6030 Perspectives on Well-Being
An exploration of facets of the human experience that contribute to well-being among individuals, groups, and communities. This course is only open to students in the Master of Applied Positive Psychology program.
1 Course Unit

MAPP 7020 Advanced Positive Interventions
In this course students will extend the horizon of knowledge about positive interventions. Beginning with the rich theoretical base of psychological research on positive affect, engagement, and meaning, and building on current research on how to raise these various components of the full life, students will focus on the creation and testing of new and more effective interventions. Students will explore single interventions that integrate cognitive, affective, and somatic components, and they will experiment with ways of clustering individual interventions together for greater cumulative effect. Also emphasized will be the importance of appropriate fit between the intervention, the individual, and the cultural context so that single or clustered interventions can be applied with maximal effectiveness.
Spring
1 Course Unit

MAPP 7080 Positive Psychology and Individuals
An exploration of positive psychology applications in coaching, clinical and other relational settings. This course is only open to students in the Master of Applied Positive Psychology program.
Spring
1 Course Unit

MAPP 7090 Pos Psych & Organztns
Positive Psychology and Organizations.
Spring
1 Course Unit

MAPP 7100 Humanities and Human Flourishing
An exploration and integration of culture and science to support the deeper understanding and more effective cultivation of human flourishing. This course is only open to students in the Master of Applied Positive Psychology program.
1 Course Unit

MAPP 7120 The Psychology & Neuroscience of Character
An investigation of positive approaches to building cognitive, emotional and character strengths across the lifespan. This course is only open to students in the Master of Applied Positive Psychology program.
Spring
1 Course Unit

MAPP 7140 Applying Positive Interventions in Institutions
An exploration of positive organizational scholarship interventions, including an application lab that enables students to design research-informed interventions as service learning projects for non-profit organizations. This course is only open to students in the Master of Applied Positive Psychology program.
1 Course Unit

MAPP 8000 Capstone
The capstone project is a distinguishing feature of the Master of Applied Positive Psychology program, blending academic and professional experiences and serving as the culmination of your work in the program. Through the capstone project, you will explore, in depth, the theories and practical applications you’ve learned in the program, to advance the field of positive psychology itself. The capstone is completed during the summer semester and has no on-site course requirements. You will conduct this project work independently, with your advisor's ongoing guidance, in a setting that is significant to you and most relevant to your future professional goals.
Summer Term
1 Course Unit

Master of Liberal Arts (MLA)

MLA 4990 Independent Study
Please be in touch with the department for further details
Fall or Spring
1 Course Unit

MLA 5020 MLA Seminar: Topics in Liberal Arts
Reading and discussion course on selected topics in the liberal arts.
Not Offered Every Year
1 Course Unit

MLA 5050 MLA Proseminar: Topics in Liberal Arts
Interdisciplinary faculty-lead reading and discussion course on selected topics in the liberal arts.
Not Offered Every Year
1 Course Unit

MLA 5410 Academic Writing and Research Design in the Arts and Sciences
Have you ever noticed that scholars in different academic disciplines seem to speak different languages? Have you wondered how scholars put together a plan for their research, explain their findings, and organize and write their papers? The class is designed to introduce MLA students and other advanced students to the research and writing conventions used by scholars in the arts and sciences. With attention to disciplines in the humanities, social sciences, and sciences, we will identify and explore some of the theories, sources, language and qualitative and quantitative methodologies that scholars use as they conduct original research in their fields. Throughout the class, we will also discuss writing conventions across the arts and sciences, with special attention to the structure of argument; the use of evidence; voice and style in both traditional academic writing and more innovative forms of writing; and documentation conventions. Students will develop an original research project through incremental writing assignments, and will write a formal research proposal (15-20 pages), which can be used as their Capstone proposal if they wish.
Not Offered Every Year
1 Course Unit

MLA 5990 Independent Study
Please be in touch with the department for further details
Not Offered Every Year
1 Course Unit

MLA 6990 Capstone
Please be in touch with the department for further details
Fall or Spring
1 Course Unit
MLA 9900 Masters Thesis
Please be in touch with the department for further details
0 Course Units

Master of Science in Social Policy (MSSP)

MSSP 6010 The Power of Partnerships between Government, Non-profits, & the Private Sector
Everything from the Affordable Care Act to the Mayor’s Rebuild Initiative here in Philadelphia could not be implemented by government without strong and vital partnerships with non-profits and the private sector. These collaborations provide an opportunity to help people, impact and change policy, improve outcomes, and multiply the impact that non-profit and private sector organizations can have. The course will help graduate (and advanced undergraduate) students not only understand the theory, policy, and practice of these collaborations but also learn how they actually happen. Students will also learn the characteristics of these three sectors, their roles and contributions, and competitive forces that are often at work in the collaborative process. Topics for discussion will include attitudes and expectations in the public sector, the ingredients of effective partnerships, and effective communication strategies with elected and appointed officials. The course will be conducted on a seminar basis. Graduate students are expected to take an active part in shaping the discussion. Students will be expected to rotate leadership for the class discussions and to supplement course materials with independent study of relevant magazine and newspaper articles. Course grades are assigned as follows: 20 percent for class participation, 15 percent for an in-class written exam, 30 percent for a group presentation and write up of a case study, and 35 percent for a final project. High quality written work and accurate citations is an expectation in all assignments.
1 Course Unit

MSSP 6060 Data for Equitable Justice Lab
Data for Equitable Justice Lab is a non-credit research group that gives SP2 Masters students an opportunity to analyze some of today’s most important social issues through data and, with faculty support, create a product for audiences well beyond our classrooms and campus. With guidance from the lab faculty, students develop a project - either individually or as part of a team - to examine a contemporary social policy or political issue through or on data or digital technology. Through these projects students will produce an op-ed, blog post, podcast, academic article, short film, or other product of their choosing that creates or contributes to contemporary discourse.
Fall, Spring, and Summer Terms
0 Course Units

MSSP 6070 Practical Programming for Data Science
This course familiarizes students with no prior programming experience with the core concepts of programming and the practice of software development for data-intensive applications in industry and government. After this course, students will be comfortable (1) writing code to save and load from files and spreadsheets into basic data structures like strings, lists, and maps; (2) manipulating data with code to perform tasks like generating aggregate statistics and filtering data into subsets; (3) effectively communicating findings from interactive, exploratory programming with others; and (4) working with technical teams, using best practices of software development when building line-of-business applications.
Fall
1 Course Unit

MSSP 6080 Practical Machine Learning Methods
This course prepares students with no background in machine learning or data science to use tools from those fields effectively in applied contexts. Using GUI-based software - or optionally, by programming with libraries - students will build skills including (1) feature representations of spreadsheet-based or text datasets; (2) training classification and regression models for prediction tasks; (3) evaluation of machine learning model accuracy and error analysis; and (4) reasoning about predictive models and making tradeoffs like bias vs. variance, granularity and annotation complexity in labeled training data, and the ethical application of predictive modeling to human-centered data.
Spring
1 Course Unit

MSSP 6090 Invisible Injustices: How Policy & Bureaucracy Create (& Hide) Diff. & Power
How does the design of everyday objects and systems in our social world - from the workplace to the civic sector - produce variation in our political participation to promote or stifle the collective project of social justice? Systemic injustice expresses itself in everything from software interface designs to paper passport applications. Using these objects and others, this course focuses on the ways in which power operates through and within aesthetics to create and enforce difference and produce the inequalities that demand a collective reimagining of our world. What might we learn from these “aesthetic assemblages” of power and difference, and their manifestations in current social policy? In this course, we will work with case studies from a range of politically urgent topics - mass incarceration, immigration reform, healthcare inequity - through the lens of critical theories and pedagogies that center the lives of those communities most impacted by discriminatory social policy. Students will learn to apply the thinking of scholars such as Fred Moten & Stefano Harney, Dean Spade, and Mel Chen towards their own social justice-informed approaches to social policy and practice. Through independent study projects, students will explore their own unique areas of interest beyond the scope of this course to rethink how critical theory can shape and be shaped by on-the-ground, everyday practices.
Fall, Spring, and Summer Terms
1 Course Unit

MSSP 6280 Policy: Analysis of Issues, Strategy and Process
Policy analysis requires an understanding of social problems/social issues and the processes by which policy is developed and implemented. Critical skills in many policy frameworks include: problem definition and analysis, review of relevant research, identification of possible actions, implementation and evaluation, and fiscal analysis. Competency in written and oral communication is also essential. To develop these and related skills, this course utilizes as a base a dynamic social problem analysis framework that addresses issues of equity, equality and adequacy. It also examines multiple theoretical and analytical perspectives. Through the review of contemporary and historical social policy debates and provisions, selected case examples and policy briefs, this course provides students with an understanding of the policy roles of the legislative and executive branches of government, including goal setting, policy rulemaking and enactment, allocation of resources, financing, regulation, and implementation. The policy process at state and local levels of government will also be addressed. The primary focus is on U.S. policy although global policies will be discussed when relevant.
Fall
1 Course Unit
MSSP 6290 Research and Evaluation Design
Research and Evaluation Design introduces social research methods in the context of social policy and program evaluation. The course provides a conceptual and practical understanding in the design of experimental, quasi-experimental, and non-experimental research and in the application of quantitative and qualitative methods. Students learn about the application of the research process and skills in all phases of assessing a social policy and developing a social program, including needs assessment, implementation analysis, and evaluation of policy or program effectiveness. Students learn to be critical and informed consumers of research and to apply guidelines of research ethics in social policy settings.
Fall or Spring
1 Course Unit

MSSP 6300 Quantitative Reasoning/Social Statistics
The primary goals of this course are (1) to provide students with a solid understanding of the logic of social science research as well as (2) to provide students with an introduction to a broad range of statistical methods commonly used in social science research. The first portion of the semester concentrates on defining research problems, research design (including sampling, measurement, and causal inference), and assessing research quality. The latter portion of the semester focuses upon data analysis including descriptive statistics, measures of association for categorical and continuous variables, introduction to t-tests, ANOVA and regression, and the language of data analysis. Students will learn how to choose and apply statistical tools to data sources, how to interpret quantitative studies, and will gain experience using SPSS - a statistical software package.
Fall
Also Offered As: SOCW 6300
1 Course Unit

MSSP 6310 Law and Social Policy
This course introduces students to the basics of the American legal system, focusing on the interplay between litigation and social policy. Students will learn how law, and particularly case law, is made, how to read case law and evaluate precedent, legal reasoning and argument. This course will utilize various teaching methods including introduction to the "Socratic" lecturing method which is frequently utilized in the study of law. Students will also study the structure of court systems at both state and federal levels as well as the litigation process and the role of law and courts in shaping and addressing social policy issues. Students will also learn the basics of several areas of substantive law, with an eye toward consideration of how that law has been, and can be, used to effect social change.
Spring
1 Course Unit

MSSP 6320 Capstone Seminar I: Policy Communications
The focus of the Capstone Seminar is three-fold: 1) to enhance student integration of the theory and practice of social policy analysis; 2) to enhance the student’s competencies in the written and oral communication processes and procedures necessary for the policy world; and 3) to ensure basic knowledge about federal budget processes, stakeholder roles, and inter-organizational collaboration. Registration restricted to majors only.
Spring
0.5 Course Units

MSSP 6330 Capstone Seminar II: Policy Internship
Capstone II consists of an intensive, multi-week policy internship that is selected through a consultative process involving the student, MSSP advisors, internship coordinator/advisor, and mentors/supervisors at potential sites. The internship provides an opportunity for the student to expand horizons beyond the academic. It serves as a medium to integrate classroom learning with experiences in policy making activity. Registration restricted to majors only.
Summer Term
0.5 Course Units

MSSP 6340 MSSP/DA Capstone I: Telling Stories with Data
The volume and complexity of data continues to increase in the world around us, including science, business, medicine, social media and everyday human activity. This course aims to expose students to visual representation methods and techniques that increase the understanding of complex data. Good visualizations not only present a visual interpretation of data, but do so by improving comprehension, communication, and decision making. In this course, students will learn about the fundamentals of perception, the theory of visualization, and good design practices for visualization. The course will also provide hands-on experience on the process of data communication, from initial data analysis, to identifying appropriate visualization techniques, to crafting informative visualizations.
Fall
0.5 Course Units

MSSP 6350 MSSP+ DA Capstone II: Policy Internship in Data Analytics
Capstone II consists of an intensive, multi-week internship that is selected through a consultative process involving the student, MSSP advisors, internship coordinator/advisor, and mentors/supervisors at potential sites. The internship provides an opportunity for the student to expand horizons beyond the academic. It serves as a medium to integrate classroom learning with experiences in policy making activity. Registration restricted to majors only.
0.5 Course Units
**MSSP 6670 Critical Global Politics, Policy & Identity**

What is identity? Why do we identify with categories such as "Black", "Latino", "Queer", "American" or "Asian"? How do these categories play a role in current Global Politics, and how have Global Politics & Policies helped configure different identities throughout history? According to Fredric Jameson, in the 60's there was a Global Shift by which the "natives of the world" became human beings. Concepts such as "diversity" and "identity" as we know them today originated in these global reconfigurations of subjectivity that occurred in the context of the decolonization of Africa, the Civil Rights movements in the United States, and the Cuban Revolution, among other historical events. As western nations were coming to terms with Otherness within their own borders, confronting the needs of women and minorities, underdeveloped nations were fighting for independence and liberation claiming their rights in the new geopolitical arena. At the same time, the Orient had become the West's most powerful cultural contestant and, as Edward Said put it, its "deepest and most recurring" Other. This course is designed to provide students with the critical and analytical tools to understand different global policies and political events, while examining their implications in the formation of identity through the lens of critical theory. Each class will be structured around a case study that students will reflect upon using the assigned readings and supporting materials. Students will learn about the discursive formations that have made possible to name ourselves in opposition or in relation to others, claiming gender, race, national, class identities that are indebted to power-knowledge dynamics rooted in colonialism. We will examine how class is reformulated into different types of Capitals that inform positionality in the social space (Bourdieu). We will analyze how race as a tool for classifying bodies became a global category present, for example, in the War on Terror after 9/11, as well as in the Global division of nations based on different degrees of development. We will question how nationalism is formed and enacted in a changing world where migration is so prevalent. Along with racial, national, and global processes for subjectivization, we will examine gender, non-binary and queer identities, and how they all intervene LGBTQ rights, abortion and same-sex marriage policies. Fall, Spring, and Summer Terms

1 Course Unit

**MSSP 6680 Economics for Social Policy**

Economics allows us to determine the costs and benefits of social policies like cash benefits, unemployment insurance, health insurance, pensions, education, etc. Policies typically affect the behavior of agents like individuals, families and firms, and we have to take these reactions into account when analyzing policy. Economics allows us to predict how policy is likely to affect behavior by understanding how the policy changes individuals’ decisions, and what collective outcomes these myriad individual decisions bring about. For example, a universal basic income allows individuals to sustain themselves and their families when they are not working. At the same time, such guaranteed income has the potential to discourage people from looking for a job. If enough people are discouraged from looking for a job, employment in the economy will decrease, leading to lower production and lower tax revenues for the government. Policy makers have to take these phenomena into account in order to design a good income support system.

Fall, Spring, and Summer Terms

Also Offered As: SOCW 6680, SWRK 6680

1 Course Unit

**MSSP 7010 Race, Technology, & the Body**

The history of the relationship between race and technology has long been fraught. On the one hand, the sociopolitical formation of race constituted black and brown bodies in juxtaposition to the logics of reason that the instruments of post-Enlightenment technicity were built. On the other hand, as Wendy Chun argues, the discursive formation of race was a technology in and of itself that was designed to hierarchize and differentiate bodies as well as to make black and brown bodies extracted technologies for labor and Capital. This seminar will explore this deeply enmeshed history between race and technology by engaging text in the history of science and philosophy, critical theories of technology, cybernetics, and critical theories of difference. These text will range in topics from the transparent subject to surveillance studies to algorithmic bias to the speculative fiction of Afrofuturism. The text will include both scholarly written products as well as media and popular culture. Students will learn about the history of philosophy and technology in relation to race and the (em)body as well as how to examine for speculative futures.

Fall, Spring, and Summer Terms

1 Course Unit

**MSSP 7030 Visual Techniques for the Contestation of an Unjust World**

In this course we will work through a select history art, social movements, and collective organizing. This material will be used for gaining new clarity on present conditions of social injustice and to tease out novel solutions. In combination with these case studies, students will also read literature related to the field of political and decolonial aesthetics by authors such as Jacques Ranciere, David Graeber, and Silvia Rivera Cusicanqui. We will discuss how social issues such as poverty, incarceration, and racism are reframed from the perspective of those positioned within impacted communities, and/or outside of government and policy. A central question of this course is to ask how aesthetics plays a role in the formation of political conflicts and subjectivities, and whether or not this role can be turned back on itself to offer new possibilities in thinking resistance and abolition. The ultimate goal of this course is twofold. One is to train students in a new analytic framework through which to approach issues of conflict, injustice, and asymmetries of power. By drawing from diverse and potentially unfamiliar examples students are encouraged to free themselves up to think more broadly with the new tools they will gain during this course. The second goal is to encourage students to critically assess existing ethics, or evaluative patterns, by which problems and solutions are thought in policy today. Experience with and knowledge of art history is not a requirement for this course, and in fact, students from a range of disciplinary backgrounds and interests are encouraged to participate.

Fall, Spring, and Summer Terms

1 Course Unit
MSSP 7040 Critical Studies in Health Inequity and Policymaking
The relentless focus on the being of health inequity often overshadows the becoming of health inequity. Each drip of social injustice pools into a confrontation that disproportionately affects the health and healthcare of the socially disadvantaged groups. This course navigates health policymaking through a sociohistoric lens and grapples with contemporary perspectives in health equity. We explore the theoretical frameworks that best inform the existence of health inequity along with the practices that eliminate health inequity. Students will have the opportunity to learn how to effectively communicate evidence-based strategies in both policy and academic grant formats. While generally structured as a seminar, this course extends the walls of the classroom and encourages students to confront real-life health policy issues while engaging local, state, and federal health policy influencers. Students will spend time in the robust archives and cutting-edge medical facilities at Penn to best hone their policy-making voice.
Fall, Spring, and Summer Terms
1 Course Unit

MSSP 7060 Behavioral Economics and Social Policy Design
This course will introduce students to the field of behavioral economics and its application to designing social policies concerning health, education, childcare, voting, poverty, financial stability, legal and regulatory frameworks, among others. Behavioral economics extends the classical textbook theory of how the "rational" economic individual - often referred to as homo economicus - makes choices to include insights from psychology, biology, anthropology, sociology and other fields in order to increase the explanatory power of economic theories. While classical economics is still a useful tool for any social scientist to possess, behavioral economics, in the words of one of the fields founding fathers, Richard Thaler (2015), "is more interesting and more fun than regular economics. It is the un-dismal science."
1 Course Unit

MSSP 7080 Data, Decision, Death: Security, Raciality, and Policy during the COVID-19 Global Pandemic (thus far)
"Bio-power (covers) the set of mechanism through which the basic biological features of the human species became the object of a political strategy (...), how, starting from the eighteenth century, modern Western societies took on board the fundamental biological fact that human beings are a species." *Michel Foucault, Security, Territory, Population
When the spread of the disease caused by the new coronavirus (SARS-CoV-2) took the form of a global pandemic, in the second and third week, March 2020, very quickly we were hailed by abstract representations and strategies, that is, policy decisions - which included the setting up of the COVID-19 Global Pandemic (thus far) data dashboards and web-based maps. These topics will be discussed in the course.
Fall, Spring, and Summer Terms
1 Course Unit

MSSP 7100 Democratizing Data? Critical Data Studies in Algorithmic Governance
With the advent of digital technologies and the increasing power of computational analytics, the proliferation and ubiquity of data production has increased at exponential rates enabling new possibilities for social analysis. This course will examine the emergence of democratizing data - the movement to make government and other data more widely or publicly available and its potential enabling for democratic possibilities. The types of data being made available, through various analytic systems, and the ways in which their accessibility and inaccessibility is contributing to reconfigured power relations, will be described. The paradigmatic tensions and shifts that have emerged in the debates on "Big Data," such as deductive versus inductive reasoning and the challenges posed to statistical sampling theory, will be interrogated. The appropriation of machine learning and predictive analytic algorithms for social analysis will be critically explored. Issues related to the ethical and legal use of administrative data, particularly data related to patient, client, student, and taxpayer information will be considered, as well as from internet-based sources including social media. Potential solutions to data security challenges will be additionally considered. Methods for web-scraping of data, analysis of web traffic data, and the use of social networking data in the modeling of social phenomena and public opinion will be examined. Students will learn how to make results accessible to non-technical audiences via data visualization tools, such as web-based data dashboards and web-based maps. These topics will be discussed in the course.
Fall
1 Course Unit

MSSP 7300 Community Mapping
Geographic space is important to family and community well-being, as we know. Community Mapping introduces students to geographic information systems (GIS), computer software for making maps and analyzing spatial data. Students will learn how maps have been used in social welfare history as well as how GIS can be used for needs assessments, asset mapping, program evaluation, and program planning. The course builds on research skills developed in SWRK 615. For the final project, students have an opportunity to apply their GIS skills to creating maps related to their field placement. The use of such maps may lead to both program and policy change in neighborhoods and communities.
Fall
1 Course Unit
MSSP 7410 Gender & Social Policy
Gender and Social Policy develops an advanced understanding of social policies through the lens of gender - a socially constructed classification system based on ideals of femininity and masculinity, which are most commonly understood to be binary, mutually exclusive categories corresponding to sex (female and male). (Gender is) a concept that pervades all aspects of culture: structuring institutions, social identities, cultural practices, political positions, historical communities, and the shared human experience of embodiment*. The class provides students with the opportunity to explore how social policies respond (and contribute) to the needs and risks of different groups of people based on gender classifications. Rather than a survey of "gender" policy, students will be introduced to key feminist and trans concepts and frameworks that can be applied to any social issue and policy intervention. Policy examples may include reproduction, state violence, exclusionary/inclusive space, and national emergencies. The topics and specific readings may change based on the class's interests and current events. Class assignments are designed to provide an opportunity to practice applying gender theory, as well as for each student to examine a policy issue of import to them through a gendered lens. *paraphrasing Garland-Thomson, 2002, "Integrating Disability, Transforming Feminist Theory", NWSA Journal, 14(3): pg 4.
Fall, Spring, and Summer Terms
Also Offered As: SWRK 7410
1 Course Unit

MSSP 7550 International Social Policy & Practice: Perspectives from the Global South
This interdisciplinary course will introduce students to social policy and practice perspectives from outside the U.S. and especially from communities in the Global South. The course will familiarize them with global professions and help prepare them for overseas/cross-cultural practice. Through the course students will identify numerous strategies and skills professionals have used to collaboratively build interventions within human rights, social policy, social welfare, education, healthcare and sustainable development arenas.
Fall
Also Offered As: SWRK 7550
1 Course Unit

MSSP 7680 Social Policy Through Literature
Also Offered As: SWRK 7680
1 Course Unit

MSSP 7800 Policy and Difference in Postmodernity
Social constructions of "difference" permeate the institutions, spaces, and assumptions of our society. These social constructions include but are not limited to the racialized, gendered, sexed, classed, and dis/abled constructions of the body. By leaning on postmodern thinkers such as Iris Marion Young, Pierre Bourdieu, Judith Butler, Jacques Derrida, Ernesto Laclau, and Michel Foucault, this seminar course will begin by engaging the questions of what is "difference" and how is "difference" discursively constructed and reproduced in society. Using a postmodern lens, the remainder of the course will engage various social science texts that deal with the varieties of "difference" (i.e. race, gender, class, sexuality) and the explicit and/or implicit policy implications of these works. Thus, we will critically engage policies such as welfare, affirmative action, economic policies of taxation, and same-gender marriage, among others. The underlying questions throughout the course will be to what extent does social policy enable the possibilities of freedom, justice, and democracy for the "Other", the deviant, the abject, the marginalized, those of assumed "difference"? And, to what extent does policy constrain those possibilities at the same time? This course does assume familiarity with social theory and is an introduction to postmodern thought on the law, the political, and policy.
Fall, Spring, and Summer Terms
Also Offered As: SWRK 7800
1 Course Unit

MSSP 7960 Family Economic Mobility: Problems and Policies
The experiences and voices of mothers, fathers, children, employers, children's teachers, human service workers, job training providers, policymakers and others in cities across America graphically show us the "real life" challenges to economic mobility facing today's families and organizations. These voices particularly illustrate how economic, social, and cultural policies, practices, and beliefs intersect to perpetuate economic inequality for low-income and many middle-income working families alike. The labor market, welfare and workforce programs, public schools and government are some of the institutions implicated in this intersection. In the course we deconstruct concepts such as the "work ethic," "family-friendly workplace," and "good jobs" in terms of economic, racial and cultural inequalities and, more broadly, in terms of their meaning, aims and rhetoric. At base, this course examines occupational mobility in America within the broad framework of capitalism, democracy, race, ethnicity and gender. Students from GSE, SAS, City Planning, and Communications often join SP2 students to read and critique classic and contemporary literature from multiple disciplines and explore generative roles for "meso-oriented" social change professionals.
Fall or Spring
Also Offered As: SWRK 7960
1 Course Unit
MSSP 7970 Social Policy in Revolutionary Cuba (1959-2017)
Cuba represents one of the world’s long-standing institutionalized revolutions whose narrative and policies have changed from a strong nationalism yearning for independence, to an alignment with communism’s ideology and modus operandi, to a nostalgic, post-Soviet Union "socialism" ruled by a binary, state-controlled capitalism. In addition to the myriad of social and political changes affecting the island, the transition of leadership from Fidel Castro to his brother, Raul, and the death of the former in 2016, has put into question the theoretical pillars of the Revolution, thus undermining its initial legitimacy. This course is designed to provide students with the critical and analytical tools to dissect Cuban revolutionary politics, policies, and identity mutations within the island’s historical trajectory. We will begin by critically reviewing key points of diplomatic and historical relationships between the U.S and Cuba, followed by an analysis of the notion of independence - upon which Castro relied to gather massive support - in the context of the 60’s debates on decolonization and underdevelopment. In addition, we will delve into the theoretical foundations of the Revolution focusing, among other texts, on the literature by Cuba’s "founding father" Jose Marti, who deeply influenced the Spanish-American war (1898)'s outcomes as well as Fidel Castro’s vision for Cuba. Throughout the course, students will also have the opportunity to critically read and discuss main Cuban social policies such as its famous Literacy Campaign, and other Education, Housing, Cultural, Health, and Immigration policies, as well as the island’s complex relationship with technological development and communications. Finally, we will study identity and race dynamice, which are inextricably embedded in Cuba’s political landscape.
Fall, Spring, and Summer Terms
1 Course Unit

MSSP 7980 Social Policy Topics
Titles and topics vary.
Fall, Spring, and Summer Terms
1 Course Unit

MSSP 7990 Independent Study
Independent studies provide a flexible opportunity for standing faculty and students to work together in pursuing a topic of special interest that is not sufficiently covered by other courses in the curriculum. The content of independent studies is highly specialized and, as such, requires a plan of study developed jointly by the student(s) and the supervising standing faculty member. Part-time faculty members are not eligible to offer independent studies. Independent studies require the academic advisor’s approval.
1 Course Unit

MSSP 8610 Advanced Policy Analysis Research Methods
This course examines how policy research methods are applied to the study of contemporary social issues. The course is intended for students with a basic knowledge of regression, and will be especially useful for students with practical experience in a policy setting who want to learn about advanced research methods. The course begins by exploring policy analysis frameworks, and the contexts of social policy and social policy research. The remainder of the course explores a variety of common approaches to the conduct of social policy research by looking at the types of questions social policy analysts most frequently ask, and the types of answers that they are most often able to provide. The policy analysis approaches we will examine include: needs assessment methodologies (e.g. the “epidemiology” of social problems); analyses of client-level service utilization patterns (e.g. creating “typologies”); modeling trends in demand for services over time (e.g. forecasting); locational and other spatial factors associated with need, service use, and resource allocation decisions (e.g. block grant formula funding); machine learning (e.g. predictive analytics); the roles of qualitative research methods in policy research; comparative research on social welfare policy; performance management applications of administrative data; and longitudinal, multisectoral research using integrated administrative data systems. The application of these various methods is illustrated with studies of mental health, homelessness, criminal justice, child welfare, housing and segregation, welfare reform, income inequality and social service planning. Students participate as discussants of weekly readings, and as presenters of an assigned paper.
Fall
Also Offered As: SOCW 8610
1 Course Unit

MSSP 8970 Applied Linear Modeling
This course deals with the underlying assumptions and applications of the general linear model with social science, education, and social policy related questions/data. The first half of the course begins by covering simple linear regression and the assumptions of the general linear model, assumption diagnostics, consequences of violation, and how to correct for violated assumptions. This will also include methods of incomplete case analysis (i.e. missing data analysis). Then various aspects of regression analysis with multiple independent variables will be covered including categorical explanatory variables (e.g. to estimate group differences), interaction effects, mediating effects (e.g. to estimate the indirect effect of social processes), and non-linear effects. The course will then cover some of the applications of the general(ized) linear model including logistic regression, some elements of path modeling (structural equation modeling), multilevel analysis (hierarchical linear modeling), and longitudinal modeling (growth modeling). The course will be taught using SAS, but students are welcome to use any statistical package of comfort. Introductory Graduate Statistics is a prerequisite.
Fall
Also Offered As: SOCW 8970
1 Course Unit
MSSP 9990 Independent Study
Independent studies provide a flexible opportunity for standing faculty and students to work together in pursuing a topic of special interest that is not sufficiently covered by other courses in the curriculum. The content of independent studies is highly specialized and, as such, requires a plan of study developed jointly by the student(s) and the supervising standing faculty member. Part-time faculty members are not eligible to offer independent studies. Plans for an Independent Study should include: a statement of the issue(s) to be studied; a rationale for why the identified issue(s) should be pursued via an independent study; a statement of how the independent study fits into the student’s overall educational plan; a summary of the independent study’s major learning objectives; the methods to be used in carrying out the study; a workable plan; the educational "products" that will result from the study (normally a written report or paper); and the expected date by which the independent study will be completed. The process for arranging an independent study requires approval of both the student’s academic advisor and a standing faculty member who has agreed to conduct the independent study. The procedures to be followed are: 1) the student discusses interest in doing an independent study with the academic advisor; 2) if the advisor concurs with the student’s submission, the advisor and student will discuss potential standing faculty sponsors; 3) if a standing faculty sponsor can be located, the student and standing faculty sponsor craft the specific plan, including learning objectives, content, and structure for the course; and 4) the academic advisor informs the registrar that an independent study for the student has been approved.

Fall, Spring, and Summer Terms
0.5-1 Course Unit

Master of Science in Translational Research (MTR)

MTR 5350 Introduction to Bioinformatics
This course provides overview of bioinformatics and computational biology as applied to biomedical research. A primary objective of the course is to enable students to integrate modern bioinformatics tools into their research activities. Course material is aimed to address biological questions using computational approaches and the analysis of data. A basic primer in programming and operating in a UNIX environment will be presented, and students will also be introduced to Python R, and tools for reproducible research. This course emphasizes direct, hands-on experience with applications to current biological research problems. Areas include DNA sequence alignment, genetic variation and analysis, motif discovery, study design for high-throughput sequencing RNA, and gene expression, single gene and whole-genome analysis, machine learning, and topics in systems biology. The relevant principles underlying methods used for analysis in these areas will be introduced and discussed at a level appropriate for biologists without a background in computer science. The course is not intended for computer science students who want to learn about biologically motivated algorithmic problems; BIOL 4536/BIOL 5536 and BE 5370/CIS 5370/MPHY 6090 are more appropriate. Prerequisites: An advanced undergraduate course such as BIOL 4210 or a graduate course in biology such as BIOL 5210, BIOL 5240, or equivalent, is a prerequisite.

Fall
Also Offered As: CIS 5350, GCB 5350
Prerequisite: BIOL 4210 OR BIOL 5210 OR BIOL 5240
1 Course Unit

MTR 6000 Introduction to Biostatistics
The goal of this course is to develop translational scientists who are able to apply the necessary statistical methods to their thesis project, critically assess the application of statistical methods in the literature, and collaborate with biostatisticians. The course will be designed to include weekly seminars to teach introductory biostatistics concepts and group assignments applying the principles through critically assessing the literature.

Fall
Also Offered As: REG 6000
1 Course Unit

MTR 6010 Practical Scientific Writing
Students should expect this process to be iterative. Students will learn, and practice in class, multiple techniques that they can apply in the future to improve their scientific writing. These include how to: (a) define the scope of a scientific document; (b) save time organizing, navigating, and formatting scientific documents; (c) read scientific articles efficiently; (d) establish a workflow for reading large volumes of scientific material; (e) efficiently find the most relevant articles in biomedical databases include PubMed, Embase, Scopus, Web of Science; (f) use large language models like Chat GPT as tools; (g) improve writing mechanics to craft clear and compelling scientific discourse. Note: point (g) encompasses ~15 different writing mechanical techniques taught and practiced over multiple class sessions. This is a hands-on course during which students will develop a solid draft of the introduction to their master’s thesis; sometimes this introduction is referred to as a ‘literature review’ (~3-6 pages double-spaced, >100 references).

Summer Term
Also Offered As: REG 6010
1 Course Unit

MTR 5100 Introduction to Clinical and Translational Research
This introductory course lays the foundation for understanding practical aspects of conducting clinical research in an academic environment. The course is divided into two modules: Module 1: Research Methods & Protocol Development and Module 2: Regulatory Environment for Clinical Trials. The first module introduces clinical research, clinical protocols, study designs and biostatistics that underlie such studies. The second module covers ethical considerations in clinical research, study execution and oversight, and the regulatory environment for clinical research. Upon completion, students should have a strong foundation in the fundamentals of clinical research and should be able to apply contemporary research tools to clinically relevant areas of investigation.

Fall
Also Offered As: REG 5100
1 Course Unit
MTR 6020 Proposal Development and Study Design
This course has two primary areas of focus: (i) proposal development and enhancement; and (ii) a focus on research and study design. (i) Proposal Development and Enhancement: Students apply foundational concepts by revising and refining their written proposal and presenting their research project throughout the course. Students receive an overview of approaches to developing an effective proposal, and guidance on how to write and present their hypothesis, specific aims, research strategy, significance, innovation, and approach using the general NIH application format. (ii) Research and Study Design: Students receive an overview of translational research principals and clinical study design approaches relevant to thesis projects designed to probe mechanisms of disease and translate results in basic research into investigations in humans. Topics include clinical and translational research methods, and study design and execution. Students are introduced to these topics through asynchronous and synchronous learning environments. At the end of the course, each student submits and presents their written proposal to their peers and a panel of reviewers for critique and feedback. Members of the panel include the students’ research mentor(s), program mentor, and thesis committee. The panel provides feedback on the proposal which the student will then incorporate into the written proposal. Students submit their final revised proposal to be reviewed and graded by their program mentor.
Fall
Also Offered As: REG 6020
1 Course Unit

MTR 6030 Disease Measurement
Students will acquire the knowledge to effectively incorporate disease measurements into the design of clinical and translational research protocols, gain a basic understanding of measurement methodologies used in clinical medicine, understand how "normal" values are determined, and how to interpret test results in the context of patients/research subjects. Students will also approach disease measurements as a mean of answering questions, and be able to choose appropriate tests to answer the question posed. The measurement aspects of the students research protocols are evaluated during this course. The course is separated into lab and imaging sections, with common introductory lectures.
Fall
1 Course Unit

MTR 6040 Scientific & Ethical Conduct
In this course, students will learn the foundational principles of scientific, operational and ethical conduct of research, complete directed experience in evaluating ethical principles through IRB membership and ultimately be able to apply all principles to their own work. By the end of the foundational class sessions, students will understand scientific conduct, ethical considerations of human subject's research, good clinical practices (GCP), good laboratory practices (GLP), conflict of interest, and budgetary concepts. The directed experience will include becoming a member of an Institutional Review Board (IRB) (Penn or CHOP) and participating as an active member in 6 meetings. Spring
Also Offered As: REG 6040
1 Course Unit

MTR 6050 Data Manuscript Writing
Students will write a primary data manuscript for publication with their primary lab mentor. Emphasis will be placed on identifying publishable data that was either generated by the student, or which is made available to the student for analysis from the mentor’s lab. The student will be expected to learn the role of first author including 1) coordination with the senior mentor to write the introduction, 2) organize data, analyses and figures, 3) obtain or write methods and results from collaborators, 4) writing a discussion and, 5) getting it out the door. Mentors will be asked to agree to participate in this process, or identify another senior individual in their group who would perform the function as a condition to have MTR students funded in their program. Course director and members of the curriculum committee will provide guidance and critical review of work throughout the process.
Spring
1 Course Unit

MTR 6060 Grantsmanship
Students will learn to write and submit a new investigator and/or mentored career development NIH grant on which they will be primary investigator.
Fall or Spring
1 Course Unit

MTR 6070 Thesis I
Candidates are expected to complete a thesis that involves designing a research project, writing a formal research proposal, performing the study described in it, preparing a comprehensive scholarly scientific paper reporting the results, and presenting and defending the thesis at a public seminar. At the time of application, each candidate specifies the project they will pursue, along with the lead mentor who will supervise the project.
1 Course Unit

MTR 6080 Thesis II
Candidates are expected to complete a thesis that involves designing a research project, writing a formal research proposal, performing the study described in it, preparing a comprehensive scholarly scientific paper reporting the results, and presenting and defending the thesis at a public seminar. At the time of application, each candidate specifies the project they will pursue along with the lead mentor who will supervise the project.
1 Course Unit

MTR 6200 Medical Entrepreneurship: Commercializing Translational Science
This course provides in depth insight into the process by which health technology platforms including scientific discoveries are transformed into viable commercial entities. This includes methods to evaluate market opportunities and derisk critical assumptions within the rapidly changing academic and healthcare environment. Topics include intellectual property creation and licensing, technology transfer, regulatory pathways, raising capital/NIH SBIR/STTR grant funding, go to market strategy, market sizing, formation equity, and recruiting co-founders. The major project will involve the formation of teams that will create a defendable business plan and consummate in a presentation (pitch deck) intended to raise capital. The course will be especially valuable for students who may be considering entrepreneurial career paths including starting a company, working for an early stage venture, healthcare consulting, or assuming innovation leadership roles.
Spring
Also Offered As: BE 6080
1 Course Unit
MTR 6210 Cell and Gene Therapy
This course will provide students with a general overview of translational research in the area of gene and cell therapy. This includes technical considerations, translating preclinical investigation into therapeutics, the execution of gene and cell therapies clinical trials, and key regulatory issues. Entrepreneurial considerations will be discussed as well. By the end of this course, students will understand the basic technologies employed for gene and cell therapy along with approaches and pitfalls to translating these therapies into clinical applications including regulatory and commercial aspects of this emerging area. Prerequisite: For graduate students, at least one prior course in immunology. An undergraduate-level or medical school immunology course is sufficient to meet the prerequisite.
Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: CAMB 7070, REG 6210
1 Course Unit

MTR 6220 New Trends in Medicine and Vaccine Discovery
Modern drug discovery has evolved to include human genetic diagnosis and various biological approaches which has enabled progress in a variety of fields, including rare diseases, immuno-oncology, precision medicine, and biomarkers. The goal of this course is for students to understand newer treatment modalities and approaches beyond one size fits all small molecule drugs, as well as the technologies that empower them. Students will learn regulatory processes that govern medicine discovery and development and also consider business and societal aspects of medical progress. Students will be able to apply concepts directly to work in the healthcare industry. Students will be taught by experts in the field internal and external to Penn.
Fall
Also Offered As: REG 6220
1 Course Unit

MTR 6230 Writing an NIH Grant
This course will provide a comprehensive overview of the grant writing process: fundamentals of good grant writing, general preparation of grant application (e.g. specific aims, research strategy, budgets, analysis of reviews and strategies of rebuttal and re-application), identifying RFAs, study sections, program officers and Scientific Review Officers (SROs), research strategy and detailed descriptions of the different types of funding mechanisms (e.g. R01, R21, K99/R00). While all grant mechanisms will be discussed, the class will focus on those relevant to the participants. Three mock study sections – two consisting of peer review and the other of faculty – is expected to familiarize the participants with the NIH review process. This course is expected to provide the foundation of any grant proposal, in terms of writing skills. It will be mandatory for all students to submit the intermediate proposals, and the final proposal. The participants will be drafting, revising, and working one-on-one with their peers and the course director to improve their proposal. The course will provide hands-on experience drafting the specific aims, significance, and innovation sections, through peer and faculty evaluation. Audience: Faculty or postdocs who have not written an NIH grant before or need guidance with submitting a revised application. Advanced graduate students may be permitted to enroll in the course.
1 Course Unit

MTR 6400 Seminar in Entrepreneurial Science
Seminar in Entrepreneurial Science. Permission from department required to enroll.
Fall
0.5 Course Units

MTR 9999 Master of Science in Translational Research LAB
1 Course Unit

Master of Urban Spatial Analytics (MUSA)
MUSA 5000 Statistical and Data Mining Methods for Urban Data Analysis
This hands-on course will cover a wide range of methods frequently used for analyzing urban and spatial data. These methods are drawn from a variety of fields, including traditional statistics, spatial econometrics, and machine learning, and include 1) regression analysis (OLS, ridge/lasso, logistic, multinomial logit); 2) measures of spatial autocorrelation; 3) spatial regression (spatial lag, spatial error, geographically weighted regression); 4) point pattern analysis; 5) an introduction to clustering methods (k-means, hierarchical clustering, DBSCAN); and 6) big data and GIS. Students will learn the assumptions and limitations of each method, and assignments will focus on the implementation, presentation and interpretation of the analyses. Students will use R and GeoDa in this course.
Fall
Also Offered As: CPLN 6710
Mutually Exclusive: CPLN 5050
1 Course Unit

MUSA 5030 Modeling Geographical Objects
This course offers a broad and practical introduction to the acquisition, storage, retrieval, maintenance, use, and presentation of digital cartographic data with vector-oriented (i.e. drawing-based) geographic information systems (GIS) for a variety of environmental science, planning, and management applications. Previous experience in GIS is not required.
Fall
Also Offered As: CPLN 5030
1 Course Unit

MUSA 5080 Public Policy Analytics
This course teaches advanced spatial analysis and an introduction to data science/machine learning in the urban planning and public policy realm. The class focuses on real-world spatial analysis applications and, in combination with introductory machine learning, provides students a modern framework for efficiently allocate limited resources across space. Unlike its private sector counterpart, data science in the public or nonprofit sector isn't strictly about optimization - it requires understanding of public goods, governance, and issues of equity. We explore use cases in transportation, housing, public health, land use, criminal justice, and other domains. We will learn novel approaches for understanding and avoiding risks of “algorithmic bias” against communities/people of color as well as communities of different income levels. The format of the class includes weekly lectures/in-class demos and labs. There are seven required assignments, including two projects. Prerequisites include either CPLN503, the summer GIS course or prior experience with GIS in a formal setting. The class is conducted entirely in R. Having experience in R and the ‘tidyverse’ is helpful but not strictly required.
Fall
Also Offered As: CPLN 5920
1 Course Unit
MUSA 5090 Geospatial Cloud Computing & Visualization
This course teaches students how to collect, store, wrangle and display cartographic data in a cloud-based setting. Students will learn a reproducible approach for pulling spatial data from APIs with emphasis on PostGIS, Socrata and BigQuery; to wrangle these data in python; and visualize in various platforms including Seaborn and Carto. Students will build their own APIs and eventually develop their own introductory custom web applications. This course is the first in a progression and leads to the Spring course on Javascript Programming for Planning (a class on building comprehensive mapping applications.)
1 Course Unit

MUSA 5500 Geospatial Data Science in Python
This course will provide students with the knowledge and tools to turn data into meaningful insights, with a focus on real-world case studies in the urban planning and public policy realm. Focusing on the latest Python software tools, the course will outline the "pipeline" approach to data science. It will teach students the tools to gather, visualize, and analyze datasets, providing the skills to effectively explore large datasets and transform results into understandable and compelling narratives. The course is organized into five main sections: Exploratory Data Science; Introduction to Geospatial Data Science; Data Ingestion & Big Data; Geospatial Machine Learning; Data Visualization & Storytelling. Fall
Also Offered As: CPLN 6720
1 Course Unit

MUSA 6110 JavaScript Programming for Planners and Designers
This course will introduce City Planning, MUSA and design graduate students to JavaScript. Students will learn the logic and syntax of the JavaScript programming language for use in simple web applications, as well as how to program data and map-oriented web applications using Javascript. The "hands-on" uses of JavaScript in urban planning applications will be emphasized. Students will hone their skills through a series of complete application projects. Fall
Also Offered As: CPLN 6920
1 Course Unit

MUSA 6500 Geospatial Machine Learning in Remote Sensing
Satellite remote sensing is the science of converting raw aerial imagery into actionable intelligence about the built and natural environment. This course will provide students the foundation necessary for the application of machine learning algorithms on satellite imagery. Use cases include building footprint detection, multi-class object detection in cities and land cover/land use classification. The students will learn basic concepts of machine learning, including unsupervised and supervised learning, model selection, feature elimination, cross-validation and performance evaluation. After learning traditional methods and algorithms, the course will focus on recent deep learning methods using convolutional neural networks and their application on semantic image segmentation. Prerequisites include MUSA 508, Geospatial Data Science in Python or equivalent. Spring
1 Course Unit

MUSA 6950 Topics in Spatial Data & Analytics
Various topics pertaining to urban spatial analysis Fall
1 Course Unit

MUSA 6951 Topics in Data Analytics
Class that examines various topics in data analytics 1 Course Unit

MUSA 7950 MUSA Summer: Introduction to GIS & Statistics
The summer GIS Bootcamp prepare students for the intermediate GIS classes that begin in the fall semester. It begins with a discussion of GIS in planning and the social sciences and then moves on to topics related to spatial data, geocoding, projection, vector and raster-based geoprocessing, 3D visualization and more. Each class includes a brief lecture and a walk through involving actual planning related data. Course enrollment is by permit only. Please contact Roslynne Carter (CPLN Dept.) at roslynee@design.upenn.edu. Summer Term
0 Course Units

MUSA 8000 MUSA Capstone Project
Fall or Spring
1 Course Unit

MUSA 8010 MUSA/Smart Cities Practicum
The purpose of this course is for students to work with city and non-profit clients on data science that convert government data into actionable public policy intelligence. Groups of 2-3 students will work with the client to understand the business process, wrangle data, develop spatial and aspatial analytics and serve these outputs to non-technical decision makers through the medium of data visualization. Students will be mentored by MUSA Faculty and advised by someone from the partnering agency. Prerequisites: students must have a working knowledge of R and experience building both spatial and statistical models including machine-learning models. Prerequisites include MUSA-5080/CPLN-5920 and either CPLN-5050 or MUSA-5000. Students without these specific prerequisites are asked to contact the instructor. Interested students are asked to contact the instructor to learn about specific projects and how to apply for the course. Spring
Also Offered As: CPLN 7900
Prerequisite: (CPLN 5050 OR MUSA 5000) AND (MUSA 5080 OR CPLN 5920)
1 Course Unit

MUSA 8020 Advanced Topics in GIS Capstone
This course offers students an opportunity to work closely with faculty, staff, local practitioners, and each other on a capstone project that involves the development of a GIS and/or urban data management application. Spring
1 Course Unit

Materials Science and Engineering (MSE)

MSE 0099 Undergraduate Research and/or Independent Study
An opportunity for the student to become closely associated with a professor (1) in a research effort to develop research skills and technique and/or (2) to develop a program of independent in-depth study in a subject area in which the professor and student have a common interest. The challenge of the task undertaken must be consistent with the student's academic level. To register for this course, the student and professor jointly submit a detailed proposal to the undergraduate curriculum chairman no later than the end of the first week of the term. Note: a maximum of 2 c.u. of MSE 099 may be applied toward the B.A.S. or B.S.E. degree requirements. Open to all students. Fall or Spring
1-4 Course Units
MSE 2010 Materials Lab I
This is the first of three 0.5 CU required laboratory courses in the undergraduate MSE program. This course will focus on applying introductory materials science principles, in tandem with those from prior physics and chemistry courses, to study the properties of metals, polymers, and glasses. Students will apply many of the concepts that are taught in the concurrent course, MSE 220. Hands-on laboratory skills that will be developed include thermal testing and characterization, optical microscopy and scanning electron microscopy (SEM), mechanical testing, effects of thermal treatment on material properties, and the basics of MATLAB applied to lab work. In addition, students will develop professional skills regarding working safely and effectively in a team-based laboratory setting, basics of statistics and error analysis, and analyzing and presenting data in written reports and presentations. ENGR 105 recommended.
Fall
Prerequisite: CHEM 1012
Corequisite: MSE 2200
.5 Course Units

MSE 2020 Materials Lab II
This is the second of three 0.5CU required laboratory courses in the undergraduate MSE program. This course will build on the experimental and professional skills introduced in MSE 201 and will reinforce concurrent lecture courses in materials thermodynamics and optoelectronics of materials. Hands-on experimental skills to be developed include phase transformations in metals and characterization using electron microscopy image analysis, thin-film fabrication methods and measurement techniques, nano-materials synthesis (including quantum dot technologies) and characterization of size and optical properties, and characterization of next-generation photovoltaic materials. Students will expand on their MATLAB skills for image analysis, I-V curve plotting, and presentation of high-quality figures for technical reports and presentations. Students will also be exposed to material life-cycle analysis, device sensitivity, and sustainability and how they each apply to materials design.
Spring
Prerequisite: MSE 2010
Corequisites: MSE 2150, MSE 2600
.5 Course Units

MSE 2150 Introduction to Functional Materials: From Macro to Nanoscale
The purpose of this course is: 1) to introduce key concepts underlying the design, properties and processing of functional materials and their applications, and 2) to apply these concepts in the rapidly growing field of nanomaterials and nanotechnology. Fundamental chemical and physical principles underlying electronic, dielectric, optical and magnetic properties will be developed in the context of metals, semiconductors, insulators, crystals, glasses, polymers and ceramics. Miniaturization and the nanotechnology revolution confronts materials science with challenges and opportunities. Examples in which nanoscale materials exhibit qualitatively different properties compared to bulk will be emphasized.
Spring
Prerequisite: MSE 2210
1 Course Unit

MSE 2200 Introduction to Materials Science and Engineering
The course is an introduction to the most important concepts in materials science and engineering. You will learn how the control of chemical bonding, synthesis, processing, structure and defects can be used to tailor the properties and performance of materials for applications that range from sustainable sources of energy, to construction, to consumer electronics. Case studies are also included to highlight environmental issues associated with materials degradation. This course includes lab demonstrations of key materials properties and a final project where students research an area of materials technology of their own interest.
Fall
Also Offered As: MEAM 2200
Prerequisite: CHEM 1012 AND (PHYS 0140 OR MEAM 1100)
1 Course Unit

MSE 2210 Quantum Physics of Materials
This course develops the background in basic physics required to understand the behavior of electrons in atoms, molecules and solids. Beginning with experiments and ideas that led to the foundation and postulates of Quantum Mechanics, the behavior of an electron in simple potential wells is treated. The electron in a harmonic oscillator well and the Coulomb potential of a hydrogen atom are treated next. Pauli’s exclusion principle and generalization to multi-particle systems are introduced. The Fermi energy, density of states and free electron band structure will be introduced. Many state-of-the-art materials analysis techniques will also be demonstrated throughout the course.
Fall, Spring, and Summer Terms
Prerequisite: PHYS 0141 OR PHYS 0151
1 Course Unit

MSE 2600 Energetics of Macro and Nano-scale Materials
Basic principles of chemical thermodynamics as applied to macro and nano-sized materials. This course will cover the fundamentals of classical thermodynamics as applied to the calculation and prediction of phase stability, chemical reactivity and synthesis of materials systems. The size-dependent properties of nano-sized systems will be explored through the incorporation of the thermodynamic properties of surfaces. The prediction of the phase stability of two and three component systems will be illustrated through the calculation and interpretation of phase diagrams for metallic, semiconductor, inorganic systems.
Spring
Prerequisite: CHEM 1022
1 Course Unit

MSE 2960 Study Abroad
1 Course Unit
MSE 3010 Materials Lab III
This is the third of three 0.5CU required laboratory courses in the undergraduate MSE program. The culmination of the lab program, this course will focus on applying advanced materials science principles taught in concurrent lecture courses to crystallographic techniques and analysis, and to measurements of polymers and soft materials. Students will employ many of the experimental and professional skills developed in past lab experiences; new hands-on laboratory skills to be covered include synthesis of ceramic super-conductor materials and effects of processing on properties, X-ray diffraction and X-ray scattering, and surface modification and contact angle measurements. Students will also be responsible for proposing an independent set of experiments to study a given material that will test their mastery of experimental equipment, procedures, and associated data analysis. In addition, students will develop professional skills surrounding preparing professional technical reports and presentations in a team setting.
Fall
Prerequisite: MSE 2010 AND MSE 2020
Corequisite: MSE 3600
.5 Course Units

MSE 3300 Self-Assembly of Soft Materials
Soft matter is found in diverse applications including sports (helmets & cloths); food (chocolate, egg); consumer products (e.g., lotions and shampoo); and devices (displays, electronics). Whereas solids and liquids are typically hard and crystalline or soft and fluid, respectively, soft matter can exhibit both solid and liquid like behavior. In this class, we investigate the thermodynamic and dynamic principles common to soft matter as well as soft (weak) forces, self-assembly and phase behavior. Classes of matter include colloidal particles, polymers, liquid crystalline molecules, amphiphilic molecules, biomacromolecules/membranes, and food.
Fall
Also Offered As: BE 3300
Prerequisite: (MSE 2200 OR BE 2200) AND CHEM 1022 or equivalent
1 Course Unit

MSE 3600 Structure at the Nanoscale
To understand the atomic arrangements of crystalline matter, this class focuses on crystallography, symmetry, and diffraction techniques. The first half focuses on learning how to describe the structure of crystalline matter through the basics of crystallography and symmetry by introducing two-dimensional symmetry operations, point, and plane groups; this knowledge is then extended into three-dimensions to arrive at an understanding of space lattices and space groups. The second half is concerned with applying this information to understand structures through various diffraction and microscopy techniques.
Fall
Prerequisite: MSE 2200
1 Course Unit

MSE 3930 Materials Selection
Throughout mankind’s history, materials have played a critical role in civilization and technology. The selection of materials has been based on availability and functionality. The rapid advances of materials technologies in the last 150 years, however, have made nearly all classes and forms of materials available, at a cost. These costs include the dollars and cents costs that typically accompany the use of stronger, lighter materials, but environmental costs are also important and significant. Therefore, in theory at least, materials selection can now proceed on a rational basis as an optimization process involving performance and costs - both financial and environmental. In this course, we will focus on structural applications where mechanical design is central. By the end of the course, the students can expect to acquire a level of engineering familiarity with a broad range of materials, and be prepared to undertake responsible material design projects in the future.
Prerequisite: Junior standing or approval of the instructor
Spring
Prerequisite: MSE 2200
1 Course Unit

MSE 4050 Mechanical Properties of Macro/Nanoscale Materials
This course will discuss the mechanical properties of a wide range of materials from both macroscopic and microscopic viewpoints. Beginning with a review of elasticity and tensors, the course will describe the deformation, fracture and fatigue behavior of metals, ceramics and polymers. Dislocation theory, strengthening mechanisms and rate-dependent deformation will also be discussed. The following topics will be discussed: 1. Introduction and review of linear elasticity and tensors. Stress and strain tensors, transformations, principal stresses, invariants. Mechanical testing methods at the macro and micro scale. 2. Crystal symmetry and its effect on second and fourth rank tensors. Linear thermal expansion and thermal stresses. Anisotropic linear elasticity. Anisotropic elastic moduli of crystals. 3. Plasticity and yield in continuum elasticity. Notion of yield surfaces. 4. Elements of dislocation theory. Stress and strain fields of dislocations, forces and interactions. 5. Slip and twinning in crystalline solids. 6. Strengthening and deformation properties of crystalline materials. 7. Rate-dependent and high temperature deformation of materials. 8. Fracture of materials.
Spring
Also Offered As: MEAM 4050
Prerequisite: MSE 2200 or MEAM 2100
1 Course Unit

MSE 4300 Introduction to Polymers
Polymer is one of the most widely used materials in our daily life, from the rubber tires to clothes, from photoreists in chip manufacturing to flexible electronics and smart sensors, from Scotch tapes to artificial tissues. This course teaches entry-level knowledge in polymer synthesis, characterization, thermodynamics, and structure-property relationship. Emphasis will be on understanding both chemical and physical aspects of polymers, polymer chain size and molecular interactions that drive the microscopic and macroscopic structures and the resulting physical properties. We will discuss how to apply polymer designs to advance nanotechnology, electronics, energy and biotechnology. Case studies include thermodynamics of block copolymer thin films and their applications in nanolithography, shape memory polymers, hydrogels, and elastomeric deformation and applications.
Fall
Also Offered As: CBE 4300
Prerequisite: (MSE 2600 OR CBE 2310) AND CHEM 2210 AND MEAM 2030
1 Course Unit
MSE 4400 Phase Transformations
The phase of a material is dependent upon temperature, thermal history, and other variables such as pressure and composition. In this course, concepts of metallurgical thermodynamics and kinetics are used to study phase transformations to produce materials with desired properties. Subjects covered include diffusion in solids, crystal interfaces (coherent, semi-coherent, incoherent interfaces), nucleation and growth, equilibrium and nonequilibrium solidification processes, solid state transformations (nucleation and growth of precipitates, GP-Zone formation, Ostwald’s step rule, order-disorder transition, spinodal decomposition, martensitic transformation).
Spring
Mutually Exclusive: MSE 5400
Prerequisite: MSE 2200 AND MSE 2600
1 Course Unit

MSE 4550 Electrochemical Engineering of Materials
After introducing basic electrochemical concepts including cell potential and cell thermodynamics, electrochemical kinetics, mass transport and cell overpotentials, redox reactions, electrolytic versus galvanic cells, standard reduction potentials, and key reactions in electrochemical energy conversion and storage, this course will cover the broad impact of electrochemical phenomena on materials. Topics that will be discussed include: (1) materials for lithium-ion battery electrodes, (2) materials extraction from their ores to finished products using electrochemical methods, (3) materials degradation by electrochemical corrosion, (4) Three-dimensional nanostructured materials by selective electrochemical corrosion. Students will be engaged in interactive classroom activities and hands-on electrochemical experiments (this year – fall 2022 – students will learn to cycle LiMn2O4 coin cell batteries).
Fall
Mutually Exclusive: MSE 5550
1 Course Unit

MSE 4600 Computational Materials Science
This course provides an introduction to modeling and simulation in materials science, covering continuum methods (e.g. finite element methods) and atomistic and molecular simulation (e.g. molecular dynamics). These tools play an increasingly important role in modern engineering. You will get hands-on training in both the fundamentals and applications of these methods to key engineering problems. The lectures will provide an exposure to areas of application, based on the scientific exploitation of the power of computation. We will use software packages (Comsol and LAMMPS) and thus extensive programming skills are not required. Matlab background needed for the course will be covered in a self-contained module. Junior or Senior Standing. Ability to write simple computer codes would be an advantage.
Fall
Prerequisite: MATH 2410 AND ENGR 1050 or equivalent
1 Course Unit

MSE 4650 Fabrication and Characterization of Micro and Nanostructured Materials
This course surveys various processes that are used to produce materials structured at the micron and nanometer scales for electronic, optical and biological applications. Basic principles of materials chemistry, physics, thermodynamics and surface/interfacial science are applied to solid state, liquid, and colloidal approaches to making materials. A wide range of nano- and microfabrication techniques, including photolithography, soft lithography, nanoimprint lithography, 3D printing and self-assembly, are covered. The course is heavily lab based, with 30% of class time and 50% of the homework devoted to hands on experiences and lab report writing. Lab assignments are a series of structured individual/group projects. Evaluation is based on 3 lab reports, 4 problem sets with journal paper reading assignment, and a final project design.
Spring
Mutually Exclusive: MSE 5650
1 Course Unit

MSE 4950 Senior Design
The senior design course is a two-semester capstone program that gives students the opportunity to design and execute an original experimental or theoretical project in materials science, engineering, or product/device development that is solving a real world problem. Students will work closely with a scientific advisor in their lab and meet once a week in the classroom to learn from an innovative curriculum that will build real-world skills in the context of their research and design project. These skills include project management, networking, teamwork, impactful written and verbal communications, upward management, self-reflection and feedback. Students will also learn how to design research in the context of having an impact on the world. This will be through weekly vignettes of innovative materials science solutions that solve problems in industries ranging from construction to healthcare to consumer products.
Fall
1 Course Unit

MSE 4960 Senior Design
The senior design course is a two-semester capstone program that gives students the opportunity to design and execute an original experimental or theoretical project in materials science, engineering, or product/device development that is solving a real world problem. Students will work closely with a scientific advisor in their lab and meet once a week in the classroom to learn from an innovative curriculum that will build real-world skills in the context of their research and design project. These skills include project management, networking, teamwork, impactful written and verbal communications, upward management, self-reflection and feedback. Students will also learn how to design research in the context of having an impact on the world. This will be through weekly vignettes of innovative materials science solutions that solve problems in industries ranging from construction to healthcare to consumer products.
Spring
1 Course Unit
MSE 5000 Experimental Methods in Materials Science
This laboratory course introduces students to a variety of experimental methods used in materials science and engineering. Hands-on training will be provided for atomic force microscopy, X-ray diffraction and scattering, mechanical testing with image capture, and dynamic light scattering. Students will use numerous software packages for data collection and analysis, as well as being introduced to LabVIEW as a method for customizing experiments. In addition, students will see demonstrations of scanning electron microscopy, transmission electron microscopy, and electron diffraction and analyze data from these methods. The format for the course will include a weekly lecture (1.5 hours), a weekly lab session (4 hours) and six assignments. Prerequisite: Permission of the Undergraduate Curriculum Chair and Instructor Fall
1 Course Unit

MSE 5040 Materials Sustainability
This course will introduce strategies to improve materials sustainability, particularly with respect to reduced energy consumption and greenhouse gas emissions during the extraction, synthesis and fabrication of materials. Innovative solutions will be described that include alternative feedstocks, materials substitutions, and materials waste reduction. This 0.5 CU course will primarily focus on metals and polymers. The course will present overarching concepts and illustrative examples that capture the global nature of materials supply chains. Students will explore issues through the framework of the materials lifecycle, including resource availability, manufacturing choices, and disposal options for materials appropriate for the application. The intention is for students to be able to make more informed material selection decisions and to identify critical needs for future material development to improve materials sustainability. Spring
Prerequisite: MSE 2600 OR CBE 2310 or the equivalent
0.5 Course Units

MSE 5050 Mechanical Properties of Macro/Nanoscale Materials
The application of continuum and microstructural concepts to elasticity and plasticity and the mechanisms of plastic flow and fracture in metals, polymers and ceramics. Topics covered include elasticity, viscoelasticity, plasticity, crystal defects, strengthening, crystallographic effects, twinning, creep and fatigue. Emphasis will be on mathematical and physical understanding rather than problem solving. Spring
Also Offered As: MEAM 5050
Prerequisite: MSE 2200 OR MEAM 2100 OR MATH 2400
1 Course Unit

MSE 5060 Failure Analysis of Engineering Materials
This course will introduce students to the broad field of failure through hands-on real-life examples of specific failures. All engineering materials classes will be considered, including metals, polymers, elastomers, ceramics, and glasses. Emphasis will be placed on understanding how to actually analyze a failed component and understand the cause of failure. Several classes will be conducted by outside experts from places like the NTSB, FBI and OSHA. Fall
Also Offered As: MEAM 5060
Prerequisite: MSE 2200 or equivalent
1 Course Unit

MSE 5070 Fundamentals of Materials
This course will provide a graduate level introduction to the science and engineering of materials. It is designed specifically to meet the needs of students who will be doing research that involves materials but who do not have an extensive background in the field. The focus is on fundamental aspects of materials science and will emphasize phenomena and how to describe them. The course assumes an undergraduate background in any area of physical/chemical science and undergraduate mathematics appropriate to this. The course will also be accessible to students of applied mathematics. Fall
Also Offered As: MEAM 5070
1 Course Unit

MSE 5150 Mathematics for Materials Science
1 Course Unit

MSE 5180 Structure and Function of Biological Materials
Biological materials display unique properties that give rise to important biological functions. This graduate course will cover topics related to structure and function of biological materials. Students will learn basic principles in assembly and hierarchy of biological materials and biological cellular structure and composition. Lectures will cover biominer alization and inorganic materials, structure and properties of bone and cartilage, biopolymers and elastomers, solid foams and cartilage, and functional and bioinspired materials. Students will critically review assigned scientific papers in group discussion. Groups will be assigned to propose a scientific project related to biological materials. Groups will give a final presentation and submit a 3-6-page written proposal. Individual assessments will include problem sets and two midterm exams. The goal for the course is for students to apply their skills and background in materials science to deepen their understanding of the structure and function of biological materials. Lessons from this course will help students identify new research topics in biological materials science that could be relevant for their graduate studies. Fall
Prerequisite: Undergraduate students: MSE 2200 or BE 2200 is required
Graduate students: No pre-req
1 Course Unit

MSE 5200 Structure of Materials
Crystal structure and bonding. Symmetry: line, plane, point, and space groups. Symmetry considerations in structure-property relations. Physical optics, diffraction as Fourier transforms. Effects of size, shape, temperature and distortion on diffraction intensity. Diffraction of gas, liquid, fibers, and DNA. Diffuse scattering, order/disorder. Pair distribution function, inverse problem, small angle scattering. Radiation-matter interaction, scattering physics, atomic and electronic spectroscopy. Prerequisite: Permission of the Undergraduate Curriculum Chair and Instructor Spring
1 Course Unit
MSE 5250 Nanoscale Science and Engineering
Overview of existing device and manufacturing technologies in microelectronics, optoelectronics, magnetic storage, Microsystems, and biotechnology. Overview of near- and long-term challenges facing those fields. Near- and long-term prospects of nanoscience and related technologies for the evolutionary suspension of current approaches, and for the development of revolutionary designs and applications. Prerequisite: If course requirement not met, permission of instructor required.
Fall
Also Offered As: ESE 5250
Prerequisite: ESE 2180 OR PHYS 1240
1 Course Unit

MSE 5300 Thermodynamics and Phase Equilibria
Fundamental elements of engineering thermodynamics, statistical thermodynamics, chemical thermodynamics and defect thermodynamics. Thermodynamic functions, stability, phase transitions, mixtures (gases, condensed matter, polymer solution), defects and interfaces. Phase diagrams and predominance diagrams. Applications to energy problems (engines, efficiency, power, electrochemical cells) and properties (Curie's law, rubber elasticity, specific heat, phonon/photon spectra, constitutive equations, equation of states). Prerequisite: Permission of the Undergraduate Curriculum Chair and instructor
Fall
1 Course Unit

MSE 5360 Electronic Properties of Materials
This course will introduce the physical principles underlying broad spectrum of electronic properties in the solid state. Starting with the band structure of solids, the course will give an overview of electronic, dielectric, magnetic, thermal and optical properties of materials. The treatment will use quantum mechanical and statistical mechanical concepts familiar to students at the undergraduate level. Commonly used theories and models will be introduced and their predictions will be compared with observations. Students who have taken MSE 221/ MSE 260 and/or MSE 570/MSE 575 will benefit from this advanced introduction to material properties.
Spring
1 Course Unit

MSE 5370 Nanotribology
Engineering is progressing to ever smaller scales, enabling new technologies, materials, devices, and applications. This course will provide an introduction to nano-scale tribology and the critical role it plays in the developing areas of nanoscience and nanotechnology. We will discuss how contact, adhesion, friction, lubrication, and wear at interfaces originate, using an integrated approach that combines concepts of mechanics, materials science, chemistry, and physics. We will cover a range of concepts and applications, drawing connections to both established and new approaches. We will discuss the limits of continuum mechanics and present newly developed theories and experiments tailored to describe micro- and nano-scale phenomena. We will emphasize specific applications throughout the course. Reading of scientific literature, critical peer discussion, individual and team problem assignments, and a peer-reviewed literature research project will be assigned as part of the course. Prerequisite: Prerequisite: MEAM 3540 or MEAM 5190 or MSE/MEAM 5040 or equivalent required, or consent of instructor. Experience with mathematical analysis software (e.g. Matlab, Python) is required.
Not Offered Every Year
Also Offered As: MEAM 5370
1 Course Unit

MSE 5400 Phase Transformations
The phase of a material is dependent upon temperature, thermal history, and other variables such as pressure and composition. In this course concepts of metallurgical thermodynamics and kinetics are used to study phase transformations to produce materials with desired properties. Subjects covered include diffusion in solids, crystal interfaces (coherent, semi-coherent, incoherent interfaces), nucleation and growth, equilibrium and nonequilibrium solidification processes, solid state transformations (nucleation and growth of precipitates, GP-Zone formation, Ostwald's step rule, order-disorder transition, spinodal decomposition, martensitic transformation).
Spring
Mutually Exclusive: MSE 4400
1 Course Unit

MSE 5450 Materials for Energy and Environmental Sustainability
This course will cover the fundamental materials science issues central to the design of sustainable energy technology. The goal of this course is to expose students to the emerging advances in materials science and materials chemistry that underpin technologies for energy conversion (fuel cells, thermolectrics, photovoltaics, wind energy etc..), storage (biofuels, artificial photosynthesis, batteries etc) and distribution (smart grids and hydrogen and methane economy concepts etc..) and to place these in a real world context. This class will emphasize concepts in “green materials and green engineering practices” that are emerging with a global focus on “Sustainable Technology.” “Sustainability is defined as meeting the needs of the present without compromising the ability of future generations to meet their needs.” Engineering materials and processes at all scales; molecular/nanometer, micro, and the macro-scale are critical to developing the tools society required to meet the growing needs for energy and sustainable materials for the built environment. This course is appropriate for graduate students and advanced undergraduates in Penn’s Material Science Programs. Core MSE curriculum components in thermodynamics, structure, electronic & ionic transport, mechanics, polymers and optical materials will be expected, and exposure to the preparation in basic Chemistry and Physics will be advantageous in this highly interdisciplinary course.
Fall
1 Course Unit

MSE 5500 Elasticity and Micromechanics of Materials
This course is targeted to engineering students working in the areas on micro/nanomechanics of materials. The course will start with a quick review of the equations of linear elasticity and proceed to solutions of specific problems such as the Hertz contact problem, Eshelby’s problem etc. Failure mechanisms such as fracture and the fundamentals of dislocations/plasticity will also be discussed. Prerequisite: graduate standing or permission of the instructor.
Fall
Also Offered As: MEAM 5190
1 Course Unit
MSE 5550 Electrochemical Engineering of Materials
After introducing basic electrochemical concepts including cell potential and cell thermodynamics, electrochemical kinetics, mass transport and cell overpotentials, redox reactions, electrolytic versus galvanic cells, standard reduction potentials, and key reactions in electrochemical energy conversion and storage, this course will cover the broad impact of electrochemical phenomena on materials. Topics that will be discussed include: (1) materials for lithium-ion battery electrodes, (2) materials extraction from their ores to finished products using electrochemical methods, (3) materials degradation by electrochemical corrosion, (4) Three-dimensional nanostructured materials by selective electrochemical corrosion. Students will be engaged in interactive classroom activities and hands-on electrochemical experiments (this year —fall 2022 — students will learn to cycle LiMn2O4 coin cell batteries).

Fall
Mutually Exclusive: MSE 4550
1 Course Unit

MSE 5610 Atomic Modeling in Materials Science
This course covers two major aspects of atomic level computer modeling in materials. 1. Methods: Molecular statics, Molecular dynamics, Monte Carlo, Kinetic Monte Carlo as well as methods of analysis of the results such as radial distribution function, thermodynamics deduced from the molecular dynamics, fluctuations, correlations and autocorrelations. 2. Semi-empirical descriptions of atomic interactions: pair potentials, embedded atom method, covalent bonding, ionic bonding. Basics of the density functional theory. Mechanics, condensed matter physics, thermodynamics and statistical mechanics needed in interpretations are briefly explained. No prior coding experience is required. Students will be taught the basics of python in the first week of class.

Fall
Also Offered As: MEAM 5530
Prerequisites: Undergraduate introduction to classical physics, quantum mechanics, thermodynamics and mechanical properties is helpful.
1 Course Unit

MSE 5650 Fabrication and Characterization of Micro and Nanostructured Materials
This course surveys various processes that are used to produce materials structured at the micron and nanometer scales for electronic, optical and biological applications. Basic principles of materials chemistry, physics, thermodynamics and surface/interfacial science are applied to solid state, liquid, and colloidal approaches to making materials. A wide range of nano- and microfabrication techniques, including photolithography, soft lithography, nanoimprint lithography, 3D printing and self-assembly, are covered. The course is heavily lab based, with 30% of class time and 50% of the homework devoted to hands on experiences and lab report writing. Lab assignments are a series of structured individual/group projects. Evaluation is based on 3 lab reports, 4 problem sets with journal paper reading assignment, and a final project design. Prerequisite: If course requirement not met, permission of instructor required.

Spring
Mutually Exclusive: MSE 4650
Prerequisite: MSE 3600
1 Course Unit

MSE 5700 Physics of Materials I
Failures of classical physics and the historical basis for quantum theory. Postulates of wave mechanics; uncertainty principle, wave packets and wave-particle duality. Schrodinger equation and operators; eigenvalue problems in 1 and 3 dimensions (barriers, wells, hydrogen, atom). Perturbation theory; scattering of particles and light. Use of computer-aided self-study will be made. Undergraduate physics and math through modern physics and differential equations

Fall
1 Course Unit

MSE 5750 Statistical Mechanics
Statistical Mechanics is a unique branch of physics that permeates our understanding of matter at all length scales, from nanometers to stellar dimensions, and ranging in temperatures from pico-Kelvin (or lower) to billions of degrees Kelvin. This course will provide an overview of select topics in equilibrium and non-equilibrium statistical mechanics. The course will introduce the basic postulates of classical and quantum equilibrium statistical mechanics, explain the methodology of calculating observable properties, and discuss several applications in diverse fields. The second part of the course will introduce the methodology of non-equilibrium processes and discussing important theorems and results in the linear response regime. Finally, a brief discussion of systems far from equilibrium will be presented. Select applications from condensed matter physics, chemistry, materials science, biology, astrophysics, economics and meteorology will be used to illustrate the fundamental principles.

Spring
1 Course Unit

MSE 5760 Machine Learning and Its Applications in Materials Science
Beginning with a review of linear algebra, probability theory, Bayesian statistics, Statistical Mechanics notions of entropy, information and optimization tools, some of the major advances in deep learning over the past twenty years will be discussed in detail. These include the multilayer perceptron (MLP), convolutional neural network (CNN), recurrent neural networks (RNN), autoencoders, graph networks, Boltzmann machine, variational autoencoders and deep generative adversarial models. In conjunction with the weekly lectures, a set of labs will be offered (roughly 2 per month) that will demonstrate the workings of important models using data derived from Materials Science research papers and MSE databases. The labs will also complement the contents of the homework sets for each fortnight. The lab sessions will implement the following models: linear regression, logistic regression, random forest model, single layer and multi-layer perceptron, CNN, RNN, graph neural networks and general adversarial networks. A variety of data sets representing material properties for varied applications will be used in the labs. The homework sets will use additional data sets. For students with no prior coding skills, a preliminary Python Lab 0 tutorial will be held in the first week of classes. Students may obtain assistance from the TAs for coding logic and help with homework during office hours. A written project is due in the final week of classes. Students will submit a 1-2 page synopsis of a published paper from a peer-reviewed journal that uses ML and DL methods. This report will be graded on the student's ability to summarize the paper's ideas, results and discussions for future work.

Summer Term
Prerequisite: MSE 2500 AND MATH 2400
1 Course Unit
MSE 5800 Introduction to Polymers
Polymer is one of the most widely used materials in our daily life, from the rubber tires to clothes, from photoresists in chip manufacturing to flexible electronics and smart sensors, from Scotch tapes to artificial tissues. This course teaches entry-level knowledge in polymer synthesis, characterization, thermodynamics, and structure-property relationship. Emphasis will be on understanding both chemical and physical aspects of polymers, polymer chain size and molecular interactions that drive the microscopic and macroscopic structures and the resulting physical properties. We will discuss how to apply polymer designs to advance nanotechnology, electronics, energy and biotechnology. Case studies include thermodynamics of block copolymer thin films and their applications in nanolithography, shape memory polymers, hydrogels, and elastomeric deformation and applications.
Fall
Also Offered As: CBE 5100
1 Course Unit

MSE 5850 Materials for Bioelectronics
Bioelectronics is an emerging field that involves the use of engineering principles to create devices for applications in biology, medicine, and health sciences. One of the most important aspects of bioelectronics is the development of communication interfaces between biological materials (cells, tissues and organs) and manmade devices for optimal energy delivery and signal transduction efficacies. Progress in materials science and engineering is bringing revolutionary advances to the biointerface design and has unlocked unprecedented applications in various biomedical fields. This course focuses on the materials science and engineering concepts that are of relevance to bioelectronics. It also introduces basic biochemical, biophysical and physiological principles that are required to understand the design and application of bioelectronic devices.
Spring
Also Offered As: BE 5850
1 Course Unit

MSE 5970 Master's Thesis Research
For students working on an advanced research leading to the completion of a Master's thesis.
Fall or Spring
1-2 Course Units

MSE 5990 Master's Indep Study
Fall or Spring
1-4 Course Units

MSE 6100 Transmission Electron Microscopy
Theory and application of transmission electron microscopy methods to problems in materials science and engineering, condensed matter physics, soft matter, polymeric materials, inorganic chemistry and chemical engineering. The principles of microscope operation, electron scattering, image formation and spectroscopy will be described, with an emphasis on both theory and experiment. With laboratory.
Not Offered Every Year
1 Course Unit

MSE 6110 Advanced Synchrotron and Electron Characterization of Materials
This course provides an overview of the latest techniques for the characterization of materials with synchrotron x-rays and electron microscopy. Emphasis is placed on understanding of x-ray and electron interactions with matter, and how these may be exploited to characterize structure and chemistry at the nanometer to atomic scale. Prerequisite: Graduate students: Background in solid-state physics, crystallography and quantum mechanics is strongly recommended. Undergraduates: MSE 570.
1 Course Unit

MSE 6400 Optical Materials
This course discusses the optical properties of modern materials engineered for specific functionality and covers exciting new developments being made in this rapidly evolving field. Emphasis is placed on how modern nanotechnology reshapes the light-matter interaction and delivers novel optical properties that are not available in nature.
Spring
1 Course Unit

MSE 6500 Mechanics of Soft and Biomaterials
This course is aimed to expose the students to a variety of topics in mechanic materials via discussion of “classic” problems that have had the widest impact long period of time and have been applied to analyze the mechanical behavior a variety of biological and engineering materials.
Not Offered Every Year
Also Offered As: MEAM 6500
1 Course Unit

MSE 6990 MSE Seminar
The seminar course has been established so that students receive encouragement to attend and recognition for attending departmental seminars. Students registered for this course are required to attend weekly departmental seminars given by distinguished speakers from around the world. To obtain a satisfactory (S) grade, the student must attend more than 85% of such seminars. No unexcused absence allowed. Participation in the seminar course will be documented and recorded on the transcript. In order to obtain their degrees, doctoral students will be required to accumulate seven seminar courses and MS candidates two courses. Under special circumstances, i.e., in case of conflict with another course, the student may petition to the Graduate Group Chair to waive the seminar requirement for a particular semester.
Fall, Spring, and Summer Terms
0 Course Units

MSE 7900 Selected Topics in Materials Science and Engineering
Students should check department office for special topics.
Fall or Spring
1 Course Unit

MSE 8950 Teaching Practicum.
Fall or Spring
1 Course Unit

Mathematical Sciences (MTHS)
The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).
MTHS 1000 Mathematical Foundations for Data Analytics
This course provides an introduction to key topics that form the foundation for further study in mathematics, data analytics, and statistics. Topics covered include finite math, logic, algebra (including basics of matrix algebra) functions, probability, and a conceptual introduction to calculus. Through this course, students will develop both an understanding of the concept the ability to apply the concepts and techniques to analysis and problem-solving. Course format includes readings, lectures and demonstrations, and extensive hands-on practice with instructor and peer feedback.
1 Course Unit

MTHS 1010 Maths All Around
1 Course Unit

MTHS 2000 Mathematics All Around You
This course covers topics in logic, sets, probability, history and philosophy of mathematics, graph theory, game theory, geometry, and their relevance to contemporary science and society. Students can register for MTHS 2000 without completing MTHS 1000.
1 Course Unit

MTHS 2200 Introduction to Applied Statistics
In this introductory statistics course students will be familiarized with the fundamental techniques for using sample data to make inferences about populations. We will begin with developing the necessary probability framework and statistical intuition before moving to the specific procedures for statistical inferences from large and small samples, single and multiple linear regressions, and measuring correlation. We will examine real-world examples that illustrate the concepts and help students see how they apply to life and work situations.
1 Course Unit

MTHS 3000 Linear Algebra
Understanding concepts from Linear Algebra is essential to serious study of many disciplines, ranging from physics and chemistry to economics and computer and data science, not to mention further study of higher mathematics. In this course, we'll be looking at both computational and theoretical aspects of linear algebra, as well as at a number of applications. The "basic stuff" of linear algebra comprises vector spaces and the linear mappings between them. These mappings are represented by matrices, and a lot of linear algebra is concerned with reducing the enormous amount of data contained in a matrix to a few salient numbers and properties. There aren't many prerequisites for the course other than basic high-school algebra and a willingness to stretch your mind around some awesome abstract concepts -- higher (than 3)-dimensional spaces, deducing things abstractly from basic principles, and learning how to interpret and exploit the deductions. It will be an exciting and fast-paced journey through topics such as Gaussian elimination, linear systems, linear transformations and their matrix representations, eigenvalues and eigenvectors, the singular-value decomposition and principal component analysis.
Fall or Spring
1 Course Unit

Mathematics (MATH)

MATH 0030 Introduction to Calculus Lab
Lab for Math 1300
Corequisite: MATH 1300
0 Course Units

MATH 0040 Calculus Lab I
Lab for Math 1400
Corequisite: MATH 1400
0 Course Units

MATH 0100 Calculus for Wharton Students Lab
Lab for Math 1100
Fall
Corequisite: MATH 1100
0 Course Units

MATH 0140 Calculus II Lab
Lab for Math 1410
Corequisite: MATH 1410
0 Course Units

MATH 0240 Calculus III Lab
Lab for Math 2400
Corequisite: MATH 2400
0 Course Units

MATH 1070 Mathematics of change, Part I
Limits, orders of magnitude, differential and integral calculus; Taylor polynomials; estimating and bounding; probability densities. Mathematical modeling and applications to the social, economic and information sciences.
1 Course Unit

MATH 1080 Mathematics of change, Part II
Multivariate calculus; optimization; multivariate probability densities. Introduction to linear algebra; introduction to differential equations. Mathematical modeling and applications to the social, economic and information sciences.
1 Course Unit

MATH 1100 Calculus for Wharton Students
Differential calculus, integral calculus, series, differential equations and elements of multivariable calculus, with an emphasis on applications.
Fall or Spring
Mutually Exclusive: MATH 1400
1 Course Unit

MATH 1234 Community Algebra Initiative
Community Algebra Initiative
Fall or Spring
1 Course Unit

MATH 1248 Community Math Teaching Project
This course allows Penn students to teach a series of hands-on activities to students in math classes at University City High School. The semester starts with an introduction to successful approaches for teaching math in urban high schools. The rest of the semester will be devoted to a series of weekly hands-on activities designed to teach fundamental aspects of geometry. The first class meeting of each week, Penn faculty teach Penn students the relevant mathematical background and techniques for a hands-on activity. During the second session of each week, Penn students will teach the hands-on activity to a small group of UCHS students. The Penn students will also have an opportunity to develop their own activity and to implement it with the UCHS students.
Not Offered Every Year
1 Course Unit
MATH 1400 Calculus, Part I
Brief review of High School calculus, applications of integrals, transcendental functions, methods of integration, infinite series, Taylor’s theorem, and first order ordinary differential equations. Use of symbolic manipulation and graphics software in calculus.
Fall or Spring
Mutually Exclusive: MATH 1100
1 Course Unit

MATH 1410 Calculus, Part II
Functions of several variables, vector-valued functions, partial derivatives and applications, double and triple integrals, conic sections, polar coordinates, vectors and vector calculus, first order ordinary differential equations. Applications to physical sciences. Use of symbolic manipulation and graphics software in calculus.
Fall or Spring
Mutually Exclusive: MATH 1510
Prerequisite: MATH 1400
1 Course Unit

MATH 1510 Calculus, Part II with Probability and Matrices
Functions of several variables, partial derivatives, multiple integrals, differential equations; introduction to linear algebra and matrices with applications to linear programming and Markov processes. Elements of probability and statistics. Applications to social and biological sciences. Use of symbolic manipulation and graphics software in calculus.
Fall or Spring
Mutually Exclusive: MATH 1410, MATH 1610
Prerequisite: MATH 1400
1 Course Unit

MATH 1610 Honors Calculus
Students who are interested in math or science might also want to consider a more challenging Honors version of Calculus II and III, Math 1610 and Math 2600 (the analogues of Math 1410 and Math 2400, respectively). These courses will cover essentially the same material as 1610 and 2400, but more in depth and involve discussion of the underlying theory as well as computations.
Fall or Spring
Mutually Exclusive: MATH 1510
Prerequisite: MATH 1410
1 Course Unit

MATH 1700 Ideas in Mathematics
Topics from among the following: logic, sets, calculus, probability, history and philosophy of mathematics, game theory, geometry, and their relevance to contemporary science and society.
Fall or Spring
1 Course Unit

MATH 2020 Proving Things: Analysis
This course focuses on the creative side of mathematics, with an emphasis on discovery, reasoning, proofs and effective communication, while at the same time studying real and complex numbers, sequences, series, continuity, differentiability and integrability. Small class sizes permit an informal, discussion-type atmosphere, and often the entire class works together on a given problem. Homework is intended to be thought-provoking, rather than skill-sharpening.
Fall or Spring
Prerequisite: MATH 1400 OR MATH 1410 OR MATH 2400
1 Course Unit

MATH 2030 Proving things: Algebra
This course focuses on the creative side of mathematics, with an emphasis on discovery, reasoning, proofs and effective communication, while at the same time studying arithmetic, algebra, linear algebra, groups, rings and fields. Small class sizes permit an informal, discussion-type atmosphere, and often the entire class works together on a given problem. Homework is intended to be thought-provoking, rather than skill-sharpening.
Fall or Spring
Prerequisite: MATH 1400 OR MATH 1410 OR MATH 2400
1 Course Unit

MATH 2100 Mathematics in the Age of Information
This course counts as a regular elective for both the Mathematics Major and Minor. This is a course about mathematical reasoning and the media. Embedded in many stories one finds in the media are mathematical questions as well as implicit mathematical models for how the world behaves. We will discuss ways to recognize such questions and models, and how to think about them from a mathematical perspective. A key part of the course will be about what constitutes a mathematical proof, and what passes for proof in various media contexts. The course will cover a variety of topics in logic, probability and statistics as well as how these subjects can be used and abused.
Fall or Spring
Prerequisite: MATH 1410 OR MATH 1510
1 Course Unit

MATH 2400 Calculus, Part III
Linear algebra: vectors, matrices, systems of linear equations, vector spaces, subspaces, spans, bases, and dimension, eigenvalues, and eigenvectors, matrix exponentials. Ordinary differential equations: higher-order homogeneous and inhomogeneous ODEs and linear systems of ODEs, phase plane analysis, non-linear systems.
Fall or Spring
Prerequisite: MATH 1410
1 Course Unit

MATH 2410 Calculus, Part IV
Partial differential equations and their solutions, including solutions of the wave, heat and Laplace equations, and Sturm-Liouville problems. Introduction to Fourier series and Fourier transforms. Computation of solutions, modeling using PDE’s, geometric intuition, and qualitative understanding of the evolution of systems according to the type of partial differential operator.
Fall or Spring
Prerequisite: MATH 2400
1 Course Unit

MATH 2600 Honors Calculus, Part II
This is an honors version of Math 2400 which explores the same topics but with greater mathematical rigor.
Not Offered Every Year
Prerequisite: MATH 1410
1 Course Unit
MATH 2800 Entropy Math Evolution
The goal of this is to explore a new theory of evolution developed by L. Demetrius at MIT based on the second law of thermodynamics. The essential idea is that life exists because if increases overall entropy quicker than other processes. The course will include an introduction to thermodynamics as well as to the information theory definition of entropy. Eventually I want to apply this to other systems. For instance, I think the theory explains why political candidates who create chaos, tweet and require more bits of information to describe each day are favored by the second law. Demetrius makes a distinction between robust high entropy environments and precarious low entropy environments which is a very interesting in many different systems.

Fall
1 Course Unit

MATH 2900 Undergraduate Mathematics Research Course
This is a project-oriented mathematics research course that teaches students to solve real-world problems by constructing and analyzing mathematical models. Typically the problems considered will come from mathematics, chemistry, biology, and materials science but sometimes they will also come from economics, finance, and social sciences. The research problems in the course vary from year to year.
1 Course Unit

MATH 2989 Study Abroad
Free elective for undergraduate mathematics courses not equivalent to existing courses satisfying math major requirements.
1 Course Unit

MATH 2990 Undergraduate Research in Mathematics
Research conducted with the supervision of a faculty member. Must be approved by the Undergraduate Chair. May be repeated for credit.
Spring
1 Course Unit

MATH 2999 Transfer and Credit Away
Free elective for undergraduate mathematics courses not equivalent to existing courses satisfying math major requirements.
1 Course Unit

MATH 3120 Linear Algebra
Linear transformations, Gauss Jordan elimination, eigenvalues and eigenvectors, theory and applications. Mathematics majors are advised that MATH 3120 cannot be taken to satisfy the major requirements.
Not Offered Every Year
Prerequisite: MATH 2400
1 Course Unit

MATH 3130 Computational Linear Algebra
Many important problems in a wide range of disciplines within computer science and throughout science are solved using techniques from linear algebra. This course will introduce students to some of the most widely used algorithms and illustrate how they are actually used. Some specific topics: the solution of systems of linear equations by Gaussian elimination, dimension of a linear space, inner product, cross product, change of basis, affine and rigid motions, eigenvalues and eigenvectors, diagonalization of both symmetric and non-symmetric matrices, quadratic polynomials, and least squares optimization. Applications will include the use of matrix computations to computer graphics, use of the discrete Fourier transform and related techniques in digital signal processing, the analysis of systems of linear differential equations, and singular value decompositions with application to a principal component analysis. The ideas and tools provided by this course will be useful to students who intend to tackle higher level courses in digital signal processing, computer vision, robotics, and computer graphics.
Mutually Exclusive: MATH 5130
Prerequisite: MATH 2400
1 Course Unit

MATH 3140 Advanced Linear Algebra
Topics will include: Vector spaces, Basis and dimension, quotients; Linear maps and matrices; Determinants, Dual spaces and maps; Invariant subspaces, Cononical forms; Scalar products: Euclidean, unitary and symplectic spaces; Orthogonal and Unitary operators; Tensor products and polylinear maps; Symmetric and skew-symmetric tensors and exterior algebra.
Mutually Exclusive: AMCS 5141, MATH 5140
Prerequisite: MATH 2400
1 Course Unit

MATH 3200 Computer Methods in Mathematical Science I
Students will use symbolic manipulation software and write programs to solve problems in numerical quadrature, equation-solving, linear algebra and differential equations. Theoretical and computational aspects of the methods will be discussed along with error analysis and a critical comparison of methods.
Fall
Prerequisite: MATH 2400
1 Course Unit

MATH 3400 Discrete Mathematics I
Topics will be drawn from some subjects in combinatorial analysis with applications to many other branches of math and science: graphs and networks, generating functions, permutations, posets, asymptotics.
Not Offered Every Year
Also Offered As: LGIC 2100
Prerequisite: MATH 1410 OR MATH 1510
1 Course Unit

MATH 3410 Discrete Mathematics II
Topics will be drawn from some subjects useful in the analysis of information and computation: logic, set theory, theory of computation, number theory, probability, and basic cryptography.
Also Offered As: LGIC 2200
Prerequisite: MATH 3400
1 Course Unit

MATH 3500 Number Theory
Congruences, Diophantine equations, continued fractions, nonlinear congruences, and quadratic residues.
Not Offered Every Year
1 Course Unit
MATH 3600 Advanced Calculus
Syllabus for MATH 360-361: a study of the foundations of the differential and integral calculus, including the real numbers and elementary topology, continuous and differentiable functions, uniform convergence of series of functions, and inverse and implicit function theorems. MATH 508-509 is a masters level version of this course.
Fall or Spring
Prerequisite: MATH 2400
1 Course Unit

MATH 3610 Advanced Calculus
Continuation of MATH 3600.
Fall or Spring
Prerequisite: MATH 3600
1 Course Unit

MATH 3700 Algebra
Syllabus for MATH 370-371: an introduction to the basic concepts of modern algebra. Linear algebra, eigenvalues and eigenvectors of matrices, groups, rings and fields. MATH 502-503 is a masters level version of this course.
Fall or Spring
Prerequisite: MATH 2400 OR MATH 2600
1 Course Unit

MATH 3710 Algebra
Continuation of MATH 3700.
Fall or Spring
Prerequisite: MATH 3700 OR MATH 5020
1 Course Unit

MATH 4100 Complex Analysis
Complex numbers, DeMoivre's theorem, complex valued functions of a complex variable, the derivative, analytic functions, the Cauchy-Riemann equations, complex integration, Cauchy's integral theorem, residues, computation of definite integrals by residues, and elementary conformal mapping.
Fall or Spring
Mutually Exclusive: AMCS 5100
Prerequisite: MATH 2400
1 Course Unit

MATH 4200 Ordinary Differential Equations
After a rapid review of the basic techniques for solving equations, the course will discuss one or more of the following topics: stability of linear and nonlinear systems, boundary value problems and orthogonal functions, numerical techniques, Laplace transform methods.
Fall or Spring
Mutually Exclusive: AMCS 5200
Prerequisite: MATH 2400
1 Course Unit

MATH 4250 Partial Differential Equations
Method of separation of variables will be applied to solve the wave, heat, and Laplace equations. In addition, one or more of the following topics will be covered: qualitative properties of solutions of various equations (characteristics, maximum principles, uniqueness theorems), Laplace and Fourier transform methods, and approximation techniques.
Fall
Prerequisite: MATH 2400
1 Course Unit

MATH 4320 Game Theory.
A mathematical approach to game theory, with an emphasis on examples of actual games. Topics will include mathematical models of games, combinatorial games, two person (zero sum and general sum) games, non-cooperating games and equilibria.
Fall or Spring
Prerequisite: MATH 2400
1 Course Unit

MATH 4600 Topology
Point set topology: metric spaces and topological spaces, compactness, connectedness, continuity, extension theorems, separation axioms, quotient spaces, topologies on function spaces, Tychonoff theorem. Fundamental groups and covering spaces, and related topics.
Not Offered Every Year
Prerequisite: MATH 2400 AND MATH 2410
1 Course Unit

MATH 4650 Differential Geometry
Differential geometry of curves in the plane and in 3-space; n gauge theories Surfaces in 3-space; The geometry of the Gauss map; ons. The language of Intrinsic geometry of surfaces; Geodesics; Moving frames; of vector bundles, The Gauss-Bonnet Theorem; Assorted additional topics.
Not Offered Every Year
Mutually Exclusive: MATH 5010
Prerequisite: (MATH 2400 OR MATH 2600) AND (MATH 3140 OR MATH 5140)
1 Course Unit

MATH 4800 Topics in Modern Math
Mathematics 4800 will open with a review of the basics of real analysis (brief or extended background requires). The review will include: introduction of the real numbers through Dedekind cuts, continuity of real-valued functions on the real line; Cantor nested-interval principle, basic results for continuous functions, Maximum and Intermediate Value theorems, Heine-Borel Theorem, Uniform Continuity on closed intervals; metric spaces, convergence of sequences, Cauchy sequences, completeness, more general uniform continuity and intermediate value theorems; general topology, separation, compactness, product spaces, Tychonoff's Theorem. Special topics in analysis: Weierstrass Polynomial Approximation Theorem, Bernstein polynomials and simultaneous approxfunctions and derivatives, topics from divergent series, summation methods; r measure theory, the Lebesgue integral, Lp spaces, Holder, Minkowski, and and Cauchy-Schwarz inequalities; basics of Functional Analysis, normed spaces, Banach spaces and Hilbert space, with examples (Lp spaces, continuous-functions spaces), Banach spaces and spectral theory, groups and Fourier transforms, Tauberian theorems; approximation theory, again, through the prism of functional analysis; extension of the polynomial approximation theorem (Stone-Weierstrass theorem), Muntz approximation theorem (by polynomials with preassigned powers), compact operators, the Spectral theorem, Stone's theorem (representations of the additive group of real numbers); Peter-Weyl theory (representations of compact groups). A selection from these topics as time and class preparation allow.
Not Offered Every Year
1 Course Unit

MATH 4990 Supervised Study
Study under the direction of a faculty member. Intended for a limited number of mathematics majors.
Fall or Spring
0-1 Course Unit
MATH 5000 Topology
Point set topology; metric spaces and topological spaces, compactness, connectedness, continuity, extension theorems, separation axioms, quotient spaces, topologies on function spaces, Tychonoff theorem. Fundamental groups and covering spaces, and related topics.
Not Offered Every Year
Prerequisite: MATH 2400
1 Course Unit

MATH 5010 Differential Geometry
The course moves from a study of extrinsic geometry (curves and surfaces in n-space) to the intrinsic geometry of manifolds. After a review of vector calculus and a section on tensor algebra, we study manifolds and their intrinsic geometry, including metrics, connections, geodesics, and the Riemann curvature tensor. Topics include Eulerian curvature and Euler's theorems, the Gauss map and first/second fundamental forms, the Theorema Egregium, minimal surfaces in n-space; other topics as time permits.
Not Offered Every Year
Mutually Exclusive: MATH 4650
Prerequisite: (MATH 2400 OR MATH 2600) AND (MATH 3140 OR MATH 5140)
1 Course Unit

MATH 5020 Abstract Algebra
An introduction to groups, rings, fields and other abstract algebraic systems, elementary Galois Theory, and linear algebra – a more theoretical course than Math 3700.
Fall
Prerequisite: (MATH 2400 OR MATH 2600) AND (MATH 3140 OR MATH 5140)
1 Course Unit

MATH 5030 Abstract Algebra
Continuation of Math 5020.
Spring
Prerequisite: MATH 5020
1 Course Unit

MATH 5040 Graduate Proseminar in Mathematics
This course focuses on problems from Algebra (especially linear algebra and multilinear algebra) and Analysis (especially multivariable calculus through vector fields, multiple integrals and Stokes theorem). The material is presented through student solving of problems. In addition there will be a selection of advanced topics which will be accessible via this material.
Fall
1 Course Unit

MATH 5050 Graduate Proseminar in Mathematics
This course focuses on problems from Algebra (especially linear algebra and multilinear algebra) and Analysis (especially multivariable calculus through vector fields, multiple integrals and Stokes theorem). The material is presented through student solving of problems. In addition there will be a selection of advanced topics which will be accessible via this material.
Spring
1 Course Unit

MATH 5080 Advanced Analysis
Construction of real numbers, the topology of the real line and the foundations of single variable calculus. Notions of convergence for sequences of functions. Basic approximation theorems for continuous functions and rigorous treatment of elementary transcendental functions. The course is intended to teach students how to read and construct rigorous formal proofs. A more theoretical course than Math 3600.
Fall
Prerequisite: MATH 2400 AND MATH 2410
1 Course Unit

MATH 5090 Advanced Analysis
Spring
Prerequisite: MATH 5080
1 Course Unit

MATH 5120 Advanced Linear Algebra
Topics will include: Vector spaces, Basis and dimension, quotients; Linear maps and matrices; Determinants, Dual spaces and maps; Invariant subspaces, Cononical forms; Scalar products: Euclidean, unitary and symplectic spaces; Orthogonal and unitary operators; Tensor products and polylinear maps; Symmetric and skew-symmetric tensors and exterior algebra.
1 Course Unit

MATH 5130 Computational Linear Algebra
A number of important and interesting problems in a wide range of disciplines within computer science are solved by recourse to techniques from linear algebra. The goal of this course will be to introduce students to some of the most important and widely used algorithms in matrix computation and to illustrate how they are actually used in various settings. Motivating applications will include: the solution of systems of linear equations, applications matrix computations to modeling geometric transformations in graphics, applications of the Discrete Fourier Transform and related techniques in digital signal processing, the solution of linear least squares optimization problems and the analysis of systems of linear differential equations. The course will cover the theoretical underpinnings of these problems and the numerical algorithms that are used to perform important matrix computations such as Gaussian Elimination, LU Decomposition and Singular Value Decomposition.
Mutually Exclusive: MATH 3130
Prerequisite: MATH 2400
1 Course Unit

MATH 5140 Advanced Linear Algebra
Topics will include: Vector spaces, Basis and dimension, quotients; Linear maps and matrices; Determinants, Dual spaces and maps; Invariant subspaces, Cononical forms; Scalar products: Euclidean, unitary and symplectic spaces; Orthogonal and Unitary operators; Tensor products and polylinear maps; Symmetric and skew-symmetric tensors and exterior algebra.
Also Offered As: AMCS 5141
Mutually Exclusive: MATH 3140
Prerequisite: MATH 2400
1 Course Unit
MATH 5200 Selections from Algebra
Informal introduction to such subjects as homological algebra, number theory, and algebraic geometry.
Not Offered Every Year
Prerequisite: MATH 5020
1 Course Unit

MATH 5300 Mathematics of Finance
This course presents the basic mathematical tools to model financial markets and to make calculations about financial products, especially financial derivatives. Mathematical topics covered: stochastic processes, partial differential equations and their relationship. No background in finance is assumed.
Not Offered Every Year
Prerequisite: MATH 2400 OR MATH 2600 STAT 4300
1 Course Unit

MATH 5400 Selections from Classical and Functional Analysis
Informal introduction to such subjects as compact operators and Fredholm theory, Banach algebras, harmonic analysis, differential equations, nonlinear functional analysis, and Riemann surfaces.
Not Offered Every Year
1 Course Unit

MATH 5460 Advanced Applied Probability
The required background is (1) enough math background to understand proof techniques in real analysis (closed sets, uniform coverage, fourier series, etc.) and (2) some exposure to probability theory at an intuitive level (a course at the level of Ross's probability text or some exposure to probability in a statistics class).
Fall
Also Offered As: AMCS 5461
1 Course Unit

MATH 5600 Selections from Geometry and Topology
Informal introduction to such subjects as homology and homotopy theory, classical differential geometry, dynamical systems, and knot theory.
Not Offered Every Year
Prerequisite: MATH 5000
Corequisite: MATH 5000
1 Course Unit

MATH 5610 Selections from Geometry and Topology
Informal introduction to such subjects as homology and homotopy theory, classical differential geometry, dynamical systems, and knot theory.
Not Offered Every Year
Prerequisite: MATH 5000
Corequisite: MATH 5000
1 Course Unit

MATH 5700 Logic and Computability 1
The course focuses on topics drawn from the central areas of mathematical logic: model theory, proof theory, set theory, and computability theory.
Not Offered Every Year
Also Offered As: PHIL 6721
Prerequisite: MATH 3710 OR MATH 5030
1 Course Unit

MATH 5710 Logic and Computability 2
A continuation of PHIL 6721.
Not Offered Every Year
Also Offered As: PHIL 6722
Prerequisite: MATH 5700
1 Course Unit

MATH 5800 Combinatorial Analysis
Standard tools of enumerative combinatorics including partitions and compositions of integers, set partitions, generating functions, permutations with restricted positions, inclusion-exclusion, partially ordered sets. Permission of the instructor required to enroll.
Not Offered Every Year
1 Course Unit

MATH 5810 Topics in Combinatorial Theory
Variable topics connected to current research in combinatorial theory. Recent topics include algebraic combinatorics and symmetric functions, analytic combinatorics and discrete probability.
Not Offered Every Year
Prerequisite: MATH 5800
1 Course Unit

MATH 5840 The Mathematics of Medical Imaging and Measurement
The last several decades have seen major revolutions in both medical and non-medical and imaging technologies. Underlying all of these advances are sophisticated mathematical tools to model the measurement process and reconstruct images. This course begins with an introduction of the mathematical models and then proceeds to discuss the integral transforms that underlie these models: the Fourier transform, the Radon transform and the Laplace transform. We discuss how each of these transforms is inverted, both in theory and in practice. Along the way we study interpolation, sampling, approximation theory, filtering and noise analysis. This course assumes a thorough knowledge of linear algebra and a knowledge of analysis at the undergraduate level (MATH 3140 and MATH 3600 and MATH 3610, or MATH 5080 and MATH 5090).
Not Offered Every Year
Also Offered As: AMCS 5840, BE 5840
Prerequisite: MATH 1410 AND (MATH 3600 OR MATH 5080) AND (MATH 3610 OR MATH 5090)
1 Course Unit

MATH 5861 Mathematical Modeling in Biology
This course will cover various mathematical models and tools that are used to study modern biological problems. Mathematical models may be drawn from cell biology, physiology, population genetics, or ecology. Tools in dynamical systems or stochastic processes will be introduced as necessary. No prior knowledge of biology is needed to take this course, but some familiarity with differential equations and probability will be assumed.
Fall
Also Offered As: BIOL 5860
1 Course Unit

MATH 5940 Mathematical Methods of Physics
A discussion of those concepts and techniques of classical analysis employed in physical theories. Topics include complex analysis, Fourier series and transforms, ordinary and partial equations, Hilbert spaces, among others.
Fall
Also Offered As: PHYS 5500
1 Course Unit
MATH 5999 Independent Study
Study under the direction of a faculty member. Hours to be arranged.
Fall or Spring
1-4 Course Units

MATH 6000 Topology and Geometric Analysis
Fall
Prerequisite: MATH 5000 AND MATH 5010
1 Course Unit

MATH 6010 Topology and Geometric Analysis
Covering spaces and fundamental groups, van Kampen's theorem and classification of surfaces. Basics of homology and cohomology, singular and cellular; isomorphism with de Rham cohomology. Brouwer fixed point theorem, CW complexes, cup and cap products, Poincare duality, Kunneth and universal coefficient theorems, Alexander duality, Lefschetz fixed point theorem.
Spring
Prerequisite: MATH 6000
1 Course Unit

MATH 6020 Algebra
Fall
Prerequisite: (MATH 3700 AND MATH 3710) OR (MATH 5020 AND MATH 5030)
1 Course Unit

MATH 6030 Algebra
Continuation of Math 6020.
Spring
Prerequisite: MATH 6020
1 Course Unit

MATH 6040 First Year Seminar in Mathematics
This is a seminar for first year Mathematics graduate students, supervised by faculty. Students give talks on topics from all areas of mathematics at a level appropriate for first year graduate students. Attendance and preparation will be expected by all participants, and learning how to present mathematics effectively is an important part of the seminar.
Fall
1 Course Unit

MATH 6080 Analysis
Complex analysis: analyticity, Cauchy theory, meromorphic functions, isolated singularities, analytic continuation, Runge's theorem, d-bar equation, Mittag-Leffler theorem, harmonic and sub-harmonic functions, Riemann mapping theorem, Fourier transform from the analytic perspective. Introduction to real analysis: Weierstrass approximation, Lebesgue measure in Euclidean spaces, Borel measures and convergence theorems, C0 and the Riesz-Markov theorem, Lp-spaces, Fubini Theorem.
Fall or Spring
Also Offered As: AMCS 6081
Prerequisite: MATH 5080 AND MATH 5090
1 Course Unit

MATH 6090 Analysis
Fall or Spring
Also Offered As: AMCS 6091
Prerequisite: MATH 6080
1 Course Unit

MATH 6100 Functional Analysis
Prerequisite: MATH 6080 OR MATH 6090
1 Course Unit

MATH 6120 Selections from Algebra
Informal introduction to such subjects as homological algebra, number theory, and algebraic geometry.
Not Offered Every Year
Prerequisite: MATH 6000 AND MATH 6020
Corequisites: MATH 6000, MATH 6020
1 Course Unit

MATH 6180 Algebraic Topology, Part I
Fall
Prerequisite: MATH 6000 AND MATH 6010
1 Course Unit

MATH 6190 Algebraic Topology, Part I
Rational homotopy theory, cobordism, K-theory, Morse theory and the h-cobordism theorem. Surgery theory.
Spring
Prerequisite: MATH 6180
1 Course Unit
MATH 6200 Algebraic Number Theory
Dedekind domains, local fields, basic ramification theory, product formula, Dirichlet unit theorem, finiteness of class numbers, Hensel's Lemma, quadratic and cyclotomic fields, quadratic reciprocity, abelian extensions, zeta and L-functions, functional equations, introduction to local and global class field theory. Other topics may include: Diophantine equations, continued fractions, approximation of irrational numbers by rationals, Poisson summation, Hasse principle for binary quadratic forms, modular functions and forms, theta functions.
Not Offered Every Year
Prerequisite: MATH 6020 AND MATH 6030
1 Course Unit

MATH 6210 Algebraic Number Theory
Continuation of Math 6200.
Not Offered Every Year
Prerequisite: MATH 6200
1 Course Unit

MATH 6220 Complex Algebraic Geometry
Algebraic geometry over the complex numbers, using ideas from topology, complex variable theory, and differential geometry. Topics include: Complex algebraic varieties, cohomology theories, line bundles, vanishing theorems, Riemann surfaces, Abel's theorem, linear systems, complex tori and abelian varieties, Jacobian varieties, currents, algebraic surfaces, adjunction formula, rational surfaces, residues.
Not Offered Every Year
Prerequisite: MATH 6020 AND MATH 6030 AND MATH 6090
1 Course Unit

MATH 6230 Complex Algebraic Geometry
Continuation of Math 6220.
Not Offered Every Year
Prerequisite: MATH 6220
1 Course Unit

MATH 6240 Algebraic Geometry
Algebraic geometry over algebraically closed fields, using ideas from commutative algebra. Topics include: Affine and projective algebraic varieties, morphisms and rational maps, singularities and blowing up, rings of functions, algebraic curves, Riemann Roch theorem, elliptic curves, Jacobian varieties, sheaves, schemes, divisors, line bundles, cohomology of varieties, classification of surfaces.
Not Offered Every Year
Prerequisite: MATH 6020 AND MATH 6030
1 Course Unit

MATH 6250 Algebraic Geometry
Continuation of Math 6240.
Not Offered Every Year
Prerequisite: MATH 6240
1 Course Unit

MATH 6260 Commutative Algebra
Topics in commutative algebra taken from the literature. Material will vary from year to year depending upon the instructor's interests.
Not Offered Every Year
Prerequisite: MATH 6020 AND MATH 6030
1 Course Unit

MATH 6280 Homological Algebra
Complexes and exact sequences, homology, categories, derived functors (especially Ext and Tor). Homology and cohomology arising from complexes in algebra and geometry, e.g. simplicial and singular theories, Cech cohomology, de Rham cohomology, group cohomology, Hochschild cohomology. Projective resolutions, cohomological dimension, derived categories, spectral sequences. Other topics may include: Lie algebra cohomology, Galois and etale cohomology, cyclic cohomology, l-adic cohomology. Algebraic deformation theory, quantum groups, Brauer groups, descent theory.
Not Offered Every Year
Prerequisite: MATH 6020 AND MATH 6030
1 Course Unit

MATH 6290 Homological Algebra
Continuation of Math 6280.
Not Offered Every Year
Prerequisite: MATH 6280
1 Course Unit

MATH 6340 Arithmetic Geometry
Arithmetic Geometry
1 Course Unit

MATH 6420 Topics in Partial Differential Equations
Problems in differential geometry, as well as those in physics and engineering, inevitably involve partial derivatives. This course will be an introduction to these problems and techniques. We will use P.D.E. as a tool. Some of the applications will be small, some large. The proof of the Hodge Theorem will be a small application. Discussion of the Yamabe problem and Ricci flow (used to prove the Poincare Conjecture) will be larger.
Prerequisite: MATH 6080 AND MATH 6090
1 Course Unit

MATH 6440 Partial Differential Equations
Subject matter varies from year to year. Some topics are: the classical theory of the wave and Laplace equations, general hyperbolic and elliptic equations, theory of equations with constant coefficients, pseudo-differential operators, and non-linear problems. Sobolev spaces and the theory of distributions will be developed as needed.
Not Offered Every Year
Prerequisite: MATH 6080 AND MATH 6090
1 Course Unit

MATH 6450 Partial Differential Equations
Subject matter varies from year to year. Some topics are: the classical theory of the wave and Laplace equations, general hyperbolic and elliptic equations, theory of equations with constant coefficients, pseudo-differential operators, and non-linear problems. Sobolev spaces and the theory of distributions will be developed as needed.
Not Offered Every Year
Prerequisite: MATH 6080 AND MATH 6090
1 Course Unit

MATH 6480 Probability Theory
Measure theoretic foundations, laws of large numbers, large deviations, distributional limit theorems, Poisson processes, random walks, stopping times.
Fall
Also Offered As: AMCS 6481, STAT 9300
Prerequisite: STAT 4300 OR STAT 5100 OR MATH 6080
1 Course Unit
MATH 6490 Stochastic Processes
Continuation of MATH 6480/STAT 9300, the 2nd part of Probability Theory for PhD students in the math or statistics department. The main topics include Brownian motion, martingales, Ito’s formula, and their applications to random walk and PDE.
Not Offered Every Year
Also Offered As: AMCS 6491, STAT 9310
1 Course Unit

MATH 6520 Operator Theory
Subject matter may include spectral theory of operators in Hilbert space, C*-algebras, von Neumann algebras.
Not Offered Every Year
1 Course Unit

MATH 6540 Lie Groups
Connection of Lie groups with Lie algebras, Lie subgroups, exponential map. Algebraic Lie groups, compact and complex Lie groups, solvable and nilpotent groups. Other topics may include relations with symplectic geometry, the orbit method, moment map, symplectic reduction, geometric quantization, Poisson-Lie and quantum groups.
Not Offered Every Year
Prerequisite: MATH 6000 AND MATH 6010 AND MATH 6020 AND MATH 6030
1 Course Unit

MATH 6550 Lie Groups
Continuation of Math 6540.
Not Offered Every Year
Prerequisite: MATH 6540
1 Course Unit

MATH 6560 Representation of Continuous Groups
Possible topics: harmonic analysis on locally compact abelian groups; almost periodic functions; direct integral decomposition theory, Types I, II and III: induced representations, representation theory of semisimple groups.
Not Offered Every Year
Prerequisite: MATH 6000 AND MATH 6010 AND MATH 6020 AND MATH 6030
1 Course Unit

MATH 6600 Differential Geometry
Riemannian metrics and connections, geodesics, completeness, Hopf-Rinow theorem, sectional curvature, Ricci curvature, scalar curvature, Jacobi fields, second fundamental form and Gauss equations, manifolds of constant curvature, first and second variation formulas, Bonnet-Myers theorem, comparison theorems, Morse index theorem, Hadamard theorem, Preissmann theorem, and further topics such as sphere theorems, critical points of distance functions, the soul theorem, Gromov-Hausdorff convergence.
Not Offered Every Year
Prerequisite: MATH 6000 AND 6010 AND 6020 AND 6030
1 Course Unit

MATH 6610 Differential Geometry
Continuation of Math 6600.
Not Offered Every Year
Prerequisite: MATH 6600
1 Course Unit

MATH 6710 Topics in Logic
Discusses advanced topics in logic.
Not Offered Every Year
Prerequisite: MATH 5700 AND MATH 5710
1 Course Unit

MATH 6770 Topics in Logic
This graduate course focuses on topics drawn from the central areas of mathematical logic: model theory, proof theory, set theory, and computability theory.
Not Offered Every Year
Also Offered As: PHIL 6720
1 Course Unit

MATH 6940 Mathematical Foundations of Theoretical Physics
Selected topics in mathematical physics, such as mathematical methods of classical mechanics, electrodynamics, relativity, quantum mechanics and quantum field theory.
Not Offered Every Year
1 Course Unit

MATH 6950 Mathematical Foundations of Theoretical Physics
Selected topics in mathematical physics, such as mathematical methods of classical mechanics, electrodynamics, relativity, quantum mechanics and quantum field theory.
Not Offered Every Year
1 Course Unit

MATH 6982 Representation of Continuous Groups
Possible topics: harmonic analysis on locally compact abelian groups; almost periodic functions; direct integral decomposition theory, Types I, II and III: induced representations, representation theory of semisimple groups.
Not Offered Every Year
1 Course Unit

MATH 7020 Topics in Algebra
Topics from the literature. The specific subjects will vary from year to year.
Not Offered Every Year
1 Course Unit

MATH 7200 Advanced Number Theory
Ramification theory, adeles and ideles, Tate's thesis, group cohomology and Galois cohomology, class field theory in terms of ideles and cohomology, Lubin-Tate formal groups, Artin and Swan conductors, central simple algebras over local and global fields, general Hasse principles. Other topics may include the following: zero-dimensional Arakelov theory, Tate duality, introduction to arithmetic of elliptic curves, local and global epsilon factors in functional equations, p-adic L-functions and Iwasawa theory, modular forms and functions and modular curves.
Not Offered Every Year
Prerequisite: MATH 6200 AND MATH 6210
1 Course Unit

MATH 7210 Advanced Number Theory
Continuation of Math 7200.
Not Offered Every Year
Prerequisite: MATH 7200
1 Course Unit

MATH 7240 Topics in Algebraic Geometry
Topics from the literature. The specific subjects will vary from year to year.
Not Offered Every Year
Prerequisite: MATH 6220 AND (MATH 6230 OR MATH 6240) AND MATH 6250
1 Course Unit
MATH 7250 Topics in Algebraic Geometry
Topics from the literature. The specific subject will vary from year to year.
Not Offered Every Year
1 Course Unit

MATH 7300 Topics in Algebraic and Differential Topology
Topics from the literature. The specific subjects will vary from year to year.
Not Offered Every Year
Prerequisite: MATH 6180 AND MATH 6190
1 Course Unit

MATH 7310 Topics in Algebraic and Differential Topology
Topics from the literature. The specific subjects will vary from year to year.
Not Offered Every Year
Prerequisite: MATH 6180 AND MATH 6190
1 Course Unit

MATH 7480 Topics in Classical Analysis
Harmonic analysis in Euclidean space, Riemann surfaces, Discontinuous groups and harmonic analysis in hyperbolic space, Pseudodifferential operators and index theorems, Variational methods in non-linear PDE, Hyperbolic equations and conservation laws, Probability and stochastic processes, Geometric measure theory, Applications of analysis to problems in differential geometry. The specific subjects will vary from year to year.
Not Offered Every Year
Prerequisite: MATH 6080 AND MATH 6090
1 Course Unit

MATH 7520 Topics in Operator theory
Topics from the literature. The specific subjects will vary from year to year.
Not Offered Every Year
1 Course Unit

MATH 7530 Topics in Operator Theory
Topics from the literature. The specific subjects will vary from year to year.
Not Offered Every Year
1 Course Unit

MATH 7600 Topics in Differential Geometry
Topics from the literature. The specific subjects will vary from year to year.
Not Offered Every Year
Prerequisite: MATH 6600 AND MATH 6610
1 Course Unit

MATH 7610 Topics in Differential Geometry
Topics from the literature. The specific subjects will vary from year to year.
Not Offered Every Year
Prerequisite: MATH 6600 AND MATH 6610
1 Course Unit

MATH 8200 Algebra Seminar
Seminar on current and recent literature in algebra.
Not Offered Every Year
1 Course Unit

MATH 8300 Geometry-Topology Seminar
Seminar on current and recent literature in geometry-topology
Not Offered Every Year
1 Course Unit

MATH 8310 Geometry-Topology Seminar
Seminar on current and recent literature in geometry-topology
Not Offered Every Year
1 Course Unit

MATH 8710 Logic Seminar
Seminar on current and recent literature in logic.
Not Offered Every Year
1 Course Unit

MATH 8780 Probability and Algorithm Seminar
Seminar on current and recent literature in probability and algorithms.
1 Course Unit

MATH 8810 Combinatorics Seminar
Seminar on current and recent literature in combinatorics.
Not Offered Every Year
1 Course Unit

Mechanical Engineering and Applied Mechanics (MEAM)

MEAM 0099 Independent Study
An opportunity for the student to become closely associated with a professor in (1) a research effort to develop research skills and technique and/or (2) to develop a program of independent in-depth study in a subject area in which the professor and student have a common interest. The challenge of the task undertaken must be consistent with the student's academic level. To register for this course, the student and professor jointly submit a detailed proposal. Subject to the approval of the MEAM Undergraduate Curriculum Chair.
Fall or Spring
1 Course Unit

MEAM 1010 Introduction to Mechanical Design
This hands-on, project-based course covers the fundamentals of the modern mechanical design process, from needfinding and brainstorming to the basics of computerized manufacturing and rapid prototyping. Topics include: product definition (needfinding, observation, sketching, and brainstorming); computer-aided design (part creation, assemblies, and animation using SolidWorks); fundamental engineering design practices (material selection, dimensioning, tolerances, etc.); basic computer simulation and analysis; and rapid prototyping (laser cutter, 3-D fused-deposition modeling, and an introduction to computer-controlled machining).
Fall or Spring
1 Course Unit
MEAM 1100 Introduction to Mechanics
This lecture course and a companion laboratory course (MEAM 1470) build upon the concepts of Newtonian (classical) mechanics and their application to engineered systems. This course introduces students to mechanical principles that are the foundation of upper-level engineering courses including MEAM 2100 and 2110. The three major parts of this course are: I. Vector Mechanics; II. Statics and Structures; and III. Kinematics and Dynamics. Topics include: vector analysis, statics of rigid bodies, introduction to deformable bodies, friction, kinematics of motion, work and energy, and dynamics of particles. Case studies will be introduced, and the role of Newtonian mechanics in emerging applications including bio- and nano-technologies will be discussed. Students should be taking MATH 1400 concurrently with this course, unless they have MATH 1400 credit for taking it in a previous semester. 
Fall
Corequisite: MEAM 1470
1 Course Unit

MEAM 1470 Introduction to Mechanics Lab
This half-credit laboratory class is a companion to the Introduction to Mechanics lecture course (MEAM 110). It investigates the concepts of Newtonian (classical) mechanics through weekly hands-on experiments, emphasizing connections between theoretical principles and practical applications in engineering. In addition to furthering their understanding about the workings of the physical world, students will improve their skills at conducting experiments, obtaining reliable data, presenting numerical results, and extracting meaningful information from such numbers. 
Fall
Corequisite: MEAM 1100
0.5 Course Units

MEAM 2010 Machine Design and Manufacturing
Building upon the fundamentals of mechanical design taught in MEAM 101, this hands-on, project-based course provides students with the knowledge and skills necessary to design, analyze, manufacture, and test fully-functional mechanical systems. Topics covered include an introduction to machine elements, analysis of the mechanics of machining, manufacturing technology, precision fabrication (milling, turning, and computer-controlled machining), metrology, tolerances, cutting-tool fundamentals and engineering materials. Enrollment is limited. 
Fall or Spring
Prerequisite: MEAM 1010
1 Course Unit

MEAM 2020 Introduction to Thermal-Fluids Engineering
This course introduces students to basic concepts of thermodynamics, fluid mechanics, and heat transfer, with emphasis on applications. The course will focus on first law of thermodynamics, mass and momentum conservation for both closed and open systems. Students will be exposed to the different modes of heat transfer (conduction, convection, and radiation) with attention to conduction and convection applications to heat engines and devices. Hydrostatics, including pressure distribution and forces acting on submerged surfaces, and buoyancy effects will be discussed as how they are related to hydraulic applications. Fluid dynamics will cover inviscid flows, Bernoulli equation, and concepts of lift, drag, and thrust, and how these are related to aerodynamical systems including wind turbines. Introduction to internal flows, head loss in pipes, friction factors, and Moody chart. 
Fall
Prerequisite: MATH 1400 AND (MEAM 1100 OR PHYS 0150) AND MATH 1410
1 Course Unit

MEAM 2030 Thermodynamics I
Thermodynamics studies the fundamental concepts related to energy conversion in such mechanical systems as internal and external combustion engines (including automobile and aircraft engines), compressors, pumps, refrigerators, and turbines. This course is intended for students in mechanical engineering, chemical engineering, materials science, physics and other fields. The topics include properties of pure substances, firs-law analysis of closed systems and control volumes, reversibility and irreversibility, entropy, second-law analysis, exergy, power and refrigeration cycles, and their engineering applications. 
Spring
Prerequisites: MATH 1400 AND MATH 1410 and MEAM 2020
1 Course Unit

MEAM 2100 Statics and Strength of Materials
This course is primarily intended for students in mechanical engineering, but may also be of interest to students in materials science and other fields. It continues the treatment of statics of rigid bodies begun in MEAM 1100/PHYS 0150 and progresses to the treatment of deformable bodies and their response to loads. The concepts of stress, strain, and linearly elastic response are introduced and applied to the behavior of rods, shafts, beams and other mechanical components. The failure and design of mechanical components are discussed. Students should have either taken MATH 2400 in a previous semester or be taking it concurrently with this course. 
Fall
Prerequisite: (MEAM 1100 OR PHYS 0150 OR PHYS 0170) AND MATH 2400
Corequisite: MEAM 2470
1 Course Unit

MEAM 2110 Engineering Mechanics: Dynamics
This course introduces the basic concepts in kinematics and dynamics that are necessary to understand, analyze and design mechanisms and machines. These concepts are also fundamental to the modeling and analysis of human movement, biomechanics, animation of synthetic human models and robotics. The topics covered include: Particle dynamics using energy and momentum methods of analysis; Dynamics of systems of particles; Impact; Systems of variable mass; Kinematics and dynamics of rigid bodies in plane motion; Computer-aided dynamic simulation and animation. 
Spring
Prerequisite: MEAM 2100 AND MATH 2400 AND (ENGR 1050 OR CIS 1100 OR CIS 1200) AND (MATH 2410 OR ENM 2510)
1 Course Unit

MEAM 2200 Introduction to Materials Science and Engineering
The course is an introduction to the most important concepts in materials science and engineering. You will learn how the control of chemical bonding, synthesis, processing, structure and defects can be used to tailor the properties and performance of materials for applications that range from sustainable sources of energy, to construction, to consumer electronics. Case studies are also included to highlight environmental issues associated with materials degradation. This course includes lab demonstrations of key materials properties and a final project where students research an area of materials technology of their own interest. 
Fall
Also Offered As: MSE 2200
Prerequisite: CHEM 1012 AND (PHYS 0140 OR MEAM 1100)
1 Course Unit
MEAM 2250 Engineering in the Environment
Humans modify and control our environment, but are also subject to the whims of geologic forces. Earthquakes, landslides, floods and dust storms are natural hazards that, while unpredictable, may be understood from basic mechanical principles; and this understanding may be used to better prepare and adapt to a changing world. Human-induced climate change is triggering not only warming, but also “global weirding” as the climate system becomes increasingly unstable and unpredictable. This course will lead with applications related to the environment and climate change, and use simple scaling and dimensional analysis to develop physical intuition. Students will be introduced to topics such as mechanics (e.g., failure) and flow of soil and rock, river erosion, and transport and dispersion of contaminants in water and air, as well as basic phenomena of weather and climate. I will present an integrated approach to understanding these problems by applying elementary concepts of thermo-fluids and mechanics. Gravity currents make up the vast proportion of environmental flows; I will emphasize common principles, such as buoyancy and mixing. The primary objective for this course is that students discover how to apply basic engineering insight to non-engineered (i.e., natural), unconstrained systems. A secondary objective is to entice mechanical engineers to become interested in the environment.

Spring, odd numbered years only
1 Course Unit

MEAM 2470 Mechanical Engineering Laboratory I
This is the first of a two semester sophomore level laboratory sequence that students complete over the fall and spring semesters. The course teaches the principles of experimentation and measurement as well as analysis and application to design. This fall semester course follows closely with MEAM 2020 and MEAM 2100, involving experiments to explore the principles of statics and strength of materials and thermo-fluids and energy. Prerequisite: Sophomore standing in engineering
Fall
Corequisites: MEAM 2020, MEAM 2100
.5 Course Units

MEAM 2480 Mechanical Engineering Lab I
This is the second of a two-semester sophomore level laboratory sequence that students complete over the fall and spring semesters. The course teaches the principles of experimentation and measurement as well as analysis and application to design. The spring semester course follows closely with MEAM 2030 and MEAM 2110, expanding upon the principles of experimentation, measurement, analysis, and design of systems through hands-on laboratories and projects in thermodynamics and dynamics. Prerequisite: Sophomore standing in engineering
Spring
Corequisites: MEAM 2030, MEAM 2110
.5 Course Units

MEAM 3020 Fluid Mechanics
Physical properties; fluid statics; Bernoulli equation; fluid kinematics; conservation laws and finite control-volume analysis; conservation laws and differential analysis; inviscid flow; The Navier-Stokes equation and some exact solutions; similitude, dimensional analysis, and modeling; flow in pipes and channels; boundary layer theory; lift and drag.
Fall
Prerequisite: (MATH 2410 OR ENM 2510) AND (PHYS 0150 OR MEAM 1100 OR PHYS 0170)
1 Course Unit

MEAM 3200 Intro to Mechanical and Mechatronic Systems
This course introduces topics in the design and analysis of modern mechanical systems. The course will cover concepts in mechanism design, kinematics, electronic circuits, motors and electromechanical systems, and measurement and filtering. Specific topics include kinematics of linkages, operational amplifiers, and interfacing with mechanical systems by programming microcontrollers. Corequisite: MEAM 3470
1 Course Unit

MEAM 3210 Dynamic Systems and Control
This course teaches the fundamental concepts underlying the dynamics of vibrations for single-degree of freedom, multi-degree, and infinite-degree of freedom mechanical systems. Methods include Newton’s force methods as well as energy methods (e.g., Lagrangian approaches). Students will learn how to analyze transient, steady-state, and how different forcing scenarios relate to system stability (e.g., for controls)... The course teaches analytical solution techniques for linear systems, and practical linearization and numerical approaches for analysis of nonlinear dynamic systems.
Spring
Prerequisite: (MATH 2410 OR ENM 2510) AND MEAM 2110
1 Course Unit

MEAM 3330 Heat and Mass Transfer
This course covers fundamentals of heat and mass transfer and applications to practical problems in energy conversion and conservation. Emphasis will be on developing a physical and analytical understanding of conductive, convective, and radiative heat transfer, as well as design of heat exchangers and heat transfer with phase change. Topics covered will include: types of heat transfer processes, their relative importance, and the interactions between them, solutions of steady state and transient state conduction, emission and absorption of radiation by real surfaces and radiative transfer between surfaces, heat transfer by forced and natural convection owing to flow around bodies and through ducts, analytical solutions for some sample cases and applications of correlations for engineering problems. Students will develop an ability to apply governing principles and physical intuition to solve problems.
Spring
Prerequisite: MEAM 2030 AND MEAM 3020
1 Course Unit

MEAM 3470 Mechanical Engineering Design Laboratory
This is the first of a two-semester junior level laboratory sequence that students complete over the fall and spring semesters. The course is project-based, with problems whose solution requires experimental data and quantitative analysis, as well as creative mechanical design. The technical content is connected to MEAM 3020, MEAM 3200, and MEAM 3540, including aerodynamics, applied fluid systems, and structural analysis. The course also includes electromechanical systems and applications of finite element analysis. Prerequisite: Junior standing in engineering
Fall
1 Course Unit
MEAM 3480 Mechanical Engineering Design Laboratory
This is the second of a two-semester junior level laboratory sequence that students complete over the fall and spring semesters. The course is project-based, with open-ended design problems that challenge students to develop original experiments and choose appropriate analyses, with an increasing emphasis on teamwork and project planning. The technical content is connected to MEAM 321 and MEAM 333, including multimodal transient heat transfer and dynamic systems modeling. Prerequisite: Junior standing in engineering.

Fall
1 Course Unit

MEAM 3540 Mechanics of Solids
This course builds on the fundamentals of solid mechanics taught in MEAM 2100 and addresses more advanced problems in strength of materials. The students will be exposed to a wide array of applications from traditional engineering disciplines as well as emerging areas such as biotechnology and nanotechnology. The methods of analysis developed in this course will form the cornerstone of machine design and also more advanced topics in the mechanics of materials. Prerequisite: If course requirements not met, permission of instructor required.

Fall
Prerequisite: MEAM 2100 OR BE 2000
1 Course Unit

MEAM 4050 Mechanical Properties of Macro/Nanoscale Materials
This course will discuss the mechanical properties of a wide range of materials from both macroscopic and microscopic viewpoints. Beginning with a review of elasticity and tensors, the course will describe the deformation, fracture and fatigue behavior of metals, ceramics and polymers. Dislocation theory, strengthening mechanisms and rate-dependent deformation will also be discussed. The following topics will be discussed: 1. Introduction and review of linear elasticity and tensors. Stress and strain tensors, transformations, principal stresses, invariants. Mechanical testing methods at the macro and micro scale. 2. Crystal symmetry and its effect on second and fourth rank tensors. Linear thermal expansion and thermal stresses. Anisotropic linear elasticity. Anisotropic elastic moduli of crystals. 3. Plasticity and yield in continuum elasticity. Notion of yield surfaces. 4. Elements of dislocation theory. Stress and strain fields of dislocations, forces and interactions. 5. Slip and twinning in crystalline solids. 6. Strengthening and deformation properties of crystalline materials. 7. Rate-dependent and high temperature deformation of materials. 8. Fracture of materials.

Spring
Also Offered As: MSE 4050
Prerequisite: MSE 2200 or MEAM 2100
1 Course Unit

MEAM 4110 How to Make Things: Production Prototyping Studio
The course centers around a sequence of three projects that each culminate in the design and fabrication of functional objects. A 2D Design, 3D Design, and final "Micro-Manufacturing" project will introduce students to a wide variety of design, engineering, and fabrication skills made possible by the new Studios @ Tangen Hall. The micro-manufacturing final project will task interdisciplinary student teams to create a "micro-business" where they will design and utilize 3D printed molding and casting techniques to create a small-scale run of functional products. These products will then be showcased in an end of semester exposition, where the teams will merchandise and market their products to the Penn community. This exposition will also be a wonderful inaugural use of the student and alumni retail space on the 1st floor of Tangen Hall and serve as a great university-wide event to show case the work of SEAS students. Requires proficiency in solid modeling software (e.g., SolidWorks, Maya, Rhino), practice with design process, and hands-on fabrication experience.

Also Offered As: OIDD 4110
1 Course Unit

MEAM 4150 Product Design
This course provides tools and methods for creating new products. The course is intended for students with a strong career interest in new product development, entrepreneurship, and/or technology development. The course follows an overall product design methodology, including the identification of customer needs, generation of product concepts, prototyping, and design-for-manufacturing. Weekly student assignments are focused on the design of a new product and culminate in the creation of a prototype, which is launched at an end-of-semester public Design Fair. The course project is a physical good - but most of the tools and methods apply to services and software products. The course is open to any Penn sophomore, junior, senior or graduate student. The course follows a studio format, in which students meet for three hours each week with Professor Marcovitz for lectures and hands-on making, and students will complete 90 minutes of asynchronous, self-paced content from Professor Ulrich on their own time each week. Professor Ulrich gives one in-person lecture during the semester and attends the Design Fair, but is not present at the weekly studio sessions.

Also Offered As: OIDD 4150
1 Course Unit

MEAM 4210 Control For Autonomous Robots
This course introduces the hardware, software and control technology used in autonomous ground vehicles, commonly called "self-driving cars." The weekly laboratory sessions focus on development of a small-scale autonomous car, incrementally enhancing the sensors, software, and control algorithms to culminate in a demonstration in a realistic outdoor operating environment. Students will learn basic physics and modeling; controls design and analysis in Matlab and Simulink; software implementation in C and Python; sensor systems and filtering methods for IMUs, GPS, and computer vision systems; and path planning from fixed map data. Prerequisite: If course requirement not met, permission of instructor required.

Fall
Also Offered As: ESE 4210
Prerequisite: ESE 2240 OR MEAM 2110 or permission of instructor
1.5 Course Unit
MEAM 4450 Mechanical Engineering Design Projects
This capstone design project course is required of all mechanical engineering students. Student teams will design and test complex mechanical systems that address a societal or consumer need. Projects are devised by the team, sponsored by industry, or formulated by Penn professors. Each project is approved by the instructor and a faculty advisor. Topics treated in the course include project planning, prototyping, patent and library searches, intellectual property, ethics, and technical writing and presentations. The work is spread over MEAM 4450 and MEAM 4460. Prerequisite: Junior standing
Fall
1 Course Unit

MEAM 4460 Mechanical Engineering Design Projects
This is the second course in the two course sequence involving the capstone design project. See MEAM 4450 for course description.
Spring
1 Course Unit

MEAM 5020 Energy Engineering in Power Plants and Transportation Systems
Most energy consumed in the U.S. and in the world is produced using thermal-to-mechanical energy conversion. Through problem sets and a semester-long group project, students will learn the engineering principles that govern how heat is converted to mechanical power in electric power plants, jet aircraft, and internal combustion engines. Topics covered include a review of thermodynamics and basic power cycles, supercritical, combined, and hybrid cycles, cogeneration, jet propulsion, and reciprocating internal combustion engines. A brief introduction to desalination and combustion is also included. The material in this course will provide students a foundation important for industrial and research employment in energy engineering.
Fall
1 Course Unit

MEAM 5030 Direct Energy Conversion: from Macro to Nano
The course focuses on devices that convert thermal, solar, or chemical energy directly to electricity, i.e., without intermediate mechanical machinery such as a turbine or a reciprocating piston engine. A variety of converters with sizes ranging from macro to nano scale will be discussed, with the advantages offered by nanoscale components specifically highlighted. Topics will include thermoelectric energy converters and radioisotope thermoelectric generators (RTGs), thermionic energy converters (TEC), photovoltaic (PV) and thermophotovoltaic (TPV) cells, as well as piezoelectric harvesters. Additional topics may include magnetohydrodynamic (MHD) generators, alkali metal thermal-to-electric converters (AMTEC), and fuel cells.
Fall
1 Course Unit

MEAM 5040 Tribology
The course will comprehensively cover both theoretical and practical tribology, the science and technology of interacting surfaces in relative motion. The various modes of lubrication, hydrodynamic, elastohydrodynamic, hydrostatic, mixed, solid and dry, will be studied in detail. The contact between solid surfaces will be covered, leading to an understanding of friction and various modes of wear. At each stage, it will be shown how the tribological principles learned can be applied in practice to improve the efficiency and durability of mechanical equipment and thereby enhance sustainability through energy and materials conservation. Prerequisite: Senior standing in Mechanical Engineering or Material Science or permission of the instructor
Fall
1 Course Unit

MEAM 5050 Mechanical Properties of Macro/Nanoscale Materials
The application of continuum and microstructural concepts to elasticity and plasticity and the mechanisms of plastic flow and fracture in metals, polymers and ceramics. Topics covered include elasticity, viscoelasticity, plasticity, fracture, fatigue, wear, and materials conservation. Prerequisite: Senior standing in Mechanical Engineering or Material Science or permission of the instructor
Fall
1 Course Unit

MEAM 5050 Mechanical Properties of Macro/Nanoscale Materials
The application of continuum and microstructural concepts to elasticity and plasticity and the mechanisms of plastic flow and fracture in metals, polymers and ceramics. Topics covered include elasticity, viscoelasticity, plasticity, crystal defects, strengthening, crystallographic effects, twinning, creep and fatigue. Emphasis will be on mathematical and physical understanding rather than problem solving.
Spring
Also Offered As: MSE 5050
Prerequisite: MSE 2200 or MEAM 2010 OR MATH 2400
1 Course Unit

MEAM 5060 Failure Analysis of Engineering Materials
This course will introduce students to the broad field of failure through hands-on real-life examples of specific failures. All engineering materials classes will be considered, including metals, polymers, elastomers, ceramics, and glasses. Emphasis will be placed on understanding how to actually analyze a failed component and understand the cause of failure. Several classes will be conducted by outside experts from places like the NTSB, FBI and OSHA.
Fall
Also Offered As: MSE 5060
Prerequisite: MSE 2200 or equivalent
1 Course Unit

MEAM 5070 Fundamentals of Materials
This course will provide a graduate level introduction to the science and engineering of materials. It is designed specifically to meet the needs of students who will be doing research that involves materials but who do not have an extensive background in the field. The focus is on fundamental aspects of materials science and will emphasize phenomena and how to describe them. The course assumes an undergraduate background in any area of physical/chemical science and undergraduate mathematics appropriate to this. The course will also be accessible to students of applied mathematics.
Fall
Also Offered As: MSE 5070
1 Course Unit

MEAM 5080 Materials and Manufacturing for Mechanical Design
The selection of materials and manufacturing processes are critical in the design of mechanical systems. Material properties and manufacturing processes are often tightly linked, thus this course covers both topics in an integrated manner. The properties and manufacturing processes for a wide range of materials (i.e., metals, ceramics, polymers, composites ) are examined from both a fundamental and practical perspective. From a materials standpoint, the course focuses on mechanical properties, including modulus, strength, fracture, fatigue, wear, and creep. Established and emerging manufacturing processes will be discussed. Design-based case studies are used to illustrate the selection of materials and processes.
Spring
1 Course Unit
MEAM 5100 Design of Mechatronic Systems
In many modern systems, mechanical elements are tightly coupled with electronic components and embedded systems. Mechatronics is the study of how these domains are interconnected. This hands-on, project-based course teaches: MECHANICAL elements --prototyping (lasercutting, 3D printing), microcontrollers (ATmega32-u4, ESP32), actuators (DC motors, servos, solenoids, LEDs) and sensor (light, sound, touch, force sensors), ELECTRONICS -- basic circuits, filters, op amps, discrete logic, sensing and control of voltage and current, and COMPUTING -- interfacing with the analog world, microprocessor technology, basic control theory, wireless communication and structured embedded programming (including register level) and some web programming. Prerequisite: knowledge of structured programming language (C, C++ preferred).
Fall
1 Course Unit

MEAM 5130 Feedback Control Design and Analysis
Basic methods for analysis and design of feedback control in systems. Applications to practical systems. Methods presented include time response analysis, frequency response analysis, root locus, Nyquist and Bode plots, and the state-space approach.
Spring
Also Offered As: ESE 5050
Prerequisite: MEAM 3210 OR ESE 2100
1 Course Unit

MEAM 5140 Design for Manufacturability
This course is aimed at providing current and future product design/development engineers, manufacturing engineers, and product development managers with an applied understanding of Design for Manufacturability (DFM) concepts and methods. The course content includes materials from multiple disciplines including: engineering design, manufacturing, marketing, finance, project management, and quality systems. Prerequisite: Senior or graduate standing in the School of Design, Engineering, or Business with completed product in development and/or design engineering core coursework or related experience.
Spring
Also Offered As: IPD 5140
1 Course Unit

MEAM 5160 Advanced Mechatronic Reactive Spaces.
This course combines performance art and advanced mechatronics concepts that include the design and implementation of large-scale actuation, advanced sensing, actuation and control. This course pairs design school and engineering students to form interdisciplinary teams that together design and build electro-mechanical reactive spaces and scenic/architectural elements in the context of the performing arts. The two disciplinary groups will be treated separately and receive credit for different courses (ARCH746 will be taught concurrently and in some cases co-located) as they will be learning different things. Engineering students gain design sensibilities and advanced mechatronics in the form of networked embedded processing and protocols for large scale actuation and sensing. Design students learn elementary mechatronics and design reactive architectures and work with engineering students to build them. The class will culminate in a some artistic performance (typically with professional artists) such as a Shakespeare play, robotic ballet, a mechatronic opera.
Not Offered Every Year
Also Offered As: IPD 5160
Prerequisite: MEAM 5100
1 Course Unit

MEAM 5170 Control and Optimization with Applications in Robotics
This course covers a variety of advanced topics in model-based nonlinear control, primarily focused on computational techniques and dynamic robotic applications. Students will learn both the theoretical basics of nonlinear and optimal control along with computational algorithms. Topics include dynamic programming, trajectory optimization, canonical underactuated systems, control of limit cycles, stability analysis, nonsmooth mechanics, and model predictive control. Applications include walking and running robots, manipulation, and flying machines. As the course will cover state of the art techniques, we will review relevant research papers. At the end of the semester, students will prepare and present a final project on a related topic of their choosing. Prerequisite: If course requirement not met, permission of instructor required.
Fall
1 Course Unit

MEAM 5190 Elasticity and Micromechanics of Materials
This course is targeted to engineering students working in the areas on micro/nanomechanics of materials. The course will start with a quick review of the equations of linear elasticity and proceed to solutions of specific problems such as the Hertz contact problem, Eshelby's problem etc. Failure mechanisms such as fracture and the fundamentals of dislocations/plasticity will also be discussed. Prerequisite: graduate standing or permission of the instructor.
Fall
Also Offered As: MSE 5500
1 Course Unit

MEAM 5200 Introduction to Robotics
The rapidly evolving field of robotics includes systems designed to replace, assist, or even entertain humans in a wide variety of tasks. Recent examples include human-friendly robot arms for manufacturing, interactive robotic pets, medical and surgical assistive robots, and semi-autonomous search-and-rescue vehicles. This course presents the fundamental kinematic, dynamic, and computational principles underlying most modern robotic systems. The main topics of the course include: rotation matrices, homogeneous transformations, manipulator forward kinematics, manipulator inverse kinematics, Jacobians, path and trajectory planning, sensing and actuation, and feedback control. The material is reinforced with hands-on lab exercises involving a robotic arm.
Fall
1 Course Unit

MEAM 5230 Control Systems for Robotics
This course covers a variety of advanced topics in model-based nonlinear control, primarily focused on computational techniques and dynamic robotic applications. Students will learn both the theoretical basics of nonlinear and optimal control along with computational algorithms. Topics include dynamic programming, trajectory optimization, canonical underactuated systems, control of limit cycles, stability analysis, nonsmooth mechanics, and model predictive control. Applications include walking and running robots, manipulation, and flying machines. As the course will cover state of the art techniques, we will review relevant research papers. At the end of the semester, students will prepare and present a final project on a related topic of their choosing. Prerequisite: If course requirement not met, permission of instructor required.
Fall
1 Course Unit

MEAM 5250 Control and Optimization with Applications in Robotics
This course covers a variety of advanced topics in model-based nonlinear control, primarily focused on computational techniques and dynamic robotic applications. Students will learn both the theoretical basics of nonlinear and optimal control along with computational algorithms. Topics include dynamic programming, trajectory optimization, canonical underactuated systems, control of limit cycles, stability analysis, nonsmooth mechanics, and model predictive control. Applications include walking and running robots, manipulation, and flying machines. As the course will cover state of the art techniques, we will review relevant research papers. At the end of the semester, students will prepare and present a final project on a related topic of their choosing. Prerequisite: If course requirement not met, permission of instructor required.
Fall
1 Course Unit
MEAM 5270 Finite Element Analysis
The objective of this course is to equip students with the necessary background needed to carry out finite elements-based simulations of various engineering and science problems using finite elements packages. The first part of the course will outline the theory of finite element methods. The objective is to acquaint the students with the theory rather than to equip them with the programming skills needed to write multi-dimensional finite elements codes. The second part of the course will address the solution of the classical equations of mathematical physics such as the Laplace, Poisson, Helmholtz, wave, and heat equations. The general properties of the solutions will be described, and potential pitfalls will be addressed. This part of the course will also address issues such as code verification and convergence. The students will gain hands-on experience working with COMSOL Multiphysics (finite element analysis, solver and simulation software / FEA software package for various physics and engineering applications). This part of the course will also address relevant topics of numerical analysis such as the solution of initial value problems and their precision, the solution of algebraic equations, and the calculation of eigenvalues and eigenvectors. The third part of the course will consist of case studies taken from various areas of engineering and sciences. Presentation of each case study will start with a description of the pertinent physical and engineering background and how finite elements are being used to solve the problem. The case studies will also address the verification issue (how do we know that the solution is right) and the analysis and post-processing of the computed data. Prerequisites: Calculus, introductory level fluid & solid mechanics and heat transfer
Fall
1 Course Unit

MEAM 5290 Introduction to Micro- and Nano-electromechanical Technologies
Spring
Also Offered As: ESE 5290
1 Course Unit

MEAM 5300 Continuum Mechanics
This course serves as a basic introduction to the Mechanics of continuous media, and it will prepare the student for more advanced courses in solid and fluid mechanics. The topics to be covered include: Tensor algebra and calculus, Lagrangian and Eulerian kinematics, Cauchy and Piola-Kirchhoff stresses, General principles: conservation of mass, conservation of linear and angular momentum, energy and the first law of thermodynamics, entropy and the second law of thermodynamics; constitutive theory, ideal fluids, Newtonian and non-Newtonian fluids, finite elasticity, linear elasticity, materials with microstructure. Multivariable Calculus, Linear Algebra, Partial Differential Equations.
Spring
1 Course Unit

MEAM 5350 Advanced Dynamics
MEAM 2110 and some Linear Algebra. Senior or Master's Standing in Engineering or permission of the instructor.
Fall
1 Course Unit

MEAM 5360 Viscous Fluid Flow and Modern Applications
This is an intermediate course that builds on the basic principles of Fluid Mechanics. The course provides a more in depth and unified framework to understand fluid flow at different time and length scales, in particular viscous flows. Topics include review of basic concepts, conservation laws (momentum, mass, and heat), fluid kinematics, tensor analysis, Stokes' approximations, non-Newtonian fluid mechanics, and turbulence. The course will explore important modern topics such as microfluidics, swimming of micro-organisms, wind turbines, rheology, biofluid mechanics, and boundary layers. This course is intended for juniors, seniors, and graduate students from the School of Engineering and/or Arts and Sciences that have a general interest in fluid dynamics and its modern applications. Students should have an understanding of basic concepts in fluid mechanics and a good grasp on differential equations.
Spring
1 Course Unit
MEAM 5370 Nanotribology
Engineering is progressing to ever smaller scales, enabling new technologies, materials, devices, and applications. This course will provide an introduction to nano-scale tribology and the critical role it plays in the developing areas of nanoscience and nanotechnology. We will discuss how contact, adhesion, friction, lubrication, and wear at interfaces originate, using an integrated approach that combines concepts of mechanics, materials science, chemistry, and physics. We will cover a range of concepts and applications, drawing connections to both established and new approaches. We will discuss the limits of continuum mechanics and present newly developed theories and experiments tailored to describe micro- and nano-scale phenomena. We will emphasize specific applications throughout the course. Reading of scientific literature, critical peer discussion, individual and team problem assignments, and a peer-reviewed literature research project will be assigned as part of the course. Prerequisite: Prerequisite: MEAM 3540 or MEAM 5190 or MSE/MEAM 5040 or equivalent required, or consent of instructor. Experience with mathematical analysis software (e.g. Matlab, Python) is required.
Not Offered Every Year
Also Offered As: MSE 5370
1 Course Unit

MEAM 5380 Turbulence
This course is an introductory course on turbulent flows. The course provides physical and mathematical framework for quantitative and qualitative descriptions of fundamental processes involved in turbulent flows. Topics include the Navier-Stokes equations, the statistical description of turbulence, equations for mean and fluctuations, energy cascade, turbulence spectra, Kolmogorov hypotheses, behavior of shear flows, and isotropic turbulence. The course will also explore modern topics such as computational modeling of turbulence. Instructor permission required for undergraduates. One graduate-level course in fluids or transport (e.g., MEAM 5360, MEAM 5700, or CBE 6400) required.
Spring, even numbered years only
1 Course Unit

MEAM 5430 Performance, Stability and Control of UAVs
This course covers the application of classical aircraft performance and design concepts to fixed-wing and rotary-wing Unmanned Aerial Vehicles (UAVs). A survey of the latest developments in UAV technology will be used to motivate the development of quantitative mission requirements, such as payload, range, endurance, field length, and detectability. The implications of these requirements on vehicle configuration and sizing will be revealed through application of the fundamentals of aerodynamics and propulsion systems. The course will also cover basic flight dynamics and control, including typical inner-loop feedback applications.
Fall
1 Course Unit

MEAM 5450 Nanotribology
Engineering is progressing to ever smaller scales, enabling new technologies, materials, devices, and applications. This course will provide an introduction to nano-scale tribology and the critical role it plays in the developing areas of nanoscience and nanotechnology. We will discuss how contact, adhesion, friction, lubrication, and wear at interfaces originate, using an integrated approach that combines concepts of mechanics, materials science, chemistry, and physics. We will cover a range of concepts and applications, drawing connections to both established and new approaches. We will discuss the limits of continuum mechanics and present newly developed theories and experiments tailored to describe micro- and nano-scale phenomena. We will emphasize specific applications throughout the course. Reading of scientific literature, critical peer discussion, individual and team problem assignments, and a peer-reviewed literature research project will be assigned as part of the course. Prerequisite: Prerequisite: MEAM 3540 or MEAM 5190 or MSE/MEAM 5040 or equivalent required, or consent of instructor. Experience with mathematical analysis software (e.g. Matlab, Python) is required.
Not Offered Every Year
Also Offered As: MSE 5370
1 Course Unit

MEAM 5460 Hovering Vehicle Design and Analysis Techniques
This course aims at providing an overview of the fundamental concepts in the design and analysis of helicopters. The course will start with an overview of how helicopters of various types work (single main rotor, tandem rotor, tilt-rotor, quad-copter etc.). This will be followed by the introduction of how rotors work with a specific emphasis on the aerodynamic operating environment. The course will introduce topics pertaining to the rotor wake, inflow and will provide opportunities to exercise analysis techniques such as momentum and blade element theory. The latter portion of the course will cover the dynamic operation of larger scale rotors and will introduce concepts of blade articulation and associated analysis models/techniques. The content of the course will be laid to showcase the varying operating environments of rotor at different scales (e.g. small quadcopter, large multi-person carrier etc). The course will require students to code their analysis models using the language of their choice (C, C++, FORTRAN, MATLAB, Python etc.) and is intended to emphasize the importance of computational methods to engineering analysis. MEAM 2110 and MEAM 2020 or equivalent and required , MEAM 3020 and MEAM 3210 are recommended. Recommended textbook: Principles of Helicopter Aerodynamics, 2nd Edition, J. Gordon Leishman, ISBN-13: 978-1107013353, ISBN-10: 1107013356
Spring
1 Course Unit

MEAM 5490 Order-of-magnitude estimation for terrestrial and space engineering
The goal of this course is to develop the ability to make quick order-of-magnitude estimates that are not completely rigorous and precise but still very useful. In practicing engineering, one is often confronted with real-life problems where multiple technical approaches are possible, but rigorous theoretical analysis of all options would require too much time. Making quick order-of-magnitude (back-of-the-envelope) estimates of the performance limits can quickly eliminate some approaches and allow one to focus on the ones that offer the best chance of succeeding. Examples covered in this course will focus on Earth’s climate and planetary science, aircraft and spacecraft, orbital mechanics, and space travel.
Fall, even numbered years only
1 Course Unit

MEAM 5500 Design of Microelectromechanical Systems
A course that covers the design and fabrication of micro- and nano-electromechanical systems. Topics in the course include micro- and nano-fabrication techniques, mechanics of flexures, thin film mechanics, sensing and actuation approaches (e.g., electrostatic, piezoelectric, and piezoresistive), as well as materials and reliability issues. The fundamentals of these topics will be augmented with device-based case studies.
Not Offered Every Year
Prerequisite: MEAM 3540
1 Course Unit
MEAM 5530 Atomic Modeling in Materials Science
This course covers two major aspects of atomic level computer modeling in materials. 1. Methods: Molecular statics, Molecular dynamics, Monte Carlo, Kinetic Monte Carlo as well as methods of analysis of the results such as radial distribution function, thermodynamics deduced from the molecular dynamics, fluctuations, correlations and autocorrelations. 2. Semi-empirical descriptions of atomic interactions: pair potentials, embedded atom method, covalent bonding, ionic bonding. Basics of the density functional theory. Mechanics, condensed matter physics, thermodynamics and statistical mechanics needed in interpretations are briefly explained. No prior coding experience is required. Students will be taught the basics of python in the first week of class. Fall 1 Course Unit
Also Offered As: MSE 5610
Prerequisites: Undergraduate introduction to classical physics, quantum mechanics, thermodynamics and mechanical properties is helpful.

MEAM 5550 Nanoscale Systems Biology
Nano-science and engineering approaches to systems in biology are of growing importance. They extend from novel methods, especially microscopies that invite innovation to mathematical and/or computational modeling which incorporates the physics and chemistry of small scale biology. Proteins and DNA, for example, are highly specialized polymers that interact, catalyze, stretch and bend, move, and/or store information. Membranes are also used extensively by cells to isolate, adhere, deform, and regulate reactions. In this course, students will become familiar with cell & molecular biology and nanobiotechnology through an emphasis on nano-methods, membranes, molecular machines, and ‘polymers’ - from the quantitative perspectives of thermodynamics, statistical physics, and mechanics. We specifically elaborate ideas of energetics, fluctuations and noise, force, kinetics, diffusion, etc. on the nano- thru micro- scale, drawing from very recent examples in the literature. Laboratory experiments will provide hands-on exposure to microscopies in a biological context (eg. fluorescence down to nano-scale, AFM), physical methods (eg. micromanipulation, tracking virus-scale particles or quantum dots), and numerical problems in applied biophysics, chemistry, and engineering. A key goal of the course is to familiarize students with the concepts and technology (plus their limitations) as being employed in current research problems in nanoscale systems biology, extending to nanobiotechnology. Prerequisite: Background in Biology, Physics, Chemistry or Engineering with coursework in Thermodynamics or permission of the instructor. Fall 1 Course Unit
Also Offered As: BE 5550, CBE 5550

MEAM 5610 Thermodynamics: Foundations, Energy, Materials
To introduce students to advanced classical equilibrium thermodynamics based on Callen’s postulatory approach, to exergy (Second-Law) analysis, and to fundamentals of nonequilibrium thermodynamics. Applications to be treated include the thermodynamic foundations of energy processes and systems including advanced power generation and aerospace propulsion cycles, batteries and fuel cells, combustion, diffusion, transport in membranes, materials properties and elasticity, superconductivity, biological processes. Undergraduate thermodynamics. Spring 1 Course Unit

MEAM 5700 Transport Processes I
The course provides a unified introduction to momentum, energy (heat), and mass transport processes. The basic mechanisms and the constitutive laws for the various transport processes will be delineated, and the conservation equations will be derived and applied to internal and external flows featuring a few examples from mechanical, chemical, and biological systems. Reactive flows will also be considered. Prerequisite: graduate standing or permission of the instructor. Fall 1 Course Unit

MEAM 5710 Advanced Topics in Transport Phenomena
The course deals with advanced topics in transport phenomena and is suitable for graduate students in mechanical, chemical and bioengineering who plan to pursue research in areas related to transport phenomena or work in an industrial setting that deals with transport issues. Topics include: Transport processes with drops, Bubbles and particles; Phase change Phenomena: condensation, evaporation, and combustion; Radiation heat transfer: non-participating media, participating media, equation of radiative transfer, optically thin and thick limits; Introduction to Hydrodynamic and Thermal Instability; Microscale energy transport; Nano-particle motion in fluids and transport. Prerequisite: If course requirements not met, permission of instructor required. Not Offered Every Year
Prerequisite: MEAM 5700 OR MEAM 6420 OR CBE 6400 1 Course Unit

MEAM 5750 Micro and Nano Fluidics
The course focuses on topics relevant for micro-fluidics, lab on chip technology, point of care diagnostics, nano-technology, biosensing, and interfacial phenomena. Although we will discuss briefly the fabrication of micro and nano fluidic devices, the course will mostly focus on physical phenomena from the continuum point of view. The mathematical complexity will be kept to a minimum. The course will be reasonably self-contained, and any necessary background material will be provided, consistent with the students’ background and level of preparation. Specifically, we will examine fluid and nanoparticle transport under the action of pressure, electric, magnetic, and capillary forces; the structure and role of superhydrophobic surfaces; how the solid/liquid interface acquires electric charge; ion transport in electrolytes (Poisson-Nernst-Planck equations); colloid stability; electroosmosis, electrophoresis, and particle polarization; electrowetting and digital microfluidics; particle and cell sorting; immunoassays; and enzymatic amplification of nucleic acids. Not Offered Every Year 1 Course Unit

MEAM 5800 Electrochemistry for Energy, Nanofabrication and Sensing
Principles and mathematical models of electrochemical processes in energy conversion and storage, water desalination, nanofabrication, electroplating, and sensing for engineering and science graduate students and advanced undergraduates, lacking prior background in electrochemistry. The course covers equivalent circuits, electrode kinetics, electrokinetic and transport phenomena, and electrostatics. The course will introduce and use the finite element program COMSOLTM. We will discuss, among other things, applications to stationary and flow batteries, supercapacitors, integrated electric circuit fabrication, electrokinetics, and biosensing. In contrast to CBE 545 Electrochemical Energy Conversion that focuses on solid state electrochemistry, this course emphasizes liquid-based electrochemistry. Spring 1 Course Unit
MEAM 5970 Master's Thesis Research
Fall or Spring
1-3 Course Units

MEAM 5990 Master's Independent Study
Fall or Spring
1-4 Course Units

MEAM 6130 Non-Linear Control Theory
The course provides a basic understanding of nonlinear systems phenomena and studies analysis and control design problems of nonlinear systems. The main analysis tools that will be presented are Lyapunov theory for stability, including the well known LaSalle's invariance principle, and barrier function theory for safety of both autonomous and non-autonomous systems. Further topics include input-output stability, passivity, and the center manifold theorem. The main control tools that will be presented are feedback linearization, backstepping, as well as recent results on learning control. Lyapunov and control barrier functions from data. Examples will be taken from mechanical and robotic systems.
Not Offered Every Year
Also Offered As: ESE 6170
Prerequisite: ESE 5000
1 Course Unit

MEAM 6200 Advanced Robotics
This course covers advanced topics in robotics and includes such topics as multi-body dynamics, nonlinear control theory and planning algorithms with application to robots and systems of multiple robots. Prerequisite: Graduate standing in engineering
Spring
1 Course Unit

MEAM 6240 Distributed Robotics
This course covers challenges and approaches for planning, coordinating, and controlling multi-robot systems. Main topics of the course include: consensus, distributed search, multi-agent planning, coverage, swarming and flocking, with applications for distributed control in networked sensors/actuators in soft robots or in multirobot systems common in aerial, underwater, and autonomous driving applications. Students will learn to formally model and analyze multi-robot systems through paper readings on state-of-the-art techniques and an independent final project.
1 Course Unit

MEAM 6300 Advanced Continuum Mechanics
This course is a more advanced version of MEAM 530. The topics to be covered include: tensor algebra and calculus, Lagrangian and Eulerian kinematics, Cauchy and Piola-Kirchhoff stresses. General principles: conservation of mass, conservation of linear and angular momentum, energy and the first law of thermodynamics, entropy and the second law of thermodynamics. Constitutive theory, ideal fluids, Newtonian and non-Newtonian fluids, finite elasticity, linear elasticity, materials with microstructure. One graduate level course in applied mathematics and one in either fluid or Solid Mechanics.
Not Offered Every Year
1 Course Unit

MEAM 6320 Plasticity
This course develops the mathematical theory of plastic deformation for both crystalline and disordered materials. Phenomenological models for strain-hardening, creep and size-dependent plastic flow as well as physically-based theories for single crystals are discussed. Applications are drawn from problems in structural mechanics, deformation processing, friction and contact, and fracture. Large strain deformations and problems involving strain localization are considered. Prerequisite: If course requirement not met, permission of instructor required.
Not Offered Every Year
1 Course Unit

MEAM 6330 Mechanics of Adhesion and Fracture
This course focuses on mechanics aspects of adhesion and fracture of solids. The topics are intimately related, as fracture involves decohesion. Topics include forces of interaction between surfaces of solids, perfect versus imperfect adhesion, aspects of contact mechanics, linear analysis of cracks in elastic materials, nonlinear analysis of cracks in elastic-plastic materials, J-integral methods, phenomenological theories, crack growth and healing, and stability. Micro-mechanical models of fracture are analyzed using nonlinear elasticity and energy methods. Applications to various material systems and processes, including structural materials, layered materials, friction and wear.
Not Offered Every Year
Prerequisite: MEAM 5190 AND ENM 5100
1 Course Unit

MEAM 6340 Rods and Shells
This course is intended for 2nd year graduate students and introduces continuum mechanics theory of rods and shells with applications to structures and to biological systems as well as stability and buckling. The course begins with topics from differential geometry of curves and surfaces and the associated tensor analysis on Riemannian spaces. A brief introduction to variational calculus is included since variational methods are a powerful tool for formulating approximate structural mechanics theories and for numerical analysis. The structural mechanics theories of rods, plates and shells are introduced including both linear and nonlinear theories. First-year graduate-level applied mathematics for engineers (ENM 510 and 511) and a first course in continuum mechanics or elasticity or permission of instructor.
Not Offered Every Year
1 Course Unit

MEAM 6350 Composite Materials
This course deals with the prediction of the average, or effective properties of composite materials. The emphasis will be on methods for determining effective behavior. The course will be concerned mostly with linear mechanical and physical properties, with particular emphasis on the effective conductivity and elastic moduli of multi-phase composites and polycrystals. However, time-dependent and non-linear properties will also be discussed.
Not Offered Every Year
Prerequisite: ENM 5100 AND ENM 5110
1 Course Unit

MEAM 6420 Advanced Fluid Mechanics
Fluid mechanics as a vector field theory, basic conservation laws, constitutive relations, boundary conditions, Bernoulli theorems, vorticity theorems, potential flow. Viscous flow; large Reynolds number limit; boundary layers.
Not Offered Every Year
1 Course Unit
MEAM 6460 Computational Mechanics
The course is divided into two parts. The course first introduces general numerical techniques for elliptical partial differential equations - finite difference method, finite element method and spectral method. The second part of the course introduces finite volume method. SIMPLER formulation for the Navier-Stokes equations will be fully described in the class. Students will be given chances to modify a program specially written for this course to solve some practical problems in heat transfer and fluid flows. Prerequisites: ENM 5100 or equivalent, and one graduate level introductory course in mechanics. A programming experience is necessary.
Not Offered Every Year
1 Course Unit

MEAM 6500 Mechanics of Soft and Biomaterials
This course is aimed to expose the students to a variety of topics in mechanical materials via discussion of "classic" problems that have had the widest impact long period of time and have been applied to analyze the mechanical behavior a variety of biological and engineering materials. Not Offered Every Year
Also Offered As: MSE 6500
1 Course Unit

MEAM 6620 Advanced Molecular Thermodynamics
This course begins with a brief review of classical thermodynamics, including the development of Maxwell relationships and stability analysis. The remainder of the course develops the fundamental framework of statistical mechanics, then reviews various related topics including ideal and interacting gases, Einstein and Debye models of crystals, lattice models of liquids, and the basis of distribution function theory. Fall
Also Offered As: BE 6620, CBE 6180
1 Course Unit

MEAM 6630 Mechanics of Macromolecules
This course is targeted for engineering/physics students working in the areas of nano/bio technology. The course will start with a quick review of statistical mechanics and proceed to topics such as Langevin dynamics, solution biochemistry (Poisson-Boltzmann and Debye-Huckel theory), entropic elasticity of bio-polymers and networks, reaction rate kinetics, solid state physics and other areas of current technological relevance. Students will be expected to have knowledge of undergraduate mechanics, physics and thermodynamics. Not Offered Every Year
1 Course Unit

MEAM 6920 Topics in Mechanical Systems
This course will be offered when demand permits. The topics will change due to the interests and specialties of the instructor(s). Some topics could include: Electromagnetics, Control Theory, and Micro-Electro-Mechanical Systems.
Not Offered Every Year
1 Course Unit

MEAM 6990 MEAM Seminar
This seminar course has been established so that students get recognition for their seminar attendance as well as to encourage students to attend. Students registered for this course are required to attend weekly departmental seminars given by distinguished speakers from around the world. In order to obtain a satisfactory (S) grade, the student must not only attend more than 70% of the departmental seminars but also provide satisfactory answers to the mini-essay assignments (shown as quizzes on Canvas) about three of those seminars. It is recommended that the student pick the seminars closest to their research interests, but they may choose any seminar they wish. Up to two of the seminars to be counted toward the MEAM 699 requirement may come from outside MEAM. To be counted, a non-MEAM seminar must be part of an established Penn seminar series that is focused on engineering, science, mathematics, computation, or other technical discipline. A mini-essay quiz must be completed for each non-MEAM seminar. There will be three such quizzes distributed through the semester, graded pass/fail. Participation in the seminar course will be documented and recorded on the students transcript. In order to obtain their degree, doctoral students will be required to accumulate six seminar courses and MS candidates two courses. Under special circumstances, i.e. in case of conflict with a course, the student may waive the seminar requirement for a particular semester by petition to the Graduate Group Chair.
Fall or Spring
1 Course Unit

MEAM 8910 Shop Training: Special Topics
Intended for graduate students conducting research. Building upon the fundamentals of mechanical design, this hands-on, project-based course provides participants with the knowledge and skills necessary to design, analyze, manufacture, and test fully functional subtractive manufacturing processes and part components. Topics covered include an introduction to machine elements, analysis of the mechanics of machining, manufacturing technology, precision fabrication (milling and computer-controlled machining), metrology, tolerances, cutting-tool fundamentals and engineering materials. Graduate standing in engineering or permission of the instructor. Completion of MEAM 101 or suitable computer aided design experience; this prerequisite may be waived at the discretion of the instructor, i.e. in case of conflict with a course, the student may waive the seminar requirement for a particular semester by petition to the Graduate Group Chair.
Fall or Spring
0.25 Course Units
MEAM 8920 Shop Training: Additive Fundamentals
Intended for graduate students conducting research. This course introduces students to the methods, techniques, and machines utilized in additive manufacturing spaces at Penn. The focus will be on iterative design using Fused Deposition Modeling, Stereolithography, and Polyjetting. These methods will be compared with alternatives such as Digital Light Processing, Selective Laser Sintering, Subtractive Manufacturing, and other fabrication techniques. Students will use computer-aided design tools and additive machines to solve problems of physical device and item manufacture. Graduate Standing in engineering or permission of the instructor. MEAM 101 or a suitable 3D computer aided design experience to be determined by the instructor.
Fall or Spring
0.25 Course Units

MEAM 8950 Teaching Practicum
This course provides training in the practical aspects of teaching. The students will work with a faculty member to learn and develop teaching and communication skills. As part of the course, students will participate in a range of activities that may include: giving demonstration lectures, leading recitations, supervising laboratory experiments, developing instructional laboratories, developing instructional material, preparing homework assignments, and preparing examinations. Some of the recitations will be supervised and feedback and comments will be provided to the student by the faculty responsible for the course. At the completion of the 0.5 c.u. of teaching practicum, the student will receive a Satisfactory/Unsatisfactory grade and a written evaluation from the faculty member responsible for the course. The evaluation will be based on comments of the students taking the course and the impressions of the faculty.
Fall or Spring
0.5 Course Units

MEAM 8990 Independent Study
For students who are studying specific advanced subject areas in mechanical engineering and applied mechanics. Before the beginning of the term, the student must submit a proposal outlining and detailing the study area, along with the faculty supervisor’s consent, to the graduate group chair for approval. At the conclusion of the independent study, the student should prepare a brief report.
Fall or Spring
1-4 Course Units

MEAM 9950 Dissertation
0 Course Units

MEAM 9990 Thesis/Dissertation Research
For students working on an advanced research program leading to the completion of master's thesis or Ph.D. dissertation requirements.
Fall or Spring
1-4 Course Units

Medical Physics (MPHY)

MPHY 6010 Introduction to Radiation Protection
Introduction to applied nuclear and atomic physics; radioactive decay; radiation interactions; biological effects and safety guidelines; radiation detection, instrumentation and protection.
Fall
0.5 Course Units

MPHY 6020 Physics of Medical / Molecular Imaging
Physical principles of diagnostic radiology, fluoroscopy, computed tomography; principles of ultrasound and magnetic resonance imaging; radioisotope production, gamma cameras, SPECT systems, PET systems; diagnostic and nuclear medicine facilities and regulations. The course includes a component emphasizing the emerging field of molecular imaging.
Fall
Prerequisite: MATH 2410 AND BIOL 2310 AND BE 3050
1 Course Unit

MPHY 6030 Image-Based Anatomy
Taught by a radiation oncologist, this course covers major organ systems and disease areas and is presented from a radiologic or imaging (including cross-sectional) viewpoint in addition to a standard anatomy and physiology presentation.
Fall
1 Course Unit

MPHY 6040 Radiological Physics
Fundamental concepts underlying radiological physics and radiation dosimetry. Interactions and energy deposition by ionizing radiation in matter and charged particle equilibrium; introduction to radiation detection, calibration, and therapy.
Fall
1 Course Unit

MPHY 6050 Medical Ethics / Governmental Regulation
Fundamentals of professional ethics for medical physicists through exploration of Code of Ethics (published by the American Association of Physicists in Medicine); case studies; survey of governmental regulations pertinent to medical physics.
Spring
0.5 Course Units

MPHY 6060 Physics of Radiation Therapy
Clinical radiation oncology physics; principles of radiation-producing equipment; photon and electron beams; ionization chambers and calibration protocols; brachytherapy, dose modeling and calculations; treatment planning.
Spring
Prerequisite: MPHY 6040
1 Course Unit

MPHY 6070 Radiation Biology
Fundamental knowledge of mechanisms and biological responses of human beings to ionizing and non-ionizing radiation through the study of effects of radiation on molecules, cells and humans; radiation lesions and repair; mechanisms of cell death; cell cycle effect, radiation sensitizers and protectors; tumor radiobiology; relative sensitivities of human tissue and radiation carcinogenesis.
Spring
1 Course Unit
**MPHY 6080 Radiation Detection and Measurement**
Fundamentals of detection and measurement of ionizing radiation; working principles of many detectors used currently in the field including their application in radiotherapy, nuclear medicine, and diagnostic radiology.
Spring
1 Course Unit

**MPHY 6090 Biomedical Image Analysis**
This course covers the fundamentals of advanced quantitative image analysis that apply to all of the major and emerging modalities in biological/biomaterials imaging and in vivo biomedical imaging. While traditional image processing techniques will be discussed to provide context, the emphasis will be on cutting edge aspects of all areas of image analysis (including registration, segmentation, and high-dimensional statistical analysis). Significant coverage of state-of-the-art biomedical research and clinical applications will be incorporated to reinforce the theoretical basis of the analysis methods. Prerequisite: Mathematics through multivariate calculus (MATH 2410), programming experience, as well as some familiarity with linear algebra, basic physics, and statistics.
Fall or Spring
Also Offered As: BE 5370, CIS 5370
1 Course Unit

**MPHY 6100 Computational Medical Physics**
Fundamentals of computational calculations with MATLAB on common problems in radiation therapy physics: Compton scattering cross-section and its applications; Bremsstrahlung scattering cross-sections and its applications; 3D photon dose calculation algorithms; 3D electron dose calculation algorithms; CT reconstruction; DICOM format.
Fall
1 Course Unit

**MPHY 6110 Medical Physics Laboratory**
Lab course offering hands-on experience with a range of measurements commonly encountered in the practice of clinical medical physics. Project offerings may include: Task Group 51 calibration of linear accelerators; 4-Dimensional Computed Tomography (4DCT) imaging and image analysis; Deformable image registration and dose sum reconstruction; Monthly linear accelerator Quality Assurance (QA) procedures; Brachytherapy source calibration and High Dose Rate (HDR) machine QA; Positron emission tomography (PET) imaging and image analysis; MRI imaging and image analysis; Linear accelerator shielding calculations and radiation survey.
Fall
1 Course Unit

**MPHY 6120 Data Science and Artificial Intelligence for Medical Physics**
The course will teach students practical programming techniques (Python), data science infrastructure, data analysis workflows, medical physics specific programming and how to create machine learning (ML) and Deep learning (DL) artificial intelligence models.
Spring
1 Course Unit

**MPHY 6130 MRI Fundamentals**
Magnetic resonance imaging (MRI) is an important and widely used imaging modality for making clinical diagnosis, prognosis, and monitoring treatment response. In this course, students are introduced to the fundamental principles behind the physics of MRI. Topics include basic electromagnetism; MRI hardware; signal generation; image contrast mechanisms, basic and advanced pulse sequences for obtaining structural, metabolic and physiologic information; artefacts; and safety issues. The course offers hands-on experience with an MRI scanner.
Fall
1 Course Unit

**MPHY 6990 Independent Study**
This course is designed to provide the student with a unique learning experience not achievable by ordinary course work. Clinical projects offered by faculty and staff physicists from the Department of Radiation Oncology may count as an independent study course.
1 Course Unit

**MPHY 7000 Clinical Practicum**
Practical experience in a subspecialty of medical physics including radiation therapy, diagnostic imaging, radiation safety, and nuclear medicine. Taking place in a clinical setting and supervised by a qualified medical physicist, the practicum provides an understanding of instrumentation methodology, calibration, treatment planning, and quality assurance; and may include patient interaction, clinical conference attendance, and a review of new techniques.
Summer Term
1 Course Unit

**MPHY 9900 Thesis I**
Faculty-mentored research project (extended research paper or original research) resulting in a final paper and short oral presentation that is the culmination of a master student's graduate study.
1 Course Unit

**MPHY 9910 Thesis II**
Faculty-mentored research project (extended research paper or original research) resulting in a final paper and short oral presentation that is the culmination of a master student's graduate study.
1 Course Unit

**Military Science (MSCI)**

**MSCI 1010 Basic Leadership I Laboratory/Practicum**
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. No credit, or as awarded by cross-enrolled schools.
Fall Corequisite: MSCI 1100
1 Course Unit

**MSCI 1020 Basic Leadership I Laboratory/Practicum**
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. No credit, or as awarded by cross-enrolled schools.
Spring Corequisite: MSCI 1200
1 Course Unit
MSCI 1100 Leadership and Personal Development
Introduces students/cadets to the personal challenges and competencies that are critical for effective leadership. Focus is placed on developing basic knowledge and comprehension of the U.S. Army’s Leadership Dimensions while gaining a “big picture” understanding of the Army ROTC program, its purpose in the U.S. Army and our nation, and its advantages for the student. Classes are conducted for one hour once each week. Credit excluded from full-time calculation.
Fall
Corequisite: MSCI 1010
1 Course Unit

MSCI 1200 Foundations In Leadership
Reviews leadership fundamentals such as setting direction, problem solving, listening, presenting briefs, providing feedback and using effective writing skills. Students/cadets are also exposed to key fundamentals of skills required to be successful as an MS II cadet; namely military map reading and land navigation, and small unit operations/leadership drills. Credit excluded from full-time calculation.
Spring
Corequisite: MSCI 1020
1 Course Unit

MSCI 2010 Basic Leadership 2 Laboratory/Practicum
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. No credit, or as awarded by cross-enrolled schools.
Fall
Corequisite: MSCI 2100
1 Course Unit

MSCI 2020 Basic Leadership Laboratory/Practicum
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. Basic Course Leadership Laboratory. 2h. Open only to (and required of) students in the associated Military Science course. Series, with different roles for students at different levels in the program. Learn and practice basic skills. Gain insight into Advanced Course in order to make an informed decision whether to apply for it. Build self-confidence and team-building leadership skills that can be applied throughout life. Basic Course Physical Fitness. Only open to students in MSCI 1010, MSCI 1020, MSCI 2010 and MSCI 2020. Series, with different roles for students at different levels in the program. Participate in and learn to lead a physical fitness program. Emphasis on the development of an individual fitness program and the role of exercise and fitness in one's life. Students who continue in the advanced course as juniors and seniors become obligated to serve either on active duty or in the reserve component. The Advanced Course consists of the courses MSCI 3010, MSCI 3020, MSCI 4010 and MSCI 4020. It is open only to students who have completed the Basic Course or earned placement credit for the basic course (various methods). The Advanced Course is designed to qualify a student for a commission as an officer of the United States Army. Students must complete all courses numbered greater than 3000, to include a six-week Advanced Camp during the summer, usually between the junior and senior years. The courses must be taken in sequence unless otherwise approved by the Professor of Military Science. All contracted students receive $150 per month stipend during the school year. No credit, or as awarded by cross-enrolled schools.
Spring
Corequisite: MSCI 2200
1 Course Unit

MSCI 2030 Leadership Lab
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. 1 Course Unit

MSCI 2100 Innovative Tactical Leadership
Explores the dimensions of creative and innovative tactical leadership strategies and styles by studying historical case studies and engaging in interactive student exercises. Focus is on continued development of the knowledge of leadership values and attributes through an understanding of rank, uniform, customs and courtesies. Credit excluded from full-time calculation.
Fall
Corequisite: MSCI 2010
1 Course Unit

MSCI 2200 Leadership In Changing Environments
Examines the challenges of leading in complex contemporary operational environments. Students/cadets are exposed to more complex land navigation/map reading tasks, as well as more advanced small unit operations/leadership drills. Cadets develop greater self awareness as they practice communication and team building skills. Credit excluded from full-time calculation.
Corequisite: MSCI 2020
1 Course Unit

MSCI 2300 Adaptive Team Leadership
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. 1 Course Unit

MSCI 3010 Leadership Laboratory/Practicum 3
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. No credit, or as awarded by cross-enrolled schools.
Fall
Prerequisite: MSCI 1010 AND MSCI 1020 AND MSCI 1100 AND MSCI 1200 AND MSCI 2010 AND MSCI 2020 AND MSCI 2100 AND MSCI 2200
Corequisite: MSCI 3100
1 Course Unit
MSCI 3020 Leadership Laboratory/Practicum
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. ROTC Advanced Camp. A six-week camp conducted at an Army post. Only open to (and required of) students who have completed MSCI 3010 and MSCI 3020. The student receives pay. Travel, lodging and most meal cost are defrayed by the US Army. The Advanced Camp environment is highly structured and demanding, stressing leadership at small unit levels under varying, challenging conditions. Individual leadership and basic skills performance are evaluated throughout the camp. The leaders and skills evaluations at the camp weigh heavily in the subsequent selection process that determines the type commission and job opportunities given to the student upon graduation from ROTC and the university Nurse Summer Training Program. Consist of three weeks at an Advanced Camp (see above) and up to five weeks serving as a nurse in a military medical treatment facility. Only open to (and required of) nursing students who have completed MSCI 3010 and MSCI 3020. Replaces normal advanced. The student receives pay. Travel, lodging and most meal costs are defrayed by the US Army. The camp and clinical environments are demanding, stressing leadership and basic skills performance are evaluated throughout. The leadership and skills evaluations weigh heavily on the subsequent selection process that determines the job opportunities offered to the nurse upon graduation. No credit, or awarded by cross-enrolled schools.

Spring
Prerequisite: MSCI 1010 AND MSCI 1020 AND MSCI 1100 AND MSCI 1200 AND MSCI 2010 AND MSCI 2020 AND MSCI 2100 AND MSCI 2200
Corequisite: MSCI 3200
1 Course Unit

MSCI 3100 Leadership in Contact
Uses increasingly intense situational leadership challenges to build cadet awareness and skills in leading small units. Skills in decision-making, persuading, and motivating team members when "in combat" are explored, evaluated, and developed. Credit excluded from full-time calculation.

Prerequisite: MSCI 1010 AND MSCI 1020 AND MSCI 1100 AND MSCI 1200 AND MSCI 2010 AND MSCI 2020 AND MSCI 2100 AND MSCI 2200
Corequisite: MSCI 3010
2 Course Units

MSCI 3200 Complex Team Leadership Issues
Challenges cadets with more complex leadership issues to further develop, practice, and evaluate adaptive leadership. Cadets continue to analyze and evaluate their own leadership values, attributes, skills and actions in preparation for the Leadership Development and Assessment Course (LDAC). Primary attention is given to preparation for LDAC and the development of both tactical skills and leadership qualities. Credit excluded from full-time calculation.

Spring
Corequisite: MSCI 3020
1 Course Unit

MSCI 3300 Military Leadership
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills.

Prerequisite: MSCI 1010 AND MSCI 1020 AND MSCI 1100 AND MSCI 1200 AND MSCI 2010 AND MSCI 2020 AND MSCI 2100 AND MSCI 2200
1 Course Unit

MSCI 4010 Leadership Laboratory/Practicum 4
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. Credit excluded from full-time calculation.

Fall
Prerequisite: MSCI 1010 AND MSCI 1020 AND MSCI 1100 AND MSCI 1200 AND MSCI 2010 AND MSCI 2020 AND MSCI 2100 AND MSCI 2200 AND MSCI 3010 AND MSCI 3020 AND MSCI 3100 AND MSCI 3200
Corequisite: MSCI 4100
1 Course Unit

MSCI 4020 Leadership Laboratory/Practicum
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. Advance Course Leadership Laboratories. 2h. Open only to students in the associated Military Science course. Series, with different roles for students at different levels in the program. Involves leadership responsibilities for the planning, coordination, execution and evaluation of various training and activities with Basic Course students and for the ROTC program as a whole. Students develop, practice and refine leadership skills by serving and being evaluated in a variety of responsible positions. Advanced Course Physical Fitness. Only offered to (and required of) students in MSCI 3010, MSCI 3020, MSCI 4010 and MSCI 4020, of which this program is an integral part. Series, with different roles for students at different levels in the program. Participate in and learn to plan and lead physical fitness programs. Develops the physical fitness required of an officer in the Army. Emphasis on the development of an individual fitness program and the role of exercise and fitness in one's life. No credit, or as awarded by cross-enrolled schools.

Spring
Prerequisite: MSCI 1010 AND MSCI 1020 AND MSCI 1100 AND MSCI 1200 AND MSCI 2010 AND MSCI 2020 AND MSCI 2100 AND MSCI 2200 AND MSCI 3010 AND MSCI 3020 AND MSCI 3100 AND MSCI 3200
Corequisite: MSCI 4200
1 Course Unit

MSCI 4030 Leadership Lab
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. 1 Course Unit

MSCI 4100 Developing Adaptive Leaders
Develops cadet proficiency in planning, executing, and assessing complex operations, functioning as a member of a staff, and providing leadership performance feedback to subordinates. Cadets are given situational opportunities to assess risk, make ethical decisions, and provide coaching to fellow ROTC cadets. Credit excluded from full-time calculation.

Fall
Prerequisite: MSCI 1010 AND MSCI 1020 AND MSCI 1100 AND MSCI 1200 AND MSCI 2010 AND MSCI 2020 AND MSCI 2100 AND MSCI 2200 AND MSCI 3010 AND MSCI 3020 AND MSCI 3100 AND MSCI 3200
Corequisite: MSCI 4010
1 Course Unit
MSci 4200 Leadership in the Contemporary Operating Environment of the 21st Century
Explores the dynamics of leading in the complex situations of current military operations. Cadets examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. Aspects of interacting with non-government organizations, civilians on the battlefield, and host nation support are examined and evaluated. Credit excluded from full-time calculation.
Prerequisite: MSCI 1010 AND MSCI 1020 AND MSCI 1100 AND MSCI 1200 AND MSCI 2010 AND MSCI 2100 AND MSCI 2200 AND MSCI 3010 AND MSCI 3020 AND MSCI 3100 AND MSCI 3200
Corequisite: MSCI 4020
2 Course Units

MSci 4300 Advanced Leadership in Contemporary Environments
Continues exploration of the dynamics of leading in the complex situations of current military operations. Culminates the ROTC curriculum with a capstone "hands-on" small unit leadership exercise which tests the cadet's tactical, technical and leadership skills utilizing an intense, realistic tactical scenario based on actual military operations in the contemporary operating environment of the 21st century.
2 Course Units

Modern Middle East Studies (MODM)
The courses listed on this page are exclusive to the LPS BAAS degree (https://lponline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lponline.sas.upenn.edu/academics/certificates/).

MODM 1000 The Middle East and the West
This course provides an overview of themes and issues in Middle Eastern history from the medieval era to the present, with an emphasis on encounters and exchanges between the "Middle East" (defined as Southwest Asia and North Africa) and the "West" (chiefly Europe and the United States). Key topics include perceptions of Islam since its inception, conflicts between predominantly Christian Europe and the Islamic world during the Crusades, East-West encounters during the age of exploration, European colonial domination of the Middle East from the 19th century, independence movements and the rise of nationalism in the 20th century, the Middle East and the Cold War, and the challenge of Islamist radicalism and anti-Western sentiment in recent times.
1 Course Unit

MODM 2000 Women and Gender in the Middle East
Depictions of Middle Eastern women frequently present them as voiceless, oppressed, and disadvantaged, and often cite Islam as the cause. This course explores the many complexities of gender and the position of women in the predominantly Islamic Middle East, surveying the major developments, themes, and problems in women's history from the medieval era to the contemporary period. Special emphasis will be placed on the role of women in foundational Islamic texts and the many interpretations of those texts regarding questions of gender. The course will also challenge the idea that gender divisions and the role assigned to women have been static throughout history, by tracing women's legal status, sexual morality, family life, and economic and political participation over time. Themes discussed include the importance of the harem and the influence of women in political life, the challenges posed by the impact of the West, women's reactions to these challenges, the return of Islam and Islamism, and the repercussions for women in dress, employment, and moral life. The course will also consider gender norms and homoeoerotic relations. In addition, the course will also look at Western representations of the Oriental woman, the effects of colonialism and nationalism on Middle Eastern women, and the rise of Muslim women activist movements. We will also address the highly contested subject of veiling and consider the effects of modern US wars on Middle Eastern women. Seeking to go beyond just scholarly studies, this course will make use of art, documentaries, and literature in order to demonstrate how, in the modern period, women have defined themselves amid great political, social and economic turmoil.
1 Course Unit

MODM 2600 Oil, Poli in Mid East
Few issues have dominated the economic and political landscape of the Middle East over the past hundred years more visibly than oil. This course examines the historical, economic, political and social dimensions of petroleum exploration in the region, from the first major oil discoveries in Iran in 1908 to more recent attempts to diversify the regions economic and energy practices. Topics discussed include oil and economic development, colonialism and foreign oil exploration, petro-nationalism and the rise of OPEC, the Arab oil embargo of 1973, the significance of oil in the US-Saudi relationship, and the role of climate change and sustainability priorities in the Middle East.
1 Course Unit

MODM 3000 Rigs Trads Mid East
Understanding the modern Middle East is almost impossible without first developing an appreciation for the importance of its diverse religious traditions, and the role that religion has played in the development of the region since antiquity. This course examines the many ways that religion has functioned in Middle Eastern societies, beginning with ancient, pre-Islamic practices, such as the Zoroastrian religion of the Persian Empire, the development of Judaism among the ancient Israelites, and the spread of Christianity in the eastern Roman Empire. Of special interest will be the rise of Islam in the seventh century, and the development of unique and localized Islamic traditions in the rapidly expanding Arab empires of the medieval period. The class will focus on such themes as the differences between Sunni and Shia Islam, the position of non-Muslim minorities in Islamic history and the different responses offered by Muslims to the challenge of western hegemony in predominantly Muslim lands. The class will conclude by looking closely at the many ways religion is practiced in the Middle East today, from the official secularism of states like Turkey, to the post-revolutionary religious politics of the Islamic Republic of Iran, to the complex relationship between Judaism and Zionism in Israel, to the special challenges faced by Christian and other minorities in places like Egypt or Lebanon.
1 Course Unit
**MODM 3200 America and Iran: 1720 to Present**
In recent times, the United States and Iran have seemed closer to war than peace, but that is not where their story began. When the United States was in its infancy, Thomas Jefferson and John Quincy Adams turned to the history of the Persian Empire as they looked for guidance on how to run their new country. In the following century, Iranian newspapers heralded American politics and practices as ideals that their own government might someday emulate. How, then, did the two nations become the adversaries that they are today? In this course, we will trace the complex story of America and Iran over three centuries. Drawing on a range of primary sources, films and other historical materials, students will be expected to challenge easy notions of right and wrong, and instead seek to understand why each country has made the decisions it has made at various points in history. The ultimate goal will be to gain a deeper understanding of when, where and how it all went wrong for Iran and America and why, perhaps, it didn’t have to be this way. Note: There will one hour of synchronous meetings every Monday, at a time to be determined in consultation with registered students. Students are strongly urged to read the following two Wikipedia entries before the first day of class: 1979 Iran Hostage Crisis (https://en.wikipedia.org/wiki/Iran hostage crisis) and 1953 CIA Coup (https://en.wikipedia.org/wiki/1953 Iranian coup d%27%C3%A9tat)
1 Course Unit

**Music (MUSC)**

**MUSC 0050 College Music Program**
Private study in voice, keyboard, strings, woodwind, brass, percussion, and non-western instruments. Such study is designed to meet the artistic, technical, and/or professional needs of the student. Note: This is not a syllabus. Course requirements and assessment will be determined by the private instructor. Private lessons in the College House Music cannot be taken Pass/Fail. Please visit http://www.sas.upenn.edu/music/performance. Students cannot register through Penn In Touch. Registration will be maintained by the music department upon receipt of application and instructor permission. An additional lesson fee will be charged to student account for participation in this program.
0.5 Course Units

**MUSC 0070 Ensemble Performance**
Successful participation in a music department sponsored group. Ensemble groups: University Orchestra, University Wind Ensemble, Choral Society, University Choir, Collegium Musicum, Baroque and Recorder Ensemble, Chamber Music Society, Arab Music Ensemble, Samba Ensemble, Penn Flutes, Opera and Musical Theater, and Jazz Combo. This course must be taken for a letter grade (Pass/Fail registration option may not be utilized for this course).
0.5 Course Units

**MUSC 0100A Marian Anderson Performance Program**
Special instruction in vocal and instrumental performance for music majors and minors only. Students must demonstrate in an audition that they have already attained an intermediate level of musical performance. They also must participate in a Music Department ensemble throughout the academic year, perform in public as a soloist at least once during the year (recital), perform a jury at the end of the spring semester, and attend and participate in masterclasses.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

**MUSC 0100B Marian Anderson Performance Program**
Special instruction in vocal and instrumental performance for music majors and minors only. Students must demonstrate in an audition that they have already attained an intermediate level of musical performance. They also must participate in a Music Department ensemble throughout the academic year, perform in public as a soloist at least once during the year (recital), perform a jury at the end of the spring semester, and attend and participate in masterclasses.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

**MUSC 0110A Marian Anderson Group Performance Program**
Special instruction in vocal/instrumental small group (ensemble) performance, for music majors and minors only. Students must demonstrate in an audition that they have already attained an intermediate or advanced level of musical performance. They also must participate in a Music Department ensemble throughout the academic year, perform in public as a soloist at least once during the year (recital), perform a jury at the end of the spring semester, and attend and participate in masterclasses. Prerequisite: Students must be a music major or minor.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

**MUSC 0110B Marian Anderson Group Performance Program**
Special instruction in vocal/instrumental small group (ensemble) performance, for music majors and minors only. Students must demonstrate in an audition that they have already attained an intermediate or advanced level of musical performance. They also must participate in a Music Department ensemble throughout the academic year, perform in public as a soloist at least once during the year (recital), perform a jury at the end of the spring semester, and attend and participate in masterclasses. Prerequisite: Students must be a music major or minor.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

**MUSC 0160 First-Year Seminar**
The primary goal of the first-year seminar program is to provide every first-year student the opportunity for a direct personal encounter with a faculty member in a small setting devoted to a significant intellectual endeavor. Specific topics will be posted at the beginning of each academic year. Please see the College’s First-year Seminar website for information on current course offerings http://www .college.upenn.edu/courses/seminars/freshman.php. Fulfills Arts and Letters sector requirement.
1 Course Unit
MUSC 0180A Music in Urban Spaces
Music in Urban Spaces is a year-long experience that explores the ways in which individuals use music in their everyday lives and how music is used to construct larger social and economic networks that we call culture. We will read the work of musicologists, cultural theorists, urban geographers, sociologists, and educators who work to define urban space and the role of music and sound in urban environments, including through music education. While the readings make up our study of the sociology of urban space and the way we use music in everyday life to inform our conversations and the questions we ask, it is within the context of our personal experiences working with music programs in public neighborhood schools serving economically disadvantaged students, that we will begin to formulate our theories of the contested musical micro-cultures of West Philadelphia. This course is over two-semesters where students register for .5 cus each term (for a total of 1 cu over the entire academic year) and is tied to the Music and Social Change Residential Program in Fisher Hassenfeld College House which will sponsor field trips around the city and a final concert for youth to perform here at Penn, if possible. Students are expected to volunteer in music and drama programs in Philadelphia neighborhood public schools throughout the course experience.
Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: URBS 0180A
0.5 Course Units

MUSC 0180B Music in Urban Spaces
Music in Urban Spaces is a year-long experience that explores the ways in which individuals use music in their everyday lives and how music is used to construct larger social and economic networks that we call culture. We will read the work of musicologists, cultural theorists, urban geographers, sociologists, and educators who work to define urban space and the role of music and sound in urban environments, including through music education. While the readings make up our study of the sociology of urban space and the way we use music in everyday life to inform our conversations and the questions we ask, it is within the context of our personal experiences working with music programs in public neighborhood schools serving economically disadvantaged students, that we will begin to formulate our theories of the contested musical micro-cultures of West Philadelphia. This course is over two-semesters where students register for .5 cus each term (for a total of 1 cu over the entire academic year) and is tied to the Music and Social Change Residential Program in Fisher Hassenfeld College House which will sponsor field trips around the city and a final concert for youth to perform here at Penn, if possible. Students are expected to volunteer in music and drama programs in Philadelphia neighborhood public schools throughout the course experience.
Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: URBS 0180B
0.5 Course Units

MUSC 0181 On Belonging: Music, Displacement, and Well-Being
The 2020s has begun as a time of global existential angst: we are all living with so much uncertainty and change. Think of the impact of the COVID pandemic and the questioning of science in the form of vaccine resistance; climate change challenges; a technological and educational revolution; growing income inequality; the urgency of BLM protests in the USA, moves against dictatorships, the need to decolonize universities, and the pressure to address human rights and refugee challenges. But it is also a moment of real excitement, with increased technological access and presence in our lives. In fact, the capacity to connect to others almost anywhere in the world, immediately, is truly revolutionary. As is the capacity to plug into the sound of the world's music in an instant. Through personal music listening, for example, we can use music to soothe, to excite, to travel imaginatively, to focus, for meditation, as a soundtrack to our everyday lives, and as emotional regulation. But the work of music for personal wellbeing and collective healing is much larger than just an individualized listening experience. This seminar opens up the issue of emotional regulation and collective healing by examining the relationship between sound and musical practice, performance, and engagement, both locally and around the world. You might think about this seminar as a kind of reflexive moment as you arrive on campus: as undergraduates and members of communities you will think about the relationship between your own recent move/displacement and the work of music/sound as a strategy of individual and collective belonging. There will be an ABCS component to the class.
1 Course Unit

MUSC 0190 Critical Speaking Seminar: See department for current offerings
Critical Speaking Seminars utilize oral communication assignments as a primary method for learning and assessment. They have three key requirements: (1) At least half of the course grade is based on two prepared oral presentations (one group and one individual). Students will meet with an undergraduate speaking advisor outside of class at least twice. (2) One rehearsal for each of the two required presentations. (3) Students will be video-recorded and will watch the recording with either the instructor of the advisor. Critical speaking fellows are doctoral candidates who teach in the respective disciplines. Enrollment is capped at 16 students/course. For additional details regarding a critical speaking requirement, see: https://www.sas.upenn.edu/cwic/courses/critical.html
Not Offered Every Year
1 Course Unit

MUSC 0810 First-Year Seminar: Italian Music
Topics vary. See the Department’s website at https://www.sas.upenn.edu/italian/courses for a description of current offerings.
Fall or Spring
Also Offered As: CIMS 0089, ITAL 0089
1 Course Unit
MUSC 1250 Musical Interfaces and Robotics
Musical Interfaces and Robotics is a skills and discussion-based class for students interested in learning the basics of electricity and physical computing specifically for musical purposes. Discussions will be organized around readings related to art and technology with a focus on sound-based works. Students will learn to program Arduinos that control DC motors and respond to physical buttons or sensors. We will learn how to integrate these tools with music applications that communicate with MIDI such as Reaper, Logic Pro, and/or Max/MSP. As a final project students will present a working prototype for a new instrument they've created or plans for an art installation featuring a kinetic sculptural element.
1 Course Unit

MUSC 1270 Introduction to Electronic Musimaking
An exploration of composition, style, and technique in a variety of popular and experimental electronic music genres. We'll study and practice making works in genres including acousmatic music, beat-driven music such as hip-hop and techno, pop songwriting, and sound art. As we proceed, we'll investigate techniques including field recording, sampling, sound synthesis, and generative music. Within each genre, we'll begin from the analysis and technique of exemplary music, then work towards presentation and group discussion of student composition projects.
Not Offered Every Year
1 Course Unit

MUSC 1280 Audio Production
Audio Production is designed for students interested in taking their mixing, mastering, and recording skills to the next level. During this course we will conduct critiques and analysis of student projects as well as learn from local industry professionals. Through listening assignments we will refine our ears to identify the effects digital signal processing production tools have on recorded sounds. While we will examine current practices from many different genres, a special emphasis will be placed on exploring experimental approaches that you might be able to integrate into your artistic practice. A good understanding of Logic Pro is necessary to enter this course. Significant experience working with Pro Tools may substitute pending approval from the instructor.
Not Offered Every Year
1 Course Unit

MUSC 1290 History of Electronic Music
This course is a nonlinear history of electronic music, primarily in the United States. It is divided into ten topical milestones of electronic music history. Each week one topic is addressed, divided between mainstream and experimental perspectives and their interactions. Topics include early experimental electronic instruments, sampling/hip-hop, disco, and noise/glitch. Much of the class is about listening and learning to analyze music in terms both subjective and objective. Students will also train their ears to identify concrete elements within a musical track such as development and instrumentation, and consider abstract elements such as meaning and perception.
Fall or Spring
1 Course Unit

MUSC 1300 1000 Years of Musical Listening
We know that we like music and that it moves us, yet it is often difficult to pinpoint exactly why, and harder still to explain what it is we are hearing. This course takes on those issues. It aims to introduce you to a variety of music, and a range of ways of thinking, talking and writing about music. The majority of music dealt with will be drawn from the so-called "Classical" repertory, from the medieval period to the present day, including some of the 'greats' such as Handel, Beethoven, Mozart, Berlioz, and Verdi, but will also introduce you to music you will most likely never have encountered before. This course will explore the technical workings of music and the vocabularies for analyzing music and articulating a response to it; it also examines music as a cultural phenomenon, considering what music has meant for different people, from different societies across the ages and across geographical boundaries. As well as learning to listen ourselves, we will also engage with a history of listening. No prior musical knowledge is required. (Formerly Music 021).
Fulfills College Cross Cultural Foundational Requirement.
Fall or Spring
1 Course Unit

MUSC 1320 Composers: Opera Composers 1600-1900
This course will center on the biography, works, and cultural context of a specific composer or group of composers. As well as introducing students to the musical works of the composer(s), the course will examine issues such as reception history, the canon, mechanisms of cult formation, authorship and attribution, identity, historical and social contexts, and nationalism and patriotism. Fulfills Arts and Letters Requirement. The course centers on a group of composers who created or developed opera as a successful genre by setting texts in Italian: Monteverdi, Handel, Mozart, Verdi, and Puccini. We will explore how these musicians were involved in opera as a business model, how their careers took shape, how their music interacted on stage with words, bodies, and sets (enhancing narratives based on literature, mythology and history), how their works were products of larger social contexts, and finally, how and why these operas are presented today by American theatres (also adapted as Broadway musicals) or in film versions. The course is intended for non-majors, but music majors are welcome. Knowledge of Italian is not necessary.
Not Offered Every Year
Also Offered As: ITAL 1320
1 Course Unit

MUSC 1321 Composers: Verdi and Shakespeare
This course will center on the biography, works, and cultural context of a specific composer or group of composers. As well as introducing students to the musical works of the composer(s), the course will examine issues such as reception history, the canon, mechanisms of cult formation, authorship and attribution, identity, historical and social contexts, and nationalism and patriotism. Fulfills Arts and Letters Requirement. Italian composer Giuseppe Verdi wrote three famous operas based on Shakespeare, Macbeth (1847), Othello (1887), and Falstaff (1891). We will examine the intriguing relationships between the plays and the operas, explore Verdi's entire output and the conventions and contexts of Romantic opera, and finally discuss issues of race, gender, and performance that were as relevant for these two authors as they are for us today. The course is intended for non-majors, but music majors are welcome.
Not Offered Every Year
1 Course Unit
MUSC 1322 Composers: Mozart/DaPonte
This course will center on the biography, works, and cultural context of a specific composer or group of composers. As well as introducing students to the musical works of the composer(s), the course will examine issues such as reception history, the canon, mechanisms of cult formation, authorship and attribution, identity, historical and social contexts, and nationalism and patriotism. Fulfills Arts and Letters Requirement. Mozart's meeting with Lorenzo Da Ponte in Vienna in 1783 sparked one of the most successful collaborations in opera history between a poet and a composer, generating three works that are frequently staged in today's theatres worldwide, The Marriage of Figaro (1786), Don Giovanni (1787), and Così fan tutte (1790). We will study the literary sources of these operas, the poetic and operatic conventions of the time, and the issues (such as love, power, and gender) that these works raise, by also comparing different versions on video. The course is intended for non-majors, but music majors are welcome.
Not Offered Every Year
Also Offered As: ITAL 1322
1 Course Unit

MUSC 1323 Composers: Anonymous, History's Most Prolific Composer
This course will center on the biography, works, and cultural context of a specific composer or group of composers. As well as introducing students to the musical works of the composer(s), the course will examine issues such as reception history, the canon, mechanisms of cult formation, authorship and attribution, identity, historical and social contexts, and nationalism and patriotism. Fulfills Arts and Letters Requirement. This course traces the "anonymous," the first and most prolific composer in Western Europe, through multiple centuries, exploring what it means for music to be created by a shadowy figure of anonymity and the implications for research, analysis, and listening. The course is intended for non-majors, but music majors are welcome.
Not Offered Every Year
1 Course Unit

MUSC 1324 Composers: Medieval Songwriters
This course will center on the biography, works, and cultural context of a specific composer or group of composers. As well as introducing students to the musical works of the composer(s), the course will examine issues such as reception history, the canon, mechanisms of cult formation, authorship and attribution, identity, historical and social contexts, and nationalism and patriotism. Fulfills Arts and Letters Requirement. In this course we explore the sometimes anonymous, sometimes named creators of song across Europe, ca. 1100-1500. Some, like Philip the Chancellor, wrote serious, even polemical Latin songs, while others, such as Adam de la Halle, wrote works firmly entrenched in the poetics of courtly love. In the course we will consider issues of authorship/composership; attribution and transmission; linguistic and national song styles; and the contemporary reception of the medieval "troubadour."
Not Offered Every Year
1 Course Unit

MUSC 1325 Composers: Fryderyk Chopin
This course will center on the biography, works, and cultural context of a specific composer or group of composers. As well as introducing students to the musical works of the composer(s), the course will examine issues such as reception history, the canon, mechanisms of cult formation, authorship and attribution, identity, historical and social contexts, and nationalism and patriotism. Fulfills Arts and Letters Requirement. Permanently exiled from his native Poland for half his short life, and debilitated by illness for much the same time, Fryderyk Chopin nonetheless produced a profoundly important repertory of music for the piano, music at times transcendently beautiful and at times viscerally exciting. Through close listening to recordings, viewing of recorded live performances, and selected readings, this course will explore Chopin's music and the cultures within which and for whom he composed. The course is intended for non-majors, but music majors and performers are more than welcome as well.
Not Offered Every Year
1 Course Unit

MUSC 1326 Composers: Ludwig van Beethoven
This course will center on the biography, works, and cultural context of a specific composer or group of composers. As well as introducing students to the musical works of the composer(s), the course will examine issues such as reception history, the canon, mechanisms of cult formation, authorship and attribution, identity, historical and social contexts, and nationalism and patriotism. This course will explore the nature, evolution, and meanings of Beethoven's music. We will also consider aspects of his biography, particularly as they touch on his compositional output, and also think about the relationships between his music and cultural and political developments of his time. Listening to Beethoven's music, discussing it, and thinking about his life and art will constitute the heart of the course. The course is intended for non-majors, but music majors and performers are more than welcome as well.
Not Offered Every Year
1 Course Unit

MUSC 1340 Performers: Dancers and Musicians
This course looks at the history of popular, vernacular, and art music in various time periods. Studying music from the ground up, we examine how performers have influenced music history. This introductory course examines the relationship of musicians and dancers from the Middle Ages up to the emergence of ballet. Engaging with musical scores, iconography, theoretical writings, and a range of other textual sources, we will consider the ways in which dance (and dancers) informed music (and musicians), and vice versa, over the course of several hundred years.
Not Offered Every Year
1 Course Unit

MUSC 1341 Performers: The Singer ca. 800-1400
This course looks at the history of popular, vernacular, and art music in various time periods. Studying music from the ground up, we examine how performers have influenced music history. Tracing the figure of the singer beginning in the court of Charlemagne to the papal outpost of Avignon in the late thirteenth century, this introductory course considers the evolving roles of singers in the Middle Ages. From monastic cantors to virtuosic soloists, we will be concerned not only the cultural function of singers but also the repertoire they performed.
Not Offered Every Year
1 Course Unit
MUSC 1342 Performers: Celebrity
This course looks at the history of popular, vernacular, and art music in various time periods. Studying music from the ground up, we examine how performers have influenced music history. This introductory course looks at the history of celebrity culture in the eighteenth and nineteenth centuries. From "rival queen" actress-singers on London stages to mania over virtuoso instrumentalists, we will explore how celebrities dazzled fans, popularized repertoire, manipulated their public images, and were depicted in the media.
Not Offered Every Year
1 Course Unit

This course looks at the history of popular, vernacular, and art music in various time periods. Studying music from the ground up, we examine how performers have influenced music history. We will focus on the life, times, and art of legendary African-American contralto and native Philadelphian Marian Anderson, whose archive is housed by the University of Pennsylvania’s Kislak Center for Special Collections. Anderson’s legacy remains extraordinarily relevant today as the country and the music world face new and old challenges in broadening access and fostering equality across boundaries of race, gender, and social class. We will develop hands-on projects based on Penn’s archival holdings (photos, diaries, letters, programs, audio materials, and scores) to explore Anderson’s pathbreaking role in American history, impacting music, politics, racial and gender relationships, and social justice. The exciting primary-source foundation will be complemented by secondary readings, listenings, and viewings.
Not Offered Every Year
1 Course Unit

MUSC 1400 Jazz Style and History
This course is an exploration of the family of musical idioms called jazz. Attention will be given to issues of style development, selective musicians, and to the social and cultural conditions and the scholarly discourses that have informed the creation, dissemination and reception of this dynamic set of styles from the beginning of the 20th century to the present. Fulfills Cultural Diversity in the U.S.
Not Offered Every Year
Also Offered As: AFRC 1400
1 Course Unit

MUSC 1420 Thinking About Popular Music
Catchy yet controversial. Fun but hard-hitting. Popular music is not just entertaining: it presents societal issues, raises questions, expresses ideas. This course considers how popular music of the 20th century manifested the hopes, contradictions, ingenuity, and challenges of life in the United States, as seen and heard through the experiences of musicians and audiences. We will address three core questions: (1) How is “talent” and “good” music distinguished? (2) What happens when we treat music as "property," especially with respect to broader ideas of ownership and credit? (3) When, how, and why is music considered dangerous? We delve into these questions by profiling musicians’ lives, analyzing the musical traits of specific repertoire, investigating changes in how music circulates, and situating popular music in U.S. cultural history. This course is not a chronological survey and does not aim to cover all U.S. popular music (or global popular music). Instead, each core question is addressed through case studies. Over the course of the semester students learn listening and analytic skills, how to engage critically with a range of writings about music, how to develop compelling arguments and articulate them verbally in class discussions and in writing assignments.
Not Offered Every Year
1 Course Unit

MUSC 1430 History of Opera
An investigation, through a series of representative works, of the central problem of opera: how does the combination of music, text, and visual spectacle create an art form in which the whole is more powerful than its parts. Today this issue can be examined not only in live performances but also through media such as film, DVD, streaming video—media to which this four-centuries-old multimedia form has adapted, evolving in still compelling ways. The works chosen for the course provide a chronological survey but also represent the variety of sources on which opera has drawn for its subject matter: myth and legend, the epic, the tragic, the comedic, the bad, the ugly, the battle of Algiers, and Teorema, as well as for American films such as Malick’s Days of Heaven and Tarantino’s The Hateful Eight. Weekly screenings required. Open to all: music majors, minors, and non-majors; will count toward requirements for music minor.
Knowledge of music and Italian helpful but not required. All readings and lectures in English.
Also Offered As: ITAL 1430
1 Course Unit

MUSC 1440 Film Music in Post 1950 Italy
An exploration of cinematic sound through the lens of specific composer/director collaborations in post-1950 Italy, examining scores, soundtracks, and the interaction of diegetic and non-diegetic music with larger soundscapes. Composers Nino Rota and Ennio Morricone serve as case studies, in partnership with directors Fellini, Visconti, Leone, Pontecorvo, Pasolini, and Coppola. Highlights include several excerpts from the Fellini/Rota collaboration, including The White Sheik, I vitelloni, The Road, Nights of Cabiria, La dolce vita, 8 1/2, Juliet of the Spirits, Satyricon, The Clowns, Roma, Amarcord, Casanova, and Orchestra Rehearsal. Rota’s music for Visconti will be examined in Senso, the Leopard, and Rocco and his Brothers, along with his Transatlantic collaboration for The Godfather. Morricone’s work with various directors will be discussed in The Good, the Bad, and the Ugly, The Battle of Algiers, and Teorema, as well as for American films such as Malik’s Days of Heaven and Tarantino’s The Hateful Eight. Weekly screenings required. Open to all: music majors, minors, and non-majors; will count toward requirements for music minor.
Also Offered As: CIMS 1440, ITAL 1440
1 Course Unit
MUSC 1450 Songwriting
This class will tackle song as a topic of study from the perspective of the listener and the maker. We will consider popular song, folk song, art song, and other styles, as well as styles that may be hard to categorize, taking a big picture look at the role of songs in our lives and also getting into the nitty gritty of how songs are created. Reflective and analytical work will be required of students, with the main focus being the creation of original songs.
Fall or Spring
1 Course Unit
MUSC 1500 World Musics and Cultures
This course examines how we as consumers in the “Western” world engage with musical difference largely through the products of the global entertainment industry. We examine music cultures in contact in a variety of ways—particularly as traditions in transformation. Students gain an understanding of traditional music as live, meaningful person-to-person music making, by examining the music in its original site of production, and then considering its transformation once it is removed, and recontextualized in a variety of ways. The purpose of the course is to enable students to become informed and critical consumers of “World Music” by telling a series of stories about particular recordings made with, or using the music of, peoples culturally and geographically distant from the US. Students come to understand that not all music downloads containing music from unfamiliar places are the same, and that particular recordings may be embedded in intriguing and controversial narratives of production and consumption. At the very least, students should emerge from the class with a clear understanding that the production, distribution, and consumption of world music is rarely a neutral process. Fulfills College Cross Cultural Foundational Requirement.
Fall or Spring
Also Offered As: AFRC 1500, ANTH 1500
1 Course Unit
MUSC 1510 Music of Africa
African Contemporary Music: North, South, East, and West. Come to know contemporary Africa through the sounds of its music: from South African kwela, jazz, marabi, and kwaito to Zimbabwean chimurenga; Central African soukous and pygmy pop; West African Fuji, and North African rai and hophop. Through reading and listening to live performance, audio and video recordings, we will examine the music of Africa and its intersections with politics, history, gender, and religion in the colonial and post colonial era. (Formerly Music 053). Fulfills College Cross Cultural Foundational Requirement.
Not Offered Every Year
Also Offered As: AFRC 1510
1 Course Unit
MUSC 1530 Music in Troubled Places
In this class, we go beyond the headlines to discuss the history and cultures of peoples who have had to endure terrible suffering, particularly through ethnic conflict and civil war. We will focus on a curious phenomenon: populations typically defined as separate from one another (e.g., Israelis and Palestinians) often have a history of shared or related cultural practices, of which music is a prime example. We will survey a number of current and recent conflict zones and use music as a way to deepen our understanding of the identities and relationships between the peoples involved including through a consideration of my own fieldwork in Sri Lanka. Querying the very definitions of music, trouble, and place, the course then broadens out to consider how musicians have been affected by and/or responded to important global problems like slavery, sexual violence, climate change and other ecological disasters, like Hurricane Katrina. Regions to be considered in our lectures and/or readings include: Afghanistan, Iraq, Syria (including Kurdish musics), Israel-Palestine, Sri Lanka, the Maldives, Myanmar/Burma, Uganda, Sierra Leone, North and South Korea, the Marshall Islands, Cambodia, Mexico, and the United States.
Not Offered Every Year
Also Offered As: ANTH 1533
1 Course Unit
MUSC 1560 Seeing/Hearing Globally
This is a Penn Global Seminars Abroad semester long class with travel abroad after. It focuses on the interrelationship of music, arts, community-building, land, politics, and history. Places covered in coursework and travel vary by semester, and students have to apply for the class through Penn Global. The class is limited in student participation to no more than 20 students.
Not Offered Every Year
Also Offered As: AFRC 1560, ANTH 1560
1 Course Unit
MUSC 1580 Weird Music
The term “weird” has long been used pejoratively to describe music that people don’t understand, which sounds to them like some combination of extreme, bad, pretentious, or indecipherable (“strange”). The term “weird” may be laced with racism and ignorance, such as when one chooses to say another culture’s music is “weird” rather than try to understand it. “Experimental,” by contrast, elevates music that is perceived as intending to push boundaries. Thus, both conjure up what they are not: “normal” music, such as a mainstream pop song. In this class, we take a journey through some of the world’s “weirdest” music and in the process question musical normativity and taste. We consider music deemed by its makers (or by outsiders observers) as too loud, soft, fast, slow, complex, meandering, or simple; we study global histories of experimentalism, including experimental instruments and tuning systems, subversive and/or humorous uses of digital and analog technologies, and the “slow movement” and related DIY and punk subcultures; and we explore alternative ways of conceptualizing the structure and function of music that lie far outside the mainstream music industry. Questioning how capitalism makes its musical object, and moving beyond exoticism, we will seek greater insight into the fraught role of musical outsiders and cultural difference in mainstream capitalist culture. Why does some music strike us as weird? What role has the music industry played in shaping conventions? What strategies might we use to better respect musical difference?
Not Offered Every Year
1 Course Unit
MUSC 1700 Introduction to Theory and Musicianship
This course will cover basic skills and vocabulary for reading, hearing, performing, analyzing, and writing music. Students will gain command of musical rudiments, including notation, reading and writing in treble and bass clefs, intervals, keys, scales, triads and seventh chords, and competence in basic melodic and formal analysis. The course will include an overview of basic diatonic harmony, introduction to harmonic function and tonization. Musicianship skills will include interval and chord recognition, rhythmic and melodic dictation and familiarity with the keyboard. There will be in-depth study of selected compositions from the "common practice" Western tradition, including classical, jazz, blues and other popular examples. Listening skills—both with scores (including lead sheets, figured bass and standard notation), and without—will be emphasized. There is no prerequisite. Students with some background in music may place out of this course and into Music 170, Theory and Musicianship I. Fulfills College Formal Reasoning and Analysis Foundational Requirement.
Fall or Spring
1 Course Unit

MUSC 1780 Audiovisual Climate Research*
In this course, you will collaborate with your peers to create a public-facing, digital exhibit that communicates research about a local problem posed by the climate crisis. First you will encounter theories for communicating climate research in sounds, images, and embodied practices. You will apply these theories to analyze exemplary audiovisual projects. Then you will connect with your university's digital scholarship librarian and visit a media lab to help you shift from theoretical to technical aspects of creating a digital exhibit and recording sounds and images. After agreeing on a local climate problem that the exhibit will address, you will then form teams focused on creating different components of the overall exhibit: on the sound team, you might combine field recordings and recorded interviews into a short podcast episode; on the image team, you might create photo or video essays; on the education team, you might create public educational resources like DIY monitoring kits, reading lists, or create/improve relevant Wikipedia articles; on the interface team, you might link your skills in electrical engineering or environmental monitoring to build interfaces that connect bodies with real-time, local air quality measurements. Or you might devise an altogether different team in consultation with the professor. The course culminates in a public showcase of each team's contribution to the digital exhibit. You will share your projects with peers, faculty, project participants/interviewees, and other community members. * Audiovisual Climate Research© 2022 by Andrew Niess
Not Offered Every Year
1 Course Unit

MUSC 1810 Film Sound and Film Music
Please check the website for a current course description at: http://www.sas.upenn.edu/italians/courses
Fall or Spring
Also Offered As: ITAL 1982
1 Course Unit

MUSC 1999 Guided Research
Individual research under the supervision of a member of the faculty.
Fall or Spring
1 Course Unit

MUSC 2300 Introduction to European Art Music
This course aims to introduce students to what it means to study the European musical tradition. Students will approach the diverse music that constitute the classical tradition from a variety of scholarly perspectives. The goal of this class is to listen deeply and think broadly. Students will consider questions such as: what sort of object is music? Where is it located? What does it mean to say a work is "canonic"? What is left out of the story? This class will be in dialogue with other tier-one classes, and will consider what the historian can bring to the study and understanding of music. Fulfills the requirements of the Music major.
Prerequisite: MUSC 1700 or 2700, or equivalent; or by permission of the instructor. Preference given to music Majors and Minors.
Prerequisite: MUSC 1700 OR MUSC 2700
1 Course Unit

MUSC 2400 Introduction to the Music Life in America
This course surveys American musical life from the colonial period to the present. Beginning with the music of Native Americans, the European legacy, and the African Diaspora, the course treats the singular social and political milieu that forged the profile of America's musical landscape. Attention will be given to the establishment of the culture industry and to various activities such as sacred music, parlor music, concert and theater music, the cultivation of oral traditions, the appearance of jazz, the trajectory of western art music in the United States, and the eventual global dominance of American popular music. Prerequisite: MUSC 1700 or 2700, or equivalent; or by permission of the instructor. Preference given to music Majors and Minors. Fulfills the Cultural Diversity in the U.S. College Requirement.
Prerequisite: MUSC 1700 OR MUSC 2700
1 Course Unit

MUSC 2500 Introduction to Ethnomusicology
This course introduces students to the field of ethnomusicology through a series of case studies that explore a range of traditional, popular, and art musics from around the world. The course takes as a point of departure several works of musical ethnography, musical fiction, and musical autobiography and, through in-depth reading of these texts, close listening to assigned sound recordings, and in-class case studies, generates a context within which to think and write about music. Fulfills the requirements of the Music major.
1 Course Unit

MUSC 2700 Theory and Musicianship I
Introduction to and development of principles of tonal voice-leading, harmonic function, counterpoint, and form through written analysis, composition, improvisation, and written work. Course covers diatonic harmony and introduction to chromaticism. Repertoires will focus on Western classical music. Musicianship component will include sight-singing, dictation keyboard harmony. Fulfills College Formal Reasoning and Analysis Foundational Requirement.
Fall
Prerequisite: MUSC 1700
1.5 Course Unit

MUSC 2710 Theory and Musicianship II
Continuation of techniques established in Theory and Musicianship I. Explores chromatic harmony. Concepts will be developed through analysis and model composition. Musicianship component will include sight singing, clef reading, harmonic dictation and keyboard harmony.
Spring
Prerequisite: MUSC 2700
1.5 Course Unit
MUSC 3200 Modular Electronic Music Systems & Performance
MUSC3200 offers an introduction to electronic music/sound production with a focus on modular hardware systems and performance. Guest artists will join us for in-class visits and performances during the semester. Meetings will take place in the classroom, in concert spaces and in the studio. Preference given to Music majors and minors for registration.
Spring
Prerequisite: MUSC 1700 OR MUSC 2700
1 Course Unit

MUSC 3210 Recording Music: Theory & Methods
An introduction to music and sound recording with a focus on concerts and live performances. The entire process will be examined from start to finish, including the roles played by composers, musicians, listeners, performance spaces, and recording technology. Meetings will take place in the classroom, in concert spaces and in the studio. Music majors and minors will be given preference for registration.
Fall
Prerequisite: MUSC 1700 OR MUSC 2700
1 Course Unit

MUSC 3230 Computer Music I
This is an introductory class to the music creation software Max/MSP. Students will learn basic principles of synthesis, in theory and practice. Classwork includes lectures, problem-solving, and student presentations of creative work. Assignments and two large projects are creatively oriented with limitations to ensure understanding of concepts. Students are required to purchase and install the software on their machines (Mac or PC).
Not Offered Every Year
Mutually Exclusive: MUSC 7201
1 Course Unit

MUSC 3300 Historical Eras and Topics: Earlier Periods
Classes under this number offer a more in-depth look at historical eras and topics or repertoires associated with a specific period of music history. Classes will focus on one historical epoch (Medieval, Renaissance, Baroque). The purpose of this course is to give students the opportunity to engage deeply with musical objects, both historically and analytically, as well as to expose them to a range of methodologies with which to study music. Topics include: the Classical string quartet; sacred music in the age of Enlightenment; sentimental song; music and colonial encounter.
Not Offered Every Year
Also Offered As: ITAL 3300
1 Course Unit

MUSC 3301 Historical Eras and Topics: Earlier Periods
Classes under this number offer a more in-depth look at historical eras and topics or repertoires associated with a specific period of music history. Classes will focus on one historical epoch (Medieval, Renaissance, Baroque). The purpose of this course is to give students the opportunity to engage deeply with musical objects, both historically and analytically, as well as to expose them to a range of methodologies with which to study music. Topics include: medieval song and polyphony; songbooks ca. 1100-1600; inscribing music, ca. 800-1600; sound and listening in premodern Europe.
Not Offered Every Year
1 Course Unit

MUSC 3310 Historical Eras and Topics: Later Periods
Classes under this number offer a more in-depth look at historical eras and topics or repertoires associated with a specific period of music history. Classes will focus on one historical epoch (Enlightenment, Romantic, Modernism, etc.). The purpose of this course is to give students the opportunity to engage deeply with musical objects, both historically and analytically, as well as to expose them to a range of methodologies with which to study music. Topics will be drawn from the history of opera in Europe and the United States.
1 Course Unit

MUSC 3311 Historical Eras and Topics: Later Periods
Classes under this number offer a more in-depth look at historical eras and topics or repertoires associated with a specific period of music history. Classes will focus on one historical epoch (Enlightenment, Romantic, Modernism, etc.). The purpose of this course is to give students the opportunity to engage deeply with musical objects, both historically and analytically, as well as to expose them to a range of methodologies with which to study music. Topics include: the Classical string quartet; sacred music in the age of Enlightenment; sentimental song; music and colonial encounter.
1 Course Unit

MUSC 3312 Historical Eras and Topics: Later Periods
Classes under this number offer a more in-depth look at historical eras and topics or repertoires associated with a specific period of music history. Classes will focus on one historical epoch (Enlightenment, Romantic, Modernism, etc.). The purpose of this course is to give students the opportunity to engage deeply with musical objects, both historically and analytically, as well as to expose them to a range of methodologies with which to study music. Topics include: music in the Enlightenment; music in the long nineteenth-century; and musical modernisms.
1 Course Unit

MUSC 3320 Themes in Music History
In this course, students will have the opportunity to explore music history from a thematic or conceptual perspective, frequently through several eras. Among the topics that we will explore: opera and its literary and figurative sources 1600-1900; opera performance 1600-today; music and rhetoric ca. 1500-1800; text, music, image ca. 1500-1650.
Not Offered Every Year
1 Course Unit

MUSC 3321 Themes in Music History
In this course, students will have the opportunity to explore music history from a thematic or conceptual perspective, frequently through several eras. Among the topics that we will explore: medievalism and the reception of medieval music; vocality and sound in the Middle Ages; signs and symbols of music; anonymity and the medieval composer; the materiality of early music.
Not Offered Every Year
1 Course Unit

MUSC 3322 Themes in Music History
In this course, students will have the opportunity to explore music history from a thematic or conceptual perspective, frequently through several eras. Among the topics that we will explore: music's media and formats; music and gender.
Not Offered Every Year
1 Course Unit
MUSC 3340 Performers: Music, Rhetoric, Performance
This course looks at the history of popular, vernacular, and art music in various time periods. Studying music from the ground up, we examine how performers have influenced music history. We engage critically with issues such as music in social life, collaborative creative processes, and vernacular music's engagement with race and gender. The great variety and quality of the instrumental and vocal music composed in Europe during the period 1600-1800, roughly from the birth of opera to Mozart’s death, solicits today an equally wide and intriguing array of responses from instrumentalists and singers aware of pre-Romantic performance practices. In this intermediate course fulfilling elective requirements for music majors, we will study the music from this early modern period by focusing on its performance, exploring topics such as sound, relationships between text and music, improvisation, and ornamentation, among others; for opera, we will focus on staging and acting practices, then and today. We will familiarize ourselves with issues such as: national idioms, dance music, rhetoric, the history and ideology of the performance practice movement, and the critical use of editions and of primary material, including original treatises and iconographical and literary sources.
Not Offered Every Year
1 Course Unit

MUSC 3341 Performers: Dancers and Musicians
This course looks at the history of popular, vernacular, and art music in various time periods. Studying music from the ground up, we examine how performers have influenced music history. We engage critically with issues such as music in social life, collaborative creative processes, and vernacular music's engagement with race and gender. This intermediate course fulfilling elective requirements for music majors examines the relationship of musicians and dancers from the Middle Ages up to the emergence of ballet. Engaging with musical scores, iconography, theoretical writings, and a range of other textual sources, we will consider the ways in which dance (and dancers) informed music (and musicians), and vice versa, over the course of several hundred years.
Not Offered Every Year
1 Course Unit

MUSC 3342 Performers: The Singer ca. 800-1400
This course looks at the history of popular, vernacular, and art music in various time periods. Studying music from the ground up, we examine how performers have influenced music history. We engage critically with issues such as music in social life, collaborative creative processes, and vernacular music's engagement with race and gender. Tracing the figure of the singer beginning in the court of Charlemagne to the papal outpost of Avignon in the late thirteenth century, this intermediate course fulfilling elective requirements for music majors considers the evolving roles of singers in the Middle Ages. From monastic cantors to virtuosic soloists, we will be concerned not only the cultural function of singers but also the repertoire they performed.
Not Offered Every Year
1 Course Unit

MUSC 3343 Performers: Celebrity
This course looks at the history of popular, vernacular, and art music in various time periods. Studying music from the ground up, we examine how performers have influenced music history. We engage critically with issues such as music in social life, collaborative creative processes, and vernacular music's engagement with race and gender. This intermediate course fulfilling elective requirements for the music major looks at the history of celebrity culture in the eighteenth and nineteenth centuries. From "rival queen" actress-singers on London stages to manias over virtuoso instrumentalists, we will explore how celebrities dazzled fans, popularized repertoire, manipulated their public images, and were depicted in the media.
Not Offered Every Year
1 Course Unit

MUSC 3450 Studies in African-American Music
This course explores aspects of the origins, style development, aesthetic philosophies, historiography, and contemporary conventions of African-American musical traditions. Topics covered include: the music of West and Central Africa, the music of colonial America, 19th century church and dance music, minstrelsy, music of the Harlem Renaissance, jazz, blues, gospel, hip-hop, and film music. Special attention is given to the ways that black music produces "meaning" and to how the social energy circulating within black music articulates myriad issues about American identity at specific historical moments. The course will also engage other expressive art forms from visual and literary sources in order to better position music making into the larger framework of African American aesthetics. (Formerly Music 146).
Not Offered Every Year
Also Offered As: AFRC 3450
1 Course Unit
MUSC 3460 The Blackness of Rock: Revisiting Histories of Race, Gender, and Genre
This course explores the history of rock music by focusing specifically on the innovations and contributions of black musicians. The course will address itself to the legacies of race records, the uninterrupted appropriation of black sounds by white artists (think Elvis), and the further complications introduced by the British Invasion, all while focusing on individual artists such as Fats Domino, Big Mama Thornton, Bo Diddley, Chuck Berry, Sister Rosetta Tharpe, and Jimi Hendrix. The course will highlight and offer hands-on explorations of the innovations brought to rock music by these black artists. And, because the guitar is such an iconic instrument in rock, the course also will introduce students, through a series of labs, to the gear that makes these sounds possible. Understanding how amplifiers, effects pedals, and guitars interact and produce radically divergent sounds depending on how they are set up will offer insights into the artistry of these early rock musicians. Understanding the circuits, and how using (and abusing) them in particular ways is part of the materiality of rock’s sound, will help shed light on the extent to which creative engagement with technology determined particular sonic pathways within the genre (distortion, overdrive, fuzz, feedback, etc.). And, these innovations literally shaped the future of rock, providing a foundation of sound and style and a particular relationship to gear that extends into the present. The final unit of the course will explore the racial politics, gender dynamics, and industry structures that have buried the black histories of rock and sidelined women’s crucial contributions to the genre, contributing to rock’s framing and marketing as a (mostly) male, white genre. The course will also ask how black musicians who perform rock today, such as Tosin Abasi, Lenny Kravitz, Brittany Howard of the Alabama Shakes, Bad Brains, Big Joanie, and Living Colour, among many others, negotiate these politics, these silenced histories, this industry barriers, and these audience expectations?
Fall
Also Offered As: AFRC 3460
1 Course Unit

MUSC 3480 Gender, Sexuality, & Pop Music
How is popular music implicated in the representation, production, performance, and interpretation of gender and sexuality? How have musicians negotiated traditional categories of gender and sexuality? In this class, we will approach the study of popular music through the lens of feminist and queer theory, critical race theory, transnational feminist theory, and intersectional methodologies to articulate the ways in which gender and sexuality have shaped musical discourse and popular culture more broadly. Topics include: gay anthems, trans vocality, masculinities, boy bands, oral histories, queer electro-pop, afrofuturism, performance alter-egos, queer(ing) methods, cover songs, censorship, musical borrowings & cultural appropriation, the politics of representation, and affective modes of listening. Students will learn about and be able to articulate the values and ideologies that are communicated in various subgenres of popular music, and how musical production impacts our understanding of cultural practices and social systems. *No prior musical knowledge required.*
Also Offered As: GSWS 3480
1 Course Unit

MUSC 3510 Music and Healing
In this class we will explore the many ways in which music around the world, and in our own neighborhoods, has been used for social-emotional healing, and individual and collective well-being. We will think about music and healing in four ways: through the lens of the musical, the social/cultural, performative, and biomedical (Roseman 2012). In other words, we read across the disciplines, to include ideas about music, the brain, and emotion; about the impact of adversity, and the work of music and creativity as vehicles of restoration and healing. There will be an Academically Based Community Service project in the Spring 2022 class. The course is intended specifically for music majors and minors, but others may request a place from the instructor.
Not Offered Every Year
1 Course Unit

MUSC 3520 Music, Religion, Ritual in South and Southeast Asia.
What role does music play in articulating religious identities and spaces? What is the importance of ritual musics as they persist and change in the modern world? How does music reflect and articulate religious ways of thinking and acting? In this course, we explore these and other questions about the interrelations between music, religion, and ritual in South and Southeast Asia. Focusing on India, Sri Lanka, Malaysia, and Indonesia, the course emphasizes musics from Hindu, Buddhist, Muslim and Christian traditions; nevertheless, it draws widely to touch upon sacred musics in Pakistan, Nepal, Burma, Thailand, Vietnam, and among some indigenous peoples in the region. Throughout, we explore ontologies of sound; sonic occurrences in religious structures, public processions, and pilgrimage sites; the construction of religion and ritual as ideas forged through colonial encounter and modern scholarship on religion; the politics of sacred sounds in today’s public spaces and contemporary media, such as television and online; and the surprising fluidity between popular and sacred musical genres.
Not Offered Every Year
Also Offered As: ANTH 3520
1 Course Unit

MUSC 3550 Accordions of the New World
This course focuses on the musical genres and styles (both traditional and popular) that have grown up around the accordion in the New World. We will begin our explorations in Nova Scotia and move toward the Midwest, travelling through the polka belt. From there, our investigation turns toward Louisiana and Texas–toward zydeco, Cajun, and Tex-Mex music. We will then work our way through Central and South America, considering norteno, cumbia, vallenato, tango, chamame, and forro. Our journey will conclude in the Caribbean, where we will spend some time thinking about merengue and raike-n-scare music. Throughout the semester, the musical case studies will be matched by readings and film that afford ample opportunity to think about the ways that music is bound up in ethnicity, identity, and class. We will also have occasion to think about the accordion as a multiply meaningful instrument that continues to be incorporated into debates over cultural politics and mobilized as part of strategies of representation through the New World. (Formerly Music 157).
Not Offered Every Year
Also Offered As: AFRC 3550, LALS 3550
1 Course Unit
MUSC 3560 Music and Performance of Africa
This class provides an overview of the most popular musical styles and discussion of the cultural and political contexts in which they emerged in contemporary Africa. Learning to perform a limited range of African music/dance will be part of this course. No prior performance experience required. (Formerly Music 253).
Not Offered Every Year
Also Offered As: AFRC 3560, ANTH 2560
1 Course Unit

MUSC 3570 Caribbean Music and Diaspora
This course considers Caribbean musics within a broad and historical framework. Caribbean musical practices are explored by illustrating the many ways that aesthetics, ritual, communication, religion, and social structure are embodied in and contested through performance. These initial inquiries open onto an investigation of a range of theoretical concepts that become particularly pertinent in Caribbean contexts—concepts such as post-colonialism, migration, ethnicity, hybridity, syncretism, and globalization. Each of these concepts, moreover, will be explored with a view toward understanding its connections to the central analytical paradigm of the course—diaspora. Throughout the course, we will listen to many different styles and repertoires of music ranging from calypso to junkanoo, from rumba to merengue, and from dance hall to zouk. We will then work to understand them not only in relation to the readings that frame our discussions but also in relation to our own North American contexts of music consumption and production. (Formerly Music 258).
Not Offered Every Year
Also Offered As: AFRC 3570, ANTH 2570, LALS 3570
1 Course Unit

MUSC 3580 Latin American Music
This survey course considers Latin American musics within a broad cultural and historical framework. Latin American musical practices are explored by illustrating the many ways that aesthetics, ritual, communication, religion, and social structure are embodied in and contested through performance. These initial inquiries open onto an investigation of a range of theoretical concepts that become particularly pertinent in Latin American contexts—concepts such as post-colonialism, migration, ethnicity, and globalization. Throughout the course, we will listen to many different styles and repertoires of music and then work to understand them not only in relation to the readings that frame our discussions but also in relation to our own, North American contexts of music consumption and production. (Formerly Music 158).
Not Offered Every Year
Also Offered As: AFRC 3580, LALS 3580
1 Course Unit

MUSC 3660 Performance, Analysis, History
Participation in the course may require an audition, see section details. This course must be taken for a letter grade (pass/fail option may not be utilized for this course). This weekly seminar will explore music from the past and present through class discussions of performance, historical or contemporary context, and analytical aspects of the music led by a professor and/or performer. One example of a class in this number will be an indepth study of chamber music repertoire led by the Daedalus Quartet. Students will prepare for a final performance at the end of the semester as well as a paper/presentation. MUSC 3660 may be taken multiple times, but can only count once as a Music major elective, and no more than twice toward the major performance requirement. Please note that a course that counts as an elective may not also count toward the performance requirement.
Spring
1 Course Unit

MUSC 3700 Theory and Musicianship III
Continuation of techniques established in Theory and Musicianship I and II. Concepts will be developed through analysis and model composition. Musicianship component will include advanced sight singing, clef reading, harmonic dictation and keyboard harmony.
Fall
Prerequisite: MUSC 2700 AND MUSC 2710
1.5 Course Unit

MUSC 3710 Composition I: Historical Practices
Studies in selected 16th through 19th century compositional practices. Possible topics may include 16th century modal counterpoint; sonata forms in Viennese classicism; advanced chromatic harmony. Course includes analysis of relevant pieces and student compositional projects reflecting course topic.
Not Offered Every Year
Prerequisite: MUSC 2700 AND MUSC 2710
1 Course Unit

MUSC 3720 Composition II: Contemporary Practices
Studies in selected 20th and 21st century compositional practices. Possible topics may include symmetry in post-tonal harmony; composing for piano; the sonata in the 20th century. Course includes analysis of relevant pieces and student compositional projects reflecting course topic.
Not Offered Every Year
Prerequisite: MUSC 2700 AND MUSC 2710
1 Course Unit

MUSC 3730 Orchestration
An introduction to writing for the instruments of the orchestra. Course will include study of individual instruments and various instrumental combinations, including full orchestra. Representative scores from the 18th century to the present day will be analyzed. Students will be responsible for several scoring projects and will have opportunities to hear readings of their projects. Prerequisite: at least two semesters of music theory or permission of instructor.
Not Offered Every Year
Prerequisite: MUSC 1700 OR MUSC 2700
1 Course Unit
MUSC 3740 Composition for Musicians
Music 3740 is a Composition Seminar that treats composing as both an end in itself and a means for thinking broadly and speculatively about music. We will work on various compositional techniques through exercises as well as ‘free’ composition, giving attention to skills as well as to personal voice. We will survey the current musical landscape through listening, analysis and discussion. The question of musical style itself will be pursued, and while we will be oriented to western art music, we will consider a wide range of styles, including popular music. It is assumed that students will have fluency with musical notation. Prerequisite: Music 171, or permission of the instructor.
Prerequisite: MUSC 2710
1 Course Unit

MUSC 3800 Critical Birding: Music, Observation, and the Environment
Critical birding encompasses birds, birdsongs and sounds, birds’ environments, humans’ interest in birding, and the inspiration musicians take from birds. Focusing primarily on the nineteenth century to today, we will use birding explore the relationship between “nature” and “music.” First, composers and musicians have long listened to and imitated birds, and we will study a diverse repertoire of bird-based musical works. Second, birding itself has strong cultural and political significance, including for the history of conservation, of environmentalism, and of race in the United States. We will familiarize ourselves with these histories. Finally, birding offers an opportunity to critically consider the visual and aural practices of observation. We will engage in amateur birding. This course meets once a week for three hours. It is a seminar-style discussion-based learning experience with some outdoor local birding activities.
Not Offered Every Year
1 Course Unit

MUSC 4097 Honors Thesis (sem1/.5 c.u.)
Individual research under the supervision of a member of the faculty. Guidelines for Honors Thesis can be found: https://music.sas.upenn.edu/
Prerequisite: (MUSC 2300 OR MUSC 2400 OR MUSC 2500) AND MUSC 2700
0.5 Course Units

MUSC 4098 Honor's Thesis (Sem2/.5 c.u.)
Individual research under the supervision of a member of the faculty. Guidelines for Honors Thesis can be found: https://music.sas.upenn.edu/
Prerequisite: (MUSC 2300 OR MUSC 2400 OR MUSC 2500) AND MUSC 2700
0.5 Course Units

MUSC 4300 Seminar in Music History
This is an advanced seminar, primarily for juniors and seniors who are prepared to engage deeply and critically with a specialized research topic. The topic of the seminar focuses on a particular genre or body of repertoire, music-maker or composer, or the cultural and social dynamics of a period in music history. The topic of the seminar is determined by the instructor.
Not Offered Every Year
Prerequisite: MUSC 2700
1 Course Unit

MUSC 4500 Seminar in Ethnomusicology
This is an advanced seminar, primarily for juniors and seniors who are prepared to engage deeply and critically with a specialized research topic in ethnomusicology. The topic of the seminar is determined by the instructor, and can focus on a particular theoretical concern (for example: postcolonial studies, sound studies, ethnicity, war), and/or on a genre or body of repertoire.
Fall or Spring
1 Course Unit

MUSC 4700 Seminar in Theory & Composition
This is an advanced seminar, primarily for juniors and seniors who are prepared to engage deeply with the study of compositional practices, and/or theoretical and analytical issues including a range of musical styles. The topic of the seminar is determined by the instructor.
Not Offered Every Year
Prerequisite: MUSC 2700 AND MUSC 2710
1 Course Unit

MUSC 4720 Creative and Compositional Approaches
This course focuses on methods for thinking and engaging creatively through sound, whether compositionally or through other kinds of sound objects. Topics may include: compositional strategies; recording and producing; film; sound installations; experimental ethnography; sound art; and performance practice. Students will begin to put these methodological ideas into practice by developing semester-long projects. These projects can be individual or collaborative.
Not Offered Every Year
1 Course Unit

MUSC 4730 Composing For Performers
This graduate level composition seminar brings active focus to composing for live performers. Class activities and assignments are designed to foster the exploration of what is possible through interpretation and collaboration, as well as how best to anticipate possibilities through notation. Students will study repertoire, both old and new. Course content will vary depending on the instructor. Students may take this course a second time with a different instructor.
Not Offered Every Year
1 Course Unit

MUSC 4750 Seminar in Composition
This is an advanced seminar, primarily for juniors and seniors who are prepared to engage deeply with the study of compositional practices, and/or theoretical and analytical issues including a range of musical styles. The topic of the seminar is determined by the instructor.
Not Offered Every Year
1 Course Unit

MUSC 4760 Seminar in Electronic Music
This is an advanced seminar, primarily for juniors and seniors who are prepared to engage deeply with the study of compositional practices, and/or theoretical and analytical issues including a range of musical styles. The topic of the seminar is determined by the instructor.
Not Offered Every Year
1 Course Unit

MUSC 4780 Seminar in Sound Art
This is an advanced seminar, primarily for juniors and seniors who are prepared to engage deeply with the study of compositional practices, and/or theoretical and analytical issues including a range of musical styles. The topic of the seminar is determined by the instructor.
Not Offered Every Year
1 Course Unit

MUSC 4790 Seminar in Film
This is an advanced seminar, primarily for juniors and seniors who are prepared to engage deeply with the study of compositional practices, and/or theoretical and analytical issues including a range of musical styles. The topic of the seminar is determined by the instructor.
Not Offered Every Year
1 Course Unit

MUSC 4800 Seminar in Visual Art
This is an advanced seminar, primarily for juniors and seniors who are prepared to engage deeply with the study of compositional practices, and/or theoretical and analytical issues including a range of musical styles. The topic of the seminar is determined by the instructor.
Not Offered Every Year
1 Course Unit

MUSC 4810 Seminar in Performance Practice
This is an advanced seminar, primarily for juniors and seniors who are prepared to engage deeply with the study of compositional practices, and/or theoretical and analytical issues including a range of musical styles. The topic of the seminar is determined by the instructor.
Not Offered Every Year
1 Course Unit
MUSC 6300 Historical and Historiographic Approaches
This course focuses on theories and models of historical investigation. It explores, among others, methodologies and conceptions of archival research, textual criticism and editing, codicology and paleography, philology and bibliography, encoding and textual technologies, and digital humanities; critical frameworks such as performance, gender/sexuality, critical race, transnational, environmental/landscape, materiality, and ritual and religious studies; and topics concerning oral histories, notational systems, and book, manuscript, and print cultures.
Not Offered Every Year
1 Course Unit

MUSC 6500 Ethnographic and Anthropological Approaches
This course focuses on the ethics, politics, and practice of ethnography. Topics may include: fieldwork methods; collaborative practice; ethnography and the archive; power and subjectivity; multimodal approaches; reciprocity and questions of accessibility; oral histories; experimental ethnography; and the politics of transcription, inscription, and translation. Students will begin to put these methodological ideas into practice by developing semester-long ethnographic projects. These projects can be individual or collaborative partnerships, and might also connect students to ongoing community-based research.
Not Offered Every Year
1 Course Unit

MUSC 6700 Analytical and Theoretical Approaches
This course focuses on the analytical methods and theoretical approaches. Topics may include: the politics of listening; score-based analysis; social and critical theories; issues and politics of translation, inscription, and transcription; questions of form; the history of theory; performance studies; the history of musical notation; voice and vocality; and sound studies. Students will typically begin to put these methodological ideas into practice through a series of hands-on assignments which could be either individual or collaborative in nature.
Not Offered Every Year
1 Course Unit

MUSC 6710 Theory-Critical Perspectives
Study of the relation of theory and criticism to analytic, ethnographic, and historical methods. Topics may include anthropology of nature and culture; archaeology and genealogy; actor-network and assemblage theories; critical race theory; deconstruction; feminist theories; gender and sexuality; materialisms and new materialisms; media archaeology and cultural techniques; phenomenology; technics.
Not Offered Every Year
1 Course Unit

MUSC 7200 Seminar in Composition
Seminar in selected compositional problems, with emphasis on written projects. See department website (under course tab) for current term course description: https://music.sas.upenn.edu
Not Offered Every Year
1 Course Unit

MUSC 7201 Computer Music I
This is an introductory class to the music creation software Max/MSP. Students will learn basic principles of synthesis, in theory and practice. Classwork includes lectures, problem-solving, and student presentations of creative work. Assignments and two large projects are creatively oriented with limitations to ensure understanding of concepts. Students are required to purchase and install the software on their machines (Mac or PC).
Not Offered Every Year
Mutually Exclusive: MUSC 3230
1 Course Unit

MUSC 7210 Composition Studio and Forum
Composer’s Forum is a regular meeting of graduate composers, often along with other members of the Penn composing community, in which recent performances are discussed, musical issues taken up, and visitors occasionally welcomed to present their work or offer master classes. In addition to weekly Forum meetings, students will be paired with a composer for individual lessons in composition. Ph.d. Candidates in Composition in their third year in the program will continue non-credit participation in both forum and lessons.
Fall or Spring
1 Course Unit

MUSC 7300 Studies in Medieval Music
Seminar on selected topics in the music of the Middle Ages. See department website (under course tab) for current term course description: https://music.sas.upenn.edu.
Not Offered Every Year
1 Course Unit

MUSC 7310 Studies in Renaissance Music
Seminar on selected topics in the music of the Renaissance.
Not Offered Every Year
1 Course Unit

MUSC 7320 Studies in Baroque Music
Seminar on selected topics in the music of the Baroque period. The seminar explores musical genres (madrigal, opera, cantata, etc.) using poetic texts in Italian (primarily), French, and German, which circulated mainly in Europe in both private and public settings during the 17th and early 18th centuries. Issues of reception and performance/staging during the 20th and 21st centuries are also investigated. Each instance of the seminar has a focus, e.g.: Monteverdi’s madrigals, opera in seventeenth-century Venice and Paris, Guarini and Marino in music, histories of the madrigal, Petrarchism and music, the “Baroque” in theory and practice, Handel’s operas, staging Baroque opera today, historically informed performance practice, etc. Please see department website https://music.sas.upenn.edu/course-list/ for current term course descriptions.
Not Offered Every Year
Also Offered As: ITAL 7320
1 Course Unit

MUSC 7330 Studies in 18th Century Music
Seminar on selected topics in the music of the Classical period. Please see department website https://www.sas.upenn.edu/music/courses for current term course descriptions.
Not Offered Every Year
1 Course Unit

MUSC 7340 Studies in 19th Century Music
Advanced research topics in the music of the 19th century.
Not Offered Every Year
1 Course Unit

MUSC 7350 Studies in 20 and 21st Century Music
Seminar on selected topics in the music of the twentieth and twenty-first century.
Not Offered Every Year
1 Course Unit

MUSC 7360 Topics in Musicology
This seminar investigates topics unfolding across different historical periods.
Not Offered Every Year
1 Course Unit
MUSC 7390 Methods for Music and Archives (Learning to Go Along and Against the Archival Grain)
This seminar focuses on archives and "archives." That is, the course offers, on the one hand, a practicum on historical research methods; and on the other, an exploration of how information is collected, housed, and organized to produce knowledge. Archives are trendy: the "archival turn" continues to bring critical attention to the generative and coercive power of institutions that hold historical records. They are also the source of some musicological consternation: scholars struggle with how to reconcile the piecemeal work of archival research with other goals, such as music criticism and critique generally. We will approach the archive from multiple directions, reading classic texts on archives and their allure (from musicology, ethnomusicology, theory, anthropology, history, and other disciplines); exemplary scholarship based on extensive and inventive uses of archival sources; and critiques of archive. We won't just talk about archives, however. Students will design and undertake archival projects using collections in the Philadelphia area. Through this hands-on experience students will gain skills in managing information, frustration, and intuition when conducting archival research. The course culminates in a symposium in which the students present their research projects.
Not Offered Every Year
1 Course Unit

MUSC 7400 Seminar in African-American Music
Seminar on selected topics in African American Music. See department website (under course tab) for current term course description: https://music.sas.upenn.edu
Not Offered Every Year
Also Offered As: AFRC 7400
1 Course Unit

MUSC 7500 Seminar in Ethnomusicology
Topics in Ethnomusicology. Open to graduate students from all departments. See department website (under course tab) for current term course description: https://music.sas.upenn.edu
Fall
1 Course Unit

MUSC 7510 Intellectual History of Ethnomusicology
Topics may include the intellectual history of ethnomusicology, current readings in ethnomusicology, a consideration of theoretical principles based upon the reading and interpretation of selected monographs, and area studies. Please see department website https://www.sas.upenn.edu/music/courses for current term course descriptions.
Prerequisite: Open to graduate students from all departments.
Not Offered Every Year
1 Course Unit

MUSC 7700 Studies in Music Theory and Analysis
Seminar on selected topics in music theory and analysis. Please see department website https://www.sas.upenn.edu/music/courses for current term course descriptions.
Not Offered Every Year
1 Course Unit

MUSC 7710 Writing Sound--Sounding Literature
Seminar on selected topics in sound studies. Please see department website https://www.sas.upenn.edu/music/courses for current term course descriptions.
Not Offered Every Year
1 Course Unit

MUSC 9940 Preparation for Ph.D. Candidacy in Music Studies
MUSC 9940 registration spans both semesters, (Fall and Spring), of year three in the Ph.D. program. The Ph.D. Candidate in Music Studies will finalize the dissertation proposal and comprehensive essays. They should also expect to continue attending the colloquium series sponsored by the department, participate in the Writing and Professionalization Workshop, as well as complete remaining teaching pedagogy requirements. Registration in 9940 indicates full time enrollment while preparing for dissertation.
Fall or Spring
0 Course Units

MUSC 9941 Preparation for Ph.D. Candidacy in Composition
MUSC 9941 registration spans both semesters, (Fall and Spring), of year three in the Ph.D. program. The Ph.D. Candidate in Composition will finalize their Portfolio of Compositions and Ph.D. Essay. They should also expect to continue participation in Composers' Forum and lessons (non credit), attend the colloquium series sponsored by the department, participate in the Professionalization Workshop, as well as complete remaining teaching pedagogy requirements. Registration in 9941 indicates full time enrollment while preparing for dissertation.
0 Course Units

MUSC 9999 Independent Study and Research
Individual study and research under the supervision of a member of the faculty.
Fall or Spring
1 Course Unit

NANOTECHNOLOGY (NANO)

NANO 5970 Master's Thesis Research
Fall or Spring
1 Course Unit

NANO 5990 Master's Thesis Research
Fall or Spring
1-4 Course Units

Naval Science (NSCI)

NSCI 1000 Naval Science Drill
A professional laboratory covering various aspects of naval leadership and professional development. While emphasis is given to military marching, formation, and parade, the course also includes lectures from sources in and out of the Navy. Guest speakers cover topics such as leadership, Navy career paths, equal opportunity, rights and responsibilities, AIDS awareness, terrorism/counterterrorism, naval warfare doctrine, employment of naval forces, ethics and values, operations security, and safety. Must be taken concurrently with NSCI 1010 (fall) NSCI 1020 (spring).
Fall or Spring
1 Course Unit
NSCI 1010 Naval Orientation
A course designed to familiarize the student with the history, characteristics and present employment of sea power. Particular emphasis is placed upon our naval forces and their capability in achieving and maintaining our national objectives. Naval organization and operational functions are discussed in conjunction with sea power concepts. Additionally, the student is given an insight into the Naval Service, shipboard organization and safety, time management skills and study techniques.
Fall
1 Course Unit

NSCI 1020 Seapower and Maritime Affairs
A broad survey of naval history designed to add historical perspective to current defense problems. Topics covered include: naval power as an aspect of national defense policy, navies as an instrument of foreign policy, strategy selection, resource control, technology, and manning.
Spring
1 Course Unit

NSCI 2010 Leadership & Management
This course emphasizes principles of leadership, personnel and material management, and subordinate development in the context of the naval organization. Practical applications are explored through experiential exercises and case studies.
Fall
1 Course Unit

NSCI 2020 Navigation I
A comprehensive study of the theory and practice of terrestrial, and electronic navigation and the laws of vessel operations. Topics include fundamentals of coastal and harbor piloting, electronic navigation and mean of navigating without reference to land. An in-depth study of the international and inland nautical Rules of the Road is also included. Case studies and practical exercises are used to reinforce the fundamentals of marine navigation.
Spring
1 Course Unit

NSCI 3010 Engineering
This course provides an overview of how propulsion and electricity are provided to our Navy's fighting ships. The basic engineering principles relating to thermodynamics, steam propulsion (conventional and nuclear), gas turbine propulsion, internal combustion engines, electricity generation and distribution, and various support systems will be taught. Ship design, stability, damage control, and some engineering-related ethical issues will also be discussed.
Fall
1 Course Unit

NSCI 3020 Weapons
This course provides an overview of the theory and concepts underlying modern weapons systems. The principles behind sensors and detection systems, tracking systems, computational systems, weapon delivery systems, and the fire control problem will be examined, with a consistent emphasis on the integration of these components into a "weapons system". Case studies will be used to illustrate and reinforce concepts introduced in the course.
Spring
1 Course Unit

NSCI 3100 Evolution of Warfare
This course is designed to add broad historical perspective to understanding military power. Treating war and the military as an integral part of society, the course deals with such topics as: war as an instrument of foreign policy, military influences on foreign policy, the military as a reflection of society, manning and strategy selection.
Fall, even numbered years only
1 Course Unit

NSCI 4010 Navigation II
Insight into modern naval operations is gained through analysis of relative motion pertaining to ships at sea, underway replenishment, shiphandling, and tactical communications. The process of command and control and leadership is examined through case studies of actual incidents at sea.
Fall
1 Course Unit

NSCI 4020 Leadership and Ethics
The capstone course of the NROTC curriculum, this course is intended to provide the midshipman with the ethical foundation and basic leadership tools to be effective junior officers. Topics such as responsibility, accountability, ethics, the law of armed conflict, military law, division organization and training, and discipline are introduced through practical exercises, group discussion, and case studies.
Spring
1 Course Unit

NSCI 4100 Fundamentals of Maneuver Warfare
This course prepares future military officers and other leaders for service by studying modern tactical principles, current military developments, and other aspects of warfare and their interactions with the influences on maneuver warfare doctrine. There is a specific focus on the United States Marine Corps as the premier maneuver warfighting organization. Study also includes historical influences on tactical, operational, and strategic levels of maneuver warfare practices in the current and future operating environments.
Fall, odd numbered years only
1 Course Unit
Near Eastern Languages & Civilization (NELC)

NELC 0001 Introduction to the Ancient Near East
The great pyramids and mysterious mummies of Egypt, the fabled Tower of Babel, and the laws of the Babylonian king Hammurabi are some of the things that might come to mind when you think of the ancient Near East. Yet these are only a very few of the many fascinating – and at time perplexing – aspects of the civilizations that flourished there c. 3300-300 BCE. This is where writing first developed, where people thought that the gods wrote down what would happen in the future on the lungs and livers of sacrificed sheep, and where people knew how to determine the length of hypotenuse a thousand years before the Greek Pythagoras was born. During this course, we will learn more about these other matters and discover their place in the cultures and civilizations of that area. This is an interdisciplinary survey of the history, society and culture of the ancient Near East, in particular Egypt and Mesopotamia, utilizing extensive readings from ancient texts in translation (including the Epic of Gilgamesh, "one of the great masterpieces of world literature"), but also making use of archaeological and art historical materials. The goal of the course is to gain an appreciation of the various societies of the time, to understand some of their great achievements, to become acquainted with some of the fascinating individuals of the time (such as Hatshepsut, "the women pharaoh," and Akhenaten, "the heretic king"), and to appreciate the rich heritage that they have left us.
Fall
Also Offered As: ANCH 1203, HIST 0730
1 Course Unit

NELC 0002 Introduction to the Middle East
This is the second half of the Near East sequence. This course surveys Islamic civilization from circa 600 (the rise of Islam) to the start of the modern era and concentrates on political, social, and cultural trends. Although the emphasis will be on Middle Eastern societies, we will occasionally consider developments in other parts of the world, such as sub-Saharan Africa, Central Asia, and Spain, where Islamic civilization was or has been influential. Our goal is to understand the shared features that have distinguished Islamic civilization as well as the varieties of experience that have endowed it with so much diversity.
Spring
Also Offered As: HIST 0830
1 Course Unit

NELC 0003 Origin and Culture of Cities
The UN estimates that 2.9 of the world's 6.1 billion people live in cities and that this percentage is rapidly increasing in many parts of the world. This course examines urban life and urban problems by providing anthropological perspectives on this distinctive form of human association and land use. First we will examine the "origin" of cities, focusing on several of the places where cities first developed, including Mesopotamia and the Valley of Mexico. We will then investigate the internal structure of non-industrial cities by looking at case studies from around the world and from connections between the cities of the past and the city in which we live and work today.
Fall
Also Offered As: ANTH 0103, URBS 0003
1 Course Unit

NELC 0004 Myths and Religions of the Ancient World
This course will survey the religions of the ancient Middle East, situating each in its historical and socio-cultural context and focusing on the key issues of concern to humanity: creation, birth, the place of humans in the order of the universe, death, and destruction. The course will cover not only the better-known cultures from the area, such as Egypt and Mesopotamia, but also some lesser-known traditions, such as those of the Hittites, or of the ancient Mediterranean town of Ugarit. Religion will not be viewed merely as a separate, sealed-off element of the ancient societies, but rather as an element in various cultural contexts, for example, the relationship between religion and magic and the role of religion in politics will be recurring topics in the survey. Background readings for the lectures will be drawn not only from the modern scholarly literature, but also from the words of the ancients themselves in the form of their myths, rituals, and liturgies.
Spring
Also Offered As: ANCH 1203, RELS 0004
1 Course Unit

NELC 0050 Ancient Civilizations of the World
This course explores the archaeology (material culture) of early complex societies or civilizations in Egypt, Mesopotamia, and the Aegean. According to the traditional paradigm, civilization first emerged during the fourth millennium BCE in Egypt and Mesopotamia. In the Mediterranean, state-level societies first appeared in Crete and mainland Greece in the early second millennium BCE. This course investigates how and why these civilizations developed, as well as their appearance and structure in the early historic (or literate) phases of their existence. A comparative perspective will illustrate what these early civilizations have in common and the ways in which they are unique. This course will consist largely of lectures which will outline classic archaeological and anthropological theories on state formation, before turning to examine the available archaeological (and textual) data on emerging complexity in Egypt, Mesopotamia, and the Aegean. This course does not presuppose any knowledge of archaeology or ancient languages; the instructor will provide any background necessary. Because this is a course on material culture, some of the class periods will be spent at the Penn Museum of Archaeology and Anthropology. These will consist of a guided tour of a relevant gallery, as well as a hands-on object-based lab with archaeological materials selected by the instructor.
Spring, odd numbered years only
Also Offered As: ANTH 0105, URBS 0050
1 Course Unit

NELC 0060 Art of Mesopotamia
Visual expression was first developed in Mesopotamia in the same environment as the invention of writing. This lecture class will introduce the arts of the major periods of Mesopotamian History ending with the "cinematic" effects achieved by the Assyrian artists on the walls of the royal palaces. The strong connection between verbal and visual expression will be traced over the three millennia course of Mesopotamian civilization from the earliest periods through the imperial art of the Assyrians and Babylonians of the first millennium BCE. The class and the assignments will regularly engage with objects in the collections and on display in the galleries of the Penn Museum.
Not Offered Every Year
Also Offered As: ARTH 2240
Mutually Exclusive: AAMW 6240, ARTH 6240, NELC 6060
1 Course Unit
NELC 0100 Archaeology & The Bible
Archaeology and the Bible is a chronological survey of the long span of human occupation in the Land of the Bible, known by the names of the modern nation-states and political entities that occupy the area, as well as various short hands such as Levant and Syria-Palestine, from ca. 10,000 BCE, when humans first began to farm and herd animals through the time of the Divided Monarchy of Israel and Judah. While archaeology has moved beyond a primary concern with illuminating the Bible, NELC 155 will investigate the broader import of archaeological discoveries for our understanding of ancient Israel and its neighbors.
Not Offered Every Year
Also Offered As: ANTH 0111, JWST 0111
1 Course Unit

NELC 0102 Reading Ancient Mesopotamia
An introduction to the literature of Ancient Mesopotamia. The literature of ancient Mesopotamia flourished thousands of years ago in a culture all of its own, yet the survival of hundreds of thousands of written records challenges us to read it and make sense of it without simply approximating it to the realm of our own understanding. How can we learn to do this? Situating our understanding of how we read and how we understand culture within an interdisciplinary range of literary-critical and analytic approaches, we will approach this question by immersing ourselves in the myths tales and mentalities that made Mesopotamian literature meaningful. To give us a measure of our progress we will bracket the semester by reading Gilgamesh which is never less than a great story, but which will take on new layers of meaning as the semester develops and we learn to read the text in more and more Mesopotamian ways. As we journey through these mysterious realms we will reflect not only Mesopotamia and its immortal literature but on what it means to read and understand any cultures other than our own.
Fall or Spring
1 Course Unit

NELC 0150 Ancient Iraq: Mesopotamian Culture and Its Legacy
Course topics may vary semester to semester but will focus on different aspects of the culture in ancient Iraq, and the effect on Iraq and the world.
Not Offered Every Year
1 Course Unit

NELC 0200 Land of the Pharaohs
This course provides an introduction to the society, culture and history of ancient Egypt. The objective of the course is to provide an understanding of the characteristics of the civilization of ancient Egypt and how that ancient society succeeded as one of the most successful and long-lived civilizations in world history.
Fall or Spring
1 Course Unit

NELC 0205 Literary Legacy of Ancient Egypt
This course surveys the literature of Ancient Egypt from the Old Kingdom through the Greco-Roman period, focusing upon theme, structure, and style, as well as historical and social context. A wide range of literary genres are treated, including epics; tales, such as the “world’s oldest fairy tale;” poetry, including love poems, songs, and hymns; religious texts, including the “Cannibal Hymn;” magical spells; biographies; didactic literature; drama; royal and other monumental inscriptions; and letters, including personal letters, model letters, and letters to the dead. Issues such as literacy, oral tradition, and the question poetry vs. prose are also discussed. No prior knowledge of Egyptian is required.
Not Offered Every Year
1 Course Unit

NELC 0210 Art and Architecture in Ancient Egypt
This course will be an introduction to the art, architecture and minor arts that were produced during the three thousand years of ancient Egyptian history. This material will be presented in its cultural and historical contexts through illustrated lectures and will include visits to the collection of the University Museum.
Not Offered Every Year
Also Offered As: ANCH 1305, ARTH 2180
1 Course Unit

NELC 0215 The Religion of Ancient Egypt
Weekly lectures (some of which will be illustrated) and a field trip to the University Museum’s Egyptian Section. The multifaceted approach to the subject matter covers such topics as funerary literature and religion, cults, magic religious art and architecture, and the religion of daily life.
Not Offered Every Year
Also Offered As: RELS 0215
1 Course Unit

NELC 0220 Women in Ancient Egypt
This class will examine the many roles played by women in ancient Egypt. From goddesses and queens, to wives and mothers, women were a visible presence in ancient Egypt. We will study the lives of famous ancient Egyptian women such as Hatshepsut, Nefertiti and Cleopatra. More independent than many of their contemporaries in neighboring areas, Egyptian women enjoyed greater freedoms in matters of economy and law. By examining the evidence left to us in the literature (including literary texts and non-literary texts such as legal documents, administrative texts and letters), the art, and the archaeological record, we will come away with a better understanding of the position of women in this ancient culture.
Not Offered Every Year
1 Course Unit

NELC 0225 The World of Cleopatra
The figure of Cleopatra is familiar from modern stories, legends, and film. Was this famous woman a brazen seductress or a brilliant political mind? How many of these presentations are historically accurate? This class will examine the Ptolemaic period in Egypt (305-30 BCE), the time period during which Cleopatra lived, in an attempt to separate myth from reality. The Ptolemaic period is filled with political and personal intrigue. It was also a time of dynamic multiculturalism. Arguably one of the most violent and fascinating eras in ancient Egyptian history, the Ptolemaic period is largely unknown and often misunderstood. This course will examine the history, art, religion and literature of Egypt’s Ptolemaic period which culminated in the reign of Cleopatra VII.
Not Offered Every Year
1 Course Unit

NELC 0300 Introduction to the Bible: The Old Testament
An introduction to the major themes and ideas of the Hebrew Bible (the Old Testament), with attention to the contributions of archaeology and modern Biblical scholarship, including Biblical criticism and the response to it in Judaism and Christianity. All readings are in English.
Fall
Also Offered As: JWST 0303, RELS 0301
1 Course Unit
NELC 0301 Elementary Biblical Hebrew I
This course is an introduction to Biblical Hebrew. It assumes no prior knowledge, but students who can begin to acquire a reading knowledge of the Hebrew alphabet before class starts will find it extremely helpful. The course is the 1st of a 4-semester sequence whose purpose is to prepare students to take courses in Bible that demand a familiarity with the original language of the text.
Fall
Also Offered As: JWST 0170
Mutually Exclusive: NELC 5211
1 Course Unit

NELC 0302 Elementary Biblical Hebrew II
A continued introduction to the grammar of Biblical Hebrew, focusing on the verbal system, with an emphasis on developing language skills in handling Biblical texts. A suitable entry point for students who have had some Modern Hebrew.
Spring
Also Offered As: JWST 0270
1 Course Unit

NELC 0303 Intermediate Biblical Hebrew I
This course will focus on using the grammar and vocabulary learned at the introductory level to enable students to read Biblical texts independently and take advanced Bible exegesis courses. We will also work on getting comfortable with the standard dictionaries, concordances, and grammars used by scholars of the Bible. We will concentrate on prose this semester, closely reading Ruth, Jonah, and other prose selections. We will begin to translate from English into Biblical Hebrew, and there will also be a unit on the punctuation marks used in the Bible. This is a suitable entry point for students who already have strong Hebrew skills.
Fall
Also Offered As: JWST 0370
1 Course Unit

NELC 0304 Intermediate Biblical Hebrew II
This course is a continuation of the fall semester’s Intermediate Biblical Hebrew I. No one will be admitted into the course who has not taken the fall semester. It will continue to focus on using the grammar and vocabulary learned at the introductory level to enable students to read biblical texts independently and take advanced Bible exegesis courses. We will concentrate this semester on various selections of Biblical poetry, including Exodus 15 and Job 28. We will also continue to translate English prose into Biblical Hebrew.
Spring
Also Offered As: JWST 0470
1 Course Unit

NELC 0305 Great Books of Judaism
Since the early medieval period, Jews have been known as "the People of the Book". Yet the books they produced and consumed changed drastically over time and place, spanning a variety of known genres and inventing new ones. These works, in turn, shaped the texts, ideas, and lives of Jews and others for millennia, spawned vast commentary traditions, and inspired new works. This course engages prominent Jewish texts, such as the Hebrew Bible, Rabbinic Literature, the works of major medieval philosophers, pre-modern intellectuals, and modern authors, situating them in their literary, cultural, and social contexts, and examining their later reception.
Fall
Also Offered As: JWST 0305, RELS 0305
Mutually Exclusive: NELC 5210
1 Course Unit

NELC 0311 Divinity, Polytheism and Monotheism in the Hebrew Bible and Ancient Israel - Judah
This course treats monotheism as a particular historical development of the texts in the Hebrew Bible (that is, the Jewish Tanakh/Christian Old Testament), and thus analyzes the idea of "one God only" as the product of a complex set of historical conditions. It will take extensive time to examine the early history of the Hebrew Bible’s familiar God, Yhwh, in inscriptive, biblical, and archaeological evidence, showing that he was once at home in the polytheistic environment of the ancient Near East (Southwest Asia). By embracing these longstanding entanglements, this course will explore the means by which Hebrew scribes came to define this deity not only as the most important god among many, but as the only all-powerful deity to exist in the entire cosmos. A variety of topics will be covered, addressing a number of questions raised by the evidence at hand: what is the evidence for Yhwh outside of the Bible? How do historians define his emergence in history? Did he really have a wife named Asherah? What did he look like and where did he live? What circumstances caused Judean writers to consider him the only all-powerful deity the universe? And finally, how did the subsequent Jewish imagination re-inscribe the older polytheistic world in light of monotheizing changes? While knowledge of the Bible, its languages, and its history may seem like a desired feature for the prospective student, there are no prerequisites. This course will be able to introduce the material to those at a beginner’s level.
Not Offered Every Year
1 Course Unit

NELC 0315 Jewish Literature in the Middle Ages in Translation
Course explores the cultural history of Jews in the lands of Islam from the time of Mohammed through the late 17th century (end of Ottoman expansion into Europe) –in Iraq, the Middle East, al-Andalus and the Ottoman Empire. Primary source documents (in English translation) illuminate minority-majority relations, internal Jewish tensions (e.g., Qaraism), and developments in scriptural exegesis, rabbinic law, philosophy, poetry, polemics, mysticism and liturgy.
Fall or Spring
Also Offered As: COML 0315, JWST 0315, RELS 0315
1 Course Unit

NELC 0320 Modern Hebrew Literature and Film in Translation
This course is designed to introduce students to the rich art of Modern Hebrew and Israeli literature and film. Poetry, short stories, and novel excerpts are taught in translation. The course studies Israeli cinema alongside literature, examining the various facets of this culture that is made of national aspirations and individual passions. The class is meant for all: no previous knowledge of history or the language is required. The topic changes each time the course is offered. Topics include: giants of Israeli literature; the image of the city; childhood; the marginalized voices of Israel; the Holocaust from an Israeli perspective; and fantasy, dreams & madness.
Fall or Spring
Also Offered As: CIMS 0320, COML 0320, JWST 0320
1 Course Unit
NELC 0325 Jewish Mysticism
Survey of expressions of Jewish mysticism from Hebrew Scripture through the 21st century. Topics include: the ascent through the celestial chambers - hekhhalot, the Book of Creation, the relationship of Jewish philosophy and mysticism, techniques of letter permutation, schematization of the Divine Body, the prominence of gender and sexuality in kabalistic thought, the relationship of kabbalah to the practice of the commandments, Zohar, Lurianic kabbalah, Hasidism, New-Age Jewish spirituality, and the resurgence of Jewish mysticism in the 20th century. All readings will be in English translation.
Not Offered Every Year
Also Offered As: JWST 0325, RELS 0325
1 Course Unit

NELC 0335 Medieval and Early Modern Jewry
Exploration of intellectual, social, and cultural developments in Jewish civilization from the rise of Islam in the seventh century to the assault on established conceptions of faith and religious authority in 17th century Europe, that is, from the age of Mohammed to that of Spinoza. Particular attention will be paid to the interaction of Jewish culture with those of Christianity and Islam.
Fall
Also Offered As: HIST 1610, JWST 1610, RELS 1610
1 Course Unit

NELC 0330 Themes Jewish Tradition: Iberian Conversos: Jew-Christian?
Course topics will vary; they have included The Binding of Isaac, Responses to Catastrophes in Jewish History, Holy Men & Women (Ben-Amos); Rewriting the Bible (Dohrmann); Performing Judaism (Fishman); Jewish Political Thought (Fishman); Jewish Esotericism (Lorberbaum) Democratic culture assumes the democracy of knowledge - the accessibility of knowledge and its transparency. Should this always be the case? What of harmful knowledge? When are secrets necessary? In traditional Jewish thought, approaching the divine has often assumed an aura of danger. Theological knowledge was thought of as restricted. This seminar will explore the "open" and "closed" in theological knowledge, as presented in central texts of the rabbinic tradition: the Mishnah, Maimonides and the Kabbalah. Primary sources will be available in both Hebrew and English.
Fall or Spring
Also Offered As: JWST 0330, RELS 0335
1 Course Unit

NELC 0335 Jewish Humor
In modern American popular culture Jewish humor is considered by Jews and non-Jews as a recognizable and distinct form of humor. Focusing upon folk-humor, in this course we will examine the history of this perception, and study different manifestation of Jewish humor as a particular case study of ethnic in general. Specific topics for analysis will be: humor in the Hebrew Bible, Jewish humor in Europe and in America, JAP and JAM jokes, Jewish tricksters and pranksters, Jewish humor in the Holocaust and Jewish humor in Israel. The term paper will be collecting project of Jewish jokes.
Not Offered Every Year
Also Offered As: COML 0335, JWST 0335
1 Course Unit

NELC 0350 Jews and Judaism in Antiquity
A broad introduction to the history of Jewish civilization from its Biblical beginnings to the Middle Ages, with the main focus on the formative period of classical rabbinic Judaism and on the symbiotic relationship between Judaism, Christianity, and Islam.
Spring
Also Offered As: HIST 1600, JWST 1600, RELS 1600
1 Course Unit

NELC 0355 Women in Jewish Literature
"Jewish woman, who knows your life? In darkness you have come, in darkness do you go." J. L. Gordon (1890). This course will bring into the light the long tradition of women as readers, writers, and subjects in Jewish literature. All texts will be in translation from Yiddish and Hebrew, or in English. Through a variety of genres -- devotional literature, memoir, fiction, and poetry -- we will study women's roles and selves, the relations of women and men, and the interaction between Jewish texts and women's lives. The legacy of women in Yiddish devotional literature will serve as background for our reading of modern Jewish fiction and poetry from the past century. The course is divided into five segments. The first presents a case study of the Matriarchs Rachel and Leah, as they are portrayed in the Hebrew Bible, in rabbinic commentary, in pre-modern prayers, and in modern poems. We then examine a modern novel that recasts the story of Dinah, Leah's daughter. Next we turn to the seventeenth century Glikl of Hamel, the first Jewish woman memoirist. The third segment focuses on devotional literature for and by women. In the fourth segment, we read modern women poets in Yiddish, Hebrew, and English. The course concludes with a fifth segment on fiction written by women in Yiddish, Hebrew, and English.
Not Offered Every Year
Also Offered As: GRMN 1100, GSWS 1100, JWST 1100
1 Course Unit
NELC 0400 Getting Crusaded
What did it feel like to get crusaded? In this course, we will examine the roughly two-century period from the call of the First Crusade in 1095 to the final expulsion of Latin Crusaders from the Middle East in 1291. Our examination will be primarily from the perspective of the invaded, rather than the invaders, as is usually done. How did the Muslims, Jews, and Eastern Christians of the medieval Middle East respond to the presence of Frankish invaders from Europe? Fall, even numbered years only
1 Course Unit

NELC 0450 Warriors, Concubines & Converts: the Ottoman Empire in the Middle East & Europe
For almost six hundred years, the Ottomans ruled most of the Balkans and the Middle East. From their bases in Anatolia, Ottoman armies advanced into the Balkans, Syria, Egypt, and Iraq, constantly challenging the borders of neighboring European and Islamicate empires. By the end of the seventeenth century, Constantinople, Jerusalem, Cairo, Baghdad, Sarajevo, Budapest, and near Vienna came under Ottoman rule. As the empire expanded into Europe and the Middle East, the balance of imperial power shifted from warriors to converts, concubines, and intellectuals. This course examines the expansion of the Ottoman sultanate from a local principality into a sprawling empire with a sophisticated bureaucracy; it also investigates the social, cultural, and intellectual developments that accompanied the long arc of the empire’s rise and fall. By the end of the course, students will be able to identify and discuss major currents of change in the Ottoman Empire and the Middle East. The student will have a better understanding of the roles of power, ideology, diplomacy, and gender in the construction of empire and a refined appreciation for diverse techniques of historical analysis. Fall
Also Offered As: HIST 0310
1 Course Unit

NELC 0460 First-Year Seminar: Of Horses, Bows and Fermented Milk: The Silk Roads in 10 Objects
The empires of the Turkic and Turkish peoples have stretched across much of Eurasia since before the Common Era until the twentieth century. We first hear of them in Chinese chroniclers’ tales of a powerful people in the wilderness. Greek historians, Byzantine writers, and Arab polymaths write about the empires of the steppes. Centuries later, the heirs of these empires move south and west, establishing empires and tribal confederations beyond the steppe, in Central Asia, Anatolia, and the Middle East. The Turkic empires seem to appear in the periphery of many civilizations, challenging, and, one could say, enriching their borders. But looking at a map, is really more than a half of Eurasia a periphery? If we flip the map, could we say these historians were writing from the margins of the Turkish empires? This course introduces the student to the history of empire by following the various histories of Turkic and Turkish people through 15 objects. It discusses the questions of periphery, borders, and the divide between agrarian, pastoral, and nomadic societies. The student will learn to derive historical questions and hypothesis through the intensive study of material culture, literature, and historical writing tracing the long and diverse history of the bow, the saddle, dumplings, and fermented milk (among others) across Eurasia. Fall or Spring
Also Offered As: HIST 0061
1 Course Unit

NELC 0500 Introduction to the Qur’an
The goal of this course is to provide students with a general introduction to the holy scripture of the religion of Islam, the Qur’an. In particular, students will become familiar with various aspects of Qur’anic content and style, the significance of the Qur’an in Islamic tradition and religious practice, scholarly debates about the history of its text, and contemporary interpretations of it. Through close readings of a wide range of passages and short research assignments, students will gain first-hand knowledge of the Qur’an’s treatment of prophecy, law, the Biblical tradition, and many other topics. No previous background in Islamic studies or Arabic language is required for this course. Fall, odd numbered years only
Also Offered As: RELS 0504
1 Course Unit

NELC 0510 Muhammad and Society
This course examines the ways in which the biography of Muhammad, Islam’s Prophet, has been constructed and re-constructed, revered and reviled, from the time of his death in the 7th century until today in a number of different environments. We begin with the earliest sources on the life of the Prophet, and then focus on how the biography of Muhammad became a site of contestation for authority and authenticity throughout Islamic history. Lastly, we will investigate the modern, polemical depictions of the Prophet and their resulting controversies. Not Offered Every Year
1 Course Unit

NELC 0550 Introduction to Islam
This course is an introduction to Islam as a religion as it exists in societies of the past as well as the present. It explores the many ways in which Muslims have interpreted and put into practice the prophetic message of Muhammad through historical and social analyses of varying theological, philosophical, legal, political, mystical and literary writings, as well as through visual art and music. The aim of the course is to develop a framework for explaining the sources and symbols through which specific experiences and understandings have been signified as Islamic, both by Muslims and by other peoples with whom they have come into contact, with particular emphasis given to issues of gender, religious violence and changes in beliefs and behaviors which have special relevance for contemporary society. Fall or Spring
Also Offered As: RELS 1430, SAST 1430
1 Course Unit

NELC 0600 The Middle East through Many Lenses
This first-year seminar introduces the contemporary Middle East by drawing upon cutting-edge studies written from a variety of disciplinary perspectives. These include history, political science, and anthropology, as well as studies of mass media, sexuality, religion, urban life, and the environment. We will spend the first few weeks of the semester surveying major trends in modern Middle Eastern history. We will spend subsequent weeks intensively discussing assigned readings along with documentary films that we will watch in class. The semester will leave students with both a foundation in Middle Eastern studies and a sense of current directions in the field. Fall
1 Course Unit
NELC 0605 Penn/Philadelphia/and the Middle East
This seminar explores the historic engagement of the University of Pennsylvania and its faculty, students, and graduates in the Near and Middle East. It does so while drawing on archives, rare books and manuscripts, and artifacts that are now preserved in the University Archives, the Penn Museum, and the Penn Libraries. Together we will consider how, beginning in the late nineteenth century, Penn scholars engaged in archaeological expeditions to celebrated sites like Ur (in what is now Iraq) and Memphis (in Egypt) and how some of these efforts influenced the late Ottoman Empire's policies towards antiquities and museums. We will examine how Penn's curriculum changed over time to accommodate Semitics, including the study of languages and biblical traditions, in light of or in spite of historic tensions at the university between secular and religious learning. We will assess how Penn responded to American popular attitudes and U.S. foreign policy concerns relative to the Middle East, including during the Cold War and post-2001 (post-9/11) eras. Finally, we will trace the stories or biographies of some individual objects in Penn collections in order to appreciate the university's roles in collecting, preserving, analyzing, and disseminating knowledge about the region's deep cultural heritage. Ultimately, by investigating and writing.
Fall or Spring
1 Course Unit

NELC 0610 Modern Middle Eastern Literature in Translation
The Middle East boasts a rich tapestry of cultures that have developed a vibrant body of modern literature that is often overlooked in media coverage of the region. While each of the modern literary traditions that will be surveyed in this introductory course—Arabic, Hebrew, Persian and Turkish—will be analyzed with an appreciation of the cultural context unique to each body of literature, this course will also attempt to bridge these diverse traditions by analyzing common themes such as modernity, social values, the individual and national identity as reflected in the genres of poetry, the novel and the short story. This course is in seminar format to encourage lively discussion and is team-taught by four professors whose expertise in modern Middle Eastern literature serves to create a deeper understanding and aesthetic appreciation of each literary tradition. In addition to honing students' literary analysis skills, the course will enable students to become more adept at discussing the social and political forces that are reflected in Middle Eastern literature, explore important themes and actively engage in reading new Middle Eastern works on their own in translation. All readings are in English.
Spring
1 Course Unit

NELC 0615 Modern Arabic Literature
This course is a study of modern Arabic literary forms in the context of the major political and social changes which shaped Arab history in the first half of the twentieth century. The aim of the course is to introduce students to key samples of modern Arabic literature which trace major social and political developments in Arab society. Each time the class will be offered with a focus on one of the literary genres which emerged or flourished in the twentieth century: the free verse poem, the prose-poem, drama, the novel, and the short story. We will study each of these emergent genres against the socio-political backdrop which informed it. All readings will be in English translations. The class will also draw attention to the politics of translation as a reading and representational lens.
Spring
Also Offered As: COML 0615
1 Course Unit

NELC 0620 Food in the Islamic Middle East: History, Memory, Identity
In the tenth century, a scholar named Ibn Sayyar al-Warraq produced an Arabic manuscript called Kitab al-Tabikh (The Book of Cooking). This volume, which compiled and discussed the recipes of eighth- and ninth-century Islamic rulers (caliphs) and their courts in Iraq, represents the oldest known surviving cookbook of the Arab-Islamic world. Many more such cookbooks followed; in their day they represented an important literary genre among cultured elites. As one food historian recently noted, there are more cookbooks in Arabic from before 1400 than in the rest of the world's languages put together. Ibn Sayyars cookbook can help us to think about the historical and cultural dynamics of food. In this class, we will focus on the Middle East across the sweep of the Islamic era, into the modern period, and until the present day, although many of the readings will consider the study of food in other places (including the contemporary United States) for comparative insights. The class will use the historical study of food and foodways as a lens for examining subjects that relate to a wide array of fields and interests. These subjects include economics, agricultural and environmental studies, anthropology, literature, religion, and public health. With regard to the modern era, the course will pay close attention to the consequences of food for shaping memories and identities including religious, ethnic, national, and gender-based identities particularly among people who have dispersed or otherwise migrated. It will also focus considerably on the politics of food, that is, on the place of food in power relations. Among the questions we will debate are these: How does food reflect, shape, or inform history? By approaching the study of Middle Eastern cultures through food, what new or different things can we see? What is the field of food studies, and what can it offer to scholars? What is food writing as a literary form, and what methodological and conceptual challenges face those who undertake it?
Not Offered Every Year
1 Course Unit

NELC 0625 Israel in the Middle East
This introductory level course will offer an in-depth look at Israeli history and society, and how it relates to the Middle East through varying lenses. We will consider such topics as the rise of Jewish, Palestinian, and Arab nationalisms in the context of changing imperial control over Palestine/Israel (from Ottoman to British), and the emergence of the Middle East in its current borders; Conflict and conflict-resolution in Israel, Palestine, and the Middle East; Israel's Palestinian minority, Jewish immigrants to Israel from the Middle East, food and music culture in Israel, and their connection to the Middle East; or the place of the Middle East in Israeli literature and film. We will use cutting edge research from several disciplines, as well as literature, film, audio, and photographic evidence. Students will leave the class with a firm grasp of Israeli history and society, and will be widely familiar with the different narratives, viewpoints, and complexities concerning Israel and its position in the Middle East. Prior knowledge of Israeli or Middle Eastern history is not required.
Also Offered As: JWST 0625
1 Course Unit
NELC 0650 History of the Middle East Since 1800
A survey of the modern Middle East with special emphasis on the experiences of ordinary men and women as articulated in biographies, novels, and regional case studies. Issues covered include the collapse of empires and the rise of a new state system following WWI, and the roots and consequences of the Palestinian-Israeli conflict, the Iranian revolution and the U.S.-Iraq War. Themes include: the colonial encounter with Europe and the emergence of nationalist movements, the relationship between state and society, economic development and international relations, and religion and cultural identity.
Fall
Also Offered As: HIST 0360
1 Course Unit

NELC 0675 Arab/Israeli Conflict in Literature and Film
This course will explore the origins, the history and, most importantly, the literary and cinematic art of the struggle that has endured for a century over the region that some call the Holy Land, some call Eretz Israel and others call Palestine. We will also consider religious motivations and interpretations that have inspired many involved in this conflict as well as the political consequences of world wars that contributed so greatly to the reconfiguration of the Middle East after the fall of the Ottoman Empire, and after the revelations of the Holocaust in Western Europe. While we will rely on a textbook for historical grounding, the most significant material we will use to learn this history will be films, novels, and short stories. Can the arts lead us to a different understanding of the lives lived through what seems like unending crisis?
Fall or Spring
Also Offered As: CIMS 1360, HIST 1360
1 Course Unit

NELC 0680 Civilizations at odds? The United States and the Middle East
Foe or friend, Satan or saint - America has often been depicted in the Middle East either as a benevolent superpower or an ill-meaning enemy. In America, too, stereotypes of the Middle East abound as the home of terrorists, falafels, and fanatics. This undergraduate lecture course will explore the relationship between the United States and the Middle East by moving beyond such facile stereotypes. Our goal is to understand why a century of interaction has done little to foster greater understanding between these two societies. By reading novels, memoirs, and historical accounts, we will examine the origins of this cultural and diplomatic encounter in the twentieth century. The readings will shed light on America's political and economic involvement in the Middle East after the Second World War. We will consider the impact of oil diplomacy on U.S.-Middle East relations, as well as the role of ideology and religion, in our effort to comprehend the current challenges that face these societies.
Fall or Spring
Also Offered As: HIST 1788
1 Course Unit

NELC 0690 From Oil Fields to Soccer Fields: The Middle East in the 20th Century
How did the Middle East become modern? Life changed in spectacular ways for the people of the Middle East in the span of a century. Oil -- once considered a scarce natural commodity -- was discovered in many countries and exported in substantial quantities that altered the economic landscape of the world. Movie theaters, sewage systems, and public housing projects changed the urban backdrop of Middle Eastern cities and towns. Soccer, swimming, and volleyball became some of the new-fangled sports embraced by Middle Eastern communities. This course will traverse these fascinating and fraught cultural transformations of the Middle East in the twentieth century. Although inclusive of the military battles and conflicts that have affected the region, this class will move beyond the cliches of war to show the range of issues and ideas with which intellectuals and communities grappled. The cultural politics and economic value of oil as well as the formation of a vibrant cultural life will be among the topics covered. By considering illustrative moments that shed light on the political history of the period, this course will develop a nuanced framework to approach the history of the U.S. involvement in the region, the Iran-Iraq war, the Arab/Israeli conflict, and the current crises in the Persian Gulf. Students are required to participate in every lecture and/or recitation, as on Thursdays, part of the class time will be devoted to discussing select documents provided by the instructor. Please keep in mind that lectures do not duplicate readings, but rather supplement them. We will also watch video clips during some lectures. In addition, students are expected to complete each week's readings before class. Course requirements include satisfactory performance on a Powerpoint presentation related to the weekly readings, 2 short factual quizzes, and 7-page paper. The paper can be on a topic of contemporary interest that is placed in the proper historical context.
Fall
Also Offered As: CIMS 0700, COML 0700, GSWS 0700
1 Course Unit

NELC 0700 Iranian Cinema: Gender, Politics and Religion
This seminar explores Iranian culture, society, history and politics through the medium of film. We will examine a variety of cinematic works that represent the social, political, economic and cultural circumstances of contemporary Iran, as well as the diaspora. Along the way, we will discuss issues pertaining to gender, religion, nationalism, ethnicity, and the role of cinema in Iranian society and beyond. Discussions topics will also include the place of the Iranian diaspora in cinema, as well as the transnational production, distribution, and consumption of Iranian cinema. Films will include those by internationally acclaimed filmmakers, such as Rakhshan Bani-Etemad, Asghar Farhadi, Bahman Ghobadi, Abbas Kiarostomi, Mohsen Makhmalbaf, Dariush Mehrjui, Tahmineh Milani, Jafar Panahi, Marjane Satrapi and others. All films will be subtitled in English. No prior knowledge is required.
Fall
Also Offered As: CIMS 0700, COML 0700, GSWS 0700
1 Course Unit
NELC 0900 Pastoral Nomadism in the Past and Present
Pastoral nomadism is a "third way" of human subsistence separate from farming and foraging. It is a sustainable human adaptation to grassland and arid environments practiced through particular technologies and domesticated animals. This course begins by examining the human ecology and social organization that emerge from mobile ways of life, drawing on modern, ethnographic, and archaeological examples of pastoral nomadic groups in the Middle East and Central Asia. Academic readings and ethnographic films will form the basis of discussions about several larger themes, including: the origins of pastoral nomadism and horse riding; the development of dairy-based foods and human adaptations allowing the digestion of lactose; the historical relationship between mobile groups of pastoralists and territorial states; popular perceptions of nomads in various forms of historical and modern media; and the influence of ideas about nomads on modern senses of heritage and nationalism in the Middle East and Central Asia.
Also Offered As: ANTH 1900
1 Course Unit

NELC 0905 Water in the Middle East Throughout History
Water scarcity is one of the most important problems facing much of the Middle East and North Africa today. These are arid regions, but human and natural systems have interacted to determine relative water scarcity and abundance at different times and places. This course examines the distribution of water resources throughout the Middle East and the archaeology and anthropology of water exploitation and management over the last 9000 years, looking at continuities and changes through time. Students will learn to make basic digital maps representing Middle Eastern hydro-geography and arguments about modern and historic water resources in the region. The class will cooperatively play an "irrigation management game" designed to familiarize personnel involved in the operation of irrigation schemes with the logistical and social issues involved in water management. We will engage with a variety of media, including academic readings, popular journalism, films, satellite imagery, and digital maps, in our quest to explore whether or not the past can inform present efforts to better manage modern water resources. The course is structured in units focused on each of the major hydro-environmental zones of the Middle East: the river valleys of Mesopotamia, Egypt, and the Levant, the internal basins of western Central Asia and the Levant, the deserts of Arabia and North Africa, highland zones in Yemen and Iran, and coastal marsh areas along the Persian Gulf. We will examine irrigation systems, water supply systems, and ways of life surrounding water sources known from ethnographic studies, history, and archaeological excavations. These data will allow us to engage with debates in Middle Eastern anthropology, including those concerning the relationship between water and political power, the environment in which the world's earliest cities arose, and the relevance of "lessons of the past" for present and potential future water crises and "water wars." In our final weeks, we will discuss archaeology and historical anthropology's contribution to conceptions of water "sustainability" and examine attempts to revive traditional/ancient technologies and attitudes about water.
Fall
Also Offered As: ANTH 0905
1 Course Unit

NELC 0910 Food and Fire: Archaeology in the Laboratory
This course will let students explore the essential heritage of human technology through archaeology. People have been transforming their environment from the first use of fire for cooking. Since then, humans have adapted to the world they created using the resources around them. We use artifacts to understand how the archaeological record can be used to trace breakthroughs such as breaking stone and bone, baking bread, weaving cloth and firing pottery and metals. The seminar will meet in the Penn Museum's Center for the Analysis of Archaeological Materials. Students will become familiar with the Museum's collections and the scientific methods used to study different materials. Class sessions will include discussions, guest presentations, museum field trips, and hands-on experience in the laboratory.
Fall or Spring
Also Offered As: ANTH 1480, CLST 1302
1 Course Unit

NELC 0992 Transfer Credit: Introductory
Course credit for introductory courses taken in an approved program.
1 Course Unit

NELC 1000 Iraq: Ancient Cities and Empires
Iraq: Ancient Cities and Empires is a chronological survey of the ancient civilization that existed in the drainage basin of the Tigris and Euphrates Rivers from the early settled village farming communities of the 7th millennium BCE to the middle of the 1st millennium BCE, when Nebuchadnezzar II ruled Babylon and much of the Middle East. Though organized period by period, NELC 241 explores various social, political, economic, and ideological topics, exposing students to various strands of evidence, including settlement survey data, excavated architectural remains, artifacts, and documentary sources, as well as an eclectic mix of theoretical perspectives. The course aims to provide students with a strong foundation for the further study of the ancient and pre-modern Middle East.
Not Offered Every Year
Also Offered As: ANTH 1020, URBS 1020
1 Course Unit
NELC 1001 The Arabian Nights
The Arabian Nights (more accurately known as The Thousand and One Nights) is a collection of stories that circulated in the medieval Islamic world and would later become a canonical classic of world literature thanks to various stages of addition, translation, and creative retelling. It is a heady agglomeration of tales written with a distinctive frame story and form about characters and deeds that have been considered in turn memorable, hilarious, disgusting, arousing, thrilling, repugnant, and inspirational by various audiences since its beginning—and possibly even before it ever existed. In this course, we will read almost the entirety of the 14th century collection of tales that constitute the earliest existing version of The Thousand and One Nights and analyze it both in relation to the medieval genres and historical contexts that shaped it and through contemporary theoretical frameworks. The Thousand and One Nights is a fluid and changing collection, so it is not our goal to focus on some clearly-defined "original". We will instead discuss this collections' origins, famous later additions such as the stories of Aladdin and Sindbad, and the role that its reception and translation in Europe played in making it a key text of world literature. We will also study some of its many later adaptations in film, poetry, and narrative. By analyzing key components of the text such as the frame story, fantasy, romance, and representations of race and gender, and by considering the aesthetics and politics of literary engagement with The Thousand and One Nights in modern contexts, we will come to appreciate the stories’ many travels across time and genres and develop our own ideas on what The Thousand and One Nights can teach us about the enduring power of storytelling. This course is taught in English, including all readings.
Fall or Spring
1 Course Unit

NELC 1010 History and Society of Early Mesopotamia
The fourth millennium BCE saw the rise of cities and the birth of writing in ancient Mesopotamia (modern Iraq). This class traces the history of Mesopotamia from about 3000 BCE to about 1600 BCE (the end of the Old Babylonian Period), examining political history and changes in social organization as well as developments in religion, literature and art. Spring, even numbered years only
1 Course Unit

NELC 1100 History of Ancient Egypt
Review and discussion of the principal aspects of ancient Egyptian history, 3000-500 BC.
Fall
1 Course Unit

NELC 1200 The Bible in Translation
This course introduces students to one specific Book of the Hebrew Bible. "The Bible in Translation" involves an in-depth reading of a biblical source against the background of contemporary scholarship. Depending on the book under discussion, this may also involve a contextual reading with other biblical books and the textual sources of the ancient Near East. Although no prerequisites are required, this class is a perfect follow-up course to "Intro to the Bible."
Fall or Spring
Also Offered As: JWST 1200, RELS 1200
1 Course Unit

NELC 1300 Jewish Folklore
The Jews are among the few nations and ethnic groups whose oral tradition occurs in literary and religious texts dating back more than two thousand years. This tradition changed and diversified over the years in terms of the migrations of Jews into different countries and the historical, social, and cultural changes that these countries underwent. The course attempts to capture the historical and ethnic diversity of Jewish Folklore in a variety of oral literary forms.
Spring
Also Offered As: COML 1301, JWST 1300
1 Course Unit

NELC 1310 Introduction to Modern Hebrew Literature
The objective of this course is to develop an artistic appreciation for literature through in-depth class discussions and text analysis. Readings are comprised of Israeli poetry and short stories. Students examine how literary language expresses psychological and cultural realms. The course covers topics such as: the short story reinvented, literature and identity, and others. This course is conducted in Hebrew and all readings are in Hebrew. Grading is based primarily on participation and students' literary understanding.
Fall
Also Offered As: COML 1311, JWST 1310
Prerequisite: HEBR 0400
1 Course Unit

NELC 1325 Jews and Christians
The first few centuries of the Common Era witnessed one of the most important developments in religious history: the formation of both Judaism and Christianity. According to the traditional understanding of the formation of these groups, Judaism was an ancient religion, extending from the time of the Bible, and Christianity was a small upstart that "parted ways" from Judaism and eventually emerged as a major world religion all on its own. After their parting, according to this understanding, Judaism and Christianity were almost exclusively hostile to one another. In recent years, however, the traditional understanding has been challenged and largely dismantled. It is now clear that both groups continued to define and redefine themselves in dialogue and/or competition with the other; that Judaism itself is formed alongside Christianity in this period; that lines between the groups remained blurry for centuries; that the discourse of an early and total "parting" was created in large part by elite men describing and creating the "parting" they hoped for; that Jews and Christians interacted in ways that were not hostile but in fact productive and positive. In this course, we will study the ways that Judaism and Christianity continued to overlap throughout antiquity, as well as the many discourses that were applied to draw lines between these overlapping groups and to cause them to "part". While the content of the course will focus on Judaism and Christianity, the implications of our investigation apply to the definition, evolution, growth, and other issues that attend groups and their formation in both antiquity and the present. The course will address larger questions related to how history and rhetoric are fashioned, how identities are shaped in conversation with each other, how orthodoxies are formed and challenged, and more.
Fall
1 Course Unit
NELC 1400 The Making of Scripture: From Revelation to Canon
The Bible as we know it is the product of a lengthy process of development, elaboration, contest, and debate. Rather than a foregone conclusion, the process by which the texts and traditions within the bible, and the status ascribed to them, was turbulent and uncertain. This course examines that process, examining the Bible, traditions and communities from the Second Temple Period - such as the Dead Sea Scrolls and Community - that rewrote, reconsidered, revised, or rejected now well-recognized figures and stories, and constructed distinct ideas of what was considered scripture and how it should be approached. Even as the bible began to resemble the corpus as we now know it, interpretive strategies rendered it entirely different, such as Hellenistic Allegorizers, working from the platonic tradition, rabbinic readers who had an entirely different set of hermeneutics, early Christians, who offered different strategies for reading the “Old” and “New” Testaments alongside one another (and employing categories like “Old” and “New,” themselves constituting a new attitude and relationship to and between these texts), and lastly early Muslim readers, who embraced many of the stories in the Bible, altered others, and debated the status of these corpuses under Islam.
Also Offered As: JWST 1400, RELS 1400
1 Course Unit

NELC 1600 North Africa: History, Culture, Society
This interdisciplinary seminar aims to introduce students to the countries of North Africa, with a focus on the Maghreb and Libya (1830-present). It does so while examining the region's close economic and cultural connections to sub-Saharan Africa, Europe, and the Middle East. Readings will include histories, political analyses, anthropological studies, and novels, and will cover a wide range of topics such as colonial and postcolonial experiences, developments in Islamic thought and practice, and labor migration. This class is intended for juniors, seniors, and graduate students.
Not Offered Every Year
Also Offered As: AFRC 1600, HIST 0835
1 Course Unit

NELC 1605 Muslims, Christians, and Jews in the Middle East: Historical Perspectives
A reading- and discussion-intensive seminar that addresses several recurring questions with regard to the Middle East and North Africa. How have Islam, Judaism, and Christianity influenced each other in these regions historically? How have Jews, Christians, and Muslims fared as religious minorities? To what extent have communal relations been characterized by harmony and cooperation, or by strife and discord, and how have these relations changed in different contexts over time? To what extent and under what circumstances have members of these communities converted, intermarried, formed business alliances, and adopted or developed similar customs? How has the emergence of the modern nation-state system affected communal relations as well as the legal or social status of religious minorities in particular countries? How important has religion been as one variable in social identity (along with sect, ethnicity, class, gender, etc.), and to what extent has religious identity figured into regional conflicts and wars? The focus of the class will be on the modern period (c. 1800-present) although we will read about some relevant trends in the early and middle Islamic periods as well. Students will also pursue individually tailored research to produce final papers. Prior background in Islamic studies and Middle Eastern history is required. Middle Eastern history is required. This class is intended for juniors, seniors, and graduate students.
Fall or Spring
Also Offered As: HIST 0836, JWST 1605, RELS 1605
1 Course Unit

NELC 1610 Nationalism and Communal Identity in the Middle East
This seminar views the phenomenon of nationalism as it affected the modern Middle East in the nineteenth and twentieth centuries. Together we will consider the diverse components of nationalism, including religion, language, territorial loyalty, and ethnicity, and test the thesis that nations are “imagined communities” built on “invented traditions.” At the same time, we will examine other forms of communal identity that transcend national borders or flourish on more localized scales. This class approaches nationalism and communal identity as complex products of cultural, political, and social forces, and places Middle Eastern experiences within a global context. Students must take a survey of modern Middle Eastern history or politics before enrolling in this class. This class is intended for juniors, seniors, and graduate students.
Fall
Prerequisite: NELC 0002
1 Course Unit

NELC 1615 Migration and the Middle East
This reading-and discussion-intensive seminar examines the phenomenon of migration into, out of, within, and across the Middle East and North Africa. We will focus on the period from the late nineteenth century to the present, and will emphasize the cultural (rather than economic) consequences of migration. Along the way we will trace connections between the Middle East and other regions— notably the Americas, sub-Saharan Africa, South Asia, the Caucasus, and Western Europe. Readings are interdisciplinary and include works of history, anthropology, sociology, medical research, literature, political science, geography, and human rights advocacy. As students develop final projects on topics of their choice, we will spend time throughout the semester discussing tactics for research and writing.
Not Offered Every Year
Also Offered As: ASAM 2010, SAST 1615
1 Course Unit

NELC 1620 Middle Eastern Jews in Israel
This undergraduate seminar offers an in-depth look at the history of Middle Eastern and North African Jews, focusing in particular on their place in Israeli society and culture. It will begin with a historical background on the Jewish communities in Ottoman Palestine, and in the larger Ottoman Empire, Iran, and Morocco. We will then proceed to consider the engagement of these Jewish communities with Zionism, and with other conflicting forces, such as European colonialism, Arab nationalism, and Cosmopolitanism. We will learn about Jewish immigration from the region to Palestine/Israel in the period between 1880 to 1948, and about their exodus/expulsion post-1948. We will then explore in depth their settlement in Israel: governmental policies towards Jewish immigrants from the Islamic World, especially between the 1950s and the 1970s; their integration in Israeli society; identity politics in Israel (or: the “invention” of “Mizrahim”); Mizrahi political action; Mizrahi music, film, literature, and food culture; and Mizrahi attitudes towards Arabs, both within and outside Israel. Students will leave the class with a firm grasp of the social and cultural history of Middle Eastern Jews in Israel, and the issues facing third-generation Mizrahim in Israel today. Students will also be introduced to basic methods of inquiry in history, sociology, anthropology, and cultural studies. Students will engage with a mix of scholarly research, readings in original documents, film, literature, music, and some material and visual artifacts.
1 Course Unit
NELC 1650 1947-49: British Empire and the Partitions of South Asia and Palestine
The partitions of South Asia and Palestine marked the end of the British Empire in those regions. British colonial rule in India ended in 1947 with the emergence of not one, but two nation states, India and Pakistan. Decolonization was marked by mass migration and ethnic cleansing along their borders. An estimated million people died in the violence in less than a year, and 12.5 million people migrated from their homes. The British Empire also gave up its claims to Palestine in 1947, exhausted by the two nationalisms of Zionists and Palestinians. This partition set up the declaration of the state of Israel, and the War for Palestine. By 1949, almost a million Palestinians found themselves displaced over many borders, some also within the borders of Israel. This comparative course is organized around three themes - the prehistories of these cataclysmic events, the role of Empire in catalyzing them, and the afterlives of these events that continue to haunt us into the present, seventy-five years later. It explores the political history - and the collapse of politics - that led to violence on a scale that was without precedent in the history of the Indian subcontinent. It examines the political, social and cultural events that led to decades of war and exile, and shaped the lives of generations of Palestinians, Israelis and the wider Middle East. Primary sources will help to explore the perspectives of ordinary people whose lives were turned upside down in both places.
Also Offered As: HIST 1770, SAST 1770
1 Course Unit

NELC 1700 Introduction to Persian Poetic Tradition
This course introduces some of the major genres and themes of the millennium-old Persian poetic tradition from ancient to modern Iran. Epic and romance, love and mysticism, wine and drunkenness, wisdom and madness, body and mind, sin and temptation are some of the key themes that will be explored through a close reading of poems in this course. The course suits undergraduate students of all disciplines, as it requires no prior knowledge of or familiarity with the Persian language or the canon of Persian literature. All teaching materials are available in English translation. Students are expected to attend seminars and take part in discussions.
Spring
1 Course Unit

NELC 1900 Digital Exploration of the Past: Archives, Databases, Maps, and Museums
This course exposes students to digital methods for investigating past environments and societies, including digitization of analog records, the construction and querying of databases, and the creation of digital maps. The ultimate goal of the course will be to carry out a final project that benefits the Penn Museum and the public. In fall 2018, our exploration of digital methods will center around the archaeological site of Ur (Tell el-Muqayyar), located in southern Iraq. Ur was one of the earliest cities in the world, and, thanks to campaigns partly funded by Penn in the 1920s and 1930s, is one of the best-excavated sites in southern Mesopotamia. Here at Penn, we have unparalleled access to archival documentation and artifacts from the site. We will draw upon this access to contribute to an ongoing digital humanities project in the Penn Museum (the public "Ur Online" database). In the process, students will re-assess data that has the potential to change anthropological ideas about issues such as the environmental setting of the earliest cities and archaeological ideas about demographic and urban structure within the city of Ur itself. There are no prerequisites, but students must bring an interest in Mesopotamian archaeology and/or the origins of urbanism and be motivated to carry out individual and group research guided by the instructor & classmates.
1 Course Unit

NELC 1905 GIS for the Digital Humanities and Social Sciences
This course introduces students to theory and methodology of the geospatial humanities and social sciences, understood broadly as the application of Geographical Information Systems (GIS) and spatial analysis techniques to the study of social and cultural patterns in the past and present. By engaging with spatial theory, spatial analysis case studies, and technical methodologies, students will develop an understanding of the questions driving, and tools available for, humanistic and social science research projects that explore change over space and time. We will use ESRI’s ArcGIS software to visualize, analyze, and integrate historical, anthropological, and environmental data. Techniques will be introduced through the discussion of case studies and through demonstration of software skills. During supervised laboratory sessions, the various techniques and analyses covered will be applied to sample data and also to data from a region/topic chosen by the student.
Fall
Also Offered As: ANTH 1905
1 Course Unit

NELC 1910 The Religious Other
Course explores attitudes toward monotheists of other faiths, and claims made about these “religious Others” in real and imagined encounters between Jews, Christians and Muslims from antiquity to the present. Strategies of “othering” will be analyzed through an exploration of claims about the Other’s body, habits and beliefs, as found in works of scripture, law, theology, polemics, art, literature and reportage. Attention will be paid to myths about the other, inter-group violence, converts, cases of cross-cultural influence, notions of toleration, and perceptions of Others in contemporary life. Primary sources will be provided in English.
Not Offered Every Year
Also Offered As: JWST 1910
1 Course Unit

NELC 1915 Myth in Society
In this course we will explore the mythologies of selected peoples in the Ancient Near East, Africa, Asia, and Native North and South America and examine how the gods function in the life and belief of each society. The study of mythological texts will be accompanied, as much as possible, by illustrative slides that will show the images of these deities in art and ritual.
Not Offered Every Year
Also Offered As: COML 1915
1 Course Unit

NELC 1960 Narrative Across Cultures
The purpose of this course is to present a variety of narrative genres and to discuss and illustrate the modes whereby they can be analyzed. We will be looking at shorter types of narrative: short stories, novellas, and fables, and also some extracts from longer works such as autobiographies. While some works will come from the Anglo-American tradition, a larger number will be selected from European and non-Western cultural traditions and from earlier time-periods. The course will thus offer ample opportunity for the exploration of the translation of cultural values in a comparative perspective.
Fall or Spring
Also Offered As: COML 1025, ENGL 0039, SAST 1124, THAR 1025
1 Course Unit
NELC 1970 Filming the Middle East
This course will take us through the history of the modern Middle East as told by the region's many film-makers. We will explore how cinema developed and grew throughout countries like Egypt, Iran, Syria, Turkey, Lebanon, Israel and Palestine. Unusually for a typical course on the Middle East, we will also pay close attention to North Africa's film industry, with a deep exploration of the cinema of Algeria, Tunisia and Morocco. Sudanese films will be an important part of our study as well. What does it mean to have a national cinema? Many of these countries' film industries grew under European occupation and colonialism. With independence, were more markets available to Middle Eastern films? Where did directors and screenwriters train? Who were the intended audiences for these films? We will watch canonical films from the region, many of which focus on or reflect the political turmoil and aftermath of wars. But we will also examine the lightness of comedies, which were usually much more popular with Middle Eastern audiences, and which reveal every bit as much about the region's histories. And we will watch and discuss a phenomenon not found in Western cinema - the Ramadan soap operas and historical reenactments that are unique to the Middle East.
Also Offered As: CIMS 1359, HIST 1359
1 Course Unit

NELC 2040 Ancient Iranian Empires
Iran - as a landmass and a political entity - was central to the ancient world in a variety of ways. Ancient Iranian Empires were of central importance to and centrally located in the ancient world. It was the successor kingdom to the Assyrians and Babylonians; the power against which Greece and Rome defined themselves; and the crucible in which various communities and models of rule developed. This course offers a survey of the history of the ancient Persianate world, focusing in particular on the political and imperial entities that rose to power, the cultural, political, mercantile, and other contacts they shared with their neighbors to the East and West, and the communities and religious groups that arose and flourished within their lands. Ancient Iranian empires rivaled the Greek and Roman Empires to their West, and the central and eastern Asian Empires to their east, and the ongoing history of diplomacy, cultural contact, and war between these regions was formative to each and to the ancient world as a whole. Iran was home to and similarly formative for a variety of religions, including Zoroastrianism, Judaism, Christianity, Manicheanism, and Islam, and a central question Ancient Iranian political powers sought to address was how to negotiate and address the variety of populations under their control. The course will conclude by studying how, rather than a simplistic story of decline, the strategies, policies, institutions, and memory of the Iranian Empires continued to shape early Islam, medieval imagination, and modern political regimes.
Also Offered As: ANCH 1103, RELS 2040
1 Course Unit

NELC 2050 Art of Ancient Iran
This lecture course offers a survey of ancient Iranian art and culture from the painted pottery cultures of the Neolithic era to the monuments of the Persian Empire. Not Offered Every Year
Also Offered As: ARTH 2220
1 Course Unit

NELC 2055 The Early Bronze Age
This lecture course offers a survey of ancient Iranian art and culture from the painted pottery cultures of the Neolithic era to the monuments of the Persian Empire. Particular emphasis is placed on the Early Bronze Age.
Not Offered Every Year
Also Offered As: ARTH 2221
1 Course Unit

NELC 2100 Archaeology of the Lands of the Bible: 1200-330BCE
Did the walls of Jericho really come tumbling down? How did the kings, queens, and prophets of ancient Israel and Judah live? In this introductory course, students will learn how archaeology illuminates the material and social world behind the texts of the Hebrew Bible and contributes to debates about the history and culture of these societies. We will study the sites, artifacts, and art of the lands of Israel, Judah, Phoenicia, Philistia, Ammon, Moab, and Edom during the period framing the rise and fall of these kingdoms, ca. 1200 to 330 BCE. We will see how biblical archaeology arose in the nineteenth and early twentieth centuries, how the complex relationship between archaeology and the biblical text has evolved to the present day, and how new discoveries continue to challenge preconceptions about this period. In addition, students will get a behind-the-scenes look at the development of a new gallery for the biblical archaeology collections at the Penn Museum and get further insight into how material objects can tell the story of the fascinating cultures of this region.
Not Offered Every Year
1 Course Unit
NELC 2102 Imagining Ancient Egypt: A History of Popular Fascination from Antiquity to the Present
Thousands of years after the pyramids were built and the last hieroglyphs were written, ancient Egypt remains a source of mystery and intense interest. Why are we so fascinated with ancient Egypt, and what does that fascination reveal about us? This course explores the reception history of ancient Egypt: how people in various periods and areas of the world have thought about ancient Egypt, what it has meant to them, why they were interested in it, and how they brought the ancient Egyptian past into the present. We will focus not on ancient Egypt itself, but on the history of perceptions of, ideas about, and interactions with ancient Egyptian culture. Our investigation will include how Egyptians of later periods thought about their ancient past, as well as European and American representations (and appropriations) of ancient Egypt. A major focus of the course will be the impact of political and cultural relations between Egypt and the West on perceptions and uses of ancient Egyptian culture. This interdisciplinary course will combine multiple areas of history—intellectual, cultural, and political—and multiple types of sources, including historical writing, literature, film, and opera. Beginning with ancient Greek and Roman visitors to Egypt, we will investigate changing modes of understanding, constructing, and representing ancient Egypt, from the medieval sultans of Egypt to Mozart to W. E. B. DuBois to protesters in Egypt's 2011 revolution. Over the course of the semester, we will explore questions such as: - What does it mean to think of Egypt as African vs. Middle Eastern vs. Mediterranean? Is Egypt Western, Eastern, both, or neither? - To whom does ancient Egyptian heritage belong? How do colonialism and conceptions of race and ethnicity factor into this question? - How do the past and the present shape each other? What is the impact of modern politics and culture on perceptions of the past? What role does the past play in the formation of modern political, social, and cultural identities? - How can we learn about modern problems and concerns from representations of the past?
Not Offered Every Year
Also Offered As: CLST 3710
Mutually Exclusive: CLST 5710, NELC 5101
1 Course Unit

NELC 2140 Tutankhamun's Tomb: Its Treasures and Significance
This course examines the short life of the young boy king and what the discovery of his tomb and its contents mean in terms of Egypt's long history and accomplishments.
Not Offered Every Year
Also Offered As: AFRC 2140
Mutually Exclusive: NELC 6140
1 Course Unit

NELC 2354 The Body in Middle Eastern History
The body has long been the focus of social and scientific inquiry, as well as the foundation of religious, philosophical, and artistic thought. This seminar examines premodern and modern notions of the body in the Middle East as they intersect with colonialism, nationalism, religion, labor, law, military, gender, race, medicine, and art. Students use the notion of the body as a "useful" historical category to investigate the broader social, cultural, and political transformations occurring in the Ottoman Empire and Qajar Iran, followed by post-empire and colonial modern Middle Eastern contexts. The course addresses diverse views and theories as manifested in the constructions and practices over the body by using literary texts, primary sources, medical recipes, religious orders, and even public monuments to unearth the role of the body in the making of Middle Eastern history.
Also Offered As: GSWS 2354, HIST 2354
1 Course Unit

NELC 2400 Faces of Love: Gender, Sexuality and the Erotic in Persian Literature
Beloved, Lover and Love are three concepts that dominate the semantic field of eroticism in Persian literature and mysticism. The interrelation among these concepts makes it almost impossible to treat any one of the concepts separately. Moreover, there exists various faces and shades of love in the works of classical and modern Persian literature that challenges the conventional heteronormative assumptions about the sexual and romantic relationships between the lover and the beloved. A sharp contrast exists between the treatment of homosexuality and 'queerness' in Islamic law, on the one hand and its reflection in Persian literature, particularly poetry (the chief vehicle of Persian literary expression), on the other. This course introduces and explores different faces of love, eroticism and homoeroticism in the Persian literary tradition from the dawn of dawn of the Persian poetry in the ninth century all through to the twenty-first century. It offers a comprehensive study of representations and productions of heteronormativity, sexual orientation and gender roles with particular reference to the notion of love, lover and beloved in Persian literature.
Fall
Also Offered As: COML 2400, GSWS 2402
1 Course Unit

NELC 2510 Introduction to Islamic Law
This course will introduce students to classical Islamic law, the all-embracing sacred law of Islam. Among the world's various legal systems, Islamic law may be the most widely misunderstood and even misrepresented; certainly, misconceptions about it abound. Islamic law is, however, the amazing product of a rich, fascinating and diverse cultural and intellectual tradition. Most of the readings in this course will be taken from primary sources in translation. Areas covered will include criminal law, family law, law in the Quran, gender and sexuality, the modern application of Islamic law, Islamic government and other selected topics.
Not Offered Every Year
1 Course Unit

NELC 2565 Silencing: Voices of Dissent in the Middle East
The Middle East boasts a rich and vibrant literary tradition. At the same time, modern Middle Eastern literature has incorporated innovative techniques to produce unique literary forms that give meaning to the contemporary circumstances of the region. This course will survey this literary history as a window through which to observe and understand Middle Eastern society. We will begin by reading excerpts from classical texts, since these works resonate strongly in contemporary Middle Eastern culture. Next, we will read Middle Eastern novels from various countries and different eras. The last part of the course will focus on memoirs that shed light on wars and conflicts through personal reflections. We will use literary works (epic poetry, novels, memoirs) as historical texts and analyze the social milieux in which these works emerged.
Fall or Spring
Also Offered As: HIST 2351
1 Course Unit
NELC 2566 Israel and Iran: Historical Ties, Contemporary Challenges
Israel and Iran have longstanding ties and connections that predate the contemporary feuds in which they are currently engaged. Iranian Jews rank as some of the oldest communities of the Middle East, and their history dovetails with the ancient Iranian past. This course will explore the historical roots of Jewish communities in Iran, with a focus on the post-18th century period, and will end with conversations that contributed to the diplomatic impasses faced by both countries since the 1979 Islamic Revolution. Films, novels, memoirs, and other historical accounts will be incorporated alongside secondary works to give students an opportunity to consider the complexities of this relationship.
Fall or Spring
Also Offered As: HIST 2352
1 Course Unit

NELC 2567 Sex and Power in the Middle East: Unveiling Women's Lives
How did Islamic women really live? What were their attitudes toward veiling and politics? To what extent did family dynamics and sexuality inform social interactions? This course strives to answer these questions by offering a comparative perspective on the lives of women primarily in the Middle East and North Africa. It combines historical accounts with select fictional works to study women's social and cultural milieux under colonialism, as well as the evolution of women's roles in politics and society with the emergence of independent nation-states in the Middle East and North Africa. By crossing national boundaries, this course highlights the diversity of women's experiences. Active participation is critical to the success of this seminar. Every student is required to prepare a Powerpoint presentation on one week's readings. The presentation must be completed before the start of each class meeting and subsequently distributed to the members of the class. The PPT presentation should offer critical reflections on the topics discussed in the text. Rather than providing summaries, or personal commentary, students should attempt to raise questions and explain the arguments presented in the readings. In addition to the PPT presentation, students must complete a term paper (approx. 20-25 pages) by the end of the semester on a subject approved by the instructor. Students may select a primary text and discuss its relevance by drawing on the readings from the seminar. The text MUST be different from the text chosen for the PPT presentation. Required books are available for purchase at the Penn Book Center at 34th and Sansom Streets.
Fall or Spring
Also Offered As: GSWS 2353, HIST 2353
1 Course Unit

NELC 2705 Media and Culture in Contemporary Iran
This course offers a comprehensive introduction to the culture and media of modern Iran, with a critical perspective on issues such as identity formation, ethnicity, race, and nation-building. It focuses on how these issues relate to various aspects of modern Iranian culture -- such as religion, gender, sexuality, war, and migration -- through the lens of media, cinema, and literature.
Not Offered Every Year
Also Offered As: CIMS 2705, GSWS 2705, RELS 2180
1 Course Unit

NELC 2900 Who Owns the Past? Archaeology and Politics in the Middle East
This course explores the role of cultural heritage and archaeological discoveries in the politics of the Middle East from the nineteenth century to the recent aftermath of the Arab Spring. We will explore how modern Middle East populations relate to their pasts and how archaeology and cultural heritage have been employed to support particular political and social agendas, including colonialism, nationalism, imperialism, and the construction of ethnic-religious identities. Although it was first introduced to the Middle East as a colonial enterprise by European powers, archaeology became a pivotal tool for local populations of the Middle East to construct new histories and identities during the post-World War I period of intensive nation-building after the dissolution of the Ottoman Empire. To understand this process, we will first look at the nineteenth-century establishment of archaeology by institutions like the Penn Museum. Then we will move on to individual case studies in Turkey, Iraq, Egypt, Israel/Palestine, Iran, and the republics of former Soviet Transcaucasia to look at the role of archaeology and cultural heritage in the formation of these countries as modern nation-states with a shared identity among citizens. We will conclude with an examination of the recent impact of the Islamic State on material heritage in Syria and Iraq, the changing attitudes of Middle Eastern countries toward foreign museums, and the role of UNESCO in defining Middle Eastern sites of world heritage. The course will also include field trips to the Penn Museum.
Fall or Spring
Also Offered As: ANTH 1925
1 Course Unit
NELC 2910 The University, the Museum, and the Middle East
This seminar explores how two kinds of institutions - the research university and the museum - developed in the United States as American scholars and philanthropists and the U.S. government engaged with the wider world. We will take the involvement of the University of Pennsylvania and the Penn Museum in the Middle East as a test case for this history, while focusing on the period from the late nineteenth century to the present. We will approach questions in transnational intellectual, cultural, and political history through the lens of Penn's Middle Eastern engagements. For example, how did the university and its museum contribute to the construction of the Middle East as a zone of U.S. diplomatic intervention? How have American scholarly traditions shaped academic fields of inquiry including "Semitics" (a term used a century ago to suggest the study of biblical languages and traditions), "Oriental Studies" (a now-passe and politically loaded term suggesting connections to American traditions of Orientalist thought), "Islamic Studies", and "Egyptology"? How did Penn's archaeological expeditions to celebrated sites like Ur in the late nineteenth century influence the late Ottoman Empire's policies towards antiquities and museums? How did Penn's broader expeditions in the twentieth century, to Egypt, Iran, and elsewhere, shape nationalist imaginations in the United States and in Middle Eastern countries, while also informing international antiquities policies? Finally, how have institutions like Penn and the Penn Museum responded to changing American popular attitudes and U.S. foreign policy concerns relative to the Middle East, during the Cold War and post-2001 ("post-9/11") eras, and most recently, amid civil strife in Syria and Iraq? This seminar offers students an opportunity to consult Penn's phenomenal collections of Middle East-related materials as they pursue end-of-semester research. These collections include artifacts (museum objects), archival records (such as documents, drawings, and photographs), and rare books and manuscripts from the Penn Museum and Penn Libraries.

Spring, even numbered years only
1 Course Unit

NELC 2920 World Heritage in Global Conflict
Heritage is always political. Such a statement might refer to the everyday politics of local stakeholder interests on one end of the spectrum, or the volatile politics of destruction and erasure of heritage during conflict, on the other. If heritage is always political then one might expect that the workings of World Heritage might be especially fraught given the international dimension. In particular, the intergovernmental system of UNESCO World Heritage must navigate the inherent tension between state sovereignty and nationalist interests and the wider concerns of a universal regime. The World Heritage List has almost 1200 properties that has many such contentious examples, including sites in Iraq, Mali, Syria, Crimea, Palestine, Armenia and Cambodia. As an organization UNESCO was born of war with an explicit mission to end global conflict and help the world rebuild materially and morally yet has found its own history increasingly entwined with that of international politics and violence.

Fall or Spring
Also Offered As: ANTH 22840, CLST 3319
1 Course Unit

NELC 2950 Living World in Archaeological Science
By focusing on the scientific analysis of archaeological remains, this course will explore life and death in the past. It takes place in the Center for the Analysis of Archaeological Materials (CAAM) and is taught in three modules: human skeletal analysis, analysis of animal remains, and analysis of plant remains. Each module will combine laboratory and classroom exercises to give students hands-on experience with archaeological materials. We will examine how organic materials provide key information about past environments, human behavior, and cultural change through discussions of topics such as health and disease, inequality, and food.

Not Offered Every Year
Also Offered As: ANTH 2267, CLST 3303
Mutually Exclusive: ANTH 5267
1 Course Unit

NELC 2960 Material World in Archaeological Science
By focusing on the scientific analysis of inorganic archaeological materials, this course will explore processes of creation in the past. Class will take place in the Center for the Analysis of Archaeological Materials (CAAM) and will be team taught in three modules: analysis of lithics, analysis of ceramics and analysis of metals. Each module will combine laboratory and classroom exercises to give students hands-on experience with archaeological materials. We will examine how the transformation of materials into objects provides key information about past human behaviors and the socio-economic contexts of production, distribution, exchange and use. Discussion topics will include invention and adoption of new technologies, change and innovation, use of fire, and craft specialization.

Not Offered Every Year
Also Offered As: ANTH 2221, ARTH 0221, CLST 3302
1 Course Unit

NELC 3060 The Hellenistic and Roman Near East
In this course we will study the history of the Hellenistic and Roman period from a Near Eastern perspective. From the conquests of Alexander the Great to the end of Roman rule in late antiquity, this region was the scene of conflicts, but also of peaceful and fruitful interactions between Greeks, Romans, Egyptians, Jews, Syrians, Arabs and many other societies. What was the impact of Greek and Roman rule and how did the peoples of the region react to these fundamental changes? On the other hand, how did they influence the culture and worldview of their conquerors? We will use historical texts, documents and archaeological evidence to discuss these political, cultural and religious encounters that made the Near East to a key region of Greco-Roman history. All texts will be discussed in translation. No prerequisites, although it would be useful to have some background in Hellenistic and/or Roman history.

Also Offered As: ANCH 3103, CLST 3103
1 Course Unit
NELC 3070 Origins of Art / Origins of Writing
Each of the earliest systems of writing had intimate and enduring ties to pictorial traditions. This seminar addresses the fundamental relationship between texts and visual imagery in the Mesopotamian, Egyptian, Chinese, and Maya traditions. The class will take a comparative approach to examine the parallel development of scripts and images, extending from their earliest beginnings to their on-going lives as mature systems. As the individual scripts became more capable of representing speech, the subject matter, composition, and payment of images changed, and one goal of this class is to identify these processes. Emphasis will be put on seeing text and image as collaborative and interactive constructions, in which parts of a single message can be encoded and presented in different ways. The class will make extensive use of the collections and the curatorial expertise of the Penn Museum.
Not Offered Every Year
Also Offered As: ANTH 2330, ARTH 3230
1 Course Unit

NELC 3260 Eastern Christianities
The history of Christianity is often told from the perspective of its spread westward from Israel to Rome. Yet, in the first millennium, there were more Christians living in the East, in places as far away as Persia, Yemen, India, China, and Mongolia, than in the West. Spread across the Asian continent, these Christians were actively involved in local and imperial politics, composed theological literature, and were deeply embedded in the cultural fabric of their host societies. This course traces the spread of Christianity eastward, paying particular attention to its regional developments, its negotiations with local political powers, and its contact with other religions, including Buddhism, Manichaism, and Islam. Readings will cover a broad range of sources, including selections from classical Syriac literature, Manichaean texts, Mesopotamian magic bowls, the so-called “Jesus Sutras,” and the Quran. All readings will be provided in English, and no background is presumed.
Not Offered Every Year
Also Offered As: RELS 2350, SAST 2350
1 Course Unit

NELC 3300 Jewish Magic
The Hebrew Bible legislates against magic and witchcraft. But Jewish literature is replete with demons, witches, spells and incantations. This course will examine the phenomenon of Jewish magic in the longue duree. We will explore a wide array of sources describing ancient Jewish magical practices, and attempt to reconstruct the various aspects of ancient Jewish magic. We will start with demonology and exorcism in biblical and Second Temple literature. Then we will examine rabbinic attitudes towards magic and sorcery and rabbinic magical recipes. We then turn to material artifacts: late antique Jewish amulets and magic bowls. Finally we will survey the large corpus of magical texts from the Cairo Geniza and Hebrew manuscripts of magic from the middle ages. During the course we will consider broader questions such as the relationships between magic and religion, the identity of the Jewish magicians and their clients, relationship between Jewish and contemporary non-Jewish magic, and the role of women in magical practice.
Also Offered As: JWST 3300
1 Course Unit

NELC 3400 Age of Caliphs, 600-1100
There are few moments of human history that were as creative as the seventh, eighth and ninth centuries in the Near East. Nor are there many such moments in history that pose as many questions to the historian. How do we know what we think we know about early and ‘classical’ Islamic history? In what ways is pre-modern Islamic history distinctive? How do we understand the role of religion in pre-modern societies? In this course, we will examine the social and political history of the Islamic Near East (with a few exotic pit-stops) in its formative centuries, from the rise of Islam to the coming of the Seljuq Turks. Special topics include: the rise of Islam; the early Islamic conquests; the expansion and disintegration of the imperial caliphate under the Umayyads and ‘Abbasids; religious authority in early Islam; ‘Abbasid successor states; Shi’ism; provincial cultures.
Fall
Prerequisite: NELC 0002
1 Course Unit

NELC 3410 Age of Sultans 1100-1500
In this course, we will examine the social and political history of the Islamic Near East in its medieval centuries, from the coming of the Seljuq Turks to the rise of the Ottoman and Safavid Empires. Special topics include: the Eleventh-Century Transformation; Crusades and Jihads, the Mamluk Institution; Knowledge and Power; The Mongol Invasions; Timur and His Legacy; Gunpowder Empires. This course requires basic prior knowledge of Islam and the Near East, such as prior enrollment in NELC 102 or equivalent. Note that undergraduates must register for the course as NELC 338; graduate students must register for the course as NELC 638. Undergraduates are not permitted to register under the graduate number.
Mutually Exclusive: NELC 6410
Prerequisite: NELC 0002
1 Course Unit

NELC 3550 Africa and the Mid-East
This course will explore the historical relationship between these two regions from the early modern age to the present. We will examine the history of trade, particularly the slave trade, and its cultural and political legacy. We will compare the experiences of European imperialism—how the scramble for Africa dovetailed with the last decades of the Ottoman Empire—with an eye to how this shaped nationalist movements in both regions. The course will also explore the decades of independence with a special eye towards pan-Africanism and pan-Arabism. We will also study the ramifications of the Arab-Israeli conflict on the relationship between African and Middle-Eastern countries, from Uganda to Ethiopia, from OPEC to Darfur. The course will pay close attention to migrations through the regions, whether forced or economic or religious. Whenever possible we will explore, through film and literature, how people in Africa and the Middle East see their connections, and their differences.
Fall or Spring
Also Offered As: AFRC 3351, HIST 3351
1 Course Unit
NELC 3560 Gunpowder, Art and Diplomacy: Islamic Empires in the Early Modern World
In the sixteenth century, the political landscape of the Middle East, Central Asia, and India changed with the expansion and consolidation of new Islamic empires. Gunpowder had transformed the modes of warfare. Diplomacy followed new rules and forms of legitimation. The widespread use of Persian, Arabic and Turkish languages across the region allowed for an interconnected world of scholars, merchants, and diplomats. And each imperial court, those of the Ottomans, the Safavids, and the Mughals, found innovative and original forms of expression in art and literature. The expansion of these Islamic empires, each of them military giants and behemoths of bureaucracy, marked a new phase in world history. The course is divided in four sections. The first section introduces the student to major debates about the so-called gunpowder empires of the Islamic world as well as to comparative approaches to study them. The second section focuses on the transformations of modes of warfare and military organization. The third section considers the cultural history and artistic production of the imperial courts of the Ottomans, the Mughals, and the Safavids. The fourth and final section investigates the social histories of these empires, their subjects, and the configuration of a world both connected and divided by commerce, expansion, and diplomacy.

Spring

Also Offered As: HIST 1300
1 Course Unit

NELC 3600 Urban Life in the Middle East and North Africa
With rapid urbanization, most people in the Middle East and North Africa are living now in cities and towns, rather than in rural areas. This seminar introduces the complex realities of living in the major cities of the region, in terms of globalization, social class, politics, gender and sexuality, culture, religion, communal identities, communal networks, and more. Through intensive engagement with the various readings and films, both documentaries and feature films, we will explore how those realities and processes shape the urban space, or express themselves in it. In addition, we will explore the basic premises of such disciplines as anthropology, cultural studies, history, or sociology, and learn how they can help us research and understand the realities of urban life in the modern and contemporary Middle East and North Africa. We will use Cairo, Egypt, as our main case study, while looking at a range of other cities, such as Istanbul, Turkey, and Marrakesh, Morocco, for further insights.

1 Course Unit

NELC 3610 Egypt in Four Revolutions
This seminar offers an in-depth look at the political and social history of revolution and protest in modern Egypt. We will examine four such seminal events, through different lenses: The Urabi Revolution (1879-1882), The 1919 Revolution, The 1952 Revolution, and The 2011 Revolution. We will discuss their political, social, and economic causes and effects; popular participation and the use of public space; the roles of the army, women, youth, and social organizations in those events; their ideological and international aspects; their colonial and post-colonial contexts; and more. We will use cutting edge research from several disciplines, as well as literature, film, music, photography, and social media as sources. Students will leave the class with a firm grasp of the social and political history of modern Egypt, as well as of current scholarly discussions about the nature of revolution and protest.

1 Course Unit

NELC 3900 Women Making History: The Penn Museum and the Centennial 2020
The year 2020 marks the 100th anniversary of the 19th Amendment to the U.S. Constitution, which declared that the right of citizens to vote "shall not be denied or abridged by the United States or by any State on account of sex". To mark this centennial – to both celebrate it and critically assess its impact on American society – we will investigate the history of women at the Penn Museum as archaeologists, ethnographers, epigraphers, philanthropists, and more. At the same time, we will examine material in the Penn Museum that women collected, donated, or studied. Our goal will be to produce original research that may contribute to future exhibits and publications as well as to broader public forums. Sponsored by the Department of Near Eastern Languages and Civilizations, our seminar will focus heavily on western Asia, southeastern Europe, and North Africa – all zones that scholars have variously associated with the Near East or Middle East, and where the Penn Museum has been active since its foundation in 1887. To situate the Penn Museum and its collections within a global and comparative frame, we will also study select women who made major scholarly contributions to other parts of the world such as the Americas and Oceania. Among the figures we will study are Sarah Yorke Stevenson (Egypt), Katharine Woolley (Mesopotamia/Iraq), Harriet Boyd Hawes (Ottoman Crete and Greece), Florence Shotridge (Alaska), Zelia Nuttall (Mexico and Russia), and Tatiana Proskouriakoff (Guatemala). We will venture into many different kinds of history. In regional terms, our scope will be transnational and international: we will cover the United States and the Middle East in the wider world. In thematic and methodological terms, we will approach our subject through biography, oral history, and microhistory, material history and museum studies; cultural and intellectual history; women's and gender studies; and the history of academic disciplines, especially archaeology and anthropology. Some background in Middle Eastern history; or Anthropology; or Women's History; or Museum Studies recommended.

Spring, odd numbered years only
1 Course Unit

NELC 3950 Intro to Digital Archaeology
Students in this course will be exposed to the broad spectrum of digital approaches in archaeology with an emphasis on fieldwork, through a survey of current literature and applied learning opportunities that focus on African American mortuary landscapes of greater Philadelphia. As an Academically Based Community Service (ABCS) course, we will work with stakeholders from cemetery companies, historic preservation advocacy groups, and members of the African Methodist Episcopal Church to collect data from three field sites. We will then use these data to reconstruct the original plans, untangle site taphonomy, and assess our results for each site. Our results will be examined within the broader constellation of threatened and lost African American burial grounds and our interpretations will be shared with community stakeholders using digital storytelling techniques. This course can count toward the minor in Digital Humanities, minor in Archaeological Science and the Graduate Certificate in Archaeological Science.

Also Offered As: ANTH 3307, CLST 3307
Mutually Exclusive: CLST 5620
1 Course Unit

NELC 3992 Transfer Credit: Non-Major
Course credit for non-majors for courses taken in an approved program.
1 Course Unit
NELC 4055 Narrative in Ancient Art
Cultures of the ancient Middle East and Mediterranean world were fascinated to make images and things tell stories and engage with time. Sometimes that implied a text - and sometimes, not. With case studies from the deep past, this interdisciplinary advanced undergraduate lecture course explores the capacity of visual language to narrate.
Not Offered Every Year
Also Offered As: ARTH 4260, CLST 3412
1 Course Unit

NELC 4105 History of Egypt - New Kingdom
Covers principal aspects of ancient Egyptian culture (environment, urbanism, religion, technology, etc.) with special focus on archaeological data; includes study of University Museum artifacts.
Spring
Mutually Exclusive: NELC 5104
1 Course Unit

NELC 4110 The Archaeology of Nubia
The course will examine the archaeology of Ancient Nubia from Pre-history through the Bronze and Iron Ages, ca. 5000 BCE to 300 AD. The course will focus on the various Nubian cultures of the Middle Nile, and social and cultural development, along with a detailed examination of the major archaeological sites and central issues of Nubian archaeology.
Not Offered Every Year
1 Course Unit

NELC 4300 Seminar in Modern Hebrew Literature
This course introduces students to selections from the best literary works written in Hebrew over the last hundred years in a relaxed seminar environment. The goal of the course is to develop skills in critical reading of literature in general, and to examine how Hebrew authors grapple with crucial questions of human existence and national identity. Topics include: Hebrew classics and their modern "descendents," autobiography in poetry and fiction, the conflict between literary generations, and others. Because the content of this course changes from year to year, students may take it for credit more than once. This course is conducted in Hebrew and all readings are in Hebrew. Grading is based primarily on participation and students' literary understanding.
Spring
Also Offered As: COML 4300, JWST 4300
Mutually Exclusive: NELC 5410
Prerequisite: HEBR 1000
1 Course Unit

NELC 4305 Spirit and Law
While accepting "the yoke of the commandments", Jewish thinkers from antiquity onward have perennially sought to make the teachings of revelation more meaningful in their own lives. Additional impetus for this quest has come from overtly polemical challenges to the law, such as those leveled by Paul, medieval Aristotelians, Spinoza and Kant. This course explores both the critiques of Jewish Law, and Jewish reflections on the Law's meaning and purpose, by examining a range of primary sources within their intellectual and historical contexts. Texts (in English translation) include selections from Midrash, Talmud, medieval Jewish philosophy and biblical exegesis, kabbalah, Hasidic homilies, Jewish responses to the Enlightenment, and contemporary attempts to re-value and invent Jewish rituals.
Not Offered Every Year
Also Offered As: JWST 4305, RELS 4305
1 Course Unit

NELC 4315 Jewish Literature in the Middle Ages in Translation
Course explores the cultural history of Jews in the lands of Islam from the time of Mohammed through the late 17th century (end of Ottoman expansion into Europe) –in Iraq, the Middle East, al-Andalus and the Ottoman Empire. Primary source documents (in English translation) illuminate minority-majority relations, internal Jewish tensions (e.g., Qaraism), and developments in scriptural exegesis, rabbinic law, philosophy, poetry, polemics, mysticism and liturgy. Graduate students have additional readings and meetings. Spring 2015
Fall or Spring
1 Course Unit

NELC 4320 Prose Narrative
Historical, literary, comparative, and ethnographic methods contribute to study of prose narratives which were told in oral societies in antiquity and in modern times and were documented in literary societies for different purposes. Oral storytellers, both professional and amateurs, performed them in private and public spaces. Their recording from antiquity to modern times became an integral element of modern life in general and in education and arts in particular. The storytellers, their performances in oral and literary cultures, their genres, and their symbolic meanings are the subjects of the course, together with the analytical methods that help mapping their distribution worldwide.
Not Offered Every Year
1 Course Unit

NELC 4500 Arabic Literature and Literary Theory
This course will explore different critical approaches to the interpretation and analysis of Arabic literature from pre-Islamic poetry to the modern novel and prose-poem. The course will draw on western and Arabic literary criticism to explore the role of critical theory not only in understanding and contextualizing literature but also in forming literary genres and attitudes. Among these approaches are: Meta-poetry and inter-Arts theory, Genre theory, Myth and Archetype, Poetics and Rhetoric, and Performance theory. This course in taught in translation.
Fall or Spring
Also Offered As: COML 4500
1 Course Unit

NELC 4505 Islamic Intellectual Tradition
This course is intended to provide a more advanced exposure to Arabic language skills beyond those offered by the standard Arabic curriculum, particularly in reading, writing, and grammar of MSA and some exposure historical forms of Arabic like Classical Arabic and Middle Arabic, not to mention important genres like the modern academic article, memoirs, chronicles, and biography. Students will refine their readings skills and will be able to read at a quicker rate by the end of the semester, and increase their active vocabulary accordingly. Students will also practice writing and explore some of the finer points of Arabic grammar. Along the way, students will learn a good bit about the history of the Arab world, and grapple with the fuzzy border between history and memory, fact and fiction.
Not Offered Every Year
1 Course Unit
NELC 4550 Islamic Art and Architecture
This advanced undergraduate lecture introduces the major architectural monuments and trends, as well as to the best-known objects of the Islamic world. Istanbul, Samarkand, Isfahan, Cairo and Delhi as major centers of art production in the fourteenth to seventeenth centuries. Attention is paid to such themes as the continuity of late antique themes; architecture as symbol of community and power; the importance of textiles; primacy of writing; urban and architectural achievement; and key monuments of painting and metalwork.
Not Offered Every Year
Also Offered As: ARTH 4350
1 Course Unit

NELC 4955 Mining Archaeology
In ancient times, materials such as stone and metals were used to produce artifacts including pigments, jewelry, tools, and weapons. This course is designed to introduce students to research on the early exploitation of mineral resources. Which techniques were used to access and process raw materials in antiquity? Which archaeological methods can be used to investigate these features and artifacts? The course will provide worldwide examples through time, ranging from Stone Age flint mining, Iron Age rock salt mining to Medieval silver mining. Ethnographic studies and hands-on activities will contribute to our understanding of mining in archaeology, and artifacts from the Museum’s collections will undergo scientific analysis in the Center for the Analysis of Archaeological Materials. Spring
Also Offered As: ANTH 3219, CLST 3314
Mutually Exclusive: ANTH 5219
1 Course Unit

NELC 4955 The Past Preserved: Conservation In Archaeology
This course explores the scientific conservation of cultural materials from archaeological contexts. It is intended to familiarize students with the basics of artifact conservation but is not intended to train them as conservators. The course will cover how various materials interact with their deposit environments; general techniques for on-site conservation triage and retrieval of delicate materials; what factors need to be considered in planning for artifact conservation; and related topics. Students should expect to gain a thorough understanding of the role of conservation in archaeology and how the two fields interact. Also Offered As: ANTH 3235, ARTH 0143, CLST 3315
1 Course Unit

NELC 4992 Transfer Credit: Major
Course credit for NELC majors for courses taken in an approved program. 1 Course Unit

NELC 4995 Senior Conference
Directed study for seniors.
Fall or Spring
1 Course Unit

NELC 4999 Independent Study
Supervised reading and research with Near Eastern or Middle Eastern content for undergraduates
Fall or Spring
1 Course Unit

NELC 5010 History and Society of Early Mesopotamia
The fourth millennium BCE saw the rise of cities and the birth of writing in ancient Mesopotamia (modern Iraq). This class traces the history of Mesopotamia from about 3000 BCE to about 1600 BCE (the end of the Old Babylonian Period), examining political history and changes in social organization as well as developments in religion, literature and art. Spring, even numbered years only
1 Course Unit

NELC 5020 Mesopotamia 2200-1600 BCE
This seminar style class will focus on two canonical periods of Mesopotamian history from 2100-1600 BCE. It is structured to examine fundamental institutions of kingship, religion, economy, law and literature. Practices well established in Sumer by the end of the third millennium evolved during the first half of the second millennium BCE when Amorite speaking peoples assume central roles in Mesopotamian institutions. The class will be structured around case studies engaging key monuments of art, architecture and literature. It will be team-taught by Prof. Pittman, focusing on material remains and visual arts and by Prof. Steve Tinney who brings expertise to the rich cuneiform textual traditions. Also Offered As: AAMW 5020, ANTH 5024, ARTH 5240
1 Course Unit

NELC 5050 Ancient Iranian Art Seminar
This seminar will focus on the environmental, archaeological and textual record for settlement in the Persian/Arabian Gulf region from the Neolithic to the pre-Islamic Late Antique. Emphasis will be on the settlement history and material culture. Special attention will be paid to the close interaction of the local communities on the Arabian side of the Gulf with those on the Iranian/Indus valley side. The patterns of sea faring trade and interaction from Mesopotamia, Iran, Indus Valley and beyond will be considered. It is possible that this class will take a site trip to the UAE during the spring break, if the logistics can be arranged. Not Offered Every Year
Also Offered As: AAMW 5220, ARTH 5220
1 Course Unit

NELC 5054 Courtly Life in Mesopotamia, Persia, and the Mediterranean
Who could approach and speak with the Sumerian Queen? What rules governed a banquet with the Persian king? What was the most elegant way to drink wine? Where were the women in the Assyrian court? With hundreds of people crammed into a palace, was hygiene important? How were court guests treated? What games were played at court? Is the stereotypical image of the “Oriental” court characterized by lust, backstairs intrigue, flatteries, and secrets sustainable in the light of new evidence and theoretical approaches? The court at the same time is considered as a large amorphous body in a physical location or an institution, or a group of people, or even to particular events. This seminar style course considers Middle Eastern courts from the Sumerians through the Assyrian and Persian empires articulating shared and diverse features. Textual, visual, material and archaeological sources are considered through sociological and anthropological theories and core concepts such as groups, individuals, ultrasociality, proxemics, sociopetal, sociofrugal and purity to name a few. Comparisons with later courts in the Middle East are welcome. Also Offered As: AAMW 5241, ARTH 5241
1 Course Unit

NELC 5100 Seminar on Egyptian Archaeology and History
Specific topics will vary from year to year. Not Offered Every Year
1 Course Unit
NELC 5101 Imagining Ancient Egypt: A History of Popular Fascination from Antiquity to the Present

Thousands of years after the pyramids were built and the last hieroglyphs were written, ancient Egypt remains a source of mystery and intense interest. Why are we so fascinated with ancient Egypt, and what does that fascination reveal about us? This course explores the reception history of ancient Egypt: how people in various periods and areas of the world have thought about ancient Egypt, what it has meant to them, why they were interested in it, and how they brought the ancient Egyptian past into the present. We will focus not on ancient Egypt itself, but on the history of perceptions of, ideas about, and interactions with ancient Egyptian culture. Our investigation will include how Egyptians of later periods thought about their ancient past, as well as European and American representations (and appropriations) of ancient Egypt. A major focus of the course will be the impact of political and cultural relations between Egypt and the West on perceptions and uses of ancient Egyptian culture. This interdisciplinary course will combine multiple areas of history—intellectual, cultural, and political—and multiple types of sources, including historical writing, literature, film, and opera. Beginning with ancient Greek and Roman visitors to Egypt, we will investigate changing modes of understanding, constructing, and representing ancient Egypt, from the medieval sultans of Egypt to Mozart to W. E. B. DuBois to protesters in Egypt's 2011 revolution. Over the course of the semester, we will explore questions such as: - What does it mean to think of Egypt as African vs. Middle Eastern vs. Mediterranean? Is Egypt Western, Eastern, both, or neither? - To whom does ancient Egyptian heritage belong? How do colonialism and conceptions of race and ethnicity factor into this question? - How do the past and the present shape each other? What is the impact of modern politics and culture on perceptions of the past? What role does the past play in the formation of modern political, social, and cultural identities? - How can we learn about modern problems and concerns from representations of the past? Not Offered Every Year
Also Offered As: CLST 5710
Mutually Exclusive: NELC 2102
1 Course Unit

NELC 5104 History of Egypt -New Kingdom

Covers principal aspects of ancient Egyptian culture (environment, urbanism, religion, technology, etc.) with special focus on archaeological data; includes study of University Museum artifacts.
Spring
Mutually Exclusive: NELC 4105
1 Course Unit

NELC 5105 Literary Legacy of Ancient Egypt

This course surveys the literature of Ancient Egypt from the Old Kingdom through the Graeco-Roman period, focusing upon theme, structure, and style, as well as historical and social context. A wide range of literary genres are treated, including epics; tales, such as the "world's oldest fairy tale;" poetry, including love poems, songs, and hymns; religious texts, including the "Cannibal Hymn"; magical spells; biographies; didactic literature; drama; royal and other monumental inscriptions; and letters, including personal letters, model letters, and letters to the dead. Issues such as literacy, oral tradition, and the question poetry vs. prose are also discussed. Not Offered Every Year
1 Course Unit

NELC 5200 The Bible in Translation

This course introduces undergraduates and graduate students to one specific Book of the Hebrew Bible. "The Bible in Translation" involves an in-depth reading of a biblical source against the background of contemporary scholarship. Depending on the book under discussion, this may also involve a contextual reading with other biblical books and the textual sources of the ancient Near East.
Fall or Spring
1 Course Unit

NELC 5210 Great Books of Judaism

The Babylonian Talmud, known simply as the Bavli, is the foundational legal and ethical document of rabbinic Judaism. It is one of the best read works of world literature, and it is the most widely disseminated and revered rabbinic work. It not only contains legal discussions and rulings but rather it also presents the worldview of the rabbis. This course will analyze and contextualize the perspectives of the Talmud towards the important phases of life. We will examine in-depth several Talmudic passages relating to the various stages of the human lifecycle: birth and naming of the child; circumcision; bar/bat mitzva and adulthood; earning a livelihood and choosing a career; marriage and divorce; procreation and raising children; death, burial, mourning and the belief in the resurrection of the dead among others. We will evaluate these teachings in light of other traditions and in their broader late antiquity and contemporary contexts. All texts will be read in their English translation but originals will also be provided.
Fall
Mutually Exclusive: NELC 0305
1 Course Unit

NELC 5211 Elementary Biblical Hebrew I

This course is an introduction to Biblical Hebrew. It assumes no prior knowledge, but students who can begin to acquire a reading knowledge of the Hebrew alphabet before class starts will find it extremely helpful. The course is the 1st of a 4-semester sequence whose purpose is to prepare students to take courses in Bible that demand a familiarity with the original language of the text.
Fall
Mutually Exclusive: NELC 0301
1 Course Unit

NELC 5212 Elementary Biblical Hebrew II

A continued introduction to the grammar of Biblical Hebrew, focusing on the verbal system, with an emphasis on developing language skills in handling Biblical texts. A suitable entry point for students who have had some Modern Hebrew. Prerequisite: If course requirement not met, permission of instructor required.
Spring
1 Course Unit

NELC 5213 Intermediate Biblical Hebrew I

This course will focus on using the grammar and vocabulary learned at the introductory level to enable students to read Biblical texts independently and take advanced Bible exegesis courses. We will also work on getting comfortable with the standard dictionaries, concordances, and grammars used by scholars of the Bible. We will concentrate on prose this semester, closely reading Ruth, Jonah, and other prose selections. We will begin to translate from English into Biblical Hebrew, and there will also be a unit on the punctuation marks used in the Bible. This is a suitable entry point for students who already have strong Hebrew skills.
Fall
1 Course Unit
NELC 5214 Intermediate Biblical Hebrew II
This course is a continuation of the fall semester’s Intermediate Biblical Hebrew I. No one will be admitted into the course who has not taken the fall semester. It will continue to focus on using the grammar and vocabulary learned at the introductory level to enable students to read biblical texts independently and take advanced Bible exegesis courses. We will concentrate this semester on various selections of Biblical poetry, including Exodus 15 and Job 28. We will also continue to translate English prose into Biblical Hebrew.

Spring
1 Course Unit

NELC 5300 Seminar in Rabbinic Literature
Most of the foundational writings of rabbinic Judaism corpora of Midrash, Mishna, and the two Talmuds were in existence by the end of the sixth century CE. Yet, for several centuries thereafter, there is little evidence attesting to the lived nature of rabbinic culture and society. Course will focus on writings by Jews and about Jews, produced between the 7th and 10th centuries, complemented by secondary sources. Texts will include selections from archaeological inscriptions; Midrash; liturgical poetry; Targum, Masora; geonic responsa, writings by Muslims and by Church Fathers. While students must be able to read Hebrew, much class time will be devoted to the improvement of reading and comprehension skills. Undergraduates should seek permission of the instructor.

Spring
Also Offered As: HEBR 6100, JWST 5300
1 Course Unit

NELC 5400 Introduction to Modern Hebrew Literature: Short Story Reinvented
The objective of this course is to develop an artistic appreciation for literature through in-depth class discussions and text analysis. Readings are comprised of Israeli poetry and short stories. Students examine how literary language expresses psychological and cultural realms. The course covers topics such as: the short story reinvented, literature and identity, and others. Because the content of this course changes from year to year, students may take it for credit more than once. This course is conducted in Hebrew and all readings are in Hebrew. Grading is based primarily on participation and students’ literary understanding.

Fall
Prerequisite: HEBR 0400
1 Course Unit

NELC 5405 Manuscript Arts in the Islamic World
This hands-on seminar will explore the long tradition of manuscript-making and manuscript-makers in the Islamic world, using the extensive collections of Arab, Persian, Turkish and Indian volumes at the University of Pennsylvania and the Free Library of Philadelphia. These include copies of the Qur’an (Islam’s holy text) and other religious, scientific, historical and literary texts. Emphasis will be placed on traditional materials and artistic techniques, specifically calligraphy, binding, illumination and illustration, as well as on production methods and the historical, social, and economic contexts in which manuscripts were made, used and collected from early Islamic times to the early modern period. Also at issue will be the ways that Islamic manuscripts were transformed over the centuries as they journeyed from their diverse places of origin (Egypt, Morocco, Syria, Iran, India, etc.) to Philadelphia. The goal is the art historical skills involved in the study of Islamic codices, through close examination, discussion and presentation, and to recognize that every manuscript has a story. Most of the class sessions will be held either at the Kislak Center in Van Pelt Library or at the Free Library on the Parkway.

Also Offered As: ARTH 5360
1 Course Unit

NELC 5410 Seminar in Modern Hebrew Literature
This course introduces students to selections from the best literary works written in Hebrew over the last hundred years in a relaxed seminar environment. The goal of the course is to develop skills in critical reading of literature in general, and to examine how Hebrew authors grapple with crucial questions of human existence and national identity. Topics include: Hebrew classics and their modern “descendents,” autobiography in poetry and fiction, the conflict between literary generations, and others. Because the context of this course changes from year to year, students may take it for credit more than once. This course is conducted in Hebrew and all readings are in Hebrew. Grading is based primarily on participation and students’ literary understanding.

Spring
Mutually Exclusive: NELC 4300
Prerequisite: HEBR 1000
1 Course Unit

NELC 5620 Intro to Digital Archaeology
Digital methods allow archaeologists to approach research questions about the human past with increasing accuracies on larger datasets and at multiple scales. This class introduces students to the three main steps of digital archaeology: data management, analysis, and sharing. Data management involves the design, creation, and curation of digital objects that capture the archaeological process and evidence. Students will gain deep familiarity in working with the main types of digital archaeological data: structured data (relational databases), 3d models/spatial data, and raster images. The class will provide abundant hands-on experience with the latest equipment and software for working with many different kinds of data. We will learn about data analysis techniques through a close examination of a variety of case studies in the literature that demonstrate how other archaeologists have applied digital methods to their archaeological questions. Finally, we will discuss the importance of sharing data through open access data publication and we will apply our skills with structured data to existing online archaeological datasets. The goal of this class is to prepare students to make methodological decisions during future research endeavors, both in the field and in the archaeological lab.

1 Course Unit
NELC 5700 Iranian Cinema: Gender, Politics and Religion
This seminar explores Iranian culture, society, history and politics through the medium of film. We will examine a variety of cinematic works that represent the social, political, economic and cultural circumstances of contemporary Iran, as well as the diaspora. Along the way, we will discuss issues pertaining to gender, religion, nationalism, ethnicity, and the role of cinema in Iranian society and beyond. Discussions topics will also include the place of the Iranian diaspora in cinema, as well as the transnational production, distribution, and consumption of Iranian cinema. Films will include those by internationally acclaimed filmmakers, such as Rakhshan Bani-Etemad, Asghar Farhadi, Bahman Ghobadi, Abbas Kiarostami, Mohsen Makhmalbaf, Dariush Mehrjui, Tahmineh Milani, Jafar Panahi, Marjane Satrapi and others. All films will be subtitled in English. No prior knowledge is required.
Fall or Spring
1 Course Unit

NELC 5920 The University, the Museum, and the Middle East
This seminar explores how two kinds of institutions - the research university and the museum - developed in the United States as American scholars and philanthropists and the U.S. government engaged with the wider world. We will take the involvement of the University of Pennsylvania and the Penn Museum in the Middle East as a test case for this history, while focusing on the period from the late nineteenth century to the present. We will approach questions in transnational intellectual, cultural, and political history through the lens of Penn's Middle Eastern engagements. For example, how did the university and its museum contribute to the construction of the Middle East as a zone of U.S. diplomatic intervention? How have American scholarly traditions shaped academic fields of inquiry including "Semitics" (a term used a century ago to suggest the study of biblical languages and traditions), "Oriental Studies" (a now-passe and politically loaded term suggesting connections to American traditions of Orientalist thought), "Islamic Studies", and "Egyptology"? How did Penn's archaeological expeditions to celebrated sites like Ur in the late nineteenth century influence the late Ottoman Empire's policies towards antiquities and museums? How did Penn's broader expeditions in the twentieth century, to Egypt, Iran, and elsewhere, shape nationalist imaginations in the United States and in Middle Eastern countries, while also informing international antiquities policies? Finally, how have institutions like Penn and the Penn Museum responded to changing American popular attitudes and U.S. foreign policy concerns relative to the Middle East, during the Cold War and post-2001 ("post-9/11") eras, and most recently, amid civil strife in Syria and Iraq? This seminar offers students an opportunity to consult Penn's phenomenal collections of Middle East-related materials as they pursue end-of-semester research. These collections include artifacts (museum objects), archival records (such as documents, drawings, and photographs), and rare books and manuscripts from the Penn Museum and Penn Libraries.
Spring, even numbered years only
1 Course Unit

NELC 5925 Geophysical Prospection for Archaeology
Near-surface geophysical prospection methods are now widely used in archaeology as they allow archaeologists to rapidly map broad areas, minimize or avoid destructive excavation, and perceive physical dimensions of archaeological features that are outside of the range of human perception. This course will cover the theory of geophysical sensors commonly used in archaeological investigations and the methods for collecting, processing, and interpreting geophysical data from archaeological contexts. We will review the physical properties of common archaeological and paleoenvironmental targets, the processes that led to their deposition and formation, and how human activity is reflected in anomalies recorded through geophysical survey through lectures, readings, and discussion. Students will gain experience collecting data in the field with various sensors at archaeological sites in the region. A large proportion of the course will be computer-based as students work with data from geophysical sensors, focusing on the fundamentals of data processing, data fusion, and interpretation. Some familiarity with GIS is recommended.
Spring, odd numbered years only
Also Offered As: AAMW 5720, ANTH 5720, CLST 7315
1 Course Unit

NELC 5930 Women Making History: The Penn Museum and the Centennial 2020
The year 2020 marks the 100th anniversary of the 19th Amendment to the U.S. Constitution, which declared that the right of citizens to vote "shall not be denied or abridged by the United States or by any State on account of sex". To mark this centennial - to both celebrate it and critically assess its impact on American society - we will investigate the history of women at the Penn Museum as archaeologists, ethnographers, epigraphers, philanthropists, and more. At the same time, we will examine material in the Penn Museum that women collected, donated, or studied. Our goal will be to produce original research that may contribute to future exhibits and publications as well as to broader public forums. Sponsored by the Department of Near Eastern Languages and Civilizations, our seminar will focus heavily on western Asia, southeastern Europe, and North Africa - all zones that scholars have variously associated with the Near East or Middle East, and where the Penn Museum has been active since its foundation in 1887. To situate the Penn Museum and its collections within a global and comparative frame, we will also study select women who made major scholarly contributions to other parts of the world such as the Americas and Oceania. Among the figures we will study are Sarah Yorke Stevenson (Egypt), Katharine Woolley (Mesopotamia/Iraq), Harriet Boyd Hawes (Ottoman Crete and Greece), Florence Shotridge (Alaska), Zelia Nuttall (Mexico and Russia), and Tatiana Proskouriakoff (Guatemala). We will venture into many different kinds of history. In regional terms, our scope will be transnational and international: we will cover the United States and the Middle East in the wider world. In thematic and methodological terms, we will approach our subject through biography, oral history, and microhistory; material history and museum studies; cultural and intellectual history; women's and gender studies; and the history of academic disciplines, especially archaeology and anthropology.
1 Course Unit
NELC 5950 Ruins and Reconstruction
This class examines our enduring fascination with ruins coupled with our commitments to reconstruction from theoretical, ethical, socio-political and practical perspectives. This includes analyzing international conventions and principles, to the work of heritage agencies and NGOs, to the implications for specific local communities and development trajectories. We will explore global case studies featuring archaeological and monumental sites with an attention to context and communities, as well as the construction of expertise and implications of international intervention. Issues of conservation from the material to the digital will also be examined. Throughout the course we will be asking what a future in ruins holds for a variety of fields and disciplines, as well as those who have most to win or lose in the preservation of the past.
Also Offered As: ANTH 5805, CLST 7317, HSPV 5850
1 Course Unit

NELC 6010 Reading Ancient Mesopotamia
An introduction to the literature of Ancient Mesopotamia. The literature of ancient Mesopotamia flourished thousands of years ago in a culture all of its own, yet the survival of hundreds of thousands of written records challenges us to read it and make sense of it without simply approximating it to the realm of our own understanding. How can we learn to do this? Situating our understanding of how we read and how we understand culture within an interdisciplinary range of literary-critical and analytic approaches, we will approach this question by immersing ourselves in the myths tales and mentalities that made Mesopotamian literature meaningful. To give us a measure of our progress we will bracket the semester by reading Gilgamesh which is never less than a great story, but which will take on new layers of meaning as the semester develops and we learn to read the text in more and more Mesopotamian ways. As we journey through these mysterious realms we will reflect not only Mesopotamia and its immortal literature but on what it means to read and understand any cultures other than our own.
Fall or Spring
1 Course Unit

NELC 6020 Iraq: Ancient Cities and Empires
Iraq: Ancient Cities and Empires is a chronological survey of the ancient civilization that existed in the drainage basin of the Tigris and Euphrates Rivers from the early settled village farming communities of the 7th millennium BCE to the middle of the 1st millennium BCE, when Nebuchadnezzar II ruled Babylon and much of the Middle East. Though organized period by period, NELC 241 explores various social, political, economic, and ideological topics, exposing students to various strands of evidence, including settlement survey data, excavated architectural remains, artifacts, and documentary sources, as well as an eclectic mix of theoretical perspectives. The course aims to provide students with a strong foundation for the further study of the ancient and pre-modern Middle East.
Not Offered Every Year
1 Course Unit

NELC 6040 Ancient Iranian Empires
Iran - as a landmass and a political entity - was central to the ancient world in a variety of ways. Ancient Iranian Empires were of central importance to - and centrally located in - the ancient world. It was the successor kingdom to the Assyrians and Babylonians; the power against which Greece and Rome defined themselves; and the crucible in which various communities and models of rule developed. This course offers a survey of the history of the ancient Persianate world, focusing in particular on the political and imperial entities that rose to power, the cultural, political, mercantile, and other contacts those shared with their neighbors to the East and West, and the communities and religious groups that arose and flourished within their lands. Ancient Iranian empires rivaled the Greek and Roman Empires to their West, and the central and eastern Asian Empires to their east, and the ongoing history of diplomacy, cultural contact, and war between these regions was formative to each and to the ancient world as a whole. Iran was home to and similarly formative for a variety of religions, including Zoroastrianism, Judaism, Christianity, Manichaeanism, and Islam, and a central question ancient Iranian political powers sought to address was how to negotiate and address the variety of populations under their control. The course will conclude by studying how, rather than a simplistic story of decline, the strategies, policies, institutions, and memory of the Iranian Empires continued to shape early Islam, medieval imagination, and modern political regimes.
1 Course Unit

NELC 6050 Art of Ancient Iran
This lecture course offers a survey of ancient Iranian art and culture from the painted pottery cultures of the Neolithic era to the monuments of the Persian Empire.
Not Offered Every Year
Also Offered As: AAMW 6220, ARTH 6220
1 Course Unit

NELC 6060 Art of Mesopotamia
Visual expression was first developed in Mesopotamia in the same environment as the invention of writing. This lecture class will introduce the arts of the major periods of Mesopotamian History ending with the "cinematic" effects achieved by the Assyrian artists on the walls of the royal palaces. The strong connection between verbal and visual expression will be traced over the three millennia course of Mesopotamian civilization from the earliest periods through the imperial art of the Assyrians and Babylonians of the first millennium BCE. The class and the assignments will regularly engage with objects in the collections and on display in the galleries of the Penn Museum.
Not Offered Every Year
Also Offered As: AAMW 6240, ARTH 6240
Mutually Exclusive: ARTH 2240, NELC 0060
1 Course Unit
NELC 6080 Worlds of Late Antiquity
The period between the third and eighth centuries - from the Tetrarchy led by Diocletian to the rise of Umayyad Caliphate - is characteristically regarded as a period of ferment and change, whether that be on the still-influential model of Decline and Fall first proposed by Edward Gibbon in the eighteenth century or the somewhat less deterministic account of transformation favored by Peter Brown in the late twentieth. These narratives tend to emphasize the large-scale processes that played out over these centuries, such as the florescence and fragmentation of two world empires; the emergence of two highly influential monotheistic religions of the book; and the codification of legal systems that continue to dominate contemporary practices and theories of law. Equally, what characterizes these centuries is the particular granularity and character of the textual and archaeological evidence that exists for the functioning of this world at the micro-scale, as against the periods that preceded and followed. This course traces the social, economic, cultural, and religious institutions and processes that make this period distinctive, explores the nature of the evidence for those institutions and processes, and exposes to scrutiny the assumptions and preconceptions that underpin the scholarly narratives that have been constructed about them.
Not Offered Every Year
Also Offered As: ANCH 6080, RELS 6080
1 Course Unit

NELC 6100 History of Ancient Egypt
Review and discussion of the principal aspects of ancient Egyptian history, 3000-500 BC.
Fall
1 Course Unit

NELC 6105 Art and Architecture in Ancient Egypt
This course will be an introduction to the art, architecture and minor arts that were produced during the three thousand years of ancient Egyptian history. This material will be presented in its cultural and historical contexts through illustrated lectures and will include visits to the collection of the University Museum.
Also Offered As: AAMW 6180, ARTH 6180
1 Course Unit

NELC 6110 The World of Cleopatra
The figure of Cleopatra is familiar from modern stories, legends, and film. Was this famous woman a brazen seductress or a brilliant political mind? How many of these presentations are historically accurate? This class will examine the Ptolemaic period in Egypt (305-30 BCE), the time period during which Cleopatra lived, in an attempt to separate myth from reality. The Ptolemaic period is filled with political and personal intrigue. It was also a time of dynamic multiculturalism. Arguably one of the most violent and fascinating eras in ancient Egyptian history, the Ptolemaic period is largely unknown and often misunderstood. This course will examine the history, art, religion and literature of Egypt’s Ptolemaic period which culminated in the reign of Cleopatra VII.
Not Offered Every Year
1 Course Unit

NELC 6120 Women in Ancient Egypt
This class will examine the many roles played by women in ancient Egypt. From goddesses and queens, to wives and mothers, women were a visible presence in ancient Egypt. We will study the lives of famous ancient Egyptian women such as Hatshepsut, Nefertiti and Cleopatra. More independent than many of their contemporaries in neighboring areas, Egyptian women enjoyed greater freedoms in matters of economy and law. By examining the evidence left to us in the literature (including literary texts and non-literary texts such as legal documents, administrative texts and letters), the art, and the archaeological record, we will come away with a better understanding of the position of women in this ancient culture.
Spring
1 Course Unit

NELC 6125 The Religion of Ancient Egypt
Weekly lectures (some of which will be illustrated) and a field trip to the University Museum’s Egyptian Section. The multifaceted approach to the subject matter covers such topics as funerary literature and religion, cults, magic religious art and architecture, and the religion of daily life.
Not Offered Every Year
Also Offered As: AAMW 6141, AFRC 6140
Mutually Exclusive: NELC 2140
1 Course Unit

NELC 6140 Tutankhamun’s Tomb: Its Treasures and Significance
This course examines the short life of the young boy king and what the discovery of his tomb and its contents mean in terms of Egypt’s long history and accomplishments.
Not Offered Every Year
Also Offered As: AAMW 6141, AFRC 6140
1 Course Unit

NELC 6160 Themes Jewish Tradition: Iberian Conversos: Jew-Christian?
Course topics will vary; they have included The Binding of Isaac; Responses to Catastrophes in Jewish History, Holy Men & Women (Ben-Amos); Rewriting the Bible (Dohrmann); Performing Judaism (Fishman); Jewish Political Thought (Fishman); Jewish Esotericism (Lorberbaum) Democratic culture assumes the democracy of knowledge - the accessibility of knowledge and its transparency. Should this always be the case? What of harmful knowledge? When are secrets necessary? In traditional Jewish thought, approaching the divine has often assumed an aura of danger. Theological knowledge was thought of as restricted. This seminar will explore the "open" and "closed" in theological knowledge, as presented in central texts of the rabbinc tradition: the Mishnah, Maimonides and the Kabbalah. Primary sources will be available in both Hebrew and English.
Fall or Spring
1 Course Unit
NELC 6310 Faces of Love: Gender, Sexuality and the Erotic in Persian Literature
Beloved, Lover and Love are three concepts that dominate the semantic field of eroticism in Persian literature and mysticism. The interrelation among these concepts makes it almost impossible to treat any one of the concepts separately. Moreover, there exists various faces and shades of love in the works of classical and modern Persian literature that challenges the conventional heteronormative assumptions about the sexual and romantic relationships between the lover and the beloved. A sharp contrast exists between the treatment of homosexuality and ‘queerness’ in Islamic law, on the one hand and its reflection in Persian literature, particularly poetry (the chief vehicle of Persian literary expression), on the other. This course introduces and explores different faces of love, eroticism and homoeroticism in the Persian literary tradition from the dawn of dawn of the Persian poetry in the ninth century all through to the twenty-first century. It offers a comprehensive study of representations and productions of heteronormativity, sexual orientation and gender roles with particular reference to the notion of love, lover and beloved in Persian literature.
Fall
1 Course Unit

NELC 6350 Archaeological Fieldwork in Southern Iraq
After several decades of closure to foreign researchers, the heartland of the world’s earliest cities (southern Iraq) has reopened for archaeological expeditions. This course is a seminar for graduate students who will conduct fieldwork in Spring 2019 at two major Mesopotamian cities, Ur (Tell al-Muqayyar) and Lagash (Tell al-Hiba), as part of Penn-led teams. Leading up to fieldwork, we will conduct a critical review of past investigations at these and other contemporary Mesopotamian sites of the fifth-second millennium BC. We will discuss how recent work in northern Mesopotamia (Syria, SE Turkey, Kurdistan), Anatolia, and South Caucasus provides new archaeological approaches to be applied, new questions to be answered, and new models to be tested in southern Iraq. In the field, students will work alongside the instructor and other archaeological project staff to learn and hone excavation and survey techniques. During and following fieldwork, each student will conduct an independent project on material excavated and surveyed in the field at Ur and/or Lagash. This project should align with the student’s interests and will further the research program of the archaeological teams at Ur and Lagash.
Spring, even numbered years only
Also Offered As: AAMW 6470
1 Course Unit

NELC 6375 Rabbinic Literature: History and Methods
This course is intended as an in-depth survey of research debates, historical-critical methods and resources employed in the study of classical (pre-Geonic) rabbinic literature; in other words, this class offers a robust introduction to the history of the field. The course will introduce students to much (but by no means all) of the fundamental modern scholarship of the 19th-21st centuries, divided into key topics.
Spring, even numbered years only
Also Offered As: JWST 6375
1 Course Unit

NELC 6400 Age of Caliphs, 600-1100
There are few moments of human history that were as creative as the seventh, eighth and ninth centuries in the Near East. Nor are there many such moments in history that pose as many questions to the historian. How do we know what we think we know about early and ‘classical’ Islamic history? In what ways is pre-modern Islamic history distinctive? How do we understand the role of religion in pre-modern societies? In this course, we will examine the social and political history of the Islamic Near East (with a few exotic pit-stops) in its formative centuries, from the rise of Islam to the coming of the Saljuq Turks. Special topics include: the rise of Islam; the early Islamic conquests; the expansion and disintegration of the imperial caliphate under the Umayyads and ‘Abbasids; religious authority in early Islam; ‘Abbasid successor states; Shi‘ism; provincial cultures.
Fall
Prerequisite: NELC 0002
1 Course Unit

NELC 6500 Seminar in Selected Topics in Arabic Literature
This is the graduate seminar course in which a variety of aspects of Arabic literature studies are covered at the advanced graduate level. Students in this course are expected to be able to read large amounts of literature in Arabic on a weekly basis and to be able to discuss them critically during the class itself. Topics are chosen to reflect student interest. Recent topics have included: 1001 NIGHTS; the short story; the novel; MAQAMAT; classical ADAB prose; the drama; the novella; modern Arabic poetry.
Spring
1 Course Unit

NELC 6510 Approaches to Islamic Law
This course aims to introduce students to the study of Islamic law, the all-embracing sacred law of Islam. In this course we will attempt to consider many different facets of the historical, doctrinal, institutional and social complexity of Islamic law. In addition, the various approaches that have been taken to the study of these aspects of Islamic law will be analyzed. The focus will be mostly, though not exclusively, on classical Islamic law. Specific topics covered include the beginnings of legal thought in Islam, various areas of Islamic positive law (substantive law), public and private legal institutions, Islamic legal theory, and issues in the contemporary development and application of Islamic law.
Not Offered Every Year
Also Offered As: RELS 6510
1 Course Unit

NELC 6550 Islamic Archaeology Seminar
This seminar will address the problems of studying architecture in the Islamic world. Considered will be issues of architectural design, regional and trans-regional constructional traditions, structural knowledge and innovation, patronage and use. The examples discussed will be mainly religious and social service complexes. Attention will be paid to the manner of transmission of architectural design knowledge and constructional skill. Open to graduate students only.
Not Offered Every Year
Also Offered As: ARTH 7380
1 Course Unit
NELC 6560 Religion and the Visual Image: Seeing is Believing
Seeing is Believing engages in a historical, theoretical, and cross-cultural analysis of the place of visuality in religion and of religion in visual culture. We will examine images, buildings, places, objects, performances and events. The geographical, cultural and historical scope of the material is broad, including subjects from Europe, the Islamic World, non-Muslim South Asia, the US and Latin America from the medieval period until the present. Theoretical works will be read in conjunction with representative examples to invite intellectual engagement in a socially and historically grounded way. Important issues to be covered include the relationship of visual to material culture; visual theories versus theories of vision; locating religion in human sensory experience; perception at individual and collective levels; authentics, fakes and simulacra; iconoclasm and image veneration; aesthetics, use and utility; and things.

Not Offered Every Year
Also Offered As: RELS 5410, SAST 5410
1 Course Unit

NELC 6605 Muslims, Christians, and Jews in the Middle East: Historical Perspectives
A reading- and discussion-intensive seminar that addresses several recurring questions with regard to the Middle East and North Africa. How have Islam, Judaism, and Christianity influenced each other in these regions historically? How have Jews, Christians, and Muslims fared as religious minorities? To what extent have communal relations been characterized by harmony and cooperation, or by strife and discord, and how have these relations changed in different contexts over time? To what extent and under what circumstances have members of these communities converted, intermarried, formed business alliances, and adopted or developed similar customs? How has the emergence of the modern nation-state system affected communal relations as well as the legal or social status of religious minorities in particular countries? How important is religion been as one variable in social identity (along with sect, ethnicity, class, gender, etc.), and to what extent has religious identity figured into regional conflicts and wars? The focus of the class will be on the modern period (c. 1800-present) although we will read about some relevant trends in the early and middle Islamic periods as well. Students will also pursue individually tailored research to produce final papers. Prior background in Islamic studies and Middle Eastern history is required. Middle Eastern history is required. This class is intended for juniors, seniors, and graduate students.
Not Offered Every Year
1 Course Unit

NELC 6610 Nationalism and Communal Identity in the Middle East
This seminar views the phenomenon of nationalism as it affected the modern Middle East in the nineteenth and twentieth centuries. Together we will consider the diverse components of nationalism, including religion, language, territorial loyalty, and ethnicity, and test the thesis that nations are "imagined communities" built on "invented traditions." At the same time, we will examine other forms of communal identity that transcend national borders or flourish on more localized scales. This class approaches nationalism and communal identity as complex products of cultural, political, and social forces, and places Middle Eastern experiences within a global context. Students must take a survey of modern Middle Eastern history or politics before enrolling in this class. This class is intended for juniors, seniors, and graduate students.
Fall
Prerequisite: NELC 0002
1 Course Unit

NELC 6620 North Africa: History, Culture, Society
This interdisciplinary seminar aims to introduce students to the countries of North Africa, with a focus on the Maghreb and Libya (1830-present). It does so while examining the region’s close economic and cultural connections to sub-Saharan Africa, Europe, and the Middle East. Readings will include histories, political analyses, anthropological studies, and novels, and will cover a wide range of topics such as colonial and postcolonial experiences, developments in Islamic thought and practice, and labor migration. This class is intended for juniors, seniors, and graduate students.
Not Offered Every Year
Also Offered As: AFRC 6620
1 Course Unit

NELC 6630 Egypt in Four Revolutions
This seminar offers an in-depth look at the political and social history of revolution and protest in modern Egypt. We will examine four such seminal events, through different lenses: The Urabi Revolution (1879-1882), The 1919 Revolution, The 1952 Revolution, and The 2011 Revolution. We will discuss their political, social, and economic causes and effects; popular participation and the use of public space; the roles of the army, women, youth, and social organizations in those events; their ideological and international aspects; their colonial and post-colonial contexts; and more. We will use cutting edge research from several disciplines, as well as literature, film, music, photography, and social media as sources. Students will leave the class with a firm grasp of the social and political history of modern Egypt, as well as of current scholarly discussions about the nature of revolution and protest.
1 Course Unit

NELC 6650 Topics In Anthropology and the Modern World
This course relates anthropological models and methods to current problems in the Modern World. The overall objective is to show how the research findings and analytical concepts of anthropology may be used to illuminate and explain events as they have unfolded in the recent news and in the course of the semester. Each edition of the course will focus on a particular country or region that has been in the news.
Fall
Also Offered As: ANTH 6110
1 Course Unit

NELC 6700 Media and Culture in Contemporary Iran
This course offers a comprehensive introduction to the culture and media of modern Iran, with a critical perspective on issues such as identity formation, ethnicity, race, and nation-building. It focuses on how these issues relate to various aspects of modern Iranian culture - such as religion, gender, sexuality, war, and migration - through the lens of media, cinema, and literature.
Fall or Spring
1 Course Unit

NELC 6720 Key Concepts in Modern Persian Poetry
This graduate seminar which is tailored for graduate students with higher intermediate and advanced command of Persian language focuses on a variety of recurrent concepts in Modern Persian poetry. The seminar will run as a workshop and students are expected to embark on a project in which they explore large amounts of literary materials in Persian. Students must feel confident to read and discuss large amounts of literature in Persian on a weekly basis. Concepts such as exile, home, belonging, body, borders, nationalism and selfhood will be explored.
Spring
1 Course Unit
NELC 6900 GIS for the Digital Humanities and Social Sciences
This course introduces students to theory and methodology of the geospatial humanities and social sciences, understood broadly as the application of Geographical Information Systems (GIS) and spatial analysis techniques to the study of social and cultural patterns in the past and present. By engaging with spatial theory, spatial analysis case studies, and technical methodologies, students will develop an understanding of the questions driving, and tools available for, humanistic and social science research projects that explore change over space and time. We will use ESRI's ArcGIS software to visualize, analyze, and integrate historical, anthropological, and environmental data. Techniques will be introduced through the discussion of case studies and through demonstration of software skills. During supervised laboratory sessions, the various techniques and analyses covered will be applied to sample data and also to data from a region/topic chosen by the student.

Fall
1 Course Unit

NELC 6910 Digital Exploration of the Past: Archives, Databases, Maps, and Museums
This course exposes students to digital methods for investigating past environments and societies, including digitization of analog records, the construction and querying of databases, and the creation of digital maps. The ultimate goal of the course will be to carry out a final project that benefits the Penn Museum and the public. In fall 2018, our exploration of digital methods will center around the archaeological site of Ur (Tell el-Muqayyar), located in southern Iraq. Ur was one of the earliest cities in the world, and, thanks to campaigns partly funded by Penn in the 1920s and 1930s, is one of the best-excavated sites in southern Mesopotamia. Here at Penn, we have unparalleled access to archival documentation and artifacts from the site. We will draw upon this access to contribute to an on-going digital humanities project in the Penn Museum (the public "Ur Online" database). In the process, students will re-assess data that has the potential to change anthropological ideas about issues such as the environmental setting of the earliest cities and archaeological ideas about demographic and urban structure within the city of Ur itself. There are no prerequisites, but students must bring an interest in Mesopotamian archaeology and/or the origins of urbanism and be motivated to carry out individual and group research guided by the instructor & classmates.

Also Offered As: AAMW 6190
1 Course Unit

NELC 6920 Material World in Archaeological Science
By focusing on the scientific analysis of inorganic archaeological materials, this course will explore processes of creation in the past. Class will take place in the Center for the Analysis of Archaeological Materials (CAAM) and will be taught in three modules: analysis of lithics, analysis of ceramics and analysis of metals. Each module will combine laboratory and classroom exercises to give students hands-on experience with archaeological materials. We will examine how the transformation of materials into objects provides key information about past human behaviors and the socio-economic contexts of production, distribution, exchange and use. Discussion topics will include invention and adoption of new technologies, change and innovation, use of fire, and craft specialization.

Not Offered Every Year
Also Offered As: ANTH 5221
1 Course Unit

NELC 6930 Archaeobotany Seminar
In this course we will approach the relationship between plants and people from archaeological and anthropological perspectives in order to investigate diverse plant consumption, use, and management strategies. Topics will include: archaeological formation processes, archaeobotanical sampling and recovery, lab sorting and identification, quantification methods, and archaeobotany as a means of preserving cultural heritage. Students will learn both field procedures and laboratory methods of archaeobotany through a series of hands-on activities and lab-based experiments. The final research project will involve an original in-depth analysis and interpretation of archaeobotanical specimens. By the end of the course, students will feel comfortable reading and evaluating archaeobotanical literature and will have a solid understanding of how archaeobotanists interpret human activities of the past.

Not Offered Every Year
Also Offered As: AAMW 5390, ANTH 5230, CLST 7313
1 Course Unit

NELC 7060 Ancient Art of Mesopotamia Seminar
This graduate seminar will address various topics in the visual and architectural arts of ancient Mesopotamia. Topics include: Assyrian Reliefs, Art and Architecture of the Old Akkadian period, Early Dynastic art and architecture, and The Rise of first cities in Mesopotamia and Iran. This course is only open to graduate students.

Not Offered Every Year
Also Offered As: AAMW 7240, ARTH 7240
1 Course Unit

NELC 7550 Qur’anic Studies
This seminar explores the nature and uses of the Qur’an. It focuses on the practice and theory of Qur’an commentary and interpretation (safsir and ta’wil). A major portion of the course will involve a close examination of manuscripts of the Qur’an at the Philadelphia Museum of Art and the Kislak Center at the University of Pennsylvania, concentrating on the relationship between the text and marginalia as well as on the peculiarities of individual manuscripts. The rest of the course will center around reading commentaries on the Qur’an in manuscript as well as print. In addition, we will read and discuss theoretical works on the history and nature of Qur'an commentary, literary criticism and textual analysis, and spend some of the later section of the course discussing issues of translation and editorial processes involved in popularizing Qur’an commentaries on the internet. READING KNOWLEDGE OF ARABIC REQUIRED.

Not Offered Every Year
Also Offered As: RELS 7420
1 Course Unit

NELC 7560 Islamic Art Seminar
This course focuses on art of the Islamic world. Open to graduate students only.

Not Offered Every Year
Also Offered As: AAMW 7350, ARTH 7350
1 Course Unit
NELC 7561 Islamic Architecture Seminar
This seminar will address the problems of studying architecture in the Islamic world. Considered will be issues of architectural design, regional and trans-regional constructional traditions, structural know-how and innovation, patronage and use. The examples discussed will be mainly religious and social service complexes. Attention will be paid to the manner of transmission of architectural design knowledge and constructional skill. Open to graduate students only.
Not Offered Every Year
Also Offered As: AAMW 7370, ARTH 7370
1 Course Unit

NELC 9999 Independent Study
Directed research or candidacy exam and proposal preparation.
Fall or Spring
1 Course Unit

Network and Social Systems Engineering (NETS)

NETS 1120 Networked Life
How do infectious diseases spread? Why do some memes spread virally while others do not? Why do some teams or organizations perform better than others? Are we all really connected by six degrees of separation and, if so, how is that are our neighborhoods, workplaces, and social circles are so segregated? The answers to these questions and many more are all part of Network Science, a fascinating subject at the intersection of many disciplines, including computer science, communications, psychology, sociology, mathematics, and economics. This course will provide an introduction to the technical language of network science as well as to a collection of applications such as mathematical epidemiology, social contagion, games of cooperation and coordination, and collective problem solving.
Fall
1 Course Unit

NETS 1500 Market and Social Systems on the Internet
Want to understand the sociological and algorithmic aspects of friend recommendation? Want to know how Google decides what 10 answers to return, out of the 10 million matching results? Want to understand how search engines have revolutionized advertising? Then this is the course for you! NETS 150 provides an overview of the issues, theoretical foundations, and existing techniques in networks (social, information, communication) and markets on the Internet. Subsequent NETS courses are available for students wishing to explore any of these topics in greater detail.
1 Course Unit

NETS 2120 Scalable and Cloud Computing
What is the “cloud”? How do we build software systems and components that scale to millions of users and petabytes of data, and are “always available”? In the modern Internet, virtually all large Web services run atop multiple geographically distributed data centers: Google, Yahoo, Facebook, iTunes, Amazon, EBAY, Bing, etc. Services must scale across thousands of machines, tolerate failures, and support thousands of concurrent requests. Increasingly, the major providers (including Amazon, Google, Microsoft, HP, and IBM) are looking at “hosting” third-party applications in their data centers - forming so-called “cloud computing” services. This course, aimed at a sophomore with exposure to basic programming within the context of a single machine, focuses on the issues and programming models related to such cloud and distributed data processing technologies: how to think about dividing both data and work across large clusters of machines, both within and across data centers, how to design algorithms that do this parallel computation, and how to implement the algorithms in new frameworks such as MapReduce.
Fall
1 Course Unit

NETS 2130 Crowdsourcing and Human Computation
Crowdsourcing and human computation are emerging fields that sit squarely at the intersection of economics and computer science. They examine how people can be used to solve complex tasks that are currently beyond the capabilities of artificial intelligence algorithms. Online marketplaces like Mechanical Turk and CrowdFlower provide an infrastructure that allows micropayments to be given to people in return for completing human intelligence tasks. This opens up previously unthinkable possibilities like people being used as function calls in software. We will investigate how crowdsourcing can be used for computer science applications like machine learning, next-generation interfaces, and data mining. Beyond these computer science aspects, we will also delve into topics like prediction markets, how businesses can capitalize on collective intelligence, and the fundamental principles that underlie democracy and other group decision-making processes.
Fall or Spring
Prerequisite: CIS 1200
1 Course Unit

NETS 3120 Theory of Networks
Want to understand how memes spread across the Internet? How organisms exhibit flocking behavior? How the structure of a network can help predict behavior among the nodes? This course is a rigorous study of the structure and function of complex networks. From World Wide Web to networks of banks and lenders that form the financial sector, to friendship networks that influence our opinion and everyday decision-making, networks have become an integral part of our daily lives.
Fall or Spring
1 Course Unit
NETS 4120 Algorithmic Game Theory
How should an auction for scarce goods be structured if the sellers wish to maximize their revenue? How badly will traffic be snarled if drivers each selfishly try to minimize their commute time, compared to if a benevolent dictator directed traffic? How can couples be paired so that no two couples wish to swap partners in hindsight? How can you be as successful as the best horse-racing expert at betting on horse races, without knowing anything about horse racing? In this course, we will take an algorithmic perspective on problems in game theory, to solve problems such as the ones listed above. Game theory has applications in a wide variety of settings in which multiple participants with different incentives are placed in the same environment, must interact, and each "player"'s actions affect the others.

Fall or Spring
1 Course Unit

Neuroscience (NEUR)

The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).
NEUR 2000 Behavioral Neuroscience
An introduction to the experimental analysis of natural animal behavior and its neurobiological basis. Behavior is examined in an evolutionary and ecological context, and questions are focused on the neural processes that allow animals to carry out critical activities such as locating prey and finding mates. The course is comparative and strives to identify common principles in sensory and motor processing and brain function.
1 Course Unit

NEUR 2600 Hormones, Brain, Behavior
This course aims to introduce students to important interactions between the brain, behavior, and endocrine systems. Students learn about diverse vertebrate species, a variety of physiological systems, and the molecular mechanisms of hormone action. The specific neuroendocrine systems to be studied include reproduction, social bonding, fluid and energy balance, and emotional regulation. In addition, students develop skills required for critical reading of primary neuroscience literature and scientific communication.
1 Course Unit

NEUR 2800 Autonomic Pharmacology
In this course, students learn how the central nervous system regulates the activity of peripheral tissues to maintain homeostasis in the body. Output from the autonomic nervous system affects a variety of physiological parameters, including blood glucose levels, blood pressure, and ingestive behaviors. Students then apply the knowledge of the autonomic outflow to understand the actions of a variety of classes of drugs, including those prescribed for diabetes, hypertension, and other conditions.
1 Course Unit

NEUR 4000 Psychopharmacology
Students examine drugs used in the treatment of central nervous system (CNS) dysfunction, including psychiatric diagnoses and neurodegenerative diseases. Explore the strategies, techniques, and challenges of psychopharmacological research and the use of drugs to probe neural substrates of behavior. Introductory material will be followed by advanced discussion of specific topics through the reading and discussion of primary journal articles.
1 Course Unit

Neuroscience (NGG)

NGG 5100 Neurotransmitter Signaling & Neuropsychopharmacology
The goals of this course are three-fold: 1) Provide an overview of major psychiatric disorders. 2) Provide in-depth information on neurotransmitters, emphasizing the wealth of new molecular information on how neurons function and communicate, as well as the basis for psychotherapeutics (one class per week). 3) Develop skills to appreciate, present and critically evaluate the current literature in neurotransmitter signaling and neuropsychopharmacology (one class per week). Prerequisite: Permission of course director
Spring, odd numbered years only
Also Offered As: PHRM 5100
1 Course Unit

NGG 5210 Brain-Computer Interfaces
The course is geared to advanced undergraduate and graduate students interested in understanding the basics of implantable neuro-devices, their design, practical implementation, approval, and use. Reading will cover the basics of neuro signals, recording, analysis, classification, modulation, and fundamental principles of Brain-Machine Interfaces. The course will be based upon twice weekly lectures and "hands-on" weekly assignments that teach basic signal recording, feature extraction, classification and practical implementation in clinical systems. Assignments will build incrementally toward constructing a complete, functional BMI system. Fundamental concepts in neurosignals, hardware and software will be reinforced by practical examples and in-depth study. Guest lecturers and demonstrations will supplement regular lectures. BE 3010 (Signals and Systems) or equivalent, computer programming experience, preferably MATLAB (e.g., as used the BE labs, BE 3100). Some basic neuroscience background (e.g. BIOL 2310, BE 3050, INSC core course), or independent study in neuroscience, is required. This requirement may be waived based upon practical experience on a case by case basis by the instructor.
Spring
Also Offered As: BE 5210
1 Course Unit

NGG 5340 Seminar on current genetic research: Human Disease Modeling in Experimental Sys
An advanced seminar course emphasizing genetic research in model organisms and how it informs modern medicine. Each week a student will present background on a specific human disease. This is followed by an intense discussion by the entire class of 2 recent papers in which model organisms have been used to address the disease mechanism and/or treatment. As a final assignment, students will have the opportunity to write, edit, and publish a "News & Views" style article in the journal "Disease Models and Mechanisms". Offered spring semester. Prerequisite: If course requirements not met, permission of instructor required.
Spring
Also Offered As: CAMB 5340
Prerequisite: CAMB 5420 OR CAMB 6050
1 Course Unit

NGG 5720 Electrical Language of Cells
This course introduces students to high-speed electro-chemical signaling mechanisms that occur in nerve and other excitable cells during normal activity. Topics considered in substantial detail include: a) a basic description of the passive and active membrane electrical properties; b) the molecular architecture and functional role of ion channels in cell signaling; c) the role of the calcium ion as an ubiquitous chemical messenger, with applications to neuro-secretion; d) excitatory and inhibitory transmission in the central nervous system; e) sensory transduction, as illustrated by the visual, olfactory, and auditory pathways. The course assumes a standard background in cell biology, as well as basic concepts from college physics and college calculus.
Fall
1 Course Unit
NGG 5730 Systems Neuroscience
This course provides an introduction to what is known about how neuronal circuits solve problems for the organism and to current research approaches to this question. Topics include: vision, audition, olfaction, motor systems, plasticity, and oscillations. In addition, the course aims to provide an overview of the structure of the central nervous system. A number of fundamental concepts are also discussed across topics, such as: lateral inhibition, integration, filtering, frames of reference, error signals, adaptation. The course format consists of lectures, discussions, readings of primary literature, supplemented by textbook chapters and review articles.
Spring
Also Offered As: PSYC 6090
1 Course Unit

NGG 5750 Neurobiology of Learning and Memory
This course focuses on the current state of our knowledge about the neurological basis of learning and memory. A combination of lectures and discussions will explore the molecular and cellular basis of learning in invertebrates and vertebrates from a behavioral and neural perspective. This course is intended for upper level undergraduate and graduate students.
Fall, odd numbered years only
1 Course Unit

NGG 5840 Neurobiology of Sleep and Arousal
The objectives of this course are to discuss mechanisms controlling sleep and arousal; to survey novel approaches to investigations in these areas; to communicate the clinical relevance of these ideas where possible. The course is run in the style of a journal club where in each weekly session, students review and discuss influential papers in the field.
Fall, even numbered years only
1 Course Unit

NGG 5880 Topics in Translational Neuroscience
This course will introduce graduate students in neuroscience and related disciplines to basic mechanisms and clinical features of major categories of nervous system disease. Each two-hour class will consist of two-parts; a formal lecture followed by a seminar on the same topic. The formal basic science lectures will discuss genetic, molecular, and cellular mechanisms relevant to the disease examined while the seminar will illustrate how that information can be used in the clinical setting to promote further discovery and inform treatment. Some of the seminar will be associated with the Clinical Neuroscience Training Program (CNST) to provide the opportunity to interact with medical students and clinicians. The course will rely on assigned readings of primary research papers and discussions during class.
Spring
1 Course Unit

NGG 5890 Neuroendocrinology
Goals: This course aims to familiarize students with recent discoveries in neuroendocrine research with a focus on puberty. Students have an opportunity to consider how neuroendocrine hypotheses are generated and learn how to analyze data for themselves. Students will master this emerging topic and develop writing and presenting skills as they develop their own research ideas. Format: We will spend three class meetings dissecting each of four journal articles from a single lab in chronological order. These three meetings will involve fully understanding the key concepts, methods, results and future directions. The professor will provide background information in short (20-30 min) lectures. Students will be expected to participate in discussions and work collaboratively with other students. At the end of the course, each student will present a proposal of "future directions" based on the papers we have discussed. Student Evaluation: Eighty percent of the final grade will be based on participation in these in-depth journal club discussions. The final twenty percent of the grade will be based on the presentation of Future Directions to the class. Prerequisite: Permission of course director.
Spring, even numbered years only
0.5-1 Course Unit

NGG 5900 Research & Community: Biomedical Science in the Urban Curriculum
NGG 5900 is an activity-based course with three major goals. First, the course is an opportunity for biomedical graduate students to develop their science communication skills and share their enthusiasm for neuroscience with high school students at a nearby public high school in West Philadelphia. In this regard, Penn students will prepare demonstrations and hands-on activities to engage local high school students, increase their knowledge in science, and ultimately promote their interest in science-related careers. Second, the course will consider the broader educational context, such as the conditions of the local high school and its overall progress in science education. Students will discuss the problems they encounter and learn how to develop effective proposals, taking into account the participants and the origins of current policies. Third, students will reflect and discuss the important connection between their biomedical research at Penn and the local Philadelphia community.
Spring
1 Course Unit
NGG 5910 Digital Signal Processing
The course is designed for an audience that does digital signal processing (e.g., people who do neuroscience) but that do not have a strong math or engineering background. The goal of the course is that after you have completed it you’ll have a fairly sophisticated understanding of how to apply several digital signal processing techniques, including better understanding to what is really happening when you push certain buttons in packaged neuroimaging software (e.g., filter settings). After completing the course you’ll also better understand how to collect neuroimaging data (e.g., data sampling rate). Digital Signal Processing contains four sections: Basics, Tutorial, Try It, and Literacy. Part 1: Introduction to sine/cosine functions, discussion of time series and spatial data, discussion of amplitude, frequency, and phase, and a section on adding sine waves. There’s also a brief introduction to complex numbers and the Euler Identities. Students also read in time and spatial data (grayscale images). Part 2: Detailed discussion of the Nyquist Theorem and aliasing (time and spatial domain), a section on multiplying sine waves, and a brief discussion of plotting complex numbers and determining the magnitude and phase of complex numbers. Part 3: Convolution, and via convolution, filtering. Ideas are explored in the time domain. In this process, students are introduced to high- and low-pass filters and gain functions. Students use convolution to filter several time domain datasets. Part 4: Generally the same as Chapter 3, but now examining spatial data. Students use convolution methods to filter grayscale and color images. Normal distributions and random noise are also discussed. Part 5: Using sine and cosine to compute the magnitude and phase of activity at different frequencies: time and spatial data. Students also see that magnitude and phase information can be obtained more easily using complex exponentials.
Spring
1 Course Unit

NGG 5940 Theoretical and Computational Neuroscience
This course will develop theoretical and computational approaches to structural and functional organization in the brain. The course will cover: (i) the basic biophysics of neural responses, (ii) neural coding and decoding with an emphasis on sensory systems, (iii) approaches to the study of networks of neurons, (iv) models of adaptation, learning and memory, (v) models of decision making, and (vi) ideas that address why the brain is organized the way that it is. The course will be appropriate for advanced undergraduates and beginning graduate students. A knowledge of multi-variable calculus, linear algebra and differential equations is required (except by permission of the instructor). Prior exposure to neuroscience and/or Matlab programming will be helpful.
Spring
Also Offered As: BE 5300, NRSC 5585, PHYS 5585, PSYC 5390
1 Course Unit

NGG 5970 Neural Development, Regeneration and Repair
General Description: The goals of this course are to examine the principles underlying the nervous system development and to learn how understanding developmental mechanisms can inform strategies to promote regeneration and repair. This is not a survey course to now they think about neuroscience research from beginning to end, including defining clear hypotheses; designing experiments to test those hypotheses; collecting, visualizing, analyzing, and interpreting data in reference to those hypotheses; and keeping effective and transparent records at each stage to ensure rigor and reproducibility. There are two main components to the course. The first component consists of a series of four modules, each of which is designed to use a specific example from neuroscience to illustrate a set of quantitative approaches and tools. The second component consists of group projects that focus on designing and implementing quantitative analyses for existing data sets (e.g., from rotation projects).
Fall
Also Offered As: CAMB 5970
Prerequisite: BIOM 6000
1 Course Unit

NGG 6050 NeuroCore: Quantitative Rigor and Reproducibility in Neuroscience
The quantitative neuroscience core course is designed to be an overview of quantitative approaches used for rigorous and reproducible neuroscience research. This course does not cover statistics in a traditional way, in the sense that it does not provide a comprehensive survey of statistical tests, nor does it dive very deeply into formal mathematical derivations of those tests (information about such things can be found in textbooks and all over the web). Instead, the course focused on teaching students how to apply quantitative approaches to now they think about neuroscience research from beginning to end, including defining clear hypotheses; designing experiments to test those hypotheses; collecting, visualizing, analyzing, and interpreting data in reference to those hypotheses; and keeping effective and transparent records at each stage to ensure rigor and reproducibility. There are two main components to the course. The first component consists of a series of four modules, each of which is designed to use a specific example from neuroscience to illustrate a set of quantitative approaches and tools. The second component consists of group projects that focus on designing and implementing quantitative analyses for existing data sets (e.g., from rotation projects).
Spring
1 Course Unit

NGG 6150 Cell Control by Signal Transduction Pathways
This course, “Targeting the cancer cell: from mechanism to precision medicine”, will examine how various signal transduction mechanisms influence cell functions including replication, growth, transcription, translation and intracellular trafficking. We will also consider how non-cell autonomous mechanisms, such as the tumor microenvironment and the immune system influence cancer cell signaling. We will consider how important signaling pathways, such as Ras, Raf, Notch, Wnt, TGF beta, and various kinases/phosphatases become dysregulated in cancer, as well as delve into how the DNA damage response, immune system, and tumor microenvironment exert important influences on oncogenic signaling. In the first half of the course, invited faculty members will pick 2 relatively recent papers from their field that highlight important areas. Each paper will be assigned to a student, who will meet with the faculty mentor prior to the class to discuss the paper and their presentation. During the class, students will present each paper for approximately 45 minutes with time for discussion. Students will present the important background, break down the paper, look for strengths and weakness and come up with a plan of what the next set of experiments could or should be. In the second half of the course, students will independently pick a relevant paper for in class presentation and will also write a short “News and Views” style article based on the paper they have chosen. The goal of the course is to provide students with a view of the cancer cell that integrates both cell autonomous and non-cell autonomous signals and to use this information to consider how to successfully treat cancer.
Spring
Also Offered As: CAMB 6320, PHRM 6320
Prerequisite: BIOM 6000
1 Course Unit

2023-24 Catalog | Generated 08/02/23
**NGG 6180 Recovery After Neural Injury**

The human nervous system is subject to several types of injury, (traumatic, ischemic, epileptic, demyelinating and/or inflammatory) that cause serious functional deficits. The mechanisms used by the central and peripheral nervous systems for functional recovery from these injuries will be described in this course. The molecular and cellular pathobiology of CNS injury will be reviewed and methods to enhance functional recovery will be discussed in detail. These include the limitation of secondary neuronal damage by pharmacological manipulations (neuroprotection), the promotion of regeneration, and plasticity, the application of bioengineering strategies, and the use of behavioral rehabilitative approaches. Course Format: a combination of lecture, journal club style student presentations and classroom discussion.

Spring, even numbered years only
1 Course Unit

**NGG 6200 Special Topics in Neuroscience 1**

Special Topics in Neuroscience 1 - more to come, placeholder course for now
1 Course Unit

**NGG 6210 Special Topics in Neuroscience 2**

TBD - placeholder course for now
1 Course Unit

**NGG 6950 Scientific Writing**

This 7-class course is designed to introduce students to basic scientific writing skills and is timed for second year graduate students preparing for qualifying examinations. Participants will review the general principles of clear, persuasive writing, and will apply these principles to writing for a scientific audience. Particular emphasis will be placed on conveying the significance of your research, outlining the aims, and discussing the results for scientific papers and grant proposals. The course will also provide an overview of the structure and style of research grant proposals and scientific manuscripts. Classes are highly interactive, and the majority of class time will be spent discussing student scientific writing. The goal of the course is to encourage active and open interaction among students. Ideal endpoints include improved self-editing, and development of effective strategies for offering and receiving editorial recommendations among peers. Prerequisite: NGG pre-candidacy exam students only.

Spring
0.5 Course Units

**NGG 6990 Lab Rotation**

Lab rotation.
0-3 Course Units

**NGG 7060 Neuroeconomics**

This seminar will review recent research that combines psychological, economic and neuroscientific approaches to study human and animal decision-making. This course will focus on our current state of knowledge regarding the neuroscience of decision-making, and how evidence concerning the neural processes associated with choices might be used to constrain or advance economic and psychological theories of decision-making. Topics covered will include decisions involving risk and uncertainty, decisions that involve learning from experience, decisions in strategic interactions and games, and social preferences.

Fall or Spring
Prerequisite: PSYC 1230 AND PSYC 2737 AND PPE 3003
1 Course Unit

**NGG 7130 Neuroepigenetics**

This is a course intended to bring students up to date concerning our understanding of Neural Epigenetics. It is based on assigned topics and readings covering a variety of experimental systems and concepts in the field of Neuroepigenetics, formal presentations by individual students, critical evaluation of primary data, and in-depth discussion of potential issues and future directions, with goals to: 1) Review basic concepts of epigenetics in the context of neuroscience, 2) Learn to critically evaluate a topic (not a single paper) and set the premise, 3) Improve experimental design and enhance rigor and reproducibility, 4) Catch up with the most recent development in neuroepigenetics, 5) Develop professional presentation skills - be a story teller. Each week will focus on a specific topic of Neuroepigenetics via a "seminar" style presentation by a class member. Prerequisite: If course requirement not met, permission of instructor is required.

Fall
Also Offered As: CAMB 7130
Prerequisite: BIOM 5550
1 Course Unit

**NGG 8990 Pre-Disst Lab Rotation**

0.5-4 Course Units

**NGG 9900 Master's Thesis**

Not Offered Every Year
0 Course Units

**NGG 9950 Dissertation**

0 Course Units

---

**Neuroscience (NRSC)**

**NRSC 0030 Neurobiology of Brain Disorders**

The human brain is clearly the most complicated and magical organ in the body. We don't completely understand how it works, but we do know, unfortunately, for a variety of reasons, the human brain is prone to failure, either by acute injury, chronic degeneration, genetic flaws in its composition, or unknown disturbances in its behavior. Diseases of the brain can take many forms but are all uniformly devastating for individuals, families, and our society, and are also very costly. This course will explore the ways in which various brain disorders (both neurological and psychiatric) manifest themselves and discuss their underlying neurobiological mechanisms. In addition, the social and economic impact of these diseases in society will be considered, as well as some well-publicized political issues surrounding many of these brain disorders.

1 Course Unit
NRSC 0050 Forensic Neuroscience
Progress in behavioral neuroscience and brain imaging techniques, such as functional and structural Magnetic Resonance Imaging (MRI) and Positron Emission Tomography (PET) has forced the courts to reconsider the role of behavioral sciences in courtroom decision-making. The goal of this course is to enable students to understand and interpret the use of behavioral neuro evidence in the justice system. The course will introduce the students to the relevant behavioral neuroscience constructs, principles of brain imaging and rules of scientific evidence. Students will be asked to use this introductory knowledge to critically evaluate the use of brain imaging and other behavioral neuroscience techniques as evidence in representative legal cases. For each case, students will serve as neuroscientists for the defense or prosecution and prepare, present and defend their testimony against the opposing team. Through this course, students will develop the ability to critically evaluate brain imaging and other neuroscience data in forensic and legal settings.
1 Course Unit

NRSC 0060 Music and the Brain
Every human culture that has ever been described makes some form of music. The musics of different cultures cover a wide range of styles, but also display fascinating similarities, and a number of features are shared by even the most disparate musical traditions. Within our own culture, music is inescapable—there are very few individuals who do not listen to some form of music every day and far more who listen to music virtually all day long. Appreciation of music comes very early in newborns prefer music to normal speech and mothers all over the world sing to their babies in a fundamentally similar way. And yet, despite this seeming ubiquity, the real origin and purpose of music remains unknown. Music is obviously related to language, but how? Why do so many cultures make music in such fundamentally similar ways? What goes into the formation of music “taste” and preferences? Does music have survival value, or is it merely “auditory cheesecake”, a superfluous byproduct of evolution as some critics have maintained? What is the nature of musical ability and how do musicians differ from non-musicians? In this course, we will look for answers by looking at the brain. Almost 200 years of scientific research into brain mechanisms underlying the production and appreciation of music is beginning to shed light on these and other questions. Although the sciences and the arts are often seen as entirely separate or even in opposition, studying the brain is actually telling us a lot about music, and studying music is telling us just as much about the brain.
1 Course Unit

NRSC 0090 Your Brain on Food
What motivates us to eat? Why do many of us eat even in the absence of hunger? How do our food preferences and habits form? And how can eating transition from regulated to dysregulated? This seminar class investigates these questions and many others, with a focus on how our brains regulate food intake. We will explore the neuroscience behind eating, as well as the genetic, psychological, social, cultural, and societal influences that shape our behavior. Through readings, assignments, and class discussions, we will navigate the biological forces behind normal eating, as well as how eating becomes disordered in diseases like obesity and eating disorders. Through this course, students will learn about behavioral neuroscience research from human and animal studies and will develop critical thinking, reading, and writing skills. There are no prerequisites except for a love of food.
Fall
1 Course Unit

NRSC 1110 Introduction to Brain and Behavior
Introduction to the structure and function of the vertebrate nervous system. We begin with the cellular basis of neuronal activities, then discuss the physiological bases of motor control, sensory systems, motivated behaviors, and higher mental processes. This course is intended for students interested in the neurobiology of behavior, ranging from animal behaviors to clinical disorders.
Fall or Spring
Also Offered As: BIOL 1110, PSYC 1210
1 Course Unit

NRSC 1159 Memory
This course presents an integrative treatment of the cognitive and neural processes involved in learning and memory, primarily in humans. We will survey the major findings and theories on how the brain gives rise to different kinds of memory, considering evidence from behavioral experiments, neuroscientific experiments, and computational models.
Also Offered As: PSYC 1530
1 Course Unit

NRSC 1160 ABCS of Everyday Neuroscience
This course is an opportunity for undergraduates to share their interest and enthusiasm for neuroscience with students in grades 9-12 attending urban public schools in West Philadelphia. The course will allow Penn students to develop their science communication and teaching skills. Students will prepare neuroscience demonstrations, hands-on activities, and assessment tools. In parallel, the course aims to engage local high school students, increasing their interest and knowledge in science, and ultimately promoting lifelong science literacy.
Prerequisite: NRSC 1110
1 Course Unit

NRSC 2110 Molecular and Cellular Neurobiology
Cellular physiology of neurons and excitable cells; molecular neurobiology and development. Topics include: action potential generation; synaptic transmission; molecular and physiological studies of ion channels; second messengers; simple neural circuits; synaptic plasticity; learning and memory; and neural development.
Fall
Also Offered As: BIOL 2110
1 Course Unit

NRSC 2140 Evolution of Behavior: Animal Behavior
The evolution of behavior in animals will be explored using basic genetic and evolutionary principles. Lectures will highlight behavioral principles using a wide range of animal species, both vertebrate and invertebrate. Examples of behavior include the complex economic decisions related to foraging, migratory birds using geomagnetic fields to find breeding grounds, and the decision individuals make to live in groups. Group living has led to the evolution of social behavior and much of the course will focus on group formation, cooperation among kin, mating systems, territoriality and communication.
Fall
Also Offered As: BIOL 2140, PSYC 2220
Prerequisite: BIOL 1102 OR BIOL 1121 OR PSYC 0001
1 Course Unit
NRSC 2217 Visual Neuroscience
An introduction to the scientific study of vision, with an emphasis on the biological substrate and its relation to behavior. Topics will typically include physiological optics, transduction of light, visual thresholds, color vision, anatomy and physiology of the visual pathways, and the cognitive neuroscience of vision.
Spring
Also Offered As: PSYC 2240, VLST 2170
Prerequisite: NRSC 1110
1 Course Unit

NRSC 2227 Physiology of Motivated Behavior
This course focuses on evaluating the experiments that have sought to establish links between brain structure (the activity of specific brain circuits) and behavioral function (the control of particular motivated and emotional behaviors). Students are exposed to concepts from regulatory physiology, systems neuroscience, pharmacology, and endocrinology and read textbook as well as original source materials. The course focuses on the following behaviors: feeding, sex, fear, anxiety, the appetite for salt, and food aversion. The course also considers the neurochemical control of responses with an eye towards evaluating the development of drug treatments for: obesity, anorexia/cachexia, vomiting, sexual dysfunction, anxiety disorders, and depression.
Fall or Spring
Also Offered As: PSYC 1212
Prerequisite: PSYC 0001
1 Course Unit

NRSC 2233 Neuroethology
In course, students will learn how neurobiologists study the relationship between neural circuitry and behavior. Behaviors such as bat echolocation, birdsong, insect olfaction, spatial navigation, eye movement and others will be used to explore fundamental principles of brain function that include brain oscillations, population codes, efference copy, sensorimotor maps and sleep replay. The course will also discuss the various methodologies that are used to address these questions. The reading material will be derived mostly from the primary literature.
Spring
Prerequisite: NRSC 1110
1 Course Unit

NRSC 2240 Chronobiology and Sleep
Topics to be covered include basic principles of chronobiology; neuroscience mechanisms of circadian rhythms and sleep; phylogeny and ontogeny of sleep; human sleep and sleep disorders; circadian dysfunction; circadian and sleep homeostatic influences in human health and safety.
Spring
Prerequisite: NRSC 1110
1 Course Unit

NRSC 2249 Cognitive Neuroscience
The study of the neural systems that underlie human perception, memory and language; and of the pathological syndromes that result from damage to these systems.
Fall or Spring
Also Offered As: PSYC 1230
Prerequisite: PSYC 0001 OR COGS 1001
1 Course Unit

NRSC 2260 Neuroendocrinology
This course is designed to examine the various roles played by the nervous and endocrine systems in controlling both physiological processes and behavior. First, the course will build a foundation in the concepts of neural and endocrine system function. Then, we will discuss how these mechanisms form the biological underpinnings of various behaviors and their relevant physiological correlates. We will focus on sexual and parental behaviors, stress, metabolism, neuroendocrine-immune interactions, and mental health.
Fall or Spring
Prerequisite: NRSC 1110
1 Course Unit

NRSC 2269 Autonomic Physiology
This course will introduce the student to the functioning of the autonomic nervous system (ANS), which is critically involved in the maintenance of body homeostasis through regulation of behavior and physiology. The course will begin with a review of the basic anatomy and physiology of the ANS including the sympathetic, parasympathetic and enteric divisions. The mechanisms by which the ANS regulates peripheral tissues will be discussed, including reflex and regulatory functions, as well as the effect of drugs which modulate ANS activity. The role of the ANS in regulating behavior will be addressed in the context of thirst, salt appetite and food intake.
Spring
Prerequisite: NRSC 1110
1 Course Unit

NRSC 2270 Drugs, Brain and Mind
The course will begin with a review of basic concepts in pharmacology including: routes of drug administration, drug metabolism, the dose response curve, tolerance and sensitization. Following a brief overview of cellular foundations of neuropharmacology (neuronal biology, synaptic and receptor function), the course will focus on several neurotransmitter systems and the molecular and behavioral mechanisms mediating the mind-altering, addictive and neuropsychiatric disorders, including depression, schizophrenia and anxiety with an emphasis on their underlying neurobiological causes, as well as the pharmacological approaches for treatment.
Fall
Also Offered As: PSYC 2250
Prerequisite: NRSC 1110
1 Course Unit

NRSC 2273 Neuroeconomics
This course will introduce students to neuroeconomics, a field of research that combines economic, psychological, and neuroscientific approaches to study decision-making. The course will focus on our current understanding of how our brains give rise to decisions, and how this knowledge might be used to constrain or advance economic and psychological theories of decision-making. Topics covered will include how individuals make decisions under conditions of uncertainty, how groups of individuals decide to cooperate or compete, and how decisions are shaped by social context, memories, and past experience.
Also Offered As: PSYC 2555
1 Course Unit
NRSC 2350 Developmental Neurobiology
This course will focus on cellular and molecular mechanisms of the organogenesis of the central nervous system. A goal of the course will be to understand the form, function and pathology of the adult nervous system in terms of antecedent developmental processes.
Fall or Spring
Prerequisite: NRSC 1110 AND BIOL 1101
1 Course Unit

NRSC 3310 Functional Neuroanatomy
A laboratory course designed to familiarize the student with the fundamental gross and histological organization of the brain. The mammalian brain will be dissected and its microscopic anatomy examined using standard slide sets. Comparative brain material will be introduced, where appropriate, to demonstrate basic structural-functional correlations.
Fall
Prerequisite: NRSC 1110
1 Course Unit

NRSC 3334 Computational Neuroscience Lab
This course will focus on computational neuroscience from the combined perspective of data collection, data analysis, and computational modeling. These issues will be explored through lectures as well as Matlab-based tutorials and exercises. The course requires no prior knowledge of computer programming and a limited math background, but familiarity with some basic statistical concepts will be assumed. The course is an ideal preparation for students interested in participating in a more independent research experience in one of the labs on campus.
Spring
Also Offered As: PSYC 3281
Prerequisite: NRSC 1110
1 Course Unit

NRSC 3375 Laboratory in Animal Behavior
This course will allow students to understand the variety, function, and evolution of complex behaviors in simple animals and how the genes governing these behaviors can be used to provide insight into human behavior and brain disease. The course is structured to allow students to experience what it is like to work in a neuroscience research laboratory. We will use the fruit fly (Drosophila melanogaster) as our model organism (with one class dedicated to song birds). Over the course of the semester, we will examine the underlying neurobiology, physiology, and genetics of a variety of fly behaviors to understand aggression, taste, learning and memory, courtship, neurodegenerative diseases, and circadian rhythms. We will review both current and historical research advances in detail by focusing on primary literature. Students will be expected to design, analyze and interpret the behavioral experiments that are employed. Students will learn how to conduct animal behavior research, enhance their ability to critically read scientific literature, and improve their written and oral communication skills through paper presentations and written reports.
Spring
Prerequisite: NRSC 1110 AND ((BIOL 1101 OR BIOL 1102) OR (BIOL 1123 OR BIOL 1124))
1 Course Unit

NRSC 3492 Experimental Methods inSynaptic Physiology
In this lab course, a small number of students meet once per week to discuss topics in synaptic physiology and to become proficient at sharp electrode techniques for intracellular recording, using isolated ganglia from the snail Helisoma. The first part of each class will consist of discussion of weekly reading from the primary literature, with the remainder of the class devoted to hands-on experiments. After learning to record from and characterize single neurons, students will study synaptic transmission by stimulating incoming nerve trunks or by recording from pairs of interconnected neurons. As a mid-term assignment, students will prepare and present a short research proposal using this model system, to be evaluated by the class. For the last half of the course, the class will work together on one or two of these proposals, meeting at the end of each class to pool our data, analyze the results and discuss their significance.
Fall or Spring
Prerequisite: BIOL 2110
1 Course Unit

NRSC 3999 Independent Research
Individual research of an experimental nature with a member of the standing faculty leading to a written paper. The grade is based primarily on a serious term paper describing original research carried out by the student. Students must submit a proposal prior to registering. During the semester, students must attend two seminars to discuss planning and independent research project, ethical concerns in research and writing a scientific paper. Attendance at the meetings is mandatory. Students doing more than one credit of independent study will be required to present a poster at the annual Student Research Symposium.
Fall or Spring
Prerequisite: NRSC 1110
1 Course Unit

NRSC 4110 Neural Systems and Behavior
This course will investigate neural processing at the systems level. Principles of how brains encode information will be explored in both sensory (e.g. visual, auditory, olfactory, etc.) and motor systems. Neural encoding strategies will be discussed in relation to the specific behavioral needs of the animal. Examples will be drawn from a variety of different model systems.
Spring
Also Offered As: BIOL 4110, PSYC 3220
Prerequisite: BIOL 2110
1 Course Unit

NRSC 4233 Seminar in Cognitive Neuroscience: Brain Development
This discussion-based seminar will focus on the neural bases of cognitive development. Each week the class will discuss a selection of papers that consider the roles of genes and environment on topics including the development of perceptual abilities, language, and cognition. The course will cover several aspects of pre- and postnatal brain and behavioral development with particular emphasis on animal models. This course is intended for students interested in neurobiology, cognitive psychology, evolutionary psychology and development.
Fall
Also Offered As: PSYC 3233
Prerequisite: PSYC 1230
1 Course Unit
NRSC 4266 Molecular Genetics of Neurological Disease
This course will focus on the molecular basis of neurological diseases, exploring in detail key papers that cover topics including defining the disease genes, development of animal models that provide mechanistic insight, and seminal findings that reveal molecular understanding. Diseases covered will include neurological diseases of great focus today such as Alzheimer’s, Fragile-X and autism, dementia, motor neuron degeneration, and microsatellite repeat expansion disorders. The course will provide a perspective from initial molecular determination through current status. Students will gain an understanding of how the molecular basis of a disease is discovered (from classical genetics to modern genomics) and how such diseases can be modeled in simple genetic systems for mechanistic insight. The course will be comprised of lectures with detailed analysis of primary literature and in-class activities. Grading will be based on class participation, exams, and written papers. Biology 2210 is a pre-requisite. Seniors are prioritized for the course. Fall
Also Offered As: BIOL 4266
Prerequisite: BIOL 2210
1 Course Unit

NRSC 4413 Cellular Structure and Neurological Disorders
Microtubules are dynamic cytoskeletal filaments that are crucial to the structure and function of neurons. From providing the scaffolding for the unique architecture of neurons, to guiding intracellular trafficking, to supporting neuronal migration and connectivity, microtubules are important for a variety of neuronal roles. Consequently, the dysfunction of microtubules and microtubule-associated-proteins is associated with a number of nervous system disorders. This seminar will explore the role of microtubules in a number of neurobiological diseases and disorders including Neurodevelopmental disorders (ex. Fragile X, Lissencephaly), Neurodegenerative Disorders (ex. Alzheimer’s and the Tauopathies, Hereditary Spastic Paraplegia), Psychiatric Disorders (Ex. Schizophrenia and Mood disorders), and also in Traumatic Brain Injury. We will use readings from the primary literature as a basis for lectures, student presentations, and papers. Fall
Prerequisite: NRSC 1110
1 Course Unit

NRSC 4420 Smell and Taste
All organisms respond to chemicals in their environment. This chemosensation guides diverse behaviors such as a feeding, avoiding predators, sex, and social interactions. This course will provide a broad survey of our current understanding of taste and smell, focusing on insect and rodent model systems as well as studies in humans. The course will begin with a review of chemical signal transduction mechanisms, and build to an exploration of the cortical integration of chemical signals and chemical guided behaviors. Class time will emphasize primary literature, discussion, and student presentations. The goal is to reach an integrated understanding of the physiology and psychology of chemical sensory systems. In the process, students will learn to read and critically evaluate data from primary research articles. Not Offered Every Year
1 Course Unit

NRSC 4421 Functional Imaging of the Human Brain
The course will provide a detailed overview of functional brain imaging and its potential uses. Issues regarding advantages and disadvantages of different modalities, study design image analysis & interpretation and how these relate to various neurological & psychological phenomena will be discussed. Class will cover the following specific topics in this general time frame: Introduction to functional brain function, basics of nuclear medicine imaging (including instrumentation, image acquisition, and radiopharmaceuticals for positron emission tomography and single photon emission computed tomography), imaging of neurological disorders, imaging of psychological disorders, introduction to activation studies, image analysis and statistical problems, story design, literature review, journal article presentation, tour of Penn imaging facilities, interpretation of imaging studies, implications for clinical and research, and implications for understanding the human mind and consciousness. Spring
Prerequisite: NRSC 1110
1 Course Unit

NRSC 4422 Neuroimmunology
This seminar will focus on how immune and central nervous systems communicate and influence each other. We begin with the anatomical and cellular basis of the thymus, gut, and brain, then discuss the connection between these organs and how these connections can influence neurological disorders. The class includes lectures, analysis of scientific literature, class discussions, and journal presentations. The course requires no prior knowledge of neuroimmunology, but understanding of basic neuroscience and immunology principles will be assumed. Spring
Prerequisite: NRSC 1110 or permission of instructor
1 Course Unit

NRSC 4425 Neurotechnology: From Concept to Clinic
The nervous system, and in particular the brain, remains the least understood part of the human body and is also the site of devastating, irreversible injury and disease. This course reviews wearable and implantable medical devices and surgical techniques that have been developed to treat conditions of the nervous system. The course will begin with a review of human neuroanatomy and neurophysiology and proceed to establish benchmarks and context for evaluating device efficacy. Contrasts with pharmaceuticals and the emergence of “electroceuticals” will be discussed. An overview of the bench-to-bedside process will be provided and then we will cycle through a series of major neuro-related medical devices (cochlear implants, deep brain stimulators, epiretinal arrays, responsive neurostimulators, spinal cord stimulators, functional electrical stimulation), and surgical approaches (nerve grafts, tendon transfers). The course will conclude with a focus on brain-computer interfaces and autologous engineered neural constructs and explore the ethical and medical implications of implanting such devices in able-bodied people, bottlenecks in enhancement and critical evaluation of the idea of superintelligence. This course may be of interest to students interested in pursuing careers in medicine, surgery, artificial intelligence, software development, medical device design, electrical engineering, and business. Fall
Prerequisite: NRSC 1110
1 Course Unit
NRSC 4429 Seminar in Sleep and Memory
Why do we sleep? This question has puzzled scientists for centuries, but one reason emerging from research in the area is that sleep is critical for forming, retaining, and transforming our memories. This seminar explores human and animal research in psychology and neuroscience that has shed light on how sleep carries out these functions. Topics will include the different stages of sleep and their roles in memory consolidation, its neural systems involved in representing memory at different timescales, and the role of dreams in processing memories.

Spring
Also Offered As: PSYC 3300
Prerequisite: CIS 1210
1 Course Unit

NRSC 4430 The Cognitive Neuroscience of Autism
This course examines neurobiological mechanisms of autism spectrum disorder (ASD). The cognitive neuroscience literature on autism will be roughly categorized around major theoretical models and their relation to autism, focusing on cognitive neuroscience and functional brain imaging, along with some structural imaging and EEG.

Spring
Prerequisite: NRSC 1110
1 Course Unit

NRSC 4433 Neural Basis of Auditory Perception and Cognition
This seminar will focus on the neural basis of auditory perception and cognition. We will examine auditory processing in animal 'specialists' to understand how sounds are processed in parallel pathways for identification and localization. We will also examine auditory cortical mechanisms for cognitive functions including attention, decision making, speech comprehension, and working memory. Emphasis will be placed on the analysis of primary literature. Students will be required to orally present journal articles from the primary literature, participate in the article discussions, write peer-reviews, and write a final "News and Views"-style paper.

Fall
Prerequisite: NRSC 1110
1 Course Unit

NRSC 4440 The Neuroscience behind the addiction to chocolate, wine, coffee and tobacco
Both clinical observations and popular culture support the idea that food might have addictive properties. Similar to the narrative for addictive drugs, individuals and the media use terms like "food addict" and "chocoholic", and refer to cravings, symptoms of withdrawal, and escalating patterns of eating that might be viewed as evidence of tolerance. The class will discuss chocolate and coffee as examples of so-called "addictive" food and compare their effects and mechanisms with those of alcohol and nicotine, two substances with well-characterized addictive properties. Furthermore, we will discuss why some forms of overeating are thought to reflect an addictive behavior. Considering the social dimension of alcohol, coffee, and tobacco consumption and the fact that large numbers of the population consume them together, we will also discuss the possible interactive effects of combinations of these psychoactive substances on mood and disease state. At the end of the course the student will become familiar with the diagnostic criteria for substance dependence, the anatomy and physiology of the brain circuits involved in reward processing and drug dependence, and the neurotransmitter systems involved.

Fall or Spring
1 Course Unit

NRSC 4442 Neurobiology of Learning and Memory
This course focuses on the current state of our knowledge about the neurobiological basis of learning and memory. A combination of lectures and student seminars will explore the molecular and cellular basis of learning in invertebrates and vertebrates from a behavioral and neural perspective.

Fall
Also Offered As: BIOL 4142, PSYC 3301
Prerequisite: BIOL 2110
1 Course Unit

NRSC 4450 Music and the brain: the new and old science of music
In a world where humans can't seem to agree on much of anything, there is one thing that still unites us: we love music. Why should abstract sequences of sounds give us such strong emotional reactions? Why indeed should they give us any emotional reaction at all? On every continent, today and throughout history, there is not a single human culture that has ever been described that does not make music. Within cultures, music is so ubiquitous that we actually have clinical terms (amusia and musical anhedonia) to describe people who don't understand or don't enjoy music. And yet, despite this ubiquity, the evolutionary origin and purpose of music remains unknown. Not only do people everywhere make music - they do so in fundamentally similar ways. All over the world people divide rhythm into twos and threes; all over the world people divide the frequency spectrum logarithmically, in octaves; with a very few exceptions, we divide octaves into no more than 12 steps, and we use subsets of 5-7 of these tones at a time. Not only that, but many cultures seem to have independently arrived at the same sets of 5-7 notes. These are probably not coincidences. If not coincidence, then what? In this course we look for explanations to these and other questions about music by looking at something that humans all over the globe have in common: the brain. Using readings from the primary literature and classic texts, supplemented with software exercises and analysis, we will see how many of the age-old mysteries and questions of music can be either answered or in some cases amplified by a consideration of brain mechanisms. Thinking about music in the context of brain function also provides a biological and evolutionary rationale not just for why music is the way it is, but why it should exist at all. More broadly, this course is an example of what can (and cannot) be accomplished by addressing aesthetic and philosophical questions as scientific and empirical ones. Prerequisite: NRSC 1110 and prior musical instruction, any instrument.

Fall
1 Course Unit

NRSC 4460 Neuroendocrinology Seminar
This course is an upper-level seminar, designed to examine the various roles played by the nervous and endocrine systems in controlling both physiological processes and behavior. We will focus on sexual and parental behaviors, stress, metabolism, neuroendocrine-immune interactions, and mental health. The format will be a mixture of lectures and journal club discussions based on recent primary literature in the field of neuroendocrinology. Students will also write several short papers based on the clinical neuroendocrinology.

Fall or Spring
Also Offered As: PSYC 3260
Prerequisite: NRSC 1110
1 Course Unit
NRSC 4469 Stress Neuroscience
Stress can be caused by a variety of conditions, ranging from low-level noise in the workplace to life-threatening situations and these stressors can cause changes in the physiology and behavior of individuals. This course will examine the neural mechanisms underlying physiological and emotional responses to stress in a journal club format. Topics to be covered include anxiety disorders, depression and other mood disorders, the differential effects of stress on males and females, the physiological effects of stress on the immune system and feeding behavior, the effects of maternal stress on offspring as well as strategies to mitigate the effects of stress.
Fall or Spring
Prerequisite: NRSC 1110
1 Course Unit

NRSC 4470 Animal Models of Neuropsychiatric Disorders
This seminar will focus on the significant role of animal models in the investigation of the pathophysiology of a variety of human neuropsychiatric disorders as well as in the development of treatments for these disorders. The course will focus on the use of genetically modified mice in the investigation of Autistic Spectrum Disorders (ASD), anxiety and affective disorders, schizophrenia and obsessive-compulsive disorder (OCD), with an emphasis on the limitations of such models. Class time will consist of short lectures and open discussions via student-led presentations. Emphasis will be placed on the critical analysis of primary literature.
Not Offered Every Year
Prerequisite: NRSC 1110
1 Course Unit

NRSC 4473 Neuroeconomics Seminar
This seminar course reviews the behavioral effects of drugs in animals, the general biological and psychological principles of drug action, and the relationship between drugs that affect brain monoamine and opiate systems and their behavioral effects. Introductory lectures on general topics will be followed by advanced discussion of specific topics in a journal club format through student presentations.
Not Offered Every Year
Prerequisite: NRSC 1110
1 Course Unit

NRSC 4475 Neurodegenerative Diseases
This course will familiarize students with advances in our understanding of the clinical features and pathogenesis of a wide range of neurodegenerative diseases, including Alzheimer’s disease and other dementias, prion diseases, Parkinson’s disease and atypical parkinsonisms, neurodegenerative ataxias, motoneuron diseases, degenerative diseases with chorea, iron and copper disorders, and mitochondrial diseases. Students will analyze original research reports on a range of proposed pathological cellular processes that may represent steps in cell death pathways leading to neuron loss seen in these diseases. Significant emphasis will be placed on the fast-expanding field exploring genetic contributions to neurodegenerative disease, as identification of genetic mutations pathogenic for familial neurodegenerative diseases has been a major driving force in neurodegenerative research and pointed researchers towards essential molecular process that may underlie these disorders. Strategies for therapeutic intervention in the management, prevention, and cure of neurodegenerative disease will be addressed.
Fall or Spring
Prerequisite: NRSC 1110
1 Course Unit

NRSC 4480 Biological Basis of Psychiatric Disorders
The contributions of basic sciences (neuroanatomy, neurophysiology, neurochemistry, and neuropharmacology) to an understanding of behavior and behavioral disorders will be covered and important psychiatric disorders will be discussed, primarily from the viewpoint of their biological aspects. Emphasis will be placed on critical evaluation of research strategies and hypotheses.
Fall or Spring
Prerequisite: NRSC 1110
1 Course Unit

NRSC 4481 Behavioral Pharmacology
This seminar course reviews the behavioral effects of drugs in animals, the general biological and psychological principles of drug action, and the relationship between drugs that affect brain monoamine and opiate systems and their behavioral effects. Introductory lectures on general topics will be followed by advanced discussion of specific topics in a journal club format through student presentations.
Not Offered Every Year
Prerequisite: NRSC 1110
1 Course Unit

NRSC 4482 Clinical Psychopharmacology
This course examines the history, rationale and putative mechanism of action of drugs used in the treatment of psychiatric disorders. Emphasis is placed on neurobiological processes underlying psychopathology and pharmacological intervention. Drugs currently in use as well as new drugs in development will be covered. Strategies, techniques, issues and challenges of clinical psychopharmacological research will be addressed and new approaches to drug discovery, including the use of pharmacogenomics and proteomics to understand variability in drug response and identify new molecular drug targets, will be covered in depth. Specific drug classes to be considered include antidepressants, anxiolytics, typical and atypical antipsychotics, narcotic analgesics, sedative hypnotics, and antiepileptic medications. A contrasting theme throughout the course will be the use of drugs as probes to identify neural substrates of behavior.
Not Offered Every Year
Prerequisite: NRSC 1110
1 Course Unit
NRSC 4485 Nerve and Muscle in Health and Disease
In this seminar course, we will deepen our understanding about excitability in the nervous system and in skeletal and cardiac muscle. A particular focus of the course will be the roles which calcium ions play as second messengers in nerve, muscle and synapse. We will study disease processes involving excitability and calcium handling, such as Long QT syndrome and hyperkalemic periodic paralysis. The later part of the course will have a journal club format, based on the reading and presentation of original papers, including papers about non-opioid analgesia and malignant hyperthermia. We will learn about the techniques used to study intracellular calcium and about how calcium is handled in nerve and muscle. Classical, physiological experiments will be interpreted in terms of modern molecular knowledge.
Spring
Prerequisite: BIOL 2110
1 Course Unit

NRSC 4999 Advanced Independent Research
Continuation of NRSC 3999 research. Students will be required to attend weekly Honors Seminar meetings and give an oral presentation of their research at the annual Student Research Symposium.
Fall or Spring
Prerequisite: NRSC 3999
1 Course Unit

NRSC 5585 Theoretical and Computational Neuroscience
This course will develop theoretical and computational approaches to structural and functional organization in the brain. The course will cover: (i) the basic biophysics of neural responses, (ii) neural coding and decoding with an emphasis on sensory systems, (iii) approaches to the study of networks of neurons, (iv) models of adaptation, learning and memory, (v) models of decision making, and (vi) ideas that address why the brain is organized the way that it is. The course will be appropriate for advanced undergraduates and beginning graduate students. A knowledge of multi-variable calculus, linear algebra and differential equations is required (except by permission of the instructor). Prior exposure to neuroscience and/or Matlab programming will be helpful.
Spring
Also Offered As: BE 5300, NGG 5940, PHYS 5585, PSYC 5390
1 Course Unit

Nonprofit Leadership (NPLD)

NPLD 5100 Social Innovation
This is a class focused on understanding how innovation plays a central role in public problem solving. We will explore how social entrepreneurs develop their ideas, define intended impact, market their solutions, understand competition, and collaborate with other actors. At the end of the course, students will have mastered a set of conceptual tools that will allow them to be effective problem solvers in diverse settings throughout their careers. The course has five core objectives: 1) To introduce students to the concepts and practices of social entrepreneurship; 2) To introduce students to the components of a successful social enterprise; 3) To equip students with the tools to be able to accurately identify and assess innovation and impact in social enterprises; 4) To train students to view the world from a perspective of social innovation; and 5) To empower students to develop their own innovative solutions to difficult social problems around the world.
Spring
1 Course Unit

NPLD 5110 Approaches to Social Impact Creation: International Context
This course introduces students to important international development challenges and different approaches adopted in addressing them. Seven specific development challenges: hunger, health care, education, credit provision, risk management, provision of savings avenues and livelihood creation will be discussed in detail. The prevailing scenario, the progress made and the gaps that remain will be discussed. The different approaches adopted in addressing each issue will be highlighted after which one or two international cases will be discussed in detail. Some of the approaches discussed include initiatives by cross sector collaborations, not for profits, for-profit social enterprises, philanthropic organizations, and innovative Government programs. The penultimate session will focus on the challenges of adopting innovative approaches to development challenges in bureaucratic settings, an area that is especially important as well as particularly challenging. Strategies and tactics used by such innovators will be discussed. The final session will be about scaling up successful innovations. Different models that have been used to scale up innovation will be discussed. Both final sessions also include case study discussions.
Spring
1 Course Unit

NPLD 5490 Leading Nonprofits
Leading Nonprofit Organizations is designed for those interested in leading and managing a nonprofit organization. It takes a practitioners perspective on strategic realities of modern practice. Each section will seek to rapidly orient a new manager to the complexities, strategic issues, & politics. The course is taught through a combination of theory and practice using selected readings, lectures, guest presentations, group activities (Mock senior staff discussions) and field assignments (pairing with area nonprofit leader and attendance at one of the organizations board meetings.)
Spring
1 Course Unit
NPLD 5520 Energy, Innovation, and Impact in the Global South
Over the past decade, a new type of social enterprise has emerged, which aims to deliver goods and services to the huge market of low-income households in developing countries. These social enterprises, known as 'Base of the Pyramid' (BoP) ventures, seek to simultaneously achieve profits, scale, and social impact. This new operating model has reframed the way companies, foundations, and NGOs engage billions of poor people. This course will focus on a sector that has been radically transformed by BoP ventures over the last decade - clean energy. Not only has this sector been catalytic to delivering clean energy access across the developing world, it also directly aims to combat climate change, the existential issue of our age. Within the BoP energy ecosystem, progress between sub-sectors could not be more different. For example, the clean cooking sector has failed in its mandate to address the problem of open fire cooking. By contrast, the solar lighting sector has scaled massively. This emergent field has attracted a generation of professionals looking to balance profitability and social impact, from social entrepreneurs to impact investors. Yet is the hype justified – is there really a ‘Fortune at the Base of the Pyramid’? This is a course for those who are interested in becoming social entrepreneurs, particularly in developing countries. It will reveal the nuances of operationalizing these ventures and provide a business toolkit for designing and launching a social venture. The course will equally be topical for those who are simply interested in better understanding the inner workings and implications of this fast-growing and alluring model of alleviating poverty and disease. While renewable energy will serve as a focal point, the course will also consider a range of cross-cutting themes, including climate change, gender, culture, public health, and the role of the private sector in development.
Spring
0.5 Course Units

NPLD 5610 Nonprofit Branding
This half credit course will provide the tools and framework for helping to understand the role that marketing and brand building can play in the non-profit sector. As such, we will create a shared understanding of the key concepts that help define branding and the classic elements of marketing that will serve as a foundation for discussion and analysis throughout the semester. We will identify the fundamental differences that non-profit organizations face in building their brands and how those challenges differ from traditional/for profit brand building. We will identify tools and frameworks that brands/organizations can use to help design and implement marketing strategy. We will utilize current and relevant case studies that help demonstrate the core concepts of this course. For term specific details please consult our website: https://www.sp2.upenn.edu/academics/ms-in-nonprofit-leadership
Fall
0.5 Course Units

NPLD 5620 (Almost) Everything You Need to Know About Nonprofit Law
This half credit course will provide a basic understanding of the law that applies to nonprofit organizations, with an emphasis on the law affecting 501(c)(3)public charities. It will focus on ways to obtain and maintain federal tax exempt status, including issues of private inurements and private benefit, limits on advocacy, lobbying and electioneering, unrelated business income tax, and excess benefits taxes. It will show how legal structure and governance procedures affect the answer to the questions “Whose Organization Is It?” Students will review bylaws of multiple organizations to see how differences in structure reflect the great diversity of nonprofits and why “one size does not fit all” within the sector. They will learn how to avoid bad legal drafting that can create problems for dysfunctional organizations. The course will explain the fiduciary duty of officers and directors, explore the extent of potential personal liability, and review necessary insurance and indemnification. It will review Form 990 publicly available tax returns of multiple nonprofits to see why a tax return may be a nonprofit’s most important public relations document. It will also review the basics of charitable giving through a mock meeting of university development officers, outline the concepts of planned giving, and discuss the requirements for charitable solicitation registration at the state level. It will explain the legal requirements for maintaining endowments and discuss a series of ethical issues that can face nonprofit executives and their lawyers. Students will receive one year of free access to Don Kramer’s Nonprofit Issues website and will emerge with a better understanding of key legal issues facing the nonprofit sector that regularly make the news.
Fall
0.5 Course Units

NPLD 5630 Raising Philanthropic Capital
Americans gave more than $350 billion to nonprofit organizations last year, the highest total ever recorded. Now, more than ever, it is crucial that nonprofit leaders master the art and science of raising philanthropic capital. Participants in this innovative class will: 1) acquire an understanding of the nonprofit funding landscape; 2) learn proven and creative strategies to secure investments; 3) gain the experience of giving and motivating charitable commitments; and 4) receive peer evaluation and professional consulting feedback. This experiential and interactive learning course will provide students an opportunity to evaluate a nonprofit organization endeavoring to attract voluntary support, and coach students to think through and develop the ideas, skills, and tools required to participate personally in today’s philanthropic market.
Spring
0.5 Course Units

NPLD 5640 Social Impact and International Development
Social Impact and International Development will explore impact creation in resource-constrained settings, especially outside of one’s home community. We will meet online on 5 consecutive Thursday evenings starting October 24th. The class will cover 1) adapting solutions as a way of generating ideas, 2) careful stakeholder segmentation, 3) challenges of deliverables and distribution, 4) revenue and developing a unit of transaction, and 5) identifying and reducing uncertainty and risk. Students will produce written and verbal reflections on the tensions of working in a developing context; insider-outsider identities and trade-offs; and ethics, tensions, and opportunities of working in and out of one’s home community.
Spring
0.5 Course Units
NPLD 5650 Financial Management of Nonprofits
The half credit class will provide students with the ability to use the financial tools of cash flow, budgeting and forecasting models to assist in strategic thinking as it relates to a nonprofit organization. In addition, the class will provide tools that can be used to follow implementation of such strategies including: personal cash flow; basic financial statements; supplemental schedules; and cash flow, budgeting, and forecasting.
Spring
0.5 Course Units

NPLD 5660 Social Media Strategies
This course is intended as an introduction to strategic use of social media for social ventures. Many of you already use social media platforms in your personal lives, and have developed an intuitive understanding of how they work, and use them reflexively. If you're unfamiliar with various social media venues, that's ok! Many social media platforms will be described briefly in the lectures, but the course is not intended as a how-to for using them. We suggest that if you're new to the various social media platforms mentioned, that you jump in and try them out! These platforms are designed for individuals with all levels of technical proficiency, and they're designed to be inviting. You might find that with only a bit of effort that you become comfortable with them quickly. We expect that, regardless of your skill level, comfort, and current personal use of social media, you will gain real value from this course. Much of this value relates to conveying an understanding of how to use these tools strategically, and on behalf of a social venture or a social cause you care about. This sort of use of social media is significantly different than the way you would use it in your personal life. We hope, as you move through this course, you will wonder: 1) What does it mean to craft the voice of an institution? 2) What is it like to speak in the voice of an institution instead of my own? 3) How could one possibly develop a strategic plan to organically and authentically engage a community? 4) How do you define, find, and build community? 5) More than retweets and likes, what is engagement, how do you measure it, and how do you create engagement to spark social change?
Fall
0.5 Course Units

NPLD 5670 Unleashing Large Scale Social Movements
There is no shortage of compelling ideas and effective interventions for making the world better, however, very few of these great ideas spread. Aspiring leaders of big social change rarely succeed in engaging others in a meaningful or comprehensive way, their passion and their knowledge reaching hundreds or thousands when millions more could benefit. There are exceptions to this pattern, however, and this course seeks to explain what sets apart the initiatives that become successful large-scale movements. These efforts reliably address three questions in order to have a big impact: 1. How can we secure a genuine commitment from others to join us in the hard work ahead? 2. How can we set a strategy that gives us leverage and reach, making the most of our finite resources? 3. How can we take action, day in and day out, in such a way that we meet our aims for growth and impact, optimizing rapid learning and improvement by everyone in our movement? Drawing on examples from around the world and across the social sector, this course will walk you through these questions and provide you with a blueprint for spreading ideas, innovations, and programs that work, allowing you to engage the most people possible to change behavior and social outcomes at scale.
Fall or Spring
0.5 Course Units

NPLD 5680 Marketing Strategy for Social Impact
The first step in engaging beneficiaries, donors, and other customers is to understand what you will do, what you will not do, and why. This "marketing strategy" sets you up to make smart choices each day for how you will engage your stakeholders. In this course we will focus on the strategic vision that leads to engagement and growth. This course will enable you to: 1) Describe challenges and opportunities from the perspective of the customer rather than the organization; 2) Define and articulate a value proposition that can help guide marketing and strategic decisions; and 3) Evaluate the alignment of programs, pricing, promotion, and channels to affect consumer behavior and achieve goals.
Spring
0.5 Course Units

NPLD 5700 Philanthropy: Society's Passing Gear
The United States has a vast nonprofit sector that features 1.3 million organizations. (And that doesn't include 250,000 religious institutions!). Approximately $1.5 trillion of earned and contributed revenue flows through the so-called third sector. In 2018, Giving USA reported that $427 billion of those funds came from philanthropy -- given by a mix of individuals, foundations and corporations. The use of philanthropic dollars is as diverse as the donors who give those dollars. But what is the best use of those dollars? Sustaining high performing nonprofits? Supporting catalytic action? Nurturing individual excellence in the arts or sciences? This course will explore field of Philanthropy -- what it is, how it works, who participates, and its intersection with public policy and government.
Summer Term
0.5 Course Units

NPLD 5710 Major Gifts: Strategies in Practice
There has never been a more important time for nonprofits to contribute to the common good. But nonprofits face a major challenge: With 1% of donors accounting for 49% of donations, in a $420 billion market, the philanthropic pyramid is looking more like the Eiffel Tower. The answers lie in major gift strategy and tactics. This course will provide a framework for conceptualizing a major gift strategy as well as tools for designing and making a major gift solicitation. This course's goal is to ensure that each student has a case for support and a pitch for use in the immediate future. Notes: For term-specific details, refer to https://www.sp2.upenn.edu/academics/ms-in-nonprofit-leadership/curriculum/ and select the "Course Descriptions - Online Program" option.
Summer Term
0.5 Course Units
NPLD 5720 Design for Recovery

Anything that can be created or improved upon by humans is designed - products (digital and physical), services, experiences, communications, processes, brands and organizations. And individuals who aren’t trained as designers can leverage design methodology and tools to better meet the needs of the people their organizations serve. Think of design methodology as another problem solving toolkit that enables practice in thinking divergently and convergently, analogously and even wildly; in working with stories, quotes, and observations as data and recognizing patterns from them; in working collaboratively and building off of others; in expressing ideas simply and visually; and in learning by making and by getting feedback early and often. Design for Recovery is a new half credit class that will teach the fundamentals of design methodology alongside a new framework for recovery design as well as resources from the relatively new field of trauma informed design. Case studies and group projects will be on recovery design and therefore could include topics such as mental health; substance use; immigration, job, housing or other transitions; grief; or recovery from other traumatic experiences. The focus of the class is not on understanding the trauma but on understanding recovery and designing interactions to aid that recovery. Students will be expected to choose group projects with which they don’t have personal experience, both to acquire experience in designing for others and to minimize their own re-traumatization. Groups will pitch at least 2 project ideas, so that the instructor can help them choose an appropriate project. Human-centered design is a collaborative practice, so the best way to learn is to…practice! Good design also depends upon good listening, observation and inspiration. Therefore, much of students’ time outside of class will be experiential and involve learning by doing, together. In this course, students will not learn to become a designer—that’s a lifelong pursuit and involves a lifelong investment and practice in one’s craft. However, at the end of the class students should feel confident in their abilities to apply the design tools they’ll learn to any challenge they’re facing and to come up with new ideas and solutions as a result. Despite the focus on recovery design, students will be able to better serve the individuals served by their future social impact organizations, no matter what the organizations’ foci. The recovery design focus will simply better equip them for more emotional participant interviews/observations and for more meaningful storytelling.

Summer Term
0.5 Course Units

NPLD 5740 Social Impact at the Bottom of the Pyramid

The half credit course will offer a broad and pragmatic perspective on social impact at the Bottom of the Pyramid. The early part of the course will focus on general characteristics, challenges, and opportunities of resource-poor settings and high-uncertainty environments. The bulk of the course will focus on tools and frameworks designed to operationalize such Social Impact initiatives. The course is aimed at students with no to moderate experience in entrepreneurship/international development. Students with extensive work experience in for-profits, nonprofits, NGOs, or development work are most welcome.

0.5 Course Units

NPLD 5800 Nonprofit Governance

Effective governance relies upon consistent and ethical board leadership, yet nonprofit organizations that exemplify truly model governance are few and far between. This half credit course introduces students to broad frameworks of governance but will focus most deeply on the human dimensions of board leadership. In particular, we will examine real examples and cases of moral and ethical dilemmas faced by nonprofit boards and executive leaders, and the nuanced practices required to achieve effective board governance, with the goal of providing a practical grounding for students who expect to contribute to nonprofit leadership in their careers — either as executive staff or as board members.

Spring
1 Course Unit

NPLD 5820 NGOs and International Development

The first part of the course will offer a broad perspective on development, aid, and the role of NGOs. The latter half of the course will focus on issues in NGO management: problem analysis, solution design, fundraising, staffing (expatriate and local), monitoring and evaluation (including randomized controlled trials). The course is aimed at students with none to moderate experience in international development, but students with extensive work experience with NGOs or development work are encouraged to join.

Fall
1 Course Unit

NPLD 5830 Social Impact Measurement

The twofold purpose of social impact measurement is to assess and improve the impact of nonprofit programs and to offer actionable information for ongoing improvement. Social impact measurement is an essential learning opportunity for grantmaker and grantee. Developing an evaluation plan, instruments, and processes that are culturally responsive and equity informed will lead to actionable results and learning that will drive continuous improvement. This course offers an overview of leading social impact measurement methodologies and tools in a format that includes asynchronous recorded video lectures, synchronous discussion lectures, readings, and practical assignments designed to teach the design and implementation of a social impact measurement plan.

Fall or Spring
0.5 Course Units

NPLD 5850 Social Impact Lab

NPLD 585 is a 5-day, off-site, intensive service-learning course in social innovation. Students will learn how innovation and entrepreneurship play a central role in public problem solving. The course will explore how social entrepreneurs co-develop new ideas with key stakeholders, articulate problems and solutions, define intended impact, understand competition, and collaborate with other actors. At the end of the course, students will have mastered a set of conceptual tools and strategies that will allow them to be effective problem solvers in diverse settings throughout their careers. The course has five core objectives: 1) To introduce students to the concepts and practices of social entrepreneurship; 2) To introduce students to the components of a successful social enterprise; 3) To train students to view the world from a perspective of social innovation; 4) To encourage and empower students to develop their own innovative solutions to different social problems around the world. 5) To introduce students to real social issues and social innovations in a real-world setting.

Spring
1 Course Unit
NPLD 5860 Empowering Nonprofit Leaders to Thrive
This course is designed for interdisciplinary students interested in cultivating flourishing organizations, engaged stakeholders, and inspiring leaders across sectors and especially within nonprofits. Over the past several years, the field of Positive Organizational Scholarship (POS) has proliferated, yielding a compelling body of knowledge on how and when people thrive at work. This course focuses on both the theoretical and practical insights that can be gained from cutting-edge POS research and applied to help practitioners enrich people’s experiences at work and beyond. Special attention is placed on how this wisdom applies not only across sectors but also specifically to the nonprofit organizational context. In particular, the learning objectives of the course provide students with: 1) Techniques and real-world experience in using positive leadership concepts to enrich one's own career, relationships, and life; 2) Ability to identify opportunities to use positive leadership practices in the workplace to enhance stakeholder engagement, individual and organizational performance, and collective impact; 3) Tools for applying positive leadership concepts in nonprofits, as well as in other organizational domains (e.g., business, government, coaching, the family, etc.). Additionally, the course is built upon a foundation of experiential learning, such that students can expect to experiment and apply course concepts in their own lives throughout the semester. At the end of the course, students will feel a strong grounding in their own strengths and values, their own authentic leadership, their ability to connect with others in meaningful, supportive ways, and their capacity to surface opportunities that inspire constructive change at any level of interaction or organizing. The final paper will help students to crystallize their unique vision for a successful future and design clear action steps to pursue after the course ends.

Fall
1 Course Unit

NPLD 5870 Empowering Nonprofit Leaders to Thrive
NPLD 5870 is designed for interdisciplinary students interested in cultivating flourishing organizations, engaged stakeholders, and inspiring leaders across sectors and especially within nonprofits. NPLD 5870 focuses on both theoretical and practical insights that can be gained from cutting-edge research on how and when people thrive at work. This research can be applied to help practitioners enrich people's experiences at work, in collaboration with various stakeholders, and beyond. Additionally, NPLD 5870 is built upon a foundation of experiential learning, such that students can expect to experiment and apply course concepts in their own lives throughout the semester. Indeed, we intentionally start with ourselves as the first site of learning and development to promote greater authenticity and psychological safety. The experiential learning community is enhanced throughout the course with highly interactive, live class sessions, in-depth feedback from the Teaching Team, and intentional practice with constructive peer coaching. At the end of the course, students will feel a strong grounding in their own strengths and values, their own authentic leadership, their ability to connect with others in meaningful, supportive ways, and their capacity to surface opportunities that inspire constructive change at any level of interaction or organizing. The learning objectives of the course provide students with: 1) Techniques and real-world experience in using positive leadership concepts to enrich one's own career, relationships, and life; 2) Ability to identify opportunities to use positive leadership practices in the workplace to enhance stakeholder engagement, individual and organizational performance, and collective impact; 3) Tools for applying positive leadership concepts in nonprofits, as well as in all other organizational domains (e.g., business, government, communities, the family, etc.); 4) In-depth experience in peer coaching and developing practical experiments to innovate and improve on a daily basis.

Spring
1 Course Unit

NPLD 5890 Ethics and The Pursuit of Social impact
Leaders of organizations must often make difficult decisions that pit the rights of one set of stakeholders against another. Having multiple stakeholders or bottom-lines brings with it challenges when conflicts arise, with the perennial question of whose rights/benefits prevail? What trade-offs need to be made between multiple bottom lines? Does the mission of the organization prevail over the privileges of employees/clients? To what extent can large donors influence the mission of the organization? What is an appropriate social return on investment? This course will introduce the factors that influence moral conduct, the ethical issues that arise when pursuing social goals, and discuss the best ways to promote ethical conduct within such organizations. The course will use specific case studies, real and hypothetical, to analyze a variety of ethical issues that arise [including finance, governance, accountability, fundraising, labor (paid and unpaid), client groups, and service provision] among the multiple stakeholders and balancing multiple bottom-lines. This course is offered in the fall semester and will conclude by discussing ways that organizations can prevent and correct misconduct, develop a spirit of ethical behavior, and institutionalize ethical values in the organization's culture. For term specific details please consult our website: https://www.sp2.upenn.edu/academics/ms-in-nonprofit-leadership

Fall
1 Course Unit
NPLD 5900 Social Finance
“Economic analysis and financial accounting are like languages: fluency comes with practice. In-class review of case studies (including, on occasion, in-person discussions with the representatives of diverse agencies and organizations featured in the case studies) will enable students to test and develop their capacity for applying conceptual tools and analytical methods to sometimes messy and always complicated, real-life situations. The course objective is to develop theoretical understanding, critical judgment, and practical skills for sensitive and effective engagement with financial and economic matters of significance.”
1 Course Unit

NPLD 5910 Change Making: Personal Traits and Professional Skills
Over the past decade, researchers have identified some of the key skills that people need to succeed in their work and in their lives. These are skills that anyone can develop with practice. In this class, we will teach three of the key skills: resilience (the ability to thrive in difficult times); creativity (the ability to come up with innovative solutions to problems); and productivity (the ability to make the best use of your time and find life balance). This summer session will take place through dynamic, interactive workshops. During the first session we will learn the key skills. Over the course of the next three weeks, we will practice these skills to see significant improvement in important areas of our daily lives. By the final day of class, we will talk about how to sustain these gains in our personal and professional lives long after the course has ended. This course is not a traditional lecture course. While we will review the best scientific research on the skills for effective change makers, the main part of the course is devoted to practicing these skills. In other words, this is a highly experiential, interactive, and dynamic course!
Summer Term
1 Course Unit

NPLD 5930 Design Thinking for Social Impact
Thinking like a designer can transform the way people and organizations develop products, services, processes, and strategy. This approach, called design thinking, brings together what is desirable from a human point of view with what is technologically feasible and economically viable. It also allows people who aren’t trained as designers to use creative tools to address a vast range of challenges. Design thinking is a deeply human process that taps into abilities we all have but get overlooked by more conventional problem-solving practices. It relies on our ability to be intuitive, to recognize patterns, to construct ideas that are emotionally meaningful as well as functional, and to express ourselves through means beyond words or symbols.
Spring
1 Course Unit

NPLD 5940 Technology and Social Impact
As mobile computing technologies become increasingly functional and affordable, donor and grassroots organizations find ways to justify and massively fund their use in social sector work. This reading- and discussion-based class will be driven by concern that technological resources be used maximally to promote social initiatives’ efficiency, effectiveness, cultural appropriateness, and sustainability. We will use organizational and sociotechnical frameworks to understand how resource-constrained social organizations translate potentially performance-improving technologies into actual performance improvements for stronger mission achievement. No technology influences social outcomes in a vacuum - we will study how implementation environments, and distribution and adoption strategies, influence technologies’ uptake and mission-advancement.
Summer Term
0.5 Course Units

NPLD 5950 Effective Communication and Storytelling
Great leaders are storytellers. They are able to engage and entertain their communities, and tell a compelling narrative about how the world works. They use language powerfully and communicate in ways that uplift and inspire others. In this class, we will explore the power of telling great stories, and learn how to do it most effectively when promoting your campaigns to make the world a better place. We will also look at the skills of framing language in ways that will win over an audience. Finally, we will look at other key skills of effective communication, including the best strategies for persuasion, negotiation, and conflict resolution.
Summer Term
Also Offered As: SWRK 5950
1 Course Unit

NPLD 5960 Design and Incorporation of High Impact Nonprofits
Design and Incorporation of High Impact Not-For-Profits is designed for those who have a practitioner’s interest in the design, governance, leadership, and management of high impact not-for-profit organizations. This course is taught through learning best practice theory, applying this theory to a simulation experience, and providing students the opportunity to apply their new knowledge and experience in an interview with a current not-for-profit leader. Students, through the combination of theory and practice, are provided with the essential competencies and tools to design and incorporate a not-for-profit, conduct in-depth analysis of a not-for-profit’s effectiveness including, but not limited to, governance, leadership, social impact, financial sustainability, and systems and policy influence. Through the mock simulation process of designing, incorporating, and governing, students will leave with a “best practice” for not-for-profit manual that includes articles of incorporation, bylaws, governance deliverables, strategic business plan, organizational scorecard, 3-5 year budget, development plan and public policy strategy.
Spring
Also Offered As: SWRK 5960
1 Course Unit
NPLD 5970 Social, Public, and Law Policy for Nonprofits
SOCIAL, PUBLIC and LAW POLICY is designed for students to strengthen and develop their skills to formulate, shape, and influence public policy. Students will strengthen and develop their skills in policy formulation and implementation. The social, economic, legal, ethical, and political environments, which influence public policy, planning, evaluation, and funding will be explored. Participants will (a) analyze the structural, social, and policy issues that have galvanized advocacy efforts and (b) explore the roles that the government, private sector, and consumers and advocacy groups play in setting policy agendas and examine the intended and unintended effects of these policies. With an increasing competitive market, the overall social sector is changing the landscape for private, nonprofit and government organizations nationally and globally. The public, as well as leaders in government, social investors and philanthropists are demanding new social models that are cost effective, financially self-sustainable, adaptive to feedback and metrics, with clear outcome accountability measures, and the potential for large-scale impact, policy influence, and systems change.

Summer Term
1 Course Unit

NPLD 5980 Nonprofits and Urban Revitalization: The Philadelphia Story
Once the "workshop of the world" with a diverse manufacturing economy, the City of Philadelphia lost a huge proportion of its historical economic base from 1950 through 2000. Today Philadelphia struggles to find its competitive advantage. Yet it has tremendous assets that can be leveraged, and its robust nonprofit sector constitutes the most critical set of actors. This course will explore the rise and fall of Philadelphia's manufacturing economy, efforts to forestall its decline in the 1960s and 70s, the racial and gender dynamics of its employment ecosystem, and contemporary strategies to create a sustainable local economy. We will focus on the role of the nonprofit sector – large and small organizations alike – in the revival of downtown residential living, tourism and hospitality, workforce development, business attraction and retention, place-based development, and much more. The course will combine readings in economic and social history and urban economics with case study analyses of local policies aimed at stimulating growth.

Summer Term
1 Course Unit

NPLD 5990 Independent Study
Independent studies provide a flexible opportunity for students and NPL faculty or part-time instructors to work together in pursuing a topic of special interest that is not sufficiently covered by other courses in the curriculum. The content of independent studies is highly specialized and, as such, requires a plan of study developed jointly by the student(s) and the supervising professor. Independent studies require the academic advisor's approval.

Fall or Spring
1 Course Unit

NPLD 7200 Data Analysis for Social Impact
Practitioners, leaders, and researchers need to engage with the latest cutting-edge research findings in their field. In this class you will develop an understanding of the quantitative methods that underpin social impact research, in an applied lab-based context. Theoretically, we will focus on developing your working statistical knowledge, and practically we will develop your data analysis skills by introducing you to a range of approaches for analyzing and handling large-scale secondary quantitative data that capture social impact. The substantive focus of the course will be on individual-level participation in the Non-profit Sector in activities such as volunteering and charitable giving. This applied course covers the fundamental elements and approaches to handling and analyzing quantitative survey data. The emphasis is on developing an adequate understanding of basic theoretical statistical principles, descriptive and exploratory methods of analysis, graphical representation, operational procedures and interpretation of statistical results. The course will cover a wide range of statistical techniques from basic descriptive statistics to more advanced multivariate statistical techniques, such as OLS regression and logistic regression. You will also be introduced to a number of important topics, including theory testing and development; philosophy of science and research judgement; and replication in social impact research. This course is an introduction to applied social impact research and is designed for those who want to engage with quantitative social impact research, but also those who wish to make their own original research contributions. No prior statistical knowledge or programming skills are required to enroll in the course.

Fall
1 Course Unit

NPLD 7250 Managing Volunteers C
1 Course Unit

NPLD 7300 Difficult Art of Listening
The art of listening ethnographically has many benefits. Using a generally anthropological framework to organize sessions, this course attempts to make a case for the productive force (for scholars, policy makers, nonprofit leaders and others) of hearing in proactive and nuanced ways. Highlighting the value of acoustemological ways of understanding the world (knowing through hearing), the course asks students to listen in newfangled ways to many of the things they've heard before - while also listening out for things that they've never previously taken note of. Thinking about how listening carefully greases the wheels for successful interpersonal communication and overall cultural understanding, students will be asked to observe themselves listening in ways that might allow for innovative translations of observable/empirical data into knowledge that can be deployed in service to personal, institutional, and structural change.

Fall
0.5 Course Units
NPLD 7500 Corporate Social Responsibility (CSR): Partnerships and Practices
Businesses performing philanthropic activity often use their platform of CSR activities to engage with society, directly, via a corporate foundation, or through partnerships with nonprofit organizations. Although such philanthropic activities are not directly related to profit-making ventures, they may boost their reputation, be used in marketing their products, talent recruitment, increase employee engagement and commitment, and thus contribute to the profit indirectly. Many businesses undertake their CSR related philanthropic activities using strategic partnerships with nonprofits or public sector organizations to meet their goals. This provides opportunities to nonprofit and public sector leaders in achieving social and sustainable change.
Fall or Spring
1 Course Unit

NPLD 7510 Widening the Aperture: Assessing Global Social Impact Interventions
Part of being a working professional in social impact is assessing the effectiveness of intervention models. This is true whether you work in service delivery, consulting, evaluation or philanthropy. This course offers students a unique, experience-based opportunity to assess an organization’s work from afar, then on the ground in Malawi. The expectation is that several assumptions established in the beginning of the course will hold through to the end. Importantly, others will not. Students will understand how we build a knowledge base about an organization’s work, what assertions we come to, and then how we test those assumptions. This process represents a vital skill set including research, perspective-taking, and direct engagement with the communities served and the people doing the work. The course will provide students with a practical framework for analyzing social impact interventions through three important and complementary lenses: sector practice, environmental factors and organizational implementation. Students will use the immersive, travel experience in Malawi to engage directly with one of three service organizations to apply the framework. They will also use data collected about these organizations through the Lipman Family Prize selection process, a University of Pennsylvania-based social impact prize, combined with their own research, both primary and secondary, to better understand the organizations, staff, and forces influencing the intervention. Students will use ethnographic tools to collect and analyze primary data regarding staff attitudes and perceptions at these organizations. Students will present their findings to the organizational leadership while still in the country. The course will include significant team-based project work.
Summer Term
1 Course Unit

NPLD 7520 Energy, Innovation, and Impact in the Global South
Over the past decade, a new type of social enterprise has emerged, which aims to deliver goods and services to the huge market of off-grid, low-income households in developing countries. These social enterprises, known as ‘Base of the Pyramid’ (BoP) ventures, seek to simultaneously achieve profits, scale, and social impact. This course will focus on a sector that has been radically transformed by BoP ventures over the last decade – clean energy. Not only has this sector been catalytic to delivering energy access across the developing world, it also directly aims to combat climate change, the existential issue of our age. This is a course for those who are interested in becoming social entrepreneurs, particularly in developing countries. It will reveal the nuances of operationalizing these ventures and provide a business toolkit for designing and launching a social venture. The course will equally be topical for those who are simply interested in better understanding the inner-workings and implications of this fast-growing and alluring model of alleviating poverty and disease.
1 Course Unit

NPLD 7600 Nprft Fundrsng Phil Cap
1 Course Unit

NPLD 7620 Nonprofit Law
Nonprofit organizations are subject to specific state and federal laws designed to protect their charitable or other societal purpose and to oversee the solicitation and use of public funds. This course will introduce students to state laws and federal tax laws governing nonprofit (tax-exempt) organizations. This course will provide practical guidance to nonprofit professionals seeking to understand these important rules and to guide their nonprofits to compliance.
Spring
1 Course Unit

NPLD 7810 Understanding and Managing Volunteers for Impact
In chemistry, an atom is the smallest unit of matter that has the properties of an element. In the same vein, volunteers are the atoms of voluntary action. Volunteers are the backbone of many human service organizations, environmental organizations, and other nonprofit organizations. Volunteers serve almost every function from stuffing envelopes to sitting on boards of nonprofit organizations. They make many programs such as education, and environmental protection possible and fill the void created by the fiscally retreating governments as well as newly arising social problems and human needs. Without volunteer participation, the services that are offered by many nonprofit organizations would be unavailable or provided at a higher cost to government, clients, and donors. The literature as to what constitutes volunteering and what produces committed and effective volunteers is confusing and full of contradictions. Furthermore, only few organizations know how to face the challenges of managing unpaid staff and how to motivate volunteers without offering material benefits. Volunteers are simultaneously non-remunerated employees and independent support with a different agency than paid employees. This course will combine presentations, group work, discussions, case studies, video clips, and readings to delve into the challenges of volunteering.
Spring
1 Course Unit

NPLD 7820 Corporate Social Responsibility (CSR): Partnerships and Practices
Businesses performing philanthropic activity often use their platform of CSR activities to engage with society, directly, via a corporate foundation, or through partnerships with nonprofit organizations. Although such philanthropic activities are not directly related to profit-making ventures, they may boost their reputation, be used in marketing their products, talent recruitment, increase employee engagement and commitment, and thus contribute to the profit indirectly. Many businesses undertake their CSR related philanthropic activities using strategic partnerships with nonprofits or public sector organizations to meet their goals. This provides opportunities to nonprofit and public sector leaders in achieving social and sustainable change.
Fall or Spring
1 Course Unit
NPLD 7820 Group Dynamics
"Today, everything we do in life is influenced by • The interpersonal relationships we develop • The partnerships we create in work, friendship, and family groups • Our capacities to understand, embrace, and manage conflicts • The ways we affirm both our differences and our commonness. NPLD 7820 is a half credit course designed for U Penn grad students who want to enhance their skills at everything from managing work groups through to engaging in discovery-learning and co-educating each other about how to make best use of your time, energies and resources. All of our lives have been altered by the pandemic in ways that are obvious and in ways that are hidden and hard to recognize. People of all ages and walks of life are trying to re-envision the paths we are on, and the contributions we can offer to the world. We are also discovering new things about our identities, the roles we are asked to take up, our sense of belonging in a range of settings, plus things like global economic disparities, the pernicious -isms (race, gender, class, etc.), and humanity’s relationship with nature. 7820 is experientially based. This means knowledge and insights are acquired through the direct experience of relational engagement. As we generate new forms of relatedness, our understanding of ourselves deepens, and in turn leads us to take actions that enrich both others and ourselves.”
Spring
0.5 Course Units

NPLD 7830 Field Exercise in Social Impact Measurement
The twofold purpose of social impact measurement is to assess and improve the impact of nonprofit programs, and to offer actionable information for ongoing improvement. Social impact measurement is an essential learning opportunity for grantmaker and grantee. However, developing an evaluation plan, instruments, and process that is culturally responsive with an equity lens and also aligned with a nonprofit’s capacity is crucial. This course will offer an overview of leading social impact measurement methodologies and tools and field exercise experience. During the field exercise, student teams will develop an evaluation plan and associated instruments for a nonprofit using one or more of the methodologies. Teams will present their evaluation plans and offer recommendations for implementation. Lectures will be complemented by class time devoted to field exercise team meetings and off-site work.
Fall
1 Course Unit

NPLD 7840 The Nonprofit Sector: Concepts and Theories
Nonprofit organizations are ubiquitous. They impact almost every area of society. From health care to homeless shelters, from education to the environment, nonprofits provide services, promote legislation, protect rights, and produce public and private goods. This class will survey the entire nonprofit sector, to gauge its vast scope and multiplicity. The course will also cover various concepts and theories related to the nonprofit sector. These concepts and theories come from a variety of academic fields, including economics, sociology, political science, psychology, law, and public administration. We will cover the basic voluntary behaviors associated with nonprofit organizations, such as volunteering and charitable giving. We will also cover the basic concepts associated with nonprofit management, like board governance and fiduciary duties.
Fall
1 Course Unit

NPLD 7850 Group Dynamics and Organizational Politics
This is one of the courses referred to as "The Power Lab at Penn." This intensely experiential course is designed for those providing group and institutional leadership at any level of a human enterprise, managing work groups, chairing committees, serving on special task forces, conducting support groups, offering legal services, teaching in classrooms, facilitating groups in clinical settings, etc. Participants will focus on two topics: (1) an in-depth understanding of group dynamics while they are in action, and (2) the organizational relationships between groups that are in a powerful position, groups locked in a powerless state and those caught in the middle between the powerful and the powerless. Prerequisite: Permit required; all potential participants are required to attend a Primer class which consists of one evening session AND an all-day session. Permits are granted only after students have completed the primer classes. Course Structure: This course has six components: (1) A pre-course discerning process, which consists of a one evening plus one full day Primer workshop; (2) Module 1 which is focused on group dynamics; (3) reading an assigned book and writing a paper based on Module 1 experiences; (4) Module 2 which addresses power relationships among groups with differential resources; (5) reading two assigned books and writing a paper based on Module 2 experiences; and (6) a post-course debriefing. The Primer provides all potential participants with a common conceptual base for engaging in the essential learning and lays out the intellectual foundations of the course. For additional details: https://www.sp2.upenn.edu/npl-resources/#course-descriptions
Fall
1 Course Unit

NPLD 7860 Strategic Management and Leadership of Nonprofits
This course is about doing good and doing well. It is designed to introduce you to the fundamental issues in accountability and governance and the administration and management in nonprofit organizations. Through research and analysis, you will understand multiple structures of accountability and the various stakeholders in nonprofits, understand the duties and dynamics of boards of directors in conjunction with other mechanisms of governance (e.g. chief executive officers, advisory boards, etc.), and develop an understanding of management techniques and leadership skills for enhancing the effectiveness of nonprofit organizations. You will be asked to think about the challenges of running nonprofit organizations in a comparative context, with cases drawn from both the U.S. and abroad. The emphasis of this course is on acquiring operational skills. The course is designed for those who may have had years of experience managing other people and programs in the nonprofit sector but who want to develop a more systematic mastery of this challenge, as well as students from other sectors who aspire to a nonprofit leadership role.
Spring
1 Course Unit
NPLD 7870 Leadership Theory and Practice
This course will present the evolution of leadership theory beginning with classical trait theories and ultimately focusing on more modern perspectives such as adaptive, authentic, and shared leadership models that engage more critical understandings of traditional leadership theory. Ultimately, we frame leadership as socially constructed, collective experience that is generated by complex group dynamics. We will examine leadership in nonprofit organizations, government, and social movements. Readings will include a formal overview of leadership theory as well as contemporary feminist and futurist perspectives. The practice focuses on developing new relational capabilities that include deep listening, self-reflection, and adaptive problem solving. “There is nothing so practical as good theory” – Kurt Lewin, Organizational Psychologist “All models are wrong, but some are useful” – George Box, Statistician “To learn which questions are unanswerable, and not to answer them, this skill is most needful in times of stress and darkness.” – Ursala K. Le Guin
1 Course Unit

NPLD 7880 Social Impact Entrepreneurship Meets Mass Incarceration
"This course is an integral part of the Penn Restorative Entrepreneurship Program (PREP) https://www.sp2.upenn.edu/research/special-projects/prep/ and will offer a group of previously incarcerated people intensive training on developing a new business. Students from SP2, Wharton and Penn Law will work with returning citizens on teams throughout the semester which will learn to craft a viable business plan while also engaging in critical analysis of the limits of social impact entrepreneurship in addressing longstanding social problems such as mass incarceration. In the final meeting, the teams will make pitches to a panel of angel investors who are recruited to provide additional supports to the most promising proposals. This ABCS (Academically-Based Community Service) course aims to not only play an important role in reducing recidivism but to also enable Penn students the opportunity to connect with members of our broader community and engage in meaningful social change in a cross-disciplinary setting where the expectation is that all of us has something to learn from and to teach to everyone else."
Fall
1 Course Unit

NPLD 7900 Social Finance
"Economic analysis and financial accounting are like languages: fluency comes with practice. In-class review of case studies (including, on occasion, in-person discussions with the representatives of diverse agencies and organizations featured in the case studies) will enable students to test and develop their capacity for applying conceptual tools and analytical methods to sometimes messy and always complicated, real-life situations. The course objective is to develop theoretical understanding, critical judgment, and practical skills for sensitive and effective engagement with financial and economic matters of significance."
Fall
1 Course Unit

NPLD 7910 Leadership: Designing the Future
This course is a Call to Action! It is time for the next generation to shape the world anew. NPLD 7910 provides opportunities for participants to create new insights that help them to reimagine their relationships with themselves, others, and the natural and man-made environments. This is the moment to advance the human condition by co-creating knowledge and perspective while also preserving the wisdom passed on to us from our collective ancestors. NPLD 7910 is a full semester, 1.0 credit unit, synchronous, virtual, experiential course that operates on the principles of discovery learning. Simply put, there is little that is conventional about this class. There are no power-point slides. There are no universal takeaways. There are no final exams. Instead, we offer the chance to immerse, explore, and discover together. Though, come to think of it, the class is delivered via Zoom. That’s pretty conventional these days. NPLD 7910 has four parts: Module 1 is a primer that explains the course architecture and creates the learning community for the course. Module 2 provides course members the opportunity to study their own group dynamics while also working to extract salient insights located in a scholarly text on a specific societal dilemma Module 3 has course members working together in new configurations, exploring the power dynamics between groups seeking to enact and amplify social change. Module 4 involves a post-course reading of a book to be determined at the end of Module 3, and the writing of a final paper based on the links that book and the experiences of course participants throughout the semester.
Fall or Spring
1 Course Unit

NPLD 7920 Social Entrepreneurship
Social entrepreneurs are individuals with innovative vision seeking to accomplish important public purposes through the creative and aggressive mobilization of people and resources. Using academic theory and research on social entrepreneurship as a framework, student innovators learn to design, develop, and lead social change organizations of their own invention. Students turn their passion for changing the world into concrete plans for launching a venture. Over the course of the semester, we will cover a broad array of topics associated with social innovation and entrepreneurship, including defining the problem/opportunity, refining the mission/vision, developing market research and industry analysis, defining a financial and operating structure, assessing results and progress, and scaling an enterprise. This course is neutral on sector. Graduate students in any of Penn’s graduate and professional schools who want to create social value through either nonprofit or for-profit ventures are invited to take the class and develop their ideas. The class will expose students to the process of getting an organization - regardless of sector - off the ground and running. While this is a class on innovation and entrepreneurship, students do not need to be committed to starting a venture upon graduation. The skills and tools contained in the course have wide applicability in the workplace. Being able to develop a coherent venture plan is great training for anyone who wants to work in government, philanthropy, or the business sector funding or managing existing organizations. The course attempts to convey a picture of what a well-considered and well-executed venture plan looks like with the goal of developing in students an appreciation for clear thinking in the pursuit of the creation of public value.
Fall or Spring
1 Course Unit
NPLD 7940 Fundraising and Philanthropy: The Donor Journey
Today, we stand at an important moment in the history of philanthropy, as U.S. giving reached an all-time high in 2018, with $427 billion invested in the philanthropic marketplace. As charitable giving is on the rise, nonprofit professionals are thinking more strategically about securing charitable gifts that will position their organization to have greater social benefit, whether they represent small grassroots organizations or large institutions. This course will provide students with the theory and basic knowledge of fundraising that charitable organizations use to raise private philanthropic dollars. The course will begin with an overview of the philanthropic landscape and key trends in philanthropy to contextualize the role of fundraising. Each subsequent module will review different aspects of the theory and body of knowledge that guides the most effective fundraising programs in charitable organizations, including principles of individual giving, major gifts, structural philanthropic vehicles, making the case for support, prospect research, and engaging volunteer leaders in fundraising. Modules are structured to both impart theory and develop skills to enhance students’ critical analysis of philanthropy. By the conclusion of the course, students will gain the knowledge, tools, and techniques to implement fundraising best practices at their professional organization or in a volunteer capacity to raise funds for social benefit.

Spring
1 Course Unit

NPLD 7960 Philanthropy and Fundraising Tools for Managers of Nonprofit Organizations
This fall semester course will review the everyday tools that nonprofit managers and development officers need to raise funds from individuals and other sources of private philanthropy. Last year, Americans gave approximately $300 million to charitable organizations and 83% of it was from individual giving. The fundraising profession has created a body of knowledge in the past twenty years that can guide effective fundraising programs so that charitable organizations can support their mission. The class sessions will review the theory and practical techniques that development professionals use every day in large and small organizations, including annual giving, major gifts, planned giving, cultivation of donors, making your case for support, the Seven Faces of Philanthropy, special events, and prospect research. There will also be discussions of philanthropic trends and current giving patterns. For those who are interested in nonprofit leadership and positions of influence, these will be critical tools to understand.

Fall
1 Course Unit

NPLD 7970 Philanthropy and the City
This course will focus on how urban communities are shaped by the nonprofit sector and the billions of philanthropic dollars that fuel their work. By bridging theory and practice, the class explores what dynamics are at play to deliver vital services or programs in healthcare, education, the arts, community development, and other issues. The course will also focus on these important questions: (1) Whose responsibility is the public good? How is that responsibility shared by the public, private, and nonprofit sectors? and (2) Given that responsibility for the public good, which individuals and groups make the decisions about how to serve the public good? How are these decisions made, and who benefits from these decisions? Students will consider these questions in an interdisciplinary context that will bring a historical and philosophical perspective to the examination of the values and institutions that characterize the contemporary philanthropy and the nonprofit sector.

Spring
1 Course Unit

NPLD 7990 Independent Study
Independent studies provide a flexible opportunity for students and NPL faculty or part-time instructors to work together in pursuing a topic of special interest that is not sufficiently covered by other courses in the curriculum. The content of independent studies is highly specialized and, as such, requires a plan of study developed jointly by the student(s) and the supervising professor. Independent studies require the academic advisor’s approval.
0-1 Course Unit

Nursing (NURS)

NURS 0020 Pre-First Year Program in WRIT/NURSCI/LABS
This course uses an interdisciplinary approach to study diabetes mellitus. The basics of general, biological and nutritional chemistry as well as the physiology necessary for an understanding of the metabolic basis of diabetes mellitus will be covered. The course includes lectures, anatomy and nursing physical assessment laboratory activities, and application of knowledge via case study discussion. The course is designed to provide an introduction to the Nursing curriculum and related skills using the disease diabetes mellitus as its framework. In addition to classroom lectures, an introduction to physical assessment and nursing interventions for patients with diabetes, anatomy laboratory activities, and exposure to nursing research are provided. The course will stress active student learning.
0-1 Course Unit

NURS 0061 Biologically-Based Chemistry
A contextual approach will be used in studying the concepts in General, Organic and Biological Chemistry that are foundational to an understanding of normal cellular processes. Topics that will be covered include measurements, atomic structure, bonding, chemical reactions, properties of gases and liquids, solutions, equilibrium, acids and bases, pH, buffers, nuclear chemistry, nomenclature and properties of the main organic functional groups, and the structures and function of carbohydrates, proteins and lipids.

Fall
.5 Course Units

NURS 0065 Fundamentals of Nutrition
Essentials of normal nutrition and their relationships to the health of individuals and families. These concepts serve as a basis for the development of an understanding of the therapeutic application of dietary principles and the nurse's role and responsibility in this facet of patient care. Prerequisite: Equivalent Science Sequence Course if course prerequisites not met

Spring

Prerequisite: NURS 0061 OR NURS 0068
1 Course Unit
NURS 0068 Integrated Cell Biology and Microbiology with Recitation
Through didactic and recitation interactive learning, students will explore the major topics of cell biology and microbiology that are foundational for an understanding of normal and pathological cellular processes. Topics will include the brief study of prokaryotic and eukaryotic cell structures and functions; the main biological molecules; membrane transport; cellular communications; the flow of genetic information; cell division; and cellular metabolism. The course will also examine the role of cells and microbes in human health and infectious diseases. It will include a description of the main types of microbes, how they are identified, their growth requirements, and the role of the immune system in controlling infections, the control of microbes, host-microbe interactions. The context of the recitation sessions allow students to apply knowledge of cell biology and microbiology for understanding of advanced processes like the cellular basis of cancer and infectious human infection diseases. This course will include special sessions from a clinical perspective in the various fields of medicine, microbiology, and immunology.
Fall
1 Course Unit

NURS 1010 The Nature of Nursing Practice
This course facilitates students’ ability to conceptualize the experiences of individuals, families, communities, and populations living with health and illness. It emphasizes the integration of knowledge from other disciplines and of nursing science as the basis for practice. The course introduces the four core themes of the undergraduate nursing program: engagement, inquiry, judgment, and voice as it provides guided observational experiences in a wide variety of settings. These experiences help the student to discover what is not known and what is subsequently necessary to know. These experiences also explore the place of the natural and social sciences and the arts and humanities in nursing practice. This course also will highlight the relationships between and among members of the interprofessional team and families and patients. NURS 102 fosters development of the professional role and sets the stage for life-long learning.
Spring
Prerequisite: NURS 1010
.5 Course Units

NURS 1020 Situating the Practice of Nursing
This course emphasizes not only how nursing is practiced, but also where it is practiced. The course further explores the four core themes of engagement, inquiry, judgment, and voice as it provides guided observational experiences in a wide variety of settings. These experiences help the student to discover what is not known and what is subsequently necessary to know. These experiences also explore the place of the natural and social sciences and the arts and humanities in nursing practice. This course also will highlight the relationships between and among members of the interprofessional team and families and patients. NURS 102 fosters development of the professional role and sets the stage for life-long learning.
Spring
Prerequisite: NURS 1010
.5 Course Units

NURS 1030 Psychological and Social Diversity in Health and Wellness
This course explores and integrates the intersection of psychological, cognitive, and social development with the lived experiences of individuals, families, and communities across the lifespan in order to conduct socially contextualized health assessments and health teaching. Extant theories will be critically analyzed and examined with respect to issues of health care access, health history, health promotion, and issues of equity and diversity from a life-course perspective. This knowledge will be synthesized and integrated with the development of the student's communication skills and interviewing processes necessary to develop socially attuned health history and teaching that promote psychological well being and healthy lifestyles. Simulated and observational experiences provide students with opportunities to acquire and apply knowledge necessary for conducting a comprehensive health history of an individual situated within a diverse community. They also provide opportunities to develop prioritized health teaching plans in partnership with that individual.
Fall
Prerequisite: NURS 1010 AND NURS 1020
1 Course Unit

NURS 1120 Nutrition: Science & Applications
An overview of the scientific foundations of nutrition. The focus is on the functions, food sources and metabolism of carbohydrate, fat, protein, vitamins and minerals. Effects of deficiency and excess are discussed and dietary recommendations for disease prevention are emphasized. Current issues and controversies are highlighted. Students will analyze their own dietary intakes and develop plans for future actions. Prerequisite: For Non-nursing Students
Fall or Spring
1 Course Unit

NURS 1310 Human Anatomy and Physiology - Part A
The structural and functional organization of the human organism is presented, along with the fundamentals of developmental anatomy and embryology. Histologic and gross anatomical features of selected organ systems are related to the physiologic and biochemical mechanisms which enable the human body to maintain homeostasis in an ever-changing environment. Prerequisite: Equivalent College Level Chemistry and Biology if course prerequisites not met
Spring
Prerequisite: NURS 0061 OR NURS 0068 OR CHEM 1011 OR BIOL 1101
1.5 Course Unit

NURS 1320 Human Anatomy and Physiology - Part B
The structural and functional organization of the human organism is presented, along with the fundamentals of developmental anatomy and embryology. Histologic and gross anatomical features of each organ system are related to the physiologic and biochemical mechanisms which enable the human body to maintain homeostasis in an ever-changing environment. Basic concepts of pathophysiology are introduced and applied to certain clinical disorders.
Fall
1.5 Course Unit
**NURS 1590 Pathways to Practice**
This course builds on the accelerated student’s background and experience and uses them as building blocks to garner the intellectual capital needed to integrate his/her identity as a professional nurse. The course links the Penn Compact 2020 to the four core themes of Penn’s BSN nursing program: engagement, inquiry, judgment, and voice. It introduces phenomena of concern to nursing, contextualizes societal meanings of nursing practice and health care delivery across time and place, and stresses the importance of nursing science as the basis for practice. Emphasis is placed on debate, critical analysis, and constructing a logical and lucid verbal and written argument regarding issues related to professional nursing practice and health care delivery.  
1 Course Unit

**NURS 1600 Physical Assessment**
This is a laboratory course designed to help beginning nursing students to develop competence in the process of physical assessment. Students engage in actual practice of physical assessment with fellow students as their ‘patient’ subject. A blending of instructor demonstration and supervision of physical examination practice sessions is used in the learning laboratory setting. Students prepare via self-learning activities with a variety of supplied resources (readings, videotapes, computer programs) and have the opportunity to refine their skill through faculty-supervised practice sessions. Procedural skills that correlate with the presentations of physiologic system assessment are included. Prerequisite: For students in Accelerated BSN Nursing Program Only Summer Term  
1 Course Unit

**NURS 1630 Integrated Anatomy, Physiology, and Physical Assessment I**
This is the first part of a two-semester course designed to provide a comprehensive study of the structure and function of the human body along with essential embryology and maturational physiology. Histological and gross anatomical features of selected organ systems are related to the physiologic and biochemical mechanisms that enable the human body to maintain homeostasis. Within each system, deviations from normal are considered to situate the student’s understanding of health problems and to foster an appreciation for the complexity of the human organism. Integrated into each topic are the correlated physical assessment parameters and related procedural skills. Laboratories exercises and case study analysis provide a contextual base to acquire and use domain-specific knowledge of concern to the practice of nursing. Prerequisite: Equivalent Science Sequence Course if course prerequisites not met.  
Spring  
Prerequisite: NURS 0061  
2 Course Units

**NURS 1640 Integrated Human Anatomy, Physiology & Physical Assessment II**
This is the second part of a two semester course designed to provide a comprehensive study of the structure and function of the human body along with essential embryology and maturational physiology. Histological and gross anatomical features of selected organ systems are related to the physiologic and biochemical mechanisms that enable the human body to maintain homeostasis. Within each system, deviations from normal are considered to situate the student’s understanding of health problems and to foster an appreciation for the complexity of the human organism. Integrated laboratories and case studies provide a contextual base to acquire and use domain-specific knowledge that includes physical assessment, and procedural.  
Fall  
Prerequisite: NURS 1630  
2 Course Units

**NURS 1650 Integrated Pathophysiology, Pharmacology, and Therapeutics**
Pathophysiologic concepts and processes are introduced with major emphasis on commonly occurring acute and chronic illnesses and their therapeutic interventions. Major classes of drugs that are used to support organ function are explored. The physiological and pathophysiological rationale for each drug indication, mechanisms of drug action, individualized dosing implications, and adverse drug events will be explored for prototypical agents used in the selected cases. The course will enhance the student’s comprehension of the scientific complexity of therapeutic interventions in various conditions and will build upon the foundational sciences. Additionally the course will provide the student with sufficient scientific knowledge and skills to prepare administer and monitor drugs and therapies in a safe and effective manner.  
Spring  
Prerequisite: NURS 1640  
2 Course Units

**NURS 2150 Nursing of Women and Infants**
This course emphasizes the child-bearing cycle, and the related issues of maternal and infant mortality and morbidity. It also explores women and infant’s health care and health promotion needs across the lifespan. It provides a global perspective, and uses the United Nations’ Pillars of Safe Motherhood and World Health Organization’s Millennium Development Goals as the vehicles to enable students to understand the interrelationships among issues of health and health promotion; social, economic, political and environmental contexts; and the care of women across the lifespan. Clinical experiences provide opportunities for students to understand the connections between the local and the global; to use their developing knowledge base to affect the health of women and their infants. Students will have opportunities for hospital-based care of child-bearing women and their infants. In addition, community-based experiences with individual women and with groups of women across the life cycle will be provided in order to enhance teaching, interviewing and assessment skills.  
Spring  
Prerequisite: NURS 1010 AND NURS 1020 AND NURS 1030 AND NURS 1600 AND NURS 1640  
1.5 Course Unit
NURS 2250 Pediatric Nursing
This course considers how nursing influences the health and healing capacities of infants, children, adolescents and their families. It focuses on the knowledge and skill acquisition needed to care for these patients at particular moments, across the continuum of care, and through transitions in an illness experience. It addresses pediatric nursing phenomena of concern and major final common pathways of pediatric illness from infancy through adolescence using a using a developmental and systems approach. Emphasis is placed on family-centered care through transitions in the illness and recovery phases. The course emphasizes clinical reasoning; family centered strategies for optimizing health and maintaining individuality; promoting optimal developmental, physiological, and psychological functioning; and enhancing strengths within the context of family. Clinical experiences at various children's hospitals and simulation experiences provide sufficient opportunities for clinical reasoning, clinical care and knowledge integration. Additional Prerequisite: Clinical 12 hours weekly and 2 hours Simulated Laboratory Weekly
Fall or Spring
Prerequisite: NURS 1650 AND NURS 2150
1.5 Course Unit

NURS 2300 Statistics for Research and Measurement
This course examines statistical methods used by scientists in the analysis of research data. The fundamental theorem for this course is the "square root law" (central limit theorem). Students become literate in statistical terminology and symbols and knowledgeable of assumptions for statistical tests. Fundamental statistics include basic theorems and principles, sample, population and data distributions, measures of central tendency, correlational techniques, and commonly used parametric and nonparametric statistical tests. Parameters for inferential and descriptive statistics are examined as the basis for explaining the results from research studies. Students apply chance models in estimating confidence intervals of percentages and means, and in hypothesis testing. This content is taught in the context of nursing research and measurement of nursing phenomena. Examination of research publications enable students to apply their knowledge to reading and understanding data analyses used in studies. Students evaluate tables and graphs as ways to summarize research findings. Course content prepares students to examine statistical and clinical significance of research findings.
Fall
1 Course Unit

NURS 2350 Psychiatric, Behavioral, and Mental Health Nursing
This course examines the influences of psychological, emotional, cognitive and social development of individuals and groups across the lifespan. Students combine this foundational knowledge with their developing understanding of social determinants of health. This course will help students learn to identify and assess individual, family and group level needs for those persons at risk for or experiencing behavioral or psychiatric/mental health challenges using evidence-based interventions applicable across the continuum of care. Emphasis is placed on the role of the professional nurse in assuring the delivery of equitable behavioral and psychiatric/mental health nursing care. The course addresses nursing phenomena of concern related the meanings of a behavioral or mental health illness and the development of healing relationships with individuals, families, and groups. In addition, the student will learn essential advanced communication strategies, including exposure to skills necessary for motivational interviewing, essential to engage individual and families in mental health promotion and treatment. This course provides the tools to enable students to construct effective interventions groups with patients, collaborate with disciplinary and inter-professional colleagues, and understand the healing dimensions of environments. Clinical and simulation experiences are designed to provide sufficient opportunities for clinical reasoning, clinical care, and clinically situated knowledge integration.
Fall
Prerequisite: NURS 1650
1.5 Course Unit

NURS 2450 Nursing of Young and Middle Aged Adults
This course considers how nursing influences the health and healing capacities of young and middle aged adults who experience functional status impairments as a result of serious illness or injury. It focuses on the knowledge and skill acquisition needed to care for these patients at particular moments, across the continuum of care, and through transitions in an illness experience. It addresses nursing phenomena of concern, including risk factors for illness or injury, strategies to overcome barriers and support personal health resources, alleviate suffering and reduce the impact of illness or injury on the functioning of the person. Content and clinical experiences integrate developmental and role issues; policy, cultural and ethical considerations. Clinical experiences in acute care hospital units and simulation experiences provide opportunities for clinical reasoning, clinical care, and knowledge integration. Additional Prerequisite: Clinical 12 hours weekly and 2 hours Simulated Laboratory Weekly
Fall or Spring
Prerequisite: NURS 1650 AND NURS 2150
1.5 Course Unit
NURS 2550 Nursing of Older Adults
This course considers how nursing influences the health and healing capacities of older adults. It focuses on the knowledge and skill acquisition needed to care for these patients at particular moments, across the continuum of care, and through transitions in an illness experience. It addresses nursing phenomena of concern including the unique set of principles and body of knowledge and skills necessary to the practice of nursing with older adults. Students are provided with the theoretical background necessary to understand health system issues affecting older adults. Students will attain the knowledge necessary to complete a comprehensive assessment of the older adult’s physical, functional, psychosocial, and cognitive status. Common problems associated with cardiovascular, respiratory, neurological, musculoskeletal, sensory, and genitourinary systems that affect older adults will be discussed. In addition, principles of continuity of care, rehabilitation, nutritional and pharmacodynamic changes, cultural diversity and ethics will be integrated throughout the course. Clinical experiences in acute care hospitals and simulation experiences provide sufficient opportunities for clinical reasoning, clinical care, and knowledge integration. Special emphasis is placed on transitional care for older adults across the health care continuum. Additional Prerequisite: Clinical 12 hours weekly and 2 hours Simulated Laboratory Weekly
Fall or Spring
Prerequisite: NURS 1650 AND NURS 2150
1.5 Course Unit

NURS 2760 How We Change: Social-Psychological and Communication Dynamics (SNF Paideia Program Course)
Have you wondered why people undergo religious conversion, change their political affiliation, suddenly endorse conspiracy theories, alter their taste in music, or seek hypnosis to quit smoking? What is common to these processes of change, and how does resistance to change play out across these seemingly different contexts? In "Why We Change," we will ask unique questions such as how religious change might highlight methods of transforming public health communications or how the study of attitude change might yield new theories about the impact of life experiences on personality. Broadly speaking, the class will provide an opportunity for students to learn theories of belief formation, attitudes and persuasion, normative influence, and behavioral change. For example, we will work to understand how specific beliefs, such as group stereotypes, or specific attitudes, such as trust and values, change in response to variations in the environment and communication with other people. We will cover culturally based and professional approaches to change, from fear appeals to motivational interviewing, to hypnosis. Students will read empirical studies and conduct observational projects about potential sources of social, cultural, or psychological change and resistance to change in Philadelphia.
Also Offered As: COMM 2760, PSYC 2760
1 Course Unit

NURS 2990 Independent Study in Nursing
An opportunity to develop and implement an individual plan of study under faculty guidance. Additional Prerequisite: Permission of Instructor
Fall or Spring
0.5-2 Course Units

NURS 3030 Contemporary Issues in Human Sexuality and Health
Course content emphasizes theories of sexual development and factors influencing sexual behavior within the continuum of health and illness. Common sexual practices of people are studied within the context of lifestyle and situational life crises. Concepts of normal sexual function and dysfunction are examined. Contemporary sexual issues are explored.
Spring
Mutually Exclusive: NURS 5030
1 Course Unit

NURS 3050 Narrative Matters in Health and Illness Experiences
This course emphasizes the uses of narrative and memoir to consider major themes and events related to the experience of health and illness in the United States as well as the carative role, as either family member or health professional and crafting policy.
Spring
1 Course Unit

NURS 3060 Opioids: From Receptors to Epidemics
This survey course reviews the neuropharmacology of opioids including central and peripheral sites of opioid actions. Opioid receptor pharmacology as well as cellular and molecular neuroadaptations to opioids are discussed in relation to addiction, physical dependence, tolerance, hyperalgesia and withdrawal. Genetic and pharmacogenomic effects on variation of opioid response are also presented. Opioid addiction and the actions of opioids on pain systems are reviewed with an emphasis on their pre-clinical and clinical expression. The effects of regulatory, pharmaceutical and criminal justice forces on opioid prescription in the US are considered vis-a-vis pain management and opioid addiction. Finally, the causes and consequences of the current “opioid epidemic” are reviewed, as well as federal, healthcare and community efforts to address it. Prerequisite: Permission of instructors.
For BSNs: NURS 165
Spring
Mutually Exclusive: NURS 5060
Prerequisite: NURS 1650 OR BIOL 1101 OR BIOL 1121
1 Course Unit

NURS 3120 Nutritional Aspects of Disease
This course provides an advanced understanding of the role of nutrition in integrated biological systems. Students will develop a rigorous comprehension of major clinical disorders, including the underlying pathophysiology and conditions that are affected by nutrition and how optimization of nutritional variables may modulate these processes. A critical overview of the role of nutrition in disease prevention, management and treatment, and in health maintenance will be emphasized throughout the course.
Spring
Mutually Exclusive: NURS 5120
Prerequisite: NURS 0065 OR NURS 1120
1 Course Unit

NURS 3130 Obesity and Society
This course will examine obesity from scientific, cultural, psychological, and economic perspectives. The complex matrix of factors that contribute to obesity and established treatment options will be explored.
Fall
Mutually Exclusive: NURS 5130, NURS 6760
1 Course Unit
NURS 3150 Sociocultural Influences on Health
This course is intended for students interested in U.S/Global Healthcare. It includes lectures, discussions, readings, and written assignments focused on various social, cultural, and economic factors that impact the health and illness perceptions and behaviors of various ethnic and minority groups. In particular, it focuses on how culture affects health and disease, and how health and disease affect culture. This course takes a critical approach to knowledge development by scrutinizing values, theories, assumptions, and practices cross culturally. It relies upon a range of interdisciplinary approaches to analyze how disease is diagnosed, treated, and experienced differently in various cultural contexts. At the same time, students will have the opportunity to examine and critique cultural assumptions and theories, the shifting nature of cultures, the situational use of cultural traditions, and the ethnocentrism of contemporary Western health care. Special attention is given to the influence of race, class, gender, religious, and spiritual ideas about health and illness.
Spring
Mutually Exclusive: NURS 5150
1 Course Unit

NURS 3160 Social Determinants of Global Food Insecurity
A detailed consideration of the nature, consequences, and causes of hunger and undernutrition internationally. Approaches are explored to bringing about change, and to formulating and implementing policies and programs at international, national, and local levels, designed to alleviate hunger and under-nutrition.
Spring
Mutually Exclusive: NURS 5160
1 Course Unit

NURS 3200 Designing to Care: Improving Health and Wellness (SNF Padeia Program Course)
Designing to Care is informed by ideas and skills from across the disciplines of design, nursing, and health research. As an interdisciplinary and project-based course, it actively examines the connection between the design of healthcare, how we communicate health strategies, and the impact of both on individual, institutional, and community wellbeing. Through this course, students are exposed to the content (evidence, research, and misconceptions) and the context (people, places, and systems) that impact health as we generate compelling human-centered design and science-based strategies that can impact the lives of those who live within and beyond our local Philadelphia community. It culminates in the ideation, development, and realization of a collaborative project that strategically communicates, educates, or otherwise works to improve health at the individual, institutional, or community level. The course includes direct, project engagement and guest lectures from healthcare, design, communication, and health research professionals. It incorporates targeted skill building and software training, individual and group activities, class conversations and critiques, and community engagement. From this foundation, the goal is to create real, implementable, and innovative solutions to health and healthcare challenges that embody design in action.
1 Course Unit

NURS 3240 Children's Health in the United States, 1800–2000
This course explores the impact of historical ideas, events, and actors pertaining to the history of children’s health care in the United States. Emphasis is placed on tracing the origins and evolution of issues that have salience for twenty-first century children’s health care policy and the delivery of care. Prerequisite: For Benjamin Franklin Scholars & Nursing Honors Students This course satisfies the History & Traditions Sector for Nursing Class of 2012 and Beyond.
Fall
Also Offered As: GSWS 3240
1 Course Unit

NURS 3270 Foundations of Global Health
This interdisciplinary course covers fundamental concepts of global and population health. Epidemiology and methodology, historical and contemporary contexts, physical (water, air, climate change, and food/ nutrition) and social (health inequalities, sex/reproduction, injury/violence) determinants of health, and interventions for health improvement are addressed. Health problems such as infectious and chronic diseases cannot be understood apart from history, economics, environment, and inequalities - they are not simply medical issues. Global Health refers not only to the health problems of "others" living in far corners of the world (low- and middle-income countries), but also to our own health problems as citizens of a very rich, but very unequal and multicultural nation. The aim of the course is to help students become more informed and active global citizens. Learning methods include faculty presentations, student presentations, and small group discussions. Although this course has a health focus, it is aimed at all students interested in global issues.
Fall
Mutually Exclusive: NURS 5270
1 Course Unit

NURS 3300 Theoretical Foundations of Health Care Ethics
The theoretical foundations of health care ethics including definitions of ethics, history of bioethics and nursing ethics, and the influence of religion, psychology of moral development and philosophy in the development of ethical theory. Nursing code of ethics, changing ideas in ethics, and discussion of the developing profession of nursing are included.
Fall or Spring
1 Course Unit

NURS 3340 Public Policy and the Nation’s Health
This course examines health care and social policy from domestic and international perspectives. It is designed to engage undergraduate students in critical thinking about health policy issues as they affect our health care, employment, taxes, and social investments. The current national debate on health care reform is used as a frame of reference for examining the strengths and weaknesses of health care services in the U.S. from the perspectives of patients/families, health professionals, health services providers, insurers, employers, and public policy makers, and the pros and cons of a range of prescriptions for system improvement from across the political spectrum. About a third of the course focuses more specifically on global public health challenges and the policy strategies for reducing health disparities worldwide. Please note, the online version of this course has a synchronous component (live online class sessions). The day/time will be listed in the course register.
Spring
Mutually Exclusive: NURS 5400
1 Course Unit
NURS 3420 Health of Sexual and Gender Diverse Individuals and Populations Across the Lifespan
Grounded in a nursing perspective that employs a dual strengths-based and health equity lens, we will examine how gender and sexuality, as socially constructed power relations that operate in the individual, interpersonal, community and institutional levels, influence the health outcomes of individuals as well as at the population level. Rooted in a social justice approach, this course explores the interplay between gender, sexuality, and health - within the U.S. and international context and in relation to other axes, including social inequality, class and race. We will examine lifespan development and the milestones associated with each stage as it applies for sexual and gender diverse individuals. Throughout the semester, class participants will use critical thinking skills to examine ecological factors that influence sexual and gender diverse individuals’ health alongside other intersecting facets of identity including race, ethnicity, age, ability/disability, mental and physical health, and other factors that affect individual development and consequent population outcomes. Finally, this course requires an openness and appreciation of a range of perspectives that will enable students to explore and develop a nursing mindset attuned to the unique concerns and health needs of sexual and gender diverse individuals, both in acute care and community health settings.
Spring
Mutually Exclusive: NURS 5420
1 Course Unit

NURS 3430 Global Engagement Seminar
This course is a Global Seminar which includes a travel component; topics vary. Topics and locations may include Chile, Ghana, or China. For more information and to apply: https://global.upenn.edu/pennabroad/pgs.
Mutually Exclusive: NURS 5430
1 Course Unit

NURS 3510 Case Study: Sleep through the Life Span
Sleep is a fundamental behavior related to the pathophysiology of various diseases and to responses/outcomes of diseases and treatments. This case study introduces foundational theories on sleep, diagnosis, measurements, and treatments of various sleep disorders, and the impacts of sleep/sleep disorders in health promotion and the care of illness across the life span. This course aims to prepare nursing students to play a vital role in comprehensive patient care and education in sleep in the community and in various clinical settings. This course also includes 14-hour field work/shadowing at sleep clinics to provide an opportunity to observe and work with individuals who suffer from sleep problems.
Prerequisite: NURS 1630 AND NURS 1640
1 Course Unit

NURS 3520 Case Study: A Community-Based Approach to Mitigating Climate Change and Food Insecurity
The Penn Food and Wellness Collaborative (PFWC), including Penn Park Farm (PPF), was established through seed funding from the Your Big Idea Wellness competition in 2019. To date, we’ve grown nearly 2,500lbs of produce that has been distributed free of charge to food insecure students, HUP employees, and West Philadelphia residents. Using the PPF as a learning laboratory, this course will explore the link between climate change, food insecurity and physical and mental health across the lifespan. Students will engage with community partners to identify the best mechanism for meeting food insecurity and improving physical and mental health among students, faculty and staff on campus and among members of all ages in the communities surrounding Penn. In collaboration with the learning lab, instructor led seminars and discussions support the identification, development and completion of a community-based project.
Fall
Corequisite: NURS 3800
1 Course Unit

NURS 3530 Health Communication in the Digital Age
Health communication spans activities from in-person communication to technology based interventions and mass media campaigns. Health communication interventions are applied across a variety of health promotion and disease prevention activities. In this course, we will explore a variety of approaches to using communication strategies to improve individual and population health. The course will provide an introduction to the theory, design, and evaluation of health communication programs. We will review and critique several health communication interventions. The course will also include a special emphasis on new media and technology, as well as developing practical skills for developing health communication programs.
1 Course Unit

NURS 3540 Case Study - Addressing the Social Determinants of Health: Community Engagement Immersion
This case study offers students experiential learning to develop an in depth understanding of social determinants of health in vulnerable, underserved populations and to collaboratively design and refine existing health promotion programs based on the needs of the community site. Grounded on an approach that builds upon the strengths of communities, this course emphasizes the development of techniques to lead effective, collaborative, health-focused interventions for underserved populations. Students are required to draw on skills and knowledge obtained from previous classes related to social determinants of health and community engagement and will engage in specific creative, innovative community based programs developed for populations across the life span. These culturally relevant programs, which have been shown to positively impact communities, create opportunities for students to address the social determinants of health, build engagement and leadership skills and increase program success and sustainability. Prerequisite: Completion of sophomore year nursing requirements
1 Course Unit
NURS 3550 Case Study: Self-care of Chronic Illness
Self-care is done by lay people to prevent or manage chronic illness. In this case study, we will discuss the history, definitions, predictors, and outcomes of self-care in various chronically ill populations. A focus of discussion will be an in depth exploration of the factors that influence self-care. Understanding these factors will prepare nurses for their role in promoting self-care. Fieldwork experiences are designed to provide practical experience in engaging well individuals in preventing illness and helping chronically ill perform self-care.
Spring
Prerequisite: NURS 1630 AND NURS 1640
1 Course Unit

NURS 3560 Case Study: Culture of Birth
This course will explore the cultural context of birth, the practices and paradigms and the activities of birthing people and professionals and/or attendants. The history of caring for people at birth, international health care, cultural mores/societal values, place of birth, psychosocial factors, ethical decision-making and the role of technology are content areas that will be discussed. Prerequisite: If course requirement not met, permission of instructor required. Open to Nursing and non-Nursing majors. Traditionally, this course includes a weekend long Doula training; after completion, students may serve as Doulas. 2020-2021 Academic year, this course will be offered in both the Fall and Spring semesters.
Spring
Prerequisite: NURS 2150 OR NURS 2250
1 Course Unit

NURS 3570 Case Study: Innovation in Health: Foundations of Design Thinking & Equity-centered Design
Innovation, defined as a hypothesis-driven, testable, and disciplined strategy, is important to improve health & healthcare. Employing new ways of thinking, such as with design thinking, will help open up possibilities of ways to improve health & the process of healthcare. Additionally, equity-centered design integrates features of design thinking with a focus on how the design process impacts the end-users and requires the inclusion of under-resourced communities throughout the design process to ensure that the power differences that lead to oppression, marginalization, and health inequity are removed (Equity Design Thinking, 2022). Incorporating current & emerging social & digital technologies such as mobile apps, wearables, remote sensing, and 3D printing, affords new opportunities for innovation. This course provides foundational content & a disciplined approach to innovation as it applies to health, healthcare, public health and health equity. A flipped classroom approach has the in-class component focusing on group learning through design thinking activities. The course is open to undergraduate nursing students as a case study & upper-level undergraduates and graduate students from across the Penn campus. The course provides a theoretical foundation in design thinking and equity-centered design along with a focus on using a Design Justice Lens and the importance of storytelling. To enhance the didactic component, students will actively participate in a design case study. Students will be matched by interest and skill level with teams & will work with community-based organizations, healthcare providers and/or innovation partners. Student teams will meet with their partners to identify & refine a health, healthcare, public health or health equity problem to tackle. Students will work throughout the semester to create an innovative solution that will be pitched to their community-based organization, healthcare provider, and/or innovation partner at the end of the semester. Prerequisite: Completion of freshman & sophomore level courses
Fall or Spring
Mutually Exclusive: NURS 5730
1 Course Unit

NURS 3580 Case Study: Nurses and the Child Welfare System
Building on knowledge and skill acquired through undergraduate nursing courses, this case study offers nursing majors an in depth and interprofessional opportunity to study research, policy, and practice-based issues in children and families involved with the child welfare system. Special emphasis is placed on the role of the nurse in the child welfare system. Fieldwork experiences will enable students to gain practical experience regarding the needs of children and families with an emphasis on a consideration of how to achieve partnership and create alliances with parents and youngsters.
Fall
Prerequisite: NURS 1630 AND NURS 1640
1 Course Unit

NURS 3590 Case Study: Healthcare Quality and Patient Safety
The 1999 Institute of Medicine Report "To Err is Human: Building a Safer Health System" called national attention to the shocking crisis of patient injury and death in the United States health care systems. This case study examines errors in health care and how nurses, working inter and intra-professionally, contribute to and/or lead quality improvement efforts in health care settings to make care safer. Through classroom discussion, clinical observations and special quality improvement project experience, the student will become familiar with the Science of Improvement grounded in W. Edwards Deming’s body of knowledge called a “System of Profound Knowledge.” The student will also learn patient safety strategies, behaviors and practices that reduce or eliminate the risk of patient harm and develop an appreciation for attributes of an organization that contribute to a strong patient safety culture.
Prerequisite: Completion of sophomore year nursing requirements
Spring
Prerequisite: NURS 1630 AND NURS 1640
1 Course Unit

NURS 3600 Case Study: Nursing Practice for Patients Living with HIV
This course is directed at the need to increase nursing majors knowledge and clinical expertise in the care of persons with HIV/AIDS. Hands on clinical practice with nurses who are AIDS experts will be combined with seminars that provide epidemiologic, clinical assessment, infection control, symptom management, patient teaching, psychosocial, ethical, cultural, political, and policy information.
Fall
Prerequisite: NURS 1630 AND NURS 1640
1 Course Unit

NURS 3610 Case Study: Breast Feeding & Human Lactation
Human milk is recognized universally as the optimal diet for newborn infants. The health benefits of breastfeeding are so significant that a National Health Objective set forth by the Surgeon General of the United States for the year 2010 is to increase the proportion of mothers who breastfeed their babies in the postpartum period. Through classroom and clinical experiences, this course will provide an in depth examination of the anatomy and physiology of lactation, essential aspects of establishing and maintaining lactation, and the nurses’ role in counseling the breastfeeding family. Emphasis will be placed on current research findings in the content area.
Fall
Prerequisite: NURS 1630 AND NURS 1640
1 Course Unit
NURS 3620 Case Study: Nurses leading Complex Care for Individuals and the Caregiving Family using TCM
Many studies reveal that the transitional care needs of people with complex health and social needs and those of family caregivers are poorly managed, often with devastating human and economic consequences. The purpose of this case study is to provide an immersive experience for students with the Transitional Care Model (TCM), supporting engagement with multidisciplinary teams at Penn. This nurse-led, team-based care management strategy has been proven to improve health and quality of life outcomes and reduce costs for at-risk older adults who experience episodes of acute care while supporting their family caregivers. This course will enable students to apply skills foundational to the delivery of evidence-based transitional care.
Fall
1 Course Unit

NURS 3630 Case Study: Aggressive Behavior in Healthcare: Assessment Prevention and Treatment
The escalating incidence and prevalence of aggression in the healthcare setting requires that providers acquire a new set of pragmatic competencies for managing its complex sequelae. This course presents theoretical frameworks for understanding, predicting, preventing and responding to aggressive behaviors across the life span. Historical, bio-behavioral, social, and cultural explanations for aggression will be synthesized and analyzed within the context of multiple points of entry into the health care system across clinical settings. Personal self-awareness, debriefing, and stress management techniques exemplify techniques to prevent untoward consequences in providers. This course also uses exemplars and a range of experiential learning strategies, including skill development, situation analysis, concept mapping, unfolding case studies and cooperative learning, to examine the assessment, prevention, treatment, and response to aggressive behavior in patients and management of its consequences in self and others.
Spring
Prerequisite: NURS 1630 AND NURS 1640
1 Course Unit

NURS 3640 Case Study: Cancer
This elective case study offers students the opportunity to learn about the etiology, diagnosis, and management of cancer across the lifespan. Building on existing clinical knowledge and skills, students will explore cancer care from the perspectives of prevention, early detection, treatment, survivorship, and death. Observational clinical experiences and selected case studies will enhance students’ understanding of patients’ and families’ cancer experience. Class instruction includes small group discussion, case studies, and some lectures. Students will complete 12 clinical hours, to include observation, panels and tours of treatment areas.
Spring
Prerequisite: NURS 1630 AND NURS 1640
1 Course Unit

NURS 3650 Case Study: Case Analysis in Clinical Nutrition
This course is designed for present and future nurse professionals who wish to increase their knowledge of nutrition and expertise and application of knowledge to achieve optimal health of clients and themselves. Principles of medical nutrition therapy in health care delivery are emphasized in periods of physiologic stress and metabolic alterations. Individual nutrient requirements are considered from pathophysiologic and iatrogenic influences on nutritional status. Nutritional considerations for disease states will be explored through epidemiological, prevalence, incidence, treatment and research data. Understanding application of medical nutrition therapy are included through case analysis and field experiences
Spring
Prerequisite: NURS 1630 AND NURS 1640
1 Course Unit

NURS 3670 Case Study: Principles of Palliative Care
This course prepares students to collaborate effectively with an interdisciplinary team in assessing patients and families, and planning and evaluating palliative and end of life care for diverse populations with progressive illness in multiple health care settings. Course content and assignments focus on the nurse’s role in addressing the complex assessment and responses to the psychosocial and spiritual concerns of patients and caregivers across the trajectory of advanced illness.
Fall
Mutually Exclusive: NURS 5570
Prerequisite: NURS 1630 AND NURS 1640
1 Course Unit

NURS 3680 Case Study: Home Health Care
This course examines the major aspects of home-based care across patients’ life spans from acute to long term care. New trends, advances, and issues in home management of complex conditions, innovative delivery systems and legal, ethical and policy consideration will be explored.
Fall
Prerequisite: NURS 1630 AND NURS 1640
1 Course Unit

NURS 3690 Case Study: Caring for Patients with Opioid Use Disorder
This course examines opioid use disorder and the current opioid overdose crisis from a nursing perspective. Students will explain the neurophysiology underlying the disease, risk factors for its development, and common co-occurring diagnoses. We will explore the health consequences associated with the disorder and review approaches for effective treatment, with an emphasis on harm reduction interventions. Historical, sociocultural, legal and policy implications which frame the disease will be discussed with an understanding of the effects of stigma on approaches to care. Students engage in the critical analysis of literature, research, and engage in observational/fieldwork experiences addressing the biopsychosocial needs of individuals with opioid use disorder.
Fall
Prerequisite: NURS 1650 AND NURS 2350 AND NURS 3340
Corequisites: NURS 2350, NURS 3340
1 Course Unit
NURS 3750 Nutrition Throughout the Life Cycle
Understanding and meeting nutritional needs from conception through adulthood will be addressed. Nutrition-related concerns at each stage of the lifecycle, including impact of lifestyle, education, economics and food behavior will be explored.
Fall, odd numbered years only
Prerequisite: NURS 0065 OR NURS 1120
1 Course Unit

NURS 3760 Issues in Nutrition, Exercise, and Fitness
An examination of the scientific basis for the relationship between nutrition, exercise and fitness. The principles of exercise science and their interaction with nutrition are explored in depth. The physiological and biochemical effects of training are examined in relation to sports performance and prevention of the chronic diseases prevalent in developed countries.
Spring
1 Course Unit

NURS 3770 Weight Management: Principles and Practices of Obesity Treatment
This course focuses on the principles and theories guiding the clinical care and treatment of people with obesity across the lifespan. We will discuss the effectiveness and evidence-base supporting a variety of obesity treatments diet, physical activity, behavioral therapy, pharmacological, surgical, and combined approaches. Emphasis will be placed on the practical aspects of providing obesity education and counseling to assist individuals and families in attaining and maintaining a healthy weight.
Spring
Prerequisite: NURS 0065 OR NURS 1120
1 Course Unit

NURS 3800 Nursing in the Community
This course considers how nursing influences the health and healing capacities of both communities as a whole (populations) and of groups, families, and individuals living within particular communities locally and globally. It addresses the complexity of nursing practice using a public health paradigm. It requires students to draw from prior class and clinical knowledge and skills and apply this practice base to communities across care settings, ages, and cultures with different experiences of equity and access to care. It provides the tools needed to engage in collaborative community work and to give voice to the community's strengths, needs, and goals. It also moves students from an individual and family focus to a population focus for health assessment and intervention. Students consider the science, policies, and resources that support public health, and community based and community-oriented care. Clinical and simulated experiences in community settings provide sufficient opportunities for clinical reasoning, clinical care and knowledge integration in community settings. Students will have opportunities to care for patients and populations within selected communities.
Fall
Prerequisite: NURS 2450 AND NURS 2550 AND NURS 2150 AND NURS 2250 AND NURS 2350
1.5 Course Unit

NURS 3820 Public Health Nursing Care in Communities
This course considers how nursing influences the health and healing capacities of both communities as a whole (populations) and of groups, families, and individuals living within particular communities locally and globally. It addresses the complexity of nursing practice using a public health paradigm. It requires students to draw from prior class and clinical knowledge and skills and apply this practice base to communities across care settings, ages, and cultures with different experiences of equity and access to care. It provides the tools needed to engage in collaborative community work and to give voice to the community's strengths, needs, and goals. It also moves students from an individual and family focus to a population focus for health assessment and intervention. Students consider the science, policies, and resources that support public health, and community based and community-oriented care. Clinical and simulated experiences in community settings provide sufficient opportunities for clinical reasoning, clinical care and knowledge integration in community settings. Students will have opportunities to care for patients and populations within selected communities.

NURS 3860 Benjamin Franklin Scholars in Nursing Capstone Honors Research Project
This course is an advanced seminar for research and scholarship to be taken by Benjamin Franklin Scholars in Nursing. Enrollment is concurrent with student's final year of studies and entails undertaking a capstone project for Benjamin Franklin Scholars in Nursing. Practical considerations in carrying out such a project, including scholarly approach and scientific integrity as well as scholarly writing and dissemination will be discussed and illustrated, using exemplars and student projects. The various phases of students' projects will be used as launching points for discussions and to complement students' work with their faculty supervisor. Paths and planning for careers in nursing and related disciplines and the idea of scholarly trajectories will be developed throughout the course.
Prerequisite: NURS 5470
0.5 Course Units
NURS 3890 Research/Inquiry-Based Service Residency
This course is designed to facilitate students' intellectual curiosity and independence in exploring the research process in an area of interest. Similar to clinical practica, NURS389 serves as the research practicum for NURS230 and NURS547. In this applied course, students will engage in a structured, hands-on faculty-mentored experience. Students will be contacted approximately 6-10 weeks prior to the start of the semester of enrollment to either: 1) submit a proposal to work on an existing project with an established mentor, or 2) identify their key areas of interest and select from an existing list of projects/preceptors that varies by semester. Students will be matched with a research preceptor based on their selections and, in collaboration with their preceptor, they will define learning objectives to guide their individualized plan of study. Students have opportunities to experience systematic methods for research, service-based clinical inquiry, or quality improvement. This mentored residency can be fulfilled by completing one of the following options: * Research-based practicum in basic or social science, clinical research, nursing history, healthcare policy, ethics, or informatics. * Inquiry-based Service practicum such as conducting quality improvement procedures or program evaluations in an affiliated healthcare institution. Students must register for both the lecture and recitation sections. For the recitation section students are expected, with the assistance of their advisor, to allocate 2 hours of work outside of class each week towards their project. Students can schedule this work based on their own schedule but must be prepared to complete the work each week. The course is taken in the final semester of the senior year.
Fall or Spring
Prerequisite: NURS 5470
.5 Course Units

NURS 3900 Leadership in the Complex Healthcare System
This two-part course provides the didactic and clinical experiences in increasingly complex nursing care situations and environments which facilitate the students’ transition to independent practice. In the lecture component, the focus is on the integration of knowledge and skill for nursing practice and develops the ability of students to see nursing practice as part of a complex system. It examines systems thinking and complexity, development of a leadership role and skills, inter-professional communication and teamwork, and leading change in healthcare organizations. This course also examines the nurse’s role in improvement science and patient care delivery, focusing on quality improvement processes, patient safety, nurse sensitive process and outcome metrics with micro-systems. This course also allows students to develop the capacity for clinical expertise, leadership, and for translating the science of the profession into practice. Students also are assigned to a seminar component that is correlated with their selected site for the specialty clinical practicum. This aspect of the course allows the student to further develop leadership concepts learned in lecture while developing additional expertise in a specialty area of practice. These seminar components are adult health and illness, adult critical care, obstetrics/labor & delivery, and pediatrics. Advanced simulation experiences and extensive clinical practice in an area of the students' choice provide multiple opportunities to synthesize the multidimensional aspects of nursing and provide the environment which facilitates transition to professional nursing practice. Students select from a variety of settings in which to refine their practice skills. Principles of leadership, accountability and change will be applied to clinical practice as the student begins to operationalize the professional nursing role. Emphasis is placed on the nurse as a knowledgeable provider of health care who is both a change agent and advocate.
Fall or Spring
Prerequisite: NURS 3800
3 Course Units

NURS 4000 Advances In Health Systems Research And Analysis
Capstone Course for NURS/WH Joint Degree Students. Prerequisite: By Permission Only
Spring, even numbered years only
1 Course Unit

NURS 5000 Introduction to Principles and Methods of Epidemiology
This course provides an introduction to epidemiologic methods and overview of the role of epidemiology in studies of disease etiology and in the planning, delivery and evaluation of health services. The population-based approach to the collection and analysis of health data will be emphasized throughout the course. Through textbook reading, problems sets, class discussion and review of the recent literature, students will become acquainted with the basic designs of epidemiologic studies in theory and in practice. Students will develop the basic skills necessary to use epidemiologic knowledge and methods as the basis for scientific public health practice. Background in elementary statistics is a prerequisite for this course.
Spring
1 Course Unit
NURS 5010 Ways of Knowing for Nursing Practice I: Assessment of Health
This course is designed to develop knowledge and skill acquisition for the health assessment of individuals which includes taking a health history and performing/documenting a physical assessment. Students engage in active learning strategies including instructor demonstration and supervision of physical examination practice sessions in the clinical learning laboratory. Students prepare via self-learning activities with a variety of supplied resources such as readings, media, and audio/visual adjunctive etc. Students refine their skills through faculty supervised practice sessions. Procedural skills that correlate with the presentation of physiological system assessment are included. Along with skill acquisition for physical assessment, the student will also recognize the value of storytelling and narratives that can support the change of attitudes and behaviors. Students will be introduced to the use of narratives and its impact to support and manage the health of individuals and populations.

Fall
1.5 Course Unit

NURS 5020 Ways of Knowing for Nursing Practice II: Promoting Health & Health Equity
This course is the first of a series of two courses (pre-cursor to NURS 5100) laying the foundation for the exploration of how psychological, behavioral, cognitive, and social development influences the lived experiences of individuals, families, and communities across the lifespan. Emphasis is placed on the role of the professional nurse to promote and deliver socially just care. Students recognize social determinants of health for assessment and health teaching in the preparation for NURS 5100. Extant theories are examined with respect to issues of health care access, health history, health promotion, and issues of equity and diversity. Students refine communication skills and interviewing processes needed for socially attuned health history and teaching that promote psychological wellbeing and healthy lifestyles. Using advanced communication strategies, students learn to engage with individuals and families in behavioral health promotion strategies. They also provide opportunities to develop prioritized health teaching plans in partnership with that individual.

Fall
Corequisite: NURS 5010
0.5 Course Units

NURS 5030 Contemporary Issues in Human Sexuality and Health
Emphasizes the theories of sexual development and sexual behavior within the continuum of health and disease. Common sexual practices of people are studied in relation to life-style and/or situational life crisis. Contemporary issues in sexuality and health will be examined. Prerequisite: Junior and Senior Undergraduates. Open to all graduate students This course satisfies the Society & Social Structures Sector for Nursing Class of 2012 and Beyond.

Spring
Mutually Exclusive: NURS 3030
1 Course Unit

NURS 5040 Nursing Caring for the Individual Adult and Across Populations
This course considers how nursing influences the health and healing capacities across the continuum of care from young to older adults experiencing functional status impairments. Content includes the knowledge and skill acquisition needed to care for these individuals at particular moments, across the continuum of care, and through transitions in an illness experience. It addresses nursing phenomena of concern, including risk factors for illness or injury, strategies to overcome barriers and support personal health resources, alleviate suffering, and reduce the impact of illness or injury on the functioning of the person. Content and clinical experiences integrate developmental and role issues; policy, cultural, and ethical considerations. Onsite and off-site clinical experiences help to guide skill acquisition for clinical reasoning, clinical care, and knowledge integration.

Spring
Prerequisite: NURS 5010 AND NURS 5020 AND NURS 5070 AND NURS 5100
Corequisite: NURS 5140
1.5 Course Unit

NURS 5050 Nurses Coordinating Care for Adults and Older Adults
This course focuses on the management of transitions in care for adults, older adults, and their family caregivers. Nurses working with "at risk" populations and their caregivers manage transitions across health care settings and through stages of illness severity with a focus on team-based care coordination. Nurses are well positioned to be key influencers and leaders of these transitional care processes. ([Penn Nursing website](https://www.nursing.upenn.edu/live/news/1610-new-open-online-course-focused-on-transitional) Clinical learning activities will focus on intentional collaboration across professions and with care team members, patients, families, and communities to optimize care, enhance the healthcare experience, and strengthen outcomes. Students will acquire skills for building interprofessional partnerships that involve coordinated, integrated, and collaborative implementation of the unique knowledge, beliefs, and skills of the full team for the end purpose of optimized care delivery. Effective collaboration requires an understanding of team dynamics and an ability to work effectively in care-oriented teams. Onsite and off-site Clinical experiences help to guide skill acquisition for clinical reasoning, clinical care, and knowledge integration.

Spring
Corequisite: NURS 5040
1.5 Course Unit

NURS 5060 Opioids: From Receptors to Epidemics
This survey course reviews the neuropharmacology of opioids including central and peripheral sites of opioid actions. Opioid receptor pharmacology as well as cellular and molecular neuroadaptations to opioids are discussed in relation to addiction, physical dependence, tolerance, hyperalgesia and withdrawal. Genetic and pharmacogenomic effects on variation of opioid response are also presented. Opioid addiction and the actions of opioids on pain systems are reviewed with an emphasis on their pre-clinical and clinical expression. The effects of regulatory, pharmaceutical and criminal justice forces on opioid prescription in the US are considered vis-a-vis pain management and opioid addiction. Finally, the causes and consequences of the current "opioid epidemic" are reviewed, as well as federal, healthcare and community efforts to address it. Permission of Instructor required.

Fall
Mutually Exclusive: NURS 3060
1 Course Unit
NURS 5070 Pathophysiologic Mechanisms & Pharmacologic Interventions in Caring for Individuals and Populations
Pathophysiologic mechanisms are introduced with emphasis on concepts and processes involving acute and chronic illnesses and their therapeutic interventions. For major classes of drugs, the physiological and pathophysiological rationales are discussed for each drug indication, mechanisms of drug action, individualized dosing implications, and adverse drug events. The course content enhances the student's comprehension of the scientific complexity of therapeutic interventions in various conditions and builds upon the foundational sciences. Additionally, the course provides active learning experiences to gain scientific knowledge and skills in preparing to administer and monitor drugs and therapies in a safe and effective manner.
Fall
Prerequisite: NURS 1630 AND NURS 1640 AND NURS 0068
2 Course Units

NURS 5090 The Child with Special Healthcare Needs
This course is designed to assist prospective practitioners develop advanced skills in identifying the needs and interventions for medically fragile neonates, children and their families.
Summer Term
1 Course Unit

NURS 5100 Nurses Caring for Psychiatric Mental Health of Individuals: Theory & Behavioral Health Management
This is the second of two-course series (follows NURS5020) that explores the intersection of psychological, behavioral, emotional, cognitive, and social development with the lived experiences of individuals, families, and communities across the lifespan. This course provides an opportunity for the novice to begin to apply the knowledge and skills for the delivery of culturally responsive nursing care of patients with diverse conditions along the mental health continuum. The course addresses nursing phenomena, the development of healing relationships with or within individuals, families, and groups. Simulated and observational experiences provide students with opportunities to acquire and apply knowledge necessary for conducting a comprehensive health history of an individual situated within a diverse community. Clinical and simulation experiences provide sufficient opportunities for therapeutic use of self, clinical reasoning, best clinical practices, and knowledge integration.
Fall
Prerequisite: NURS 5020
Corequisites: NURS 5010, NURS 5070
1.5 Course Unit

NURS 5110 Loss, Grief and Bereavement
Loss, grief and bereavement are pervasive aspects of the human experience. The content of this course provides a basis both for personal development and professional growth. Through a series of seminars, key issues surrounding loss, death, dying, grief and bereavement will be examined.
Fall
1 Course Unit

NURS 5120 Nutritional Aspects of Disease
This course provides an advanced understanding of the role of nutrition in integrated biological systems. Students will develop a rigorous comprehension of major clinical disorders, including the underlying pathophysiology and conditions that are affected by nutrition and how optimization of nutritional variables may modulate these processes. A critical overview of the role of nutrition in disease prevention, management and treatment, and in health maintenance will be emphasized throughout the course.
Spring
Mutually Exclusive: NURS 3120
1 Course Unit

NURS 5130 Obesity and Society
This course will examine obesity from scientific, cultural, psychological, and economic perspectives. The complex matrix of factors that contribute to obesity and established treatment options will be explored. 
Prerequisite: Undergraduate by permission of instructor This course satisfies the Society & Social Structures Sector for Nursing Class of 2012 and Beyond.
Fall or Spring
Mutually Exclusive: NURS 3130, NURS 6760
1 Course Unit

NURS 5140 Advancing Leaders in Health & Health Equity
This course is designed to enhance one's understanding of leadership concepts and theory to phenomena of concern to nursing, contextualizing societal meanings of nursing practice and professionalism. Students will explore current trends and issues related to professional nursing practice and health care delivery. Emphasis is placed on optimization of health through transforming health care systems and developing a vision for nursing of leading in this transformation. Students will begin a leadership journey appreciating their ability to know oneself as leader, representing and communicating the nursing perspective to others, and advocating for self.
Spring
Prerequisite: NURS 5010 AND NURS 5020 AND NURS 5070 AND NURS 5100
.5 Course Units

NURS 5150 Sociocultural Influences on Health
This course is intended for students interested in U.S/Global Healthcare. It includes lectures, discussions, readings, and written assignments focused on various social, cultural, and economic factors that impact the health and illness perceptions and behaviors of various ethnic and minority groups. In particular, it focuses on how culture affects health and disease, and how health and disease affect culture. This course takes a critical approach to knowledge development by scrutinizing values, theories, assumptions, and practices cross culturally. It relies upon a range of interdisciplinary approaches to analyze how disease is diagnosed, treated, and experienced differently in various cultural contexts. At the same time, students will have the opportunity to examine and critique cultural assumptions and theories, the shifting nature of cultures, the situational use of cultural traditions, and the ethnocentrism of contemporary Western health care. Special attention is given to the influence of race, class, gender, religious, and spiritual ideas about health and illness.
Spring
Mutually Exclusive: NURS 3150
1 Course Unit
NURS 5160 Social Determinants of Global Food Insecurity
A detailed consideration of the nature, consequences, and causes of hunger and undernutrition internationally. Approaches are explored to bringing about change, and to formulating and implementing policies and programs at international, national, and local levels, designed to alleviate hunger and under-nutrition. Prerequisite: Graduate Students Only
Spring
Mutually Exclusive: NURS 3160
1 Course Unit

NURS 5180 Nursing and the Gendering of Health Care in the United States and Internationally, 1860-2000
This course examines changing ideas about the nature of health and illness; changing forms of health care delivery; changing experiences of women as providers and patients; changing role expectations and realities for nurses; changing midwifery practice; and changing segmentation of the health care labor market by gender, class and race. It takes a gender perspective on all topics considered in the course. A comparative approach is used as national and international literature is considered. This focus is presented as one way of understanding the complex interrelationships among gender, class, and race in health care systems of the United States and countries abroad.
Spring
Also Offered As: GSWS 5180
1 Course Unit

NURS 5190 Nursing Caring for Family I: Sexual and Reproductive Health
From the lens of person and family-centered sexual and reproductive health, this course focuses on nursing care, health promotion/disease prevention, and health equity for individuals, families, and populations across the reproductive life cycle. Students are introduced to evidence-based nursing practice designed to support and enhance perinatal health and newborn care. Emphasis is placed on the understanding of how social determinants impact sexual and reproductive health. Additionally, this course addresses concepts of gender identity, sexual orientation, and sex assigned at birth with a focus on how to promote and provide individualized, evidence-based, and respectful sexual and reproductive health care. There are opportunities for students to make connections between caring for families both locally and globally. Clinical and laboratory experiences provide opportunities for students to develop, refine, and apply knowledge and skills for the delivery of sexual and reproductive health care for this population.
Summer Term
Prerequisite: NURS 5050
1.5 Course Unit

NURS 5200 Nurses Caring for Family II: Pediatric Health and Wellness
Building on prior learning of the family, this course focuses on nursing care that influences the health and healing capacities of infants, children, adolescents, and their families. It focuses on the knowledge and skill acquisition needed to care for these individuals at particular moments, across the continuum of care, and through transitions in an illness experience. It addresses pediatric nursing phenomena of concern from infancy through adolescence using a developmental and systems approach. Family-centered care incorporates pediatric transitions of care evidenced in the health maintenance of the well-child and as well as in the illness-recovery continuum. The course emphasizes clinical reasoning; family-centered strategies for optimizing health and maintaining individuality; promoting optimal developmental, physiological, and psychological functioning; and enhancing strengths within the context of family and social determinants of health to promote and advance health and health equity. Clinical experiences provide sufficient opportunities for clinical reasoning, clinical care, and knowledge integration.
Summer Term
Prerequisite: NURS 5050
1.5 Course Unit

NURS 5210 Current Topics in Nutrition
The objective of the course is to integrate the nutrition knowledge obtained from previous course work in nutrition and provide the student the opportunity to explore, analyze and formulate implications of the research and related literature on a self-selected topic under the guidance of the faculty coordinator. Current topics and controversies in nutrition will be discussed weekly. Readings will be assigned in coordination with each discussion topic and students will be required to seek out other sources of information to add to the class discussion. Topics will change from year to year to reflect the most recent interests and issues.
Not Offered Every Year
0.5-1 Course Unit

NURS 5230 Advanced Nutrition: Molecular Basis of Nutrition
Essentials of nutritional biochemistry of macronutrient (protein, carbohydrate, lipid) metabolism from the molecular level to the level of the whole human organism. Linkages between energy and nitrogen balance and states of health and disease are examined. Topics include energy metabolic pathways, nutrient transportation, nutrient catabolism, nutrient anabolism, body composition, and biomarkers.
Prerequisite: NURS 0065 OR NURS 1120
1 Course Unit

NURS 5240 Advanced Human Nutrition and Micronutrient Metabolism
Essentials of vitamin and mineral digestion, absorption, metabolism, and function in humans during states of health and disease are examined. Linkages between key vitamins and their function in biological systems, such as bone health, energy metabolism, hematopoietic function, and immune function, are explored in depth. Topics include pertinent research methodologies, biomarkers, deficiency and toxicity states, and requirements across the life cycle. Prerequisite: Special permission
Prerequisite: NURS 0065 OR NURS 1120
1 Course Unit
NURS 5250 Ethical Aspects of Health and Technology
Interdisciplinary approach to the study of the interface between ethics and law in the provision of health and illness care. This course draws upon the disciplines of philosophy, law, biomedical engineering and nursing in examining such concepts as the use/non-use of biomedical technology, who and how one decides what shall be done for a given patient, and the rights and responsibilities (accountability) of all persons involved in health/illness care decisions. The interplay of ethical theory, personal value systems, law and technology will be stressed throughout. Lectures, seminars and case studies will be used.
Spring
Prerequisite: NURS 0065 OR NURS 1120
1 Course Unit

NURS 5260 Child and Adolescent Mental Health
This course is designed to prepare advanced practice registered nurses to address mental health concerns of children, adolescents and their families from a bio-psycho-socio-cultural perspective. Prevention, assessment, and treatment of psychiatric disorders affecting children and adolescents in a variety of settings will be presented in the context of mental health, school and primary health care delivery systems. Students will explore both pharmacologic and nonpharmacologic treatment strategies, as well as methods to identify and implement evidence-based practice in child and adolescent populations. Mental health policy, as well as the unique needs of special populations (e.g., youth in the juvenile justice system) will also be discussed. Prerequisite: Matriculation in a MSN Program or permission of instructors. Priority will be given to Psychiatric Mental Health NP students
Spring
1 Course Unit

NURS 5270 Foundations of Global Health
This interdisciplinary course covers fundamental concepts of global and population health. Epidemiology and methodology, historical and contemporary contexts, physical (water, air, climate change, and food/nutrition) and social (health inequities, sex/reproduction, injury/violence) determinants of health, and interventions for health improvement are addressed. Health problems such as infectious and chronic diseases cannot be understood apart from history, economics, environment, and inequalities - they are not simply medical issues. Global Health refers not only to the health problems of others living in far corners of the world (low- and middle-income countries), but also to our own health problems as citizens of a very rich, but very unequal and multicultural nation. The aim of the course is to help students become more informed and active global citizens. Learning methods include faculty presentations, student presentations, and small group discussions. Although this course has a health focus, it is aimed at all students interested in global issues.
Fall
Mutually Exclusive: NURS 3270
1 Course Unit

NURS 5290 Consumer and Personal Health Informatics
This course is designed to develop intelligent consumers, managers, and researchers of telehealth and personal health/consumer health informatics systems through guided exploration into the components of such systems. The course is designed to introduce many of the challenges facing designers and managers of telehealth/ mHealth and remote health care delivery networks. The spectrum of activity ranging from research into implications of system design for applications that bridge geographic distance to the development of practical applications to promote patient engagement is considered in both historical context and in case studies. The current status and future trends of this emerging domain are reviewed. It is recommended that students have some exposure to health care or health systems prior to enrolling in this course.
NOTE: Non-majors need permission from the department.
Fall
Also Offered As: BMIN 5090
1 Course Unit

NURS 5300 Nurses Caring for and across Communities
This course is designed to emphasis how nursing influences the health and healing capacities of both communities as a whole (populations) and of groups, families, and individuals living within particular communities locally and globally. It underscores community-based nursing practice within a public health paradigm. It requires students to draw from prior coursework and clinical knowledge and skills and apply this practice base to communities across care settings, ages, and cultures with different experiences of equity and access to care. It provides the tools needed to engage in collaborative community work and to give voice to the community’s strengths, needs, and goals. It also moves students from an individual and family focus to a population focus for health assessment and intervention. Students construct health promotion initiatives and efforts to engage community in upstream interventions toward improving health and health equity. Clinical and simulated experiences in community settings provide sufficient opportunities for clinical reasoning, clinical care, and knowledge integration in community settings.
Summer Term
1.5 Course Unit

NURS 5320 Cognitive Behavioral Strategies in Health Care
Cognitive therapy will be studied as it has been adapted to treat a broad spectrum of clinical disorders including depression, anxiety, phobias, substance, obesity, marital problems, sexual dysfunction, and psychosomatic disorders. Students will have an opportunity to study and observe the crucial link between thoughts and emotions and the sense of competency patients can develop through self-help techniques. The course utilizes didactic, experiential and observational techniques.
Spring
1 Course Unit

NURS 5350 Comparing Health Care Systems in an Intercultural Context: Study Abroad
This course offers students an opportunity to: 1) expand their knowledge base in health care systems; 2) develop intercultural competency skills and 3) shape a conceptual framework for improving the quality of health care for the individual, the family, the community and society at large. Emphasizes the relational, contextual nature of health care and the inseparability of the notions of the health of individuals and the health of family, society, and culture. Includes field experience. Prerequisite: Permission of instructor Seminar held in Spring, study abroad field experience held intra-session
Spring
1 Course Unit
NURS 5370 Systems Approach for Promoting Safe Nursing Practice
In this course, students are introduced to integrative system approaches to assess and solve problems intrinsic to nursing practice. Students explore a new way of thinking about and resolving complex, persistent problems and the factors that contribute to unsafe practices. This course examines errors in health care and how nurses, working inter and intra-professionally, contribute to and/or lead in quality improvement efforts. Through classroom discussion, the student will learn patient safety strategies, behaviors, and practices that reduce or eliminate the risk of patient harm and develop an appreciation for attributes of an organization that contribute to a strong patient safety culture.
Summer Term
0.5 Course Units

NURS 5380 Summer Innovation Institute: Collaborative Design & Co-Creation for Health Equity
Innovation is necessary to achieve health equity. However, the human-centered approach of design thinking, a powerful tool of innovation, does not guarantee equitable solutions. It must be complemented by equity-centered models. These approaches focus on collaboration and co-creation. Collaborative work that centers the voices of, and engages with, all stakeholders and members of interested communities ensures that innovative design thinking solutions reflect the needs and preferences of the intended audiences. This one-week, in-person intensive workshop provides participants the opportunity to explore design thinking, equity-centered design by co-collaboratively putting them into practice. During a series of dynamic and interactive sessions throughout each morning, attendees will engage in lecture, discussions, and a variety of activities regarding how we can move the needle towards health equity through the integration of human-centered design, participatory models, and entrepreneurship principles. Institute faculty and speakers will provide insight into how design thinking and equity-centered design have already transformed health as well as the importance of addressing equity in all aspects of the process. Come with ideas, leave with frameworks, contact, and plans.
Summer Term
0.5 Course Units

NURS 5400 Current Issues In Health and Social Policy
Analysis of key contemporary issues in health and social policy that will provide students with a deeper understanding of the design and structure of the U.S. health care system, the policy initiatives that have shaped it, and the roles of the government, the private sector, and consumers and advocacy groups in setting the policy agenda. Seminars will examine the origins of each issue, the policies enacted and their effects, both intended and unintended, and will propose and debate the merits of alternative policy solutions. The role of health services and policy research in informing the policy debate and directions will be highlighted. Please note, the online version of this course has a synchronous component (live online class sessions).
Fall, Spring, and Summer Terms
Mutually Exclusive: NURS 3340
1 Course Unit

NURS 5420 Health of Sexual and Gender Diverse Individuals and Populations Across the Lifespan
Grounded in a nursing perspective that employs a dual strengths-based and health equity lens, we will examine how gender and sexuality, as socially constructed power relations that operate in the individual, interpersonal, community and institutional levels, influence the health outcomes of individuals as well as at the population level. Rooted in a social justice approach, this course explores the interplay between gender, sexuality, and health within the U.S. and international context and in relation to other axes, including social inequality, class and race. We will examine lifespan development and the milestones associated with each stage as it applies for sexual and gender diverse individuals. Throughout the semester, class participants will use critical thinking skills to examine ecological factors that influence sexual and gender diverse individuals’ health alongside other intersecting facets of identity including race, ethnicity, age, ability/disability, mental and physical health, and other factors that affect individual development and consequent population outcomes. Finally, this course requires an openness and appreciation of a range of perspectives that will enable students to explore and develop a nursing mindset attuned to the unique concerns and health needs of sexual and gender diverse individuals, both in acute care and community health settings.
Spring
Mutually Exclusive: NURS 3420
1 Course Unit

NURS 5430 Global Health Seminar
Global course topics vary by section. Please contact the program for additional details.
1 Course Unit

NURS 5450 Maternal and Infant Care in the Americas
This clinical elective will provide an intensive historical, sociopolitical, and cultural perspective of health and health care delivery in the Americas with a special emphasis on Latin America and the Caribbean. Classroom, direct clinical care and field experiences are designed to provide students with a broad view of the history and culture system of the country of focus. The delivery of health care to women and children will be explored from a sociopolitical, cultural and historical context. Service learning experiences are an integral component of this course. The course includes 5 seminars on campus and 10-14 days on site in the country of focus. The country of focus may vary each semester. Prerequisite: Permission of instructor
Spring
1 Course Unit
NURS 5470 Scientific Inquiry for Evidence-based Practice
This course is designed to advance students' understanding of the research process, methods of scientific inquiry, and analytical techniques. Students acquire knowledge of systematic approaches used by scientists to design and conduct studies. Course content prepares students to appraise quantitative and qualitative research, and evaluate the scientific merit and clinical significance of research for translation into practice. Evidence-based guidelines are examined and rated for strength of evidence and expert consensus using evidence grading systems and defined criteria. Students engage in variety of creative learning experiences to facilitate appreciative inquiry, clinical reasoning, and evidence-based practice. Quality improvement, comparative effectiveness analyses, information science, and electronic health systems technology demonstrate the capacity for measurement and surveillance of nursing-sensitive and other outcomes used to evaluate quality nursing care and test interventions. Ethical, legal and health policy implications for research are explored. This course serves as the basis for scientific inquiry about human experiences to address important problems that require solutions and to expand the research and the evidence base for professional nursing practice.
Fall or Spring
Prerequisite: NURS 2300 OR STAT 1010 OR STAT 1110
1 Course Unit

NURS 5480 Negotiations in Healthcare
This course examines the process that leads to change in health care settings and situations. Students will develop skills that lead to effective negotiations in interpersonal and organizational settings. Included in the discussion are: concepts of organizational structure and power, negotiating in difficult situations, and the role of the health care professional in negotiation and change. The course also examines techniques leading to successful implementation of negotiated change in the practice setting. Prerequisite: Undergraduates must have permission of instructor
Fall
1 Course Unit

NURS 5490 Human Resources Management in Healthcare
Today's healthcare industry continues to be highly turbulent in nature presenting many challenges for leaders in the workplace. Competency in workforce planning and recruitment, selection and retention of top talent for organizational innovation and growth are essential for nursing leaders. Utilizing the American Organization of Nurse Executives (AONE) Competencies (2006) as a curricular guide, this course emphasizes human resources management skills essential for any nurse leader to address employee relations challenges and provide for an enriching work environment.
Summer Term
1 Course Unit

NURS 5530 Innovation & Applied Technology in Health Care
This course is offered to undergraduate and graduate students from across the Penn campus who want to join interdisciplinary teams that tackle health care challenges using technology in the form of games, apps, websites, or other technology. Students from nursing, engineering, computer science, design, marketing, or communication, or other schools or departments will be matched by interest and skill to multidisciplinary teams. Types of technology, theory of gaming, motivation, and incentives to change health behaviors are a few of the topics that may be identified as a project. The course provides a forum for germinating and developing conceptual models, programming, using game theory for therapeutic interventions, and entrepreneurship. Examples of such applications are medication management tools, health risk detectors, games that teach health skills and behaviors, e-prescribing applications, recruitment tools for greater diversity in nursing, applications that improve the workflow in health care settings, and applications that promote patient-centered care.
Spring
0.5 Course Units

NURS 5570 Principles of Palliative Care
This course examines national and global perspectives and clinical issues in the delivery of palliative care with diverse populations in multiple health care settings. Students focus on the care of persons with life-threatening, progressive illness, emphasizing respect for patients' and families' beliefs, values, and choices. Students also explore psychosocial and spiritual dimensions of palliative care. Historical, sociocultural, economic, legal, and ethical trends in palliative care are discussed. Factors affecting health care systems and societal attitudes are considered in evaluating the delivery of care during advanced illness and at the end of life. Students engage in the critical analysis of literature, research, and observational experiences concerning biopsychosocial needs of patients and families. Students acquire competencies in patient/family assessment, communication, decision-making, and interdisciplinary collaboration in palliative care. Prerequisite: Undergraduate Students need permission This course satisfies the Society & Social Structures Sector for Nursing Class of 2012 and Beyond.
Fall
Mutually Exclusive: NURS 3670
1 Course Unit
NURS 5600 Nurses Leading in Complex Care
This course requires students to apply knowledge of complex nursing care situations and environments to facilitate the students’ transition to practice. Didactic teaching helps learner to integrate knowledge and skills for nursing practice and develops the ability of students to see nursing practice as part of a complex system. It reinforces systems thinking and complexity, development of a leadership role and skills, inter-professional communication and teamwork, and leading change in healthcare organizations. This course also allows students to develop the capacity for clinical expertise, leadership, and for translating the science of the profession into practice. Students also are assigned to a seminar component that is correlated with their selected site for the specialty clinical practicum. This aspect of the course allows the student to further develop leadership concepts learned in lecture while developing additional expertise in a specialty area of practice. Advanced simulation experiences and extensive clinical practice in an area of the students’ choice provide multiple opportunities to synthesize the multidimensional aspects of nursing and provide the environment which facilitates transition to professional nursing practice. Students select from a variety of settings in which to refine leadership and practice skills. Principles of leadership, accountability and change will be applied to clinical practice as the student begins to operationalize the professional nursing role.
Fall
Prerequisite: NURS 5300
2 Course Units

NURS 5650 Advocacy & Public Health: Turning Knowledge into Action
This course is designed to provide the foundational context and practical skills necessary to effectively identify public health problems, craft evidence-based solutions and advocate for those solutions in furtherance of public health objectives. The class will be interactive in nature and will require participation in public health advocacy exercises in order to hone advocacy skills. There will also be a focus on persuasive communication, both oral and written. We will explore the entire advocacy process from the identification of a problem and evaluation of possible public health policy solutions to utilizing the full range of advocacy tools to promote policy change. We will be using real-time examples of public health challenges affecting the health, safety and well-being of children and families here in Philadelphia and in communities across the country. Students will apply advocacy skills during an Injury & Violence Prevention Hill Day in Washington, D.C. with national partners.
Not Offered Every Year
Also Offered As: HPR 6370, PUBH 6370
Prerequisite: PUBH 5050 OR PUBH 5070
1 Course Unit

NURS 5670 An Evidence-based Approach to Managing Symptoms in Advanced Illness
This course uses an evidence-based approach towards systematic assessment and management of common symptoms and symptom clusters accompanying progressive, life-limiting illnesses within a framework of nationally recognized standards and guidelines for palliative and end-of-life care. Students are prepared to apply principles of palliative management to diverse patient populations across clinical settings including acute, primary, long-term, and community care. Refer to course syllabus or email course faculty for respective requirements. Prerequisite: Junior and senior undergraduates may be admitted with course faculty permission
Spring
1 Course Unit

NURS 5700 Foundations of Public Health
This course will provide a topical overview of the inter-disciplinary field of public health and provides grounding in the public health paradigm. Through a series of lectures and recitation sessions, students will learn about the history of public health and the core public health sciences including behavioral and social sciences, biostatistics, epidemiology, environmental health, and policy and management. Other topics include ethics in public health, context analyses (specifically sociographic mapping and urban health), community participation in research, public health promotion, and the prevention of chronic and infectious diseases.
Fall
1 Course Unit

NURS 5730 Innovation in Health: Foundations of Design Thinking
Innovation, defined as a hypothesis-driven, testable, and disciplined strategy, is important to improve health & healthcare. Employing new ways of thinking, such as with design thinking, will help open up possibilities of ways to improve health & the process of healthcare. Incorporating current & emerging social & digital technologies such as mobile apps, wearables, remote sensing, and 3D printing, affords new opportunities for innovation. This course provides foundational content & a disciplined approach to innovation as it applies to health & healthcare. A flipped classroom approach with the in-class component focusing on group learning through design thinking activities. The course is open to undergraduate nursing students as a case study & upper-level undergraduates and graduate students from across the Penn campus. The course provides a theoretical foundation in design thinking & may provide an overview of innovation technology & digital strategies as well as social & process change strategies. To enhance the didactic component, students will actively participate in a design case study. Students will be matched by interest and skill level with teams & will work with community-based organizations, healthcare providers and/or innovation partners. Student teams will meet their partners to identify & refine a health or healthcare problem to tackle. Students will work throughout the semester to create an innovative solution that will be pitched to their community-based organization, healthcare provider, and/or innovation partner at the end of the semester.
Fall or Spring
Mutually Exclusive: NURS 3570
1 Course Unit

NURS 5750 Health, Sustainability, Built Environment Design
Placemaking is a powerful tool for healthy communities. This course is open to students in nursing, public health, medicine, environmental policy, planning and design for intersectoral professional work. Through the design of place, including housing, schools, healthcare facilities, and the workplace, the class will investigate the impact of Social Determinants of Health and build a Culture of Health. Course work covers design and planning theory that intersects with diseases, sustainability, climate action and interconnectivity. Case studies, seminars, and tours will help students synthesize how to promote health through the design and development process and to make effective communication to enhance health equity.
Not Offered Every Year
1 Course Unit
NURS 5780 Inquiry-based Innovation for Nursing Practice
This course is designed to further the students' intellectual curiosity and independence as the student explores pathway toward clinical practice and research in an area of interest. The focus of the course is to synthesize advanced knowledge of systematic methods for research, service-based clinical inquiry, and improvement science. Students will engage in fieldwork related to their area of interest initiated during NURS5370 Systems Approach for Promoting Safe Nursing Practice. The focus of the fieldwork component is either a quality improvement initiative or a faculty-mentored experience to pursue research. Students have flexibility for how the fieldwork is structured. The fieldwork in research or quality improvement are supported by members of Penn Nursing and/or collaborating partners in the community offering an opportunity to interact with affiliated investigators and clinicians who contribute to and enrich the course.
Fall
Prerequisite: NURS 5370
1 Course Unit

NURS 5800 Pharmacology of Anesthesia and Accessory Drugs I
This course explores the various routes of anesthetic administration addressing the potential benefits and risk of each. Special emphasis is placed on specific anesthetic agents and their appropriate use. The responses and common complications associated with these agents are discussed.
Fall
1 Course Unit

NURS 5870 Advanced Leadership Skills in Community Health
Grounded in a social justice perspective, this course aims to provide the student with a foundational overview of the field of community health and leadership skills in public health advocacy. The course encourages critical thinking about health outcomes framed by the broad context of the political and social environment. This course analyzes the range of roles and functions carried out by leaders in healthcare advocacy for marginalized communities; integrates knowledge of health policy and the key influence of government and financing on health outcomes; explores community-based participatory research and interventions as tools for change; and discusses ways to develop respectful partnerships with community organizations. An assets-based approach that draws upon the strengths of communities and their leaders provides a foundation for community-engagement skill building. The course emphasizes the development of skills and techniques to lead effective, collaborative, health-focused interventions for disenfranchised groups, including residents of urban neighborhoods. Prerequisite: Undergraduates with permission of the instructor
Spring
Also Offered As: HPR 5880, PUBH 5880
1 Course Unit

NURS 5880 The Politics of Women's Health Care
This course will utilize a multidisciplinary approach to address the field of women's health care. The constructs of women's health care will be examined from a clinical, as well as sociological, anthropological and political point of view. Topics will reflect the historical movement of women's health care from an obstetrical/gynecological view to one that encompasses the entire life span and life needs of women. The emphasis of the course will be to undertake a critical exploration of the diversity and current issues in women's health care needs and the past and current approaches to this care. Issues will be addressed from both a national and global perspective, with a particular focus on the relationship between women's equality/inequality status and state of health. This course satisfies the Society & Social Structures Sector for Nursing Class of 2012 and Beyond.
Fall
Also Offered As: GSWS 5880
1 Course Unit

NURS 6000 Principles and Practice of Transformative Nursing Education
This course is designed to provide a theoretical foundation to promote excellence in teaching in both faculty and professional development roles. Principles of adult learning theory, learning styles and preferences are explored with a focus on impact for educational design. Students review various learning domains, teaching theories, approaches for curriculum development and a variety of active learning strategies. An examination of documents that inform curriculum development and regulate nursing practice is performed. The major construct of critical thinking and its importance to nursing is explored. General tactics for the use of simulation, approaches for inter-professional collaboration, and methods for evaluating learner competence when educating nurses are reviewed.
Fall
1 Course Unit

NURS 6010 Teaching Nursing in an Academic Environment
This course is designed to provide a theoretical foundation to promote excellence in teaching in both faculty and professional development roles. Principles of adult learning theory, learning styles and preferences are explored with a focus on impact for educational design. Students review various learning domains, teaching theories, approaches for curriculum development and a variety of active learning strategies. An examination of documents that inform curriculum development and regulate nursing practice is performed. The major construct of critical thinking and its importance to nursing is explored. General tactics for the use of simulation, approaches for inter-professional collaboration, and methods for evaluating learner competence when educating nurses are reviewed.
Fall
1 Course Unit

NURS 6010 Teaching Nursing in an Academic Environment
This course provides the fundamental knowledge and skills in preparation for teaching in a faculty role in an academic environment. Specific focus is placed on program design, approaches to teaching in didactic, simulation, clinical, and online learning environments, management of didactic and clinical course offerings including effective use of learning management systems, and methods for evaluation of student performance. This course also reviews approaches and resources for working with students who have learning challenges or performance issues.
Spring
Prerequisite: NURS 6000
1 Course Unit
NURS 6020 Teaching Professional Nurses in the Practice Environment
This course provides nurses who are considering working in nursing professional development (NPD) in a variety of practice settings, an overview of the practice environment and roles of NPD practitioners. This course is taken after completing the pre-requisite NURS6000 Principles and Practice of Transformative Nursing Education offering, and uses the most current American Nurses Association Nursing Professional Development Scope & Standards of Practice as a foundation for examining roles and responsibilities of nursing professional development practitioners. Content addresses the who, what, where, when, how, and why of nursing professional development including but not limited to principles related to onboarding/orientation, education and role development, competency management, developing collaborative partnerships, translating evidence-to-practice, facilitating quality improvement, and measuring the value of Nursing Professional Development.
Spring
Prerequisite: NURS 6000
1 Course Unit

NURS 6030 Basic Principles of Nurse Anesthesia Practice II
This course provides students the opportunity to integrate theory and principles into practice within the clinical setting. Scope of practice, role development, ethical and cultural considerations and anesthetic interventions will be introduced and explored in the classroom and simulation suite. The student will transition to the surgical suite to begin clinical fieldwork, where they will progress from the care of healthy patients undergoing minimally invasive surgical procedures to the more complex patients with multiple health issues.
Fall
1 Course Unit

This course focuses on theory and research from the behavioral and nursing sciences on the psychological and social consequences of on-going illness. In addition, the health policy issues engendered by these problems will be addressed. Prerequisite: Primary Care Majors or instructor permission
Spring
1 Course Unit

NURS 6050 Advanced Principles of Nurse Anesthesia Practice: Cardiac, Vascular, and Thoracic Surgery
The basic principles of anesthesia practice will be expanded upon, focusing on specific populations, including the incidence and prevalence of various disease states. This course explores the special considerations required for the care of cardiac, vascular and thoracic patients undergoing anesthesia. An in-depth analysis of the pre-anesthesia assessment, perioperative considerations and post anesthesia monitoring necessary to facilitate optimal patient outcomes are summarized. Further, evidence-based case studies will be discussed highlighting the epidemiologic considerations for various disease states.
Fall
1 Course Unit

NURS 6060 Adv Principles of Nurse Anesthesia Practice: Neurosurgery, Orthopedics, Pain Management & Trauma
The basic principles of anesthesia practice will be expanded upon, focusing on specific populations, including the incidence and prevalence of various disease states. This course explores the special considerations required for the care of the neurosurgical, orthopedic and traumatically injured patients undergoing anesthesia. An additional focus will be directed towards pain management in the surgical population. An in-depth analysis of the pre-anesthesia assessment, perioperative considerations and post-anesthesia monitoring necessary to facilitate optimal patient outcomes are summarized. Further, evidence based case studies will be discussed, highlighting the epidemiologic considerations for various disease states.
Fall
1 Course Unit

NURS 6070 Advanced Physiology and Pathophysiology
This course will integrate advanced physiology with pathophysiology and clinical implications across the lifespan for advanced nursing practice. Organ systems function and dysfunction from the level of the cell through integrated organ levels will be presented, and the genetic basis of disease will be discussed. Recent scientific advances will be discussed with application to new approaches to disease and symptom management. The interrelationships between basic physiology, clinical pathophysiology, and genetics are emphasized through lecture and case studies. Registration is restricted to students enrolled in the MSN or DNP programs or by permission of instructor.
Fall
1 Course Unit

NURS 6080 Advanced Pharmacology and Therapeutics for Nursing Practice
Advanced principles of clinical pharmacology and therapeutics are applied to the nursing care of individuals across the life-stage spectrum. It focuses on the content and knowledge employed by the advanced practice registered nurse in the management of various conditions and disease states. The course builds on the pharmacology knowledge base acquired in the baccalaureate nursing program. The advanced pharmacology and therapeutics of several common diseases or conditions found in the acute care and primary care setting is presented. This is supplemented with pharmacotherapy modules to meet program specific needs.
Fall or Spring
Prerequisite: NURS 6070 OR NURS 6850
1 Course Unit

NURS 6090 Advanced Principles of Nurse Anesthesia Practice: Special Surgery
This course explores the perioperative evaluation and advanced anesthetic principles related to patient populations undergoing a broad range of surgical procedures. Emphasis is placed on selection and administration of anesthesia to these populations to ensure optimal patient care, safety, monitoring and implementing interventions to prevent and treat common perioperative emergencies. Prerequisite: Enrollment in NANS program - year 2
Spring
1 Course Unit
NURS 6110 Advanced Principles of Nurse Anesthesia Practice: Problem-Based Learning
Exploration of the conceptual-theoretical basis of nursing. Analysis and evaluation of conceptual models of nursing and nursing theories with emphasis on implications for nursing practice. Prerequisite: Enrollment in CRNA program; year 3
Spring
1 Course Unit

NURS 6120 Principles and Practice of Healthcare Quality Improvement
Healthcare delivery is complex and constantly changing. A primary mission of leading healthcare organizations is to advance the quality of patient care by striving to deliver care that is safe, effective, efficient, timely, cost effective, and patient-centered. The goal of this interprofessional course is to provide students with a broad overview of the principles and tools of quality improvement and patient safety in health care while also guiding them through the steps of developing a quality improvement project. It will provide a foundation for students or practicing clinicians who are interested in quality improvement and patient safety research, administration, or clinical applications. As part of this course, students will design and plan for a real quality improvement project in their area of interest within healthcare using the methods and tools taught in the course.
Fall
Also Offered As: HQS 6120
1 Course Unit

NURS 6130 Behavioral Economics & Health
Among the many determinants of health outcomes around the world, human behavior plays a central role. Examples abound in many different areas of health: smoking and exercise can have an impact on the burden of chronic diseases globally; utilization of vaccination services can affect the spread of infectious diseases; decisions made by providers can affect the health outcomes of patients. Understanding human behavior – specifically how people make health-related decisions – is therefore essential for learning how we might develop interventions and policies that have the potential to improve health outcomes. This understanding can be advanced and enriched using behavioral economics. Behavioral economics, a field at the intersection of psychology and economics, suggests that humans rarely behave rationally when making health-related decisions. Instead, a collection of fundamental psychological forces — including cognitive biases, mental shortcuts, and inconsistent time preferences — lead us to act against our best interest (and sometimes the interests of our patients, family members, or communities that we care for.) The course will take a very pragmatic, hands-on orientation to behavioral economics and health research and practice. Examples of public health related questions that this course will address include: How can we convince smokers to quit smoking permanently? What’s the best way to get employees to show up to a flu vaccine clinic? How can we encourage patients to take their medications regularly? How can we increase the utilization of health products like bednets in low-income countries? How can we reduce health care costs through increased prescription of generic medications?
Fall
Also Offered As: PUBH 6080
Prerequisite: PUBH 5060 OR PUBH 5040
1 Course Unit

NURS 6140 Advanced Principles of Nurse Anesthesia Practice-Professional Practice
Population specific topics of concern to nurse anesthetists are reviewed and discussed. Seminal works in the field of anesthesia are reviewed and discussed to facilitate a comprehensive review of contemporary anesthesia practice. The gaps between research and its implementation in practice will be considered. Students will focus on completing a comprehensive review of 1) Basic sciences; 2) Equipment, Instrumentation and Technology; 3) Basic Principles of Anesthesia Practice; and 4) Advanced Principles of Anesthesia Practice as described by National Council on Certification and Recertification of Nurse Anesthetists. Prerequisite: Must be enrolled in the Nurse Anesthesia program
Spring
1 Course Unit

NURS 6160 Interpreting Epidemiologic Literature to Inform & Influence
This course is designed for students interested in further exploration of epidemiologic methods and the challenge of establishing a causal relationship between exposure and outcome using an observational science. We will utilize case studies to address the application of epidemiologic data to specific issues of relevance to public health. The nature of observational data will be explored through these case studies and specific methodological challenges will be highlighted and examined.
Also Offered As: PUBH 6060
Prerequisite: PUBH 5020
1 Course Unit

NURS 6230 Nutrition Counseling
This online course introduces the future healthcare professional to the foundations of nutrition counseling. Each asynchronous session focuses on theory and application for promoting effective behavior change.
Fall
Also Offered As: NUTR 6060
1 Course Unit

NURS 6240 Pathogenesis of Mental Disorders and Psychopharmacology Across the Lifespan
The conceptual and practice application of brain-behavior relationships for individuals with psychiatric conditions is developed in this course. Specific biological theories of diagnostic classifications found in the Diagnostic and Statistical Manual of Mental Disorders Fifth Edition (DSM-5). This provides the basis for the development of a fund of psychopharmacology knowledge, critical thinking, and clinical judgment in the application of psychopharmacology agents in the treatment of psychiatric conditions for advanced practice psychiatric mental health nursing practice. Using case study methods to encourage the application of knowledge to clinical practice, the course pragmatically addresses culturally diverse client populations across the lifespan who present with a range of symptom manifestations, at all levels of severity. The course emphasizes evidence-based practice, research based clinical decision making and a holistic approach to integrating the science and biology of the mind with social and behavioral interventions.
Fall
Prerequisite: NURS 6070
1 Course Unit

NURS 6250 Clinical Modalities Across the Life Cycle in Advanced Practice Psychiatric Mental Health Nursing
Crisis intervention, brief psycho-therapy, group processes and practices, milieu therapy, and intervention with families are examined as they relate to nursing practice in mental health.
Summer Term
1 Course Unit
NURS 6260 Family and Organizational Systems Across the Life Span  
This course presents Bowen Family Systems Theory as it applies to families over the life and organizations over time. This is a theoretical course whose purpose is to provide the student with a broad, systemic perspective on human functioning. The course begins with a detailed presentation of Systems Theory, from both a family and organizational perspective. As presented there is a continual compare and contrast to other dominant theories of human functioning. It then applies the concepts of Systems Theory to the understanding and assessment of the stages of the normal family life cycle from a multi-generational, multi-cultural perspective. This is followed by discussions of the theory’s application to the emotional problems of children, adolescents, adults and their families. Likewise, application to organizational behavior is made, including health care organizations. Relevant research is discussed throughout.  
**Summer Term**  
1 Course Unit

NURS 6280 Mental Health and Aging  
An examination of the psycho-socio-cultural processes which influence the behavior patterns, coping, and adaptation of older adults. The course emphasizes strategies to promote mental health as well as assessment, presentation, and intervention in the major acute and chronic psychiatric disorders affecting the older adult.  
**Spring**  
1 Course Unit

NURS 6290 Basic Principles of Nurse Anesthesia Practice  
The fundamental concepts learned in Advanced Physical Assessment and Clinical Decision Making will be used as a foundation to inform the basics of anesthesia practice. Assessment of the patient is reviewed with a specific focus on the anatomic and physiologic issues involved in the administration, maintenance and recovery from anesthesia. In addition, the course will encompass an overview of anesthesia history, nurse anesthesia practice and the perioperative environment. The student will transition to the surgical suite to begin clinical fieldwork at the conclusion of the course. Prerequisite: enrollment in NANS program, year 1  
**Fall**  
1 Course Unit

NURS 6360 Pain Science and Practice  
This interprofessional course focuses on the biopsychosocial aspects of pain and pain management from the perspectives of individualized pain care, scientific discoveries, evidence-based practice and cross-disciplinary learning. Content includes an integrated overview of the neurobiology of pain, psychosocial aspects of the pain experience, pain assessment and outcomes measurement, pharmacological and nonpharmacological approaches to the treatment of acute and chronic pain syndromes, national health policies for pain, evidence-based guidelines and best practices, and interprofessional care delivery models. Peripheral and central modulation of pain, neuroanatomical pathways, neurochemical mediators, and genetics are examined as the basis for explaining pain perception, behaviors and responses to treatments. Pain assessment and management for vulnerable populations are addressed along with strategies to reduce pain treatment disparities. Several acute and chronic (persistent) pain syndromes are discussed across the continuum of care (e.g., primary care, hospital, outpatient pain centers, and home care). Current research findings and evidence-based guidelines are applied to interprofessional collaboration and clinical decision-making to promote optimal care and outcomes for persons experiencing pain. Through case-based and directed learning, classroom simulation, and interactive discussions with national leaders spanning multiple disciplines, students acquire a strong scientific and practice foundation in the clinical care of persons with acute and chronic pain.  
**Spring**  
Also Offered As: MED 5360  
1 Course Unit

NURS 6370 Introduction to Research Methods and Design  
The relationships among nursing theory, research and practice will be examined. An emphasis will be placed on research competencies for advanced practice nurses (APNs), including understanding nursing research methods and strategies in order to evaluate research results for applicability to practice and to design projects for evaluating outcomes of practice. An understanding of statistical techniques will be integrated into the course and build on the required undergraduate statistics course. Published nursing research studies will be evaluated for scientific merit and clinical feasibility, with a focus on evidence-based practice. Please note, the online version of this course has a synchronous component (live online class sessions). See department for meeting days/times. Prerequisite: Undergraduate Statistics Class, Must hold an RN license  
**Fall, Spring, and Summer Terms**  
1 Course Unit

NURS 6400 Global Health Policy & Delivery  
This participatory, interdisciplinary seminar course examines contemporary issues in global health policy and delivery. Students will develop skills in policy analysis, development of evidence-based policy, and effective delivery of global health interventions. The class will explore the health delivery and policy process using a variety of contemporary global health case studies, which focus on content areas such as maternal health, HIV policy, global child health, family planning and medication access. At the completion of this course, the student will be able to: (1) critically examine key issues in global health policy and delivery; (2) understand how epidemiology and various factors influence the design of evidence-based policy and interventions; (3) analyze frameworks for effective health intervention delivery in low-resource and middle-income countries; (4) develop skills to assess policy and program impact for continuous improvement and best practice dissemination.  
**Spring**  
Also Offered As: PUBH 5510, SWRK 7930  
1 Course Unit
NURS 6410 Autism Spectrum Disorder: Prevalence, Etiology, Screening and Assessment

Through classroom and clinical experiences, this course provides an overview of the public health problem of autism spectrum disorder (ASD). Content addresses the natural history, etiology, rising prevalence, risk factors, and core features. Changes in prevalence statistics and possible causes are outlined. These subjects are described in general terms for an overall picture of the disorder. Taking a developmental approach, students begin case management and follow a family through screening, diagnosis, and treatment planning. Key information is elaborated through case studies. The course highlights the important and evolving role of nurses in the care of people with ASD. Content is supported by the scientific literature. Students’ clinical experiences start the identification of and collaborative work with a family that has a young child with ASD. The student follows that family and the child through diagnosis, treatments, and long-term planning. This case approach allows the student to work with the same family over the entire post-masters program to learn the value of interdisciplinary, contiguous care. Prerequisite: Junior and senior undergraduate students may be admitted with course faculty permission. Post-BSN students only.

Fall
1 Course Unit

NURS 6420 Health and Behavioral Care Planning and Intervention for Autism Spectrum Disorder

Through classroom and clinical experiences, this course focuses on the application of various treatment approaches to the management of acute and chronic problems of autism spectrum disorder. Approaches to behavioral, psychological, and medical co-morbidities are explored, practiced, and evaluated. Students’ clinical experiences build on the previous semester and continue with the application of class instruction to patient and family care. The student works closely with behaviorists, psychologists, and occupational therapists to integrate nursing care planning with other services. This case approach continues, and exposure to a second family is added to expand learning opportunities and develop nursing services.

Spring
1 Course Unit

NURS 6430 Leadership, Advocacy, and the Practice of Integrated Nursing Care of Autism Spectrum Disorder

Emphasis is on the synthesis of course content practice. Through classroom and clinical experiences, students critically examine the role of nursing in the life-long care of people with ASD. Students explore the availability of services in the community and discuss approaches to patient advocacy. Students have opportunities to select an area of specialization to develop specific practice expertise. Special areas are Diagnosis and Referral Practices (e.g., ADOS Training), Behavioral Therapy Training (e.g., Applied Behavioral Analysis), and clinical research. Practical issues of collaboration and reimbursement for services are explored. Students’ clinical experiences are designed to facilitate scholarship, independence, and advanced specialization in a chosen component of ASD care, for example, behavioral analysis, screening, and diagnosis, or an agenda for research. Students identify and implement an independent project.

Summer Term
1 Course Unit

NURS 6440 Health Care in an Aging Society

Individual and societal influences on the care of older adults are examined in detail within the context of an emerging health care system. Normal changes in physical and psychological health are explored in depth. Significant issues affecting care of older adults and their families at the global and national level are discussed.

Spring
1 Course Unit

NURS 6460 Primary Care: Diagnosis and Management of Adults Across the Lifespan

This course focuses on development of critical thinking skills to address health care problems of adults across the lifespan, with an emphasis on middle-aged and older adults, developing differential problem solving skills and determine appropriate management interventions. The management of common acute and chronic health conditions will include evidence-based primary prevention and intervention, and referral to other health care providers. Students have the opportunity to build on previously acquired skills and to apply concepts of primary care to manage the health problems of adults across the lifespan.

Fall
Prerequisite: NURS 6570
Corequisite: NURS 6470
1 Course Unit

NURS 6470 Primary Care Clin Practicum: Diagnosis & Mgmt of Adults across the Lifespan

Management and evaluation of primary care problems of middle-aged and older adults in a variety of ambulatory and occupational settings. Opportunity to implement the role of the nurse practitioner with middle-aged and older adults and their families in the community. Interdisciplinary experiences will be pursued and collaborative practice emphasized. Students are expected to assess and begin to manage common chronic health problems in consultation with the appropriate provider of care. The initiation of health promotion & health maintenance activities with individuals and groups is stressed. Includes 16 hours a week of clinical experience with a preceptor.

Fall
Prerequisite: NURS 6570
Corequisite: NURS 6460
1 Course Unit

NURS 6480 Primary Care: Complex Diagnosis and Management of Adults across the Lifespan

This course will build on concepts presented in the Diagnosis and Management of Adults across the Lifespan (NURS 646) course. The focus is on refining health assessment skills, interpreting findings, developing and implementing appropriate plans of care to meet common health maintenance needs of adults and to promote the health of adults with more complex health problems with an emphasis on the frail adult. The student will gain increased expertise in communication skills, health assessment skills, interpreting findings, epidemiological concepts and developing and implementing plans of care. The emphasis will be placed upon managing an aging population with complex, chronic healthcare needs and promoting healthy behaviors across the lifespan.

Spring
Prerequisite: NURS 6460 AND NURS 6470
Corequisite: NURS 6490
1 Course Unit
NURS 6490 Primary Care Clin Practicum: Complex Diagnosis & Mgmt of Adults across the Lifespan
The focus of this course is the application of concepts presented in the Complex Diagnosis and Management of Adults Across the Lifespan (NURS 648) including initial workups of new patients, and the evaluation and management of patients with self-limiting acute problems, or stable chronic illnesses. Students will gain increased clinical expertise in a variety of community-based clinical settings including but not limited to health maintenance organizations, community clinics, long term care, assisted living, continuing care retirement communities, occupational health settings, and private practice. The student will gain increased expertise in communication skills, health assessment skills, interpreting findings, applying epidemiological concepts and developing and implementing plans of care for adults across the lifespan with health maintenance needs, and/or common acute and chronic health problems.
Spring
Prerequisite: NURS 6460 AND 6470
Corequisite: NURS 6480
1 Course Unit

NURS 6500 Systems Thinking in Patient Safety
This blended online/in-classroom graduate level course integrates principles of systems thinking with foundational concepts in patient safety. Utilizing complexity theories, students assess healthcare practices and identify factors that contribute to medical errors and impact patient safety. Using a clinical microsystem framework, learners assess a potential patient safety issue and create preventive systems. Lessons learned from the science of safety are utilized in developing strategies to enhance safe system redesign. Core competencies for all healthcare professionals are emphasized, content is applicable for all healthcare providers including, but not limited to, nurses, pharmacists, physicians, social workers and healthcare administrators, and may be taken as an elective by non-majors.
Spring
Also Offered As: HQS 6500
1 Course Unit

NURS 6510 Healthcare Informatics
Healthcare systems and consumers today are becoming increasingly reliant on information technology. The objective of this course is to provide a foundation for knowledge about health information technology and to expose students, clinicians, and administrators to the breadth of tools and systems currently used in practice. We will explore topics such as mobile health applications/telehealth and their implications for clinical practice and impact on patient outcomes; electronic health records, data analytics, and visualization tools and how these can effectively be used to support decision making and patient care.
Summer Term
1 Course Unit

NURS 6540 Nursing Administration Practicum I
See syllabus.
0.5 Course Units

NURS 65450 Nursing Administration Practicum II
See syllabus.
Fall or Spring
Prerequisite: NURS 6990
0.5 Course Units

NURS 6550 Nursing Administration Practicum II
See syllabus.
Fall or Spring
Prerequisite: NURS 6990
0.5 Course Units

NURS 6560 Professional Role Issues for Nurse Practitioners
This course is intended for students planning a career that involves primary health care delivery. It includes lectures, discussions, readings, and projects focused on health, social, economic and professional factors influencing health care delivery in the community.
Fall
1 Course Unit

NURS 6570 Advanced Physical Assessment and Clinical Decision Making
This didactic/laboratory course is designed to help future advanced practice nurses develop advanced clinical assessment skills. Provider-patient interaction, data collection, and hypothesis formulation are emphasized. All participants engage in live practice with fellow students, and/or models, and consenting patients. This course is to be taken the semester before clinical begins.
Fall or Spring
1 Course Unit

NURS 6580 Clinical Management of Primary Care with Young Families
Assessment and treatment of the young child in ambulatory care settings is the focus of this developmentally organized course. This course provides the nurse practitioner student with the necessary knowledge and experience to assist individuals with the most common health problems, including acute episodic illness as well as stable chronic disease. The concepts of health promotion and health maintenance are integrated throughout the curriculum. Using a developmental framework, the maturational tasks and problems of children and their families in relation to illness and health are explored.
Fall or Spring
Prerequisite: NURS 6560 AND NURS 6570
Corequisite: NURS 6590
1 Course Unit

NURS 6590 Clinical Practicum: Primary Care with Young Families
Management and evaluation of primary care problems of children in a variety of ambulatory settings. Opportunity to implement the role of nurse practitioner with children and their families in the community occurs under the guidance of faculty and experienced preceptors. The initiation of health promotion and health maintenance activities with individuals and groups is stressed. Collaborative, interdisciplinary practice is emphasized as students assess and manage common problems in consultation with an appropriate provider of care. 20 hours a week of clinical experience with a preceptor is arranged.
Fall or Spring
Prerequisite: NURS 6560 AND NURS 6570
Corequisite: NURS 6580
1 Course Unit

NURS 6600 Clinical Practice with Select Populations: Adolescents
Focus on assessment and treatment of adolescents in a variety of settings. Didactic emphasis is on the special needs encountered among adolescents. This course adds to the student's previous knowledge and skill in the delivery of primary care. Working with this specific population the student gains necessary knowledge and experience in assisting individuals with most common health problems, including acute episodic illness and stable chronic disease, as well as health promotion needs.
Summer Term
Prerequisite: NURS 6580 AND NURS 6590
1 Course Unit
NURS 6610 Clinical Management of Primary Care with Adults
Assessment and treatment of younger adults in ambulatory care settings is the focus of this clinical course. The course provides the nurse practitioner student with the necessary knowledge and experience to assist individuals with most common health problems, including acute episodic illness. The concepts of health promotion and health maintenance are integrated throughout the curriculum. Using a developmental framework, maturation tasks and problems of the adult and family in relation to illness and health are explored.
Summer Term
Prerequisite: (NURS 6460 AND NURS 6470) OR (NURS 6900 AND NURS 6910)
1 Course Unit

NURS 6630 Advanced Concepts in Primary Care
In conjunction with the development of advanced clinical skills, students focus on advanced practice role development and the study of issues in health service delivery related to the practice of primary health care. Economics, case management and cultural/ethical aspects of care are discussed.
Summer Term
1 Course Unit

NURS 6640 Advanced Practice Nursing for Oncology Care
Students are introduced to cancer epidemiology and pathophysiology, cancer genetics, prevention, risk assessment and reduction for specific cancers, screening techniques, diagnostic procedures and criteria, and local and systemic therapies used to treat cancer. The influence of individual characteristics on health promotion, health behaviors, population cancer risk, and cancer detection are explored in the context of biological, psychological, socioeconomic and sociocultural factors across age groups from adolescents to older adults. Evidence-based practice guidelines and research are applied to promote healthy lifestyles, monitor cancer risk, address psychosocial issues, facilitate access to care, and reduce health care disparities for populations at risk and diagnosed with cancer, and cancer survivors. Online course with both synchronous and asynchronous components. Students are also required to attend two days of on-campus instruction in the fall semester. Permission to take this course as an elective must be approved by the course faculty.
Fall
1 Course Unit

NURS 6660 Effects of Cancer and Cancer Therapy
Principles of cancer treatment, associated responses and symptom management are presented. Emphasis is on the development of advanced clinical decision making skills in identifying multiple alterations resulting from cancer and cancer therapy. Online course with both synchronous and asynchronous components Students are also required to attend two days of on-campus instruction in the spring semester. Permission to take this course as an elective must be approved by the course faculty.
Spring
Prerequisite: NURS 6640
1 Course Unit

NURS 6670 Oncology Practice: Assessment, Diagnosis, & Cancer Management
Emphasis is on the application of critical thinking and diagnostic reasoning skills in advanced clinical decision making. Students access, diagnose, and manage the care of oncology patients with a variety of cancers. The delivery of care and evaluation of role effectiveness within the health care system are examined. Online course with both synchronous and asynchronous components. Course includes 240 clinical hours in an oncology setting
Summer Term
1 Course Unit

NURS 6700 Principles of Adult Gerontology Acute Care I
This didactic course examines the epidemiology, assessment, diagnostic approaches, management, and evaluation of acutely or critically ill or chronically complex ill adults across the adult-older adult age spectrum. Students explore the dynamic interplay between the pathophysiologic basis of disease and the psychosocial and socio-cultural responses to acute and critical illness and injury as they develop clinical decision-making skills. An evidence-based approach to nursing and medical management including pharmacologic and non-pharmacologic modalities is emphasized. Diseases, infections, and prevention issues related to the cardiovascular and pulmonary systems commonly encountered by adults-older adult age spectrum are covered.
Fall
Prerequisite: NURS 6070
1 Course Unit

NURS 6710 Principles of Adult Gerontology Acute Care II
In this didactic course, students learn to integrate their advanced pharmacology and pathophysiology background with their understanding of acute illness and injury. The focus is on the evidence-based management of patients with neurologic, gastrointestinal, renal, oncologic, and metabolic health problems. Students develop skills to create a differential diagnosis when an adult/older-adult presents with a constellation of symptoms. Common and atypical presentations of illness and disease are explored. Focus is placed on holistic care including the psychosocial, cultural, and spiritual aspects of patients’ response to their illness or injury. Epidemiology, assessment, diagnosis, management, and advanced clinical decision making based on current clinical research are emphasized.
Spring
1 Course Unit

NURS 6720 Principles of Adult Gerontology Acute Care III
This didactic course examines issues related to the epidemiology, assessment, diagnosis, management and evaluation of acute, critical and complex chronically ill adults across the adult-older adult age continuum. Students explore the dynamic interplay between the pathophysiologic basis of disease and the psychosocial and socio-cultural responses to illness and injury across the adult age continuum as they develop clinical decision-making skills. An evidence-based approach to nursing and medical management including pharmacologic and non-pharmacologic modalities is emphasized. Content focuses on special adult and older adult patient populations with commonly encountered health problems.
Summer Term
1 Course Unit
NURS 6730 Advanced Clinical Decisions in Adult Gerontology Acute Care
This didactic and fieldwork course focuses on development of a systematic approach to advanced physical assessment, the use and interpretation of diagnostic technologies, and development of diagnostic reasoning as it applies to patient management of the adult-older adult acutely ill or injured patient. Emphasis is placed on development of competence to perform a comprehensive history and physical examination, incorporating the analysis of biotechnological data trends, determining a prioritized differential diagnosis, and use clinical judgement to determine the healthcare needs for acutely ill and/or chronically complex patients across the adult age continuum.
Fall
Prerequisite: NURS 6070 AND NURS 6570
1 Course Unit

NURS 6740 Adult Gerontology Acute Care NP: Professional Role and Clinical Practicum I
This didactic and clinical fieldwork course explores issues relevant to the role of the Adult Gerontology Acute Care Nurse Practitioner within the complex U.S. health care system. Role development, reimbursement issues, provision of quality and ethical care and evidence-based nursing and medical interventions are introduced and discussed in the classroom. Clinical fieldwork focuses on assessment of complex acute, critical and chronically-ill patients for urgent and emergent care conditions, using both physiologically and technologically derived data, to evaluate for physiologic instability and potential life-threatening conditions, development of differential diagnoses, application of diagnostic reasoning and formulation, implementation, evaluation and modification of individualized plans of care including pharmacological and non-pharmacological modalities. Development of advanced clinical competencies and clinical decision making abilities about adults across the age continuum is emphasized. Prerequisite: Clinical field component requires two 10-hour clinical days, to be scheduled with the student’s individual preceptor.
Spring
Prerequisite: NURS 6730
1 Course Unit

NURS 6750 Adult Gerontology Acute Care NP: Professional Role and Clinical Practicum II
This didactic and fieldwork course focuses on the role of the Adult Gerontology Acute Care Nurse Practitioner and the expansion of advanced clinical competencies and clinical decision making abilities. Clinical experiences in acute care settings provide the student with opportunities to refine history and physical examination techniques, diagnostic reasoning, formulation, implementation, evaluation and modification of individualized management plans. Specific attention is given to the unique presentation of syndromes and constellation of symptoms that may be typical or atypical presentation of complex acute, critical and chronic illness in adults and older adults. Facilitating transition of patients at varying life stages through the complex health care system is encouraged exploring the multiple governmental, social and personal resources available to acutely ill adults across the age continuum. The application of advanced nursing, medical and biopsychosocial knowledge in the management of patients and the collaboration between the nurse practitioner and the patient, family and interprofessional healthcare team are emphasized.
Summer Term
Prerequisite: NURS 6740
1 Course Unit

NURS 6760 Obesity and Health
This 14-week online course introduces the learner to the etiology, prevalence, and pathophysiology of obesity in children and adults. This series of asynchronous sessions focuses on the biological, genetic and environmental causes of obesity and highlights the impact of obesity on chronic disease.
Spring
Also Offered As: NUTR 6760
Mutually Exclusive: NURS 3130, NURS 5130
1 Course Unit

NURS 6810 Applied Physiology for Nurse Anesthesia I
This course provides an in-depth analysis of the anatomy, physiology and pathophysiology of the respiratory system and related anesthetic implications. Students learn concepts of pulmonary mechanics, neural control of breathing, and ventilation/perfusion as they relate to oxygen, anesthetic delivery, and metabolism. This learning supports the integration of effects of compromised pulmonary function and implications for the patient and anesthesia plan. There is a review of the fundamental concepts of pulmonary physiology from the cell to the organ level framing a foundation of normal physiology before proceeding to pathophysiology content. Advanced knowledge of the pulmonary system in health and disease is presented from the physiological perspective.
Summer Term
1 Course Unit

NURS 6820 Applied Physiology for Nurse Anesthesia II
This course provides an in-depth analysis of the anatomy, physiology, and pathophysiology of the cardiovascular, renal, immunologic, and hematological systems and related anesthesia implications. Emphasis is placed on the assessment of the patient with common disorders of these systems. Nurse anesthesia care related to patients undergoing surgeries involving each system is discussed. The foundational concepts from pulmonary physiology are used as the underpinnings for discussing key concepts of the circulatory system.
Fall
Prerequisite: NURS 6810
1 Course Unit

NURS 6830 Applied Physiology for Nurse Anesthesia III
This course provides an in-depth analysis of the anatomy, physiology and pathophysiology of the neurological, gastrointestinal, and endocrine systems with a focus on anesthesia implications. Emphasis is placed on the assessment of the patient with common disorders of these systems. Nurse anesthesia care related to patients undergoing surgeries involving each system is discussed. The foundational concepts from pulmonary physiology are used as the underpinnings for discussing key concepts of the circulatory system.
Spring
Prerequisite: NURS 6820
1 Course Unit

NURS 6850 Advanced Developmental Physiology and Pathophysiology
This course will address advanced human embryology, physiology and pathophysiology. Biochemical genetics and the genetic basis of disease will be discussed. Normal fetal development and physiology of organ systems will be used as the foundation for understanding the pathophysiology of disease across the lifespan. Prerequisite: Undergraduate course in Anatomy & Physiology
Fall
1 Course Unit
NURS 6860 Well Women Health Care, Theory
This course focuses on the management and evaluation of physical, emotional, socio-cultural and educational needs of gynecologic primary health care of women from adolescence through post-menopausal years. The content is directed at expanding the expertise of the student in in meeting the primary women's health care needs in contemporary society. Social influences that have an impact on women's lives are also explored. Fall
Also Offered As: NURS 7810
Prerequisite: NURS 6070 AND NURS 6570
1 Course Unit

NURS 6880 Complementary/Alternative Therapies in Women's Health
The dramatic rise in the use of complementary and alternative medicine (CAM) by the American public requires that the contemporary health care practitioner have an awareness of CAM therapies and modalities currently available. The end result of this course will not be proficiency in the practice of any of these modalities in particular, but rather a basic understanding of each approach to common conditions and their potential contribution to health and well-being. The focus of the CAM modalities discussed in this course will center on their use in women's health care provision. Fall
1 Course Unit

NURS 6900 Family Focused Primary Care of the Middle-Aged and Older Adult
This course focuses on primary care problems encountered by middle-aged and older adults and their families. Students have the opportunity to build on previously acquired skills and to apply concepts of primary care to manage the complex health problems of middle-aged and older adults. Spring
Prerequisite: NURS 6560 AND NURS 6570
Corequisite: NURS 6910
1 Course Unit

NURS 6910 Clinical Practicum: Family Focused Primary Care of the Middle Aged and Older Adult
The focus of this course is the evaluation and management of primary care problems in middle-aged and older adults. Students will have an opportunity to implement the role of the nurse practitioner in the clinical setting. Interdisciplinary collaborative experiences will be essential to the clinical practicum. The initiation of health promotion and health maintenance activities with individuals, groups and families is stressed. Students are expected to assess and manage common chronic health problems in the clinical setting. Spring
Prerequisite: NURS 6560 AND NURS 6570
Corequisite: NURS 6910
1 Course Unit

NURS 6910 Clinical Practicum: Family Focused Primary Care of the Middle Aged and Older Adult
The focus of this course is the evaluation and management of primary care problems in middle-aged and older adults. Students will have an opportunity to implement the role of the nurse practitioner in the clinical setting. Interdisciplinary collaborative experiences will be essential to the clinical practicum. The initiation of health promotion and health maintenance activities with individuals, groups and families is stressed. Students are expected to assess and manage common chronic health problems in the clinical setting. Spring
Prerequisite: NURS 6560 AND NURS 6570
Corequisite: NURS 6910
1 Course Unit

NURS 6950 Quality Improvement Capstone I
The purpose of the quality improvement capstone I is to provide a culminating experience in the program that requires the integration and application of knowledge attained in pre- and co-requisite coursework. The Capstone will build upon prior coursework that provided a broad overview of the principles and tools of quality improvement and patient safety in healthcare with a focus on implementation and sustainment of change. Students will apply this knowledge through completion of a mentored quality improvement project in a healthcare organization. In collaboration with faculty and health organization advisors, students will identify a quality improvement opportunity and use improvement methodology to describe the extent of the problem, analyze the current system, design tests of change (countermeasures), implement at least two plan-do-study-act cycles, and measure results. Students will also reflect on lessons learned and process of change. This is a hybrid course with virtual and in person components. Spring
Also Offered As: HQS 9900
1 Course Unit

NURS 6960 Quality Improvement Capstone II
The purpose of the quality improvement capstone II course is to provide a culminating experience in the master's program that requires the integration and application of knowledge attained in prior coursework. Students will build on the skills obtained throughout the master's program and specifically in Quality Improvement in Healthcare Capstone I (HQS990/NURS695) while continuing to lead and experience cycles of improvement work while measuring their results. Students will be required to write a final report and deliver an oral presentation for this course. Fall, Spring, and Summer Terms
Also Offered As: HQS 9910
1 Course Unit

NURS 6970 Leadership in Advanced Oncology Nursing Practice
Students explore the diagnosis and treatment of common cancers in a multidisciplinary approach. The broad array of bio-medical and psychosocial issues that result from the disease itself across the illness continuum are studied. Quality of life, rehabilitation and palliative care issues related to cancer care are addressed. Additionally, students complete an administrative practicum with a nursing leader in an oncology specialty area within a healthcare organization. Summer Term
1 Course Unit

NURS 6980 Public Health Considerations for Human Milk and Breast/Chest Feeding
In this course students will examine the multiple spheres that impact family's infant feeding decisions in the United States and globally. Despite longstanding recommendations by the World Health Organization, less than 40% of infants receive exclusive human milk for the first 6 months. Students will examine the social, economic, political, industry, and policy influences related to human milk and breastfeeding/chest-feeding. This interdisciplinary course provides students from multiple schools (nursing, public health, dental, medical, college, and others) the opportunity to gain a comprehensive perspective of the issues surrounding infant feeding. Students will be challenged to identify evidence-based solution, in order to improve the health of our society through the lifesaving medical intervention of human milk and breastfeeding. Spring
1 Course Unit
NURS 6990 Advanced Roles in Administrative Nursing Practice
Offered at the end of the Nursing and Health Care Administration or Health Care Leadership programs, this course prepares the graduate for entry into a myriad of administrative or leadership roles. Students will explore role responsibilities for various levels of management positions; health care consultants; health policy advocates; global health leaders; staff development directors; and administrators in non-traditional settings i.e., journal editors, professional associations etc. Prerequisite: For Students of the Nursing Administration and Healthcare Leadership Only
Summer Term
1 Course Unit

NURS 7050 Advanced Practice Nursing Practice: Psychiatric Mental Health NP I
Supervised advanced psychiatric mental health nursing practice with children, adolescents and their families, or adults and/or older adults and their families in a variety of settings, depending on the subspecialty option selected. Focus is on clinical assessment/diagnosis and decision-making. A minimum of 16 hours of practice and 3 hours of small group supervision is required.
Fall
1 Course Unit

NURS 7060 Advanced Practice Nursing Practice: Psychiatric Mental Health NP II
Supervised advanced psychiatric mental health nursing practice with children, adolescents and their families, or adults and/or older adults and their families in a variety of settings, depending on the subspecialty option selected. Refinement and development of clinical intervention with an increasingly diverse caseload. A minimum of 16 hours of practice and 3 hours of small group supervision is required.
Spring
1 Course Unit

NURS 7070 Advanced Practice Nursing Practice: Psychiatric Mental Health NP III
Supervised advanced psychiatric mental health nursing practice with children, adolescents and their families, or adults and/or older adults and their families in a variety of settings, depending on the subspecialty option selected. Outcome evaluation, termination and professional role development. A minimum of 16 hours of practice and 3 hours of small group supervision is required.
Summer Term
1 Course Unit

NURS 7140 Management of Critically Ill Children with Acute and Chronic Conditions: Advanced
This clinical course is designed with emphasis on continued development of advanced clinical decision-making skills in the care of critically ill children. Emphasis is placed on knowledge and skills that allow the advanced practitioner to efficiently and effectively manage children who are dependent upon or assisted by technological devices to carry out life processes.
Summer Term
Prerequisite: NURS 7360
1 Course Unit

NURS 7150 Common Management Issues of Children with Acute and Chronic Conditions: Pediatric Oncology
This course examines the unique contribution made by nurses with advanced clinical skills in the care of children with oncologic and hematologic disorders, and their families, from the time of diagnosis throughout the treatment period and beyond. The course provides the student with the most recent advances in knowledge about cancer in childhood. While the focus is on oncology, hematologic disorders as well as AIDS will be discussed. Recent methods of treatment and the nursing management of children and their families will be addressed.
Fall
1 Course Unit

NURS 7200 Nursing of Children Theory I: Child and Family Development
This course focuses on developmental theories and concepts that form the basis for nursing assessment and intervention with children and families. Emphasis is given to current research and issues in child and family development and functioning.
Fall
1 Course Unit

NURS 7210 Advanced Physical Assessment Across the Life Span and Clinical Decision Making: Nursing of Children
This clinical course is designed to help prospective advanced practice nurses develop advanced skills in physical and developmental assessment both across the lifespan and with a specific focus on children in a variety of settings. Data collection, data interpretation, and hypothesis formulations are emphasized for the purpose of clinical decision making. The role of the advanced practice nurse in assessment of child health care issues and health promotion is incorporated throughout the course. Community collaboration and evaluation of social determinants of health, as integral aspects of assessment, will be an ongoing focus.
Fall
1 Course Unit

NURS 7310 High-Risk Neonate, Theory
This course focuses on the care of high-risk neonates within the context of the family unit. The biological and psychosocial aspects are studied as a basis for nursing practice. Emphasis is placed on the role of the Advanced Practice nurse in improving services to high-risk neonates with the purpose of decreasing mortality and morbidity rates and improving the quality of life of high-risk newborns and infants.
Spring
Prerequisite: NURS 7210
Corequisite: NURS 7330
1 Course Unit

NURS 7330 Clinical Practicum for the High Risk Neonate
This clinical course focuses on the care of the high risk infant within the context of the family unit. Clinical experiences provide students with opportunities to expand their skills in managing the care of infants, both acutely ill and growing neonates. Students continue their experiences with neonatal nurse practitioners to examine role issues of these individuals.
Spring
Prerequisite: NURS 7210
Corequisite: NURS 7310
1 Course Unit
NURS 7340 Intermediate Principles of Pediatric Acute Care
This course focuses on evidenced based care for infants, children, and adolescents with complex acute and chronic health conditions. Emphasis is placed on developing a framework for practice based on a synthesis of knowledge from biological, behavioral, and nursing sciences through the process of advanced clinical decision making. The student gains the necessary clinical management skills to provide specialized patient centered care across the entire pediatric age spectrum from complex chronic illness to physiologic deterioration and life threatening instability with emphasis on the patient and family as a full partner in decision making.
Spring
Prerequisite: NURS 7200 AND NURS 7210 AND (NURS 6070 OR NURS 6850)
Corequisite: NURS 7350
1 Course Unit

NURS 7350 Pediatric Acute Care NP: Professional Role and Intermediate Clinical Practice
This course focuses on the implementation of the professional role of the Pediatric Acute Care Nurse Practitioner (PNP-AC). Particular emphasis is placed on the role components of the nurse practitioner in pediatric acute care. Applications of nursing, biological and behavioral science are emphasized in the advanced clinical assessment, clinical decision making and management skills needed to care for complex, unstable acutely and chronically ill children and their families. The role of the advanced practice nurse in promoting optimal child/family outcomes is emphasized.
Spring
Prerequisite: NURS 7200 AND NURS 7210 AND (NURS 6070 OR NURS 6850)
Corequisite: NURS 7340
1 Course Unit

NURS 7360 Advanced Principles of Pediatric Acute Care
This course expands the student's understanding evidenced based care for infants, children, and adolescents with complex acute and chronic health conditions. Emphasis is placed on advancing a framework for practice based on a synthesis of knowledge from biological, behavioral, and nursing sciences through clinical decision making. The student continues to gain the necessary clinical management skills to provide specialized patient centered care across the entire pediatric age spectrum from complex chronic illness to physiologic deterioration and life threatening instability with emphasis on the patient and family as a full partner in decision making.
Summer Term
Prerequisite: NURS 7340 AND NURS 7350
Corequisite: NURS 7370
1 Course Unit

NURS 7370 Pediatric Acute Care Nurse Practitioner: Professional Role and Advanced Clinica
This course focuses on the implementation of the professional role of the Pediatric Acute Care Nurse Practitioner (PNP-AC). This course adds to the students' previous knowledge and skills and prepares them to deliver care to children of any age who require frequent monitoring and intervention. Applications of nursing, biological and behavioral science are emphasized in the advanced clinical assessment, clinical decision making and management skills needed to care for complex, unstable acutely and chronically ill children and their families.
Summer Term
Prerequisite: NURS 7340 AND NURS 7350
Corequisite: NURS 7360
1 Course Unit

NURS 7400 Advanced Practice Concepts for the Childbearing Family
The seminar will provide students with the skills necessary to provide primary health care to high risk infants in ambulatory settings. Course material will include detailed physical assessment skills of the infant through the first year of life. The clinical component will include home visits and experience in the ambulatory and long term care settings.
Fall
1 Course Unit

NURS 7410 Mgmnt of Chldrn with Acute and Chronic Conditions: Nursing of Children in the Community Adv Clinical
This clinical course focuses on the implementation of the role of the advanced practice nurse with particular emphasis on providing continuity of care for children with specialized health needs across their transitions in sites of care delivery and throughout phases in the cycle of their illnesses. Application of nursing, biological and behavioral science is emphasized in the community aspects of clinical assessment and management of children with health care needs and their families.
Summer Term
Prerequisite: NURS 7360
1 Course Unit

NURS 7430 Fetal Evaluation
This course focuses on identifying at risk and high risk maternal-fetal dyads, developing knowledge relating to assessment of fetal well being, and understanding the implications of obstetric, non obstetric, and fetal complications on the management of the high risk pregnancy. Additionally the course provides an understanding of the scientific basis for new technologies used to evaluate at risk and high risk populations. Information about the physics of ultrasound, pulse echo imaging, and doppler techniques will be provided. Students must be able to practice ultrasound skills while in this course.
Spring
Prerequisite: NURS 6070
Corequisites: NURS 7830, NURS 7840
1 Course Unit
NURS 7450 Data Analytics
This course approaches statistics from both applied and theoretical perspectives in order to develop an understanding of the ways that data are analyzed and reported. The course is situated in healthcare data analytics and the varied ways existing/new data is analyzed and results communicated. Focus is given to learning the appropriate application, including decision-making for analysis plan, and interpretation of statistical analyses. The course addresses data transformation, effect size and power analysis, clinical significance, parametric and non-parametric statistical tests including t-tests, analysis of variance, chi square, correlation, linear and logistic regression and other methods of analyses for continuous and categorical data. Emphasis is placed on understanding why statistical methods are chosen, developing a cohesive analysis plan, applying best practices for data preparation and management, executing an analysis and using statistical software programs, including conduct of analyses, review of output and interpretation using existing software programs.
Fall
Prerequisite: NURS 7890 AND NURS 6370
1 Course Unit

NURS 7480 Leadership Development in Healthcare
This course will provide the conceptual and theoretical framework for examining the concept of leadership within the contexts of health systems, health professionals and health policy. It will focus on characteristics of personal and professional leadership, change theory, and the application of critical thinking to the analysis of work environments, systems and the politics of health.
Fall
1 Course Unit

NURS 7490 History, Health and Social Policy
This course explores the impact of historical ideas, events, and actors on current issues in health and illness care. Topics include the movement from hospitals to health care systems; the changing definitions of professionalism and professional practice patterns; and the ways historical context shapes definitions of leadership roles and theoretical knowledge.
Spring
1 Course Unit

NURS 7500 Inquiry and Nursing
This course introduces students to the process of intellectual inquiry. It explores the intellectual foundations of scholarly disciplines in general and the discipline of nursing in particular. Emphasis is placed on the process of knowledge development, with particular emphasis on historical, philosophical, positivist, and gendered and phenomenological ways of knowing. Emphasis is also placed on having students develop their particular intellectual approach to disciplinary inquiry and on formulating ideas for publications and presentations. Prerequisite: PhD Student
Fall
1 Course Unit

NURS 7510 Clinical Fieldwork for Nurse Anesthesia Practice I
This course provides students the opportunity to integrate theory into practice within the clinical setting. The focus is on the development of diagnostic, therapeutic, ethical, and cultural judgments with the perioperative patient. Students' progress from the care of healthy patients undergoing minimally invasive surgical procedures to the more complex patient with multiple health issues. Clinical preceptors are experienced CRNAs or anesthesiologists who act as mentors to facilitate the learning process. Students' progress along the learning continuum as they integrate theory into practice and assume the role of the advanced practice nurse. The student begins to develop an advanced practice nursing role that integrates role theory, nursing theory, and research knowledge through clinical practice.
Fall
1 Course Unit

NURS 7520 Clinical Fieldwork for Nurse Anesthesia Practice II
This course provides the opportunity for students to integrate theoretical knowledge and research findings into practice within the clinical setting. The clinical progression allows students to provide anesthesia care to patient with complex, multisystem problems. Selected surgical specialty rotations begin, introducing the student to the particular requirements for these special situations. Techniques for managing the acute pain of clients are also emphasized. The student grows in the ability to individualize a plan of care specific to the patients' needs and surgical requirements. The student also now possesses the ability to combine theories and skills in selected clinical situations. The guidance of CRNA faculty preceptors contributes to the development of the students critical thinking.
Spring
1 Course Unit

NURS 7530 Evolving Nursing Science
We will examine concepts, propositions, and theories from specific areas of nursing science, investigating the adequacy of existing knowledge in specific areas of nursing science and the beliefs and assumptions that underlie that knowledge. Generalizability or transferability of the knowledge will be addressed. The impact of knowledge on nursing practice and health policy will be evaluated. Prerequisite: PhD Students and faculty permission required.
Spring
1 Course Unit

NURS 7540 Quantitative Research Design and Methods
This one semester survey course provides an overview of quantitative clinical research design and methods. Ethical and legal considerations in human subjects research, access to patient populations, sampling designs and power analysis, experimental and non-experimental designs, measurement of variables, data collection techniques, and data management are included. This course is intended for doctoral students in the health sciences. Prerequisite: Students must have completed at least one doctoral-level statistics course. PhD Students
Spring
Prerequisite: NURS 7500
1 Course Unit
NURS 7550 Clinical Fieldwork for Nurse Anesthesia Practice III
Integration of non-experimental quantitative research designs and methodologies, including common statistical techniques for analyzing resulting data. Statistical techniques examined include: factor analysis, multiple regression, canonical correlation, causal modeling, and logistic regression. Power analysis of statistical tests to estimate sample size discussed. Data analysis practice using computer software integrated throughout course.
Summer Term
1 Course Unit

NURS 7560 Nurse Anesthesia Residency I
This course is the first and second of four residencies that provide the nurse anesthetist student the opportunity to attain competencies within the Certified Registered Nurse Anesthesia (CRNA) scope of practice. Throughout the residency, the nurse anesthesia resident will utilize appropriate clinical judgment to manage the complex medical, physical and psychosocial needs of clients in the perioperative phases. Further refinement of the patient assessment, anesthesia administration, and critical thinking skills will be emphasized. Students' progress by providing anesthesia care for patients throughout the continuum of health care services. The guidance of CRNA faculty preceptors contributes to the development of the independence of the CRNA student. Collaborative practice within a care team model is emphasized and the student assumes more overall responsibility for the quality of care for the patients throughout the perioperative experience, with clinical support as required. Prerequisite: Enrollment in NANS program, year 2
Fall
1 Course Unit

NURS 7570 Nurse Anesthesia Residency II
This course is the second of four residencies that provide the nurse anesthetist student the opportunity to attain competencies within the Certified Registered Nurse Anesthesia (CRNA) scope of practice. Throughout the residency, the nurse anesthesia resident will utilize appropriate clinical judgment to manage the complex medical, physical and psychosocial needs of clients in the perioperative phases. Further refinement of the patient assessment, anesthesia administration, and critical thinking skills is emphasized. Students progress by providing anesthesia care for patients throughout the continuum of health care services. The guidance of CRNA faculty preceptors contributes to the development of the independence of the CRNA student. Collaborative practice within a care team model is emphasized and the student assumes more overall responsibility for the quality of care for the patients throughout the perioperative experience, with clinical support as required. Prerequisite: NURS 7560
Spring
1 Course Unit

NURS 7580 Nurse Anesthesia Residency III
This course is the third of four residencies that provide the nurse anesthetist student the opportunity to attain competencies within the Certified Registered Nurse Anesthesia (CRNA) scope of practice. Throughout the residency, the nurse anesthesia resident will utilize appropriate clinical judgment to manage the complex medical, physical and psychosocial needs of clients in the perioperative phases. Further refinement of the patient assessment, anesthesia administration, and critical thinking skills will be emphasized. Students' progress by providing anesthesia care for patients throughout the continuum of health care services. The guidance of CRNA faculty preceptors contributes to the development of the independence of the CRNA student. Collaborative practice within a care team model is emphasized and the student assumes more overall responsibility for the quality of care for the patients throughout the perioperative experience, with clinical support as required.
Summer Term
Prerequisite: NURS 7570
1 Course Unit

NURS 7590 Nurse Anesthesia Residency IV
This course is the fourth of four residencies that provide the nurse anesthetist student the opportunity to attain competencies within the Certified Registered Nurse Anesthesia (CRNA) scope of practice. Throughout the residency, the nurse anesthesia resident will utilize appropriate clinical judgment to manage the complex medical, physical and psychosocial needs of clients in the perioperative phases. Further refinement of the patient assessment, anesthesia administration, and critical thinking skills is emphasized. Students progress by providing anesthesia care for patients throughout the continuum of health care services. The guidance of CRNA faculty preceptors contributes to the development of the independence of the CRNA student. Collaborative practice within a care team model is emphasized and the student assumes more overall responsibility for the quality of care for the patients throughout the perioperative experience, with clinical support as required. Prerequisite: Enrollment in NANS program, year 3
Fall
Prerequisite: NURS 7570
1 Course Unit

NURS 7600 Nurse Anesthesia Residency V
This course is the fourth and final residency that will provide the nurse anesthetist student the opportunity to attain competencies within the Certified Registered Nurse Anesthesia (CRNA) scope of practice. Throughout the residency, the nurse anesthesia resident will utilize appropriate clinical judgment to manage the complex medical, physical and psychosocial needs of clients in the perioperative phases. Further refinement of the patient assessment, anesthesia administration, and critical thinking skills is emphasized. Students' progress by providing anesthesia care for patients throughout the continuum of health care services. The guidance of CRNA faculty preceptors contributes to the development of the independence of the CRNA student. Collaborative practice within a care team model is emphasized and the student assumes more overall responsibility for the quality of care for the patients throughout the perioperative experience, with clinical support as required.
2 Course Units
NURS 7640 Advanced Technologies & Clinical Decisions in Acute Care
This course applies a technology assessment framework to examine numerous advanced technologies employed in the care of acutely or critically ill and/or chronically complex patients. Students investigate how technologies are used to assess, diagnose, manage and/or evaluate the health status of patients. Students enhance their decision-making regarding the benefits and limitations of each technology through the use of evidence-based research. Students are introduced to the psychomotor skills used to perform select invasive procedures.
Fall
Prerequisite: (NURS 6070 AND NURS 6570) OR (NURS 6850 AND NURS 7210)
1 Course Unit

NURS 7680 Role of the Clinical Nurse Specialist
This course provides students the opportunity to apply CNS theory to practice and enables students to develop strategies to overcome barriers to safe, quality healthcare delivery. Students acquire knowledge and skills characteristic of CNS practice particularly as it relates to clinical judgment, facilitation of learning, advocacy and moral agency, caring practice and response to diversity.
Fall
1 Course Unit

NURS 7690 Clinical Nurse Specialist Clinical I
This clinical course provides students the opportunity to apply CNS theory to practice and enables students to develop strategies to overcome barriers to safe, quality healthcare delivery. Students acquire knowledge and skills characteristic of CNS practice particularly as it relates to clinical judgment, facilitation of learning, advocacy and moral agency, caring practice and response to diversity.
Spring
Prerequisite: NURS 6570
1 Course Unit

NURS 7700 Clinical Nurse Specialist Clinical II
This clinical course focuses on the application of CNS theory to practice. Students focus on furthering the development of the knowledge and skills related to the core competencies of the CNS. Strategies to improve provider and system issues related to the provision of care to the population of interest are developed, implemented and evaluated. Developing leadership in the development of system-wide or healthcare policy is promoted. Advocating for the individual, family, caregiver and population of interest needs within the context of clinical practice and policy making is encouraged.
Summer Term
Prerequisite: NURS 6570
1 Course Unit

NURS 7760 Clinical Nurse Specialist Clinical III
This course examines specific pathophysiological mechanisms which may result in body system failure. Strategies for clinical management are examined based on a synthesis of biological, behavioral, medical, pharmacological, and nursing knowledge. Theoretical analysis of the roles of the advanced practitioner with critically ill patients is emphasized.
Summer Term
Prerequisite: NURS 7310 AND NURS 7330
Corequisite: NURS 7770
1 Course Unit

NURS 7770 High Risk Neonatal Clinical II
This clinical course is designed with emphasis on continued development of advanced clinical skills in the care of critically ill children. Emphasis is placed on integration of the roles of the advanced practitioner. This course adds to the student’s previous knowledge and skills in advanced practice and prepares them to manage care of critically ill children.
Summer Term
Prerequisite: NURS 7310 AND NURS 7330
Corequisite: NURS 7760
1 Course Unit

NURS 7780 High Risk Neonatal Clinical III
This clinical course is designed with emphasis on continued development of advanced clinical decision-making skills in the care of critically ill children. Emphasis is placed on knowledge and skills that allow the advanced practitioner to efficiently and effectively manage children who are dependent upon or assisted by technological devices to carry out life processes.
Summer Term
Prerequisite: NURS 7760 OR NURS 7770
1 Course Unit

NURS 7800 Health Care of Women and Primary Care
The focus of this course is a clinical approach to primary care problems commonly encountered by women in an ambulatory setting. This course provides the women’s health care nurse practitioner and midwifery student with the knowledge and problem solving approach to assist individuals with the most common health problems, including acute episodic illness as well as stable chronic disease. The concepts of health promotion and health maintenance are integrated throughout the curriculum.
Summer Term
1 Course Unit

NURS 7810 Well Women Health Care, Theory
This course focuses on the management and evaluation of physical, emotional, socio-cultural and educational needs of gynecologic primary health care of women from adolescence through post-menopausal years. The content is directed at expanding the expertise of the student in meeting the primary women’s health care needs in contemporary society. Social influences that have an impact on women’s lives are also explored.
Fall
Also Offered As: NURS 6860
Prerequisite: NURS 6070 AND NURS 6570
1 Course Unit

NURS 7820 Well Women Health Care, Clinical
This clinical course further prepares students in understanding and developing the Women’s Health Care Nurse Practitioner and Nurse-Midwifery roles. This clinical course focuses on the management and evaluation of physical, emotional, socio-cultural and educational needs of gynecologic primary health care needs of women from adolescence through post-menopausal years. Emphasis is placed on promoting and maintaining wellness, clinical decision making, systematic health interview, physical assessment, interpretation of laboratory findings, and diagnosis and treatment of gynecological problems.
Fall
Prerequisite: NURS 6070 AND NURS 6570 AND NURS 7800
Corequisite: NURS 7810
1 Course Unit
NURS 7830 Health Care of Childbearing Women, Theory
The antepartum course builds upon the well-woman health care course. The focus is management of prenatal care for the childbearing family. Conceptual threads of public policy and ethics are integrated within the content to help students to identify broader implications for prenatal care. Content includes theory and practice related to nurse-midwifery/nurse practitioner management of the normal pregnant woman, and nurse-midwifery/nurse practitioner management and strategies to reduce selected obstetric complications.
Spring
Prerequisite: NURS 7810 AND NURS 7820
Corequisites: NURS 7430, NURS 7840
1 Course Unit

NURS 7840 Health Care of Childbearing Women, Clinical
This course focuses on the management and evaluation of the childbearing women and their families in primary care settings. The course presents the opportunity to implement the role of the Nurse Practitioner with the childbearing woman and her family. The focus is on comprehensive physical, psychosocial and educational management of women and their families during pregnancy and postpartum.
Spring
Prerequisite: NURS 781 AND NURS 782
Corequisites: NURS 7430, NURS 7830
1 Course Unit

NURS 7850 Integration I
Intensive integration of theory and clinical practice in women's health care with emphasis on ambulatory care. Clinical practice in all areas of ambulatory women's health care, teaching rounds, case presentations, and seminars with professional colleagues.
Summer Term
Prerequisite: NURS 7830 AND NURS 7840
1 Course Unit

NURS 7860 Integration II: Midwifery Integration
Intensive integration of theory and clinical practice in women's health care with emphasis on intrapartum, postpartum, and newborn care. Clinical practice during the intrapartum and postpartum, teaching rounds, case presentations, and seminars with professional colleagues.
Fall
Prerequisite: NURS 7830 AND NURS 7840
Corequisite: NURS 6930
1 Course Unit

NURS 7870 Intrapartum / Postpartum / Newborn Care, Theory
Anatomy and physiology relevant to the care of the women and their families during the intrapartum, postpartum and newborn periods. Includes management of selected obstetrical emergencies and medical complications.
Summer Term
Prerequisite: NURS 7830 AND NURS 7840
Corequisite: NURS 7880
1 Course Unit

NURS 7880 Intrapartum / Postpartum / Newborn Care, Clinical
Clinical care and management of women, newborns and their families during the intrapartum, postpartum and newborn periods. Includes management of selected obstetrical emergencies and medical complications. Clinical assignments related to module objectives.
Summer Term
Corequisite: NURS 7870
1 Course Unit

NURS 7890 Principles of Patient Safety & Quality Improvement in Healthcare
The course integrates the principles and methodologies of both quality and patient safety, which transforms and sustains high reliability organizations. Knowledge of the elements to complete a framework for safe and reliable healthcare will be described, as well as used by the students to apply the framework to a patient safety clinical situation. In addition, critical components of the current status of health care quality will be discussed, with emphasis on the role of patients, leadership, microsystems, and policy leaders. Organizational excellence will be examined in case reviews and discussions on strategies to develop and sustain quality and safety in the delivery of safe, effective, patient centered, timely, efficient, and equitable care.
Fall
1 Course Unit

NURS 7900 The Business of Healthcare: Principles of Finance, Accounting and Economics
In this course, students will focus on the business of health care and the financial competencies needed to manage complex health care organizations. This course integrates the basic principles of accounting, finance, and health care economics with business planning. It is designed to facilitate the student's knowledge and application of financial principles in the health care setting. Course content includes an overview of the health care landscape, basics of health insurers, introduction to budgeting, cost-benefit analysis, an overview of the financial planning cycle, operating budget development and labor variance analysis. The course culminates with an opportunity for students to apply their skill sets in performing an environmental scan and developing a business case.
Fall or Spring
1 Course Unit

NURS 7950 Nurse Anesthesia Residency II
This course is the second of two residencies that provide the nurse anesthetist student the opportunity to attain competencies within the Certified Registered Nurse Anesthesia (CRNA) scope of practice. Throughout the residency, the nurse anesthesia resident will utilize appropriate clinical judgment to manage the complex medical, physical and psychosocial needs of clients in the perioperative phases. Further refinement of the patient assessment, anesthesia administration, and critical thinking skills is emphasized. Students progress by providing anesthesia care for patients throughout the continuum of health care services. The guidance of CRNA faculty preceptors contributes to the development of the independence of the CRNA student. Collaborative practice within a care team model is emphasized and the student assumes more overall responsibility for the quality of care for the patients throughout the perioperative experience, with clinical support as required.
Spring
2 Course Units
NURS 7960 Diagnosis and Management of Adult Gerontology Acute Care Patients I
This online didactic course is designed for the practicing nurse practitioner or clinical nurse specialist who seeks to gain additional knowledge and skills related to the care of adult gerontology acutely ill patients with a specific focus on cardiovascular and pulmonary systems, thoracic issues, infectious processes, wound healing and diabetes. Particular focus is placed on specific issues related to the older adult such as frailty, dehydration, loss of functional mobility, falls, and other geriatric syndromes. The basics of ECG, CXR and PFT interpretation, ABG analysis and ventilator modes are highlighted. This course examines the epidemiologic, assessment, diagnostic, management, and evaluation of acutely or critically ill adults across the adult-older adult age spectrum. An evidence-based approach to nursing and medical management including pharmacologic and non-pharmacologic modalities is emphasized. Prerequisite: For Streamlined Adult Gero Program Students Only. Fall, Spring, and Summer Terms. 1 Course Unit

NURS 7970 Diagnosis and Management of Adult Gerontology Acute Care Patients II
This online didactic course, designed for the practicing nurse practitioners or clinical nurse specialists seeking to gain knowledge and skills relative to care of adult gerontology acute care patients, focuses on the medical and surgical issues of the neurological, renal, gastrointestinal, hematological, oncologic and orthopedic systems. This course examines the epidemiologic, assessment, diagnosis, management and evaluation of acutely or critically ill adults across the adult-older adult age spectrum. An evidence-based, interprofessional team approach to the nursing and medical management of patients is emphasized. Prerequisite: For Streamlined Adult Gero Program Students Only. Fall, Spring, and Summer Terms. Prerequisite: NURS 7960. 1 Course Unit

NURS 7980 Adult Gero Acute Care NP: Prof Role & Clinical Practicum for Primary Care Prepa
This online didactic course and accompanying clinical fieldwork focuses on issues essential to the implementation of the role of the Adult Gerontology Acute Care Nurse Practitioner. Clinical fieldwork focuses on the unique assessment, diagnosis, management and evaluation of acutely, critically and complex chronically-ill adults, across the adult age continuum, experiencing acute, urgent and emergent conditions, using both physiologically and technologically derived data. Evaluating for physiologic instability and potential life-threatening conditions is emphasized. Attention is given to the typical and atypical presentation of syndromes and constellation of symptoms exhibited by adults and older adults experiencing complex acute, critical and complex chronic illness. Issues related to the transition of patients through the health care system are explored. Collaboration between the nurse practitioner, patient, family and interprofessional healthcare team are encouraged. Prerequisite: For Streamlined Adult Gero Program Students Only. Fall, Spring, and Summer Terms. Prerequisite: NURS 7960. 0-1 Course Unit

NURS 7990 MSN Clinical Remediation
Students whose clinical performance would benefit from additional clinical exposure in order to demonstrate the expected competencies are, with course faculty and faculty advisor approval, eligible to register for NURS 799. This experience will be allotted no more than one credit unit and must be completed in a time frame not to exceed one academic semester. A course may be remediated only one time. Not Offered Every Year. 1 Course Unit

NURS 8000 Dissertation Seminar I
Advanced study and research in nursing leading to the completion of the dissertation proposal. Prerequisite: PhD Students. Fall. 1 Course Unit

NURS 8090 Hillman Scholar Seminar in Nursing Innovation
This course is designed to provide an exploration of innovation in society, health care, and nursing. It will provide a broad overview of innovation from historical to current times and from a variety of disciplines. It will focus on promoting innovation and discovery and its translation to policy, the health care system and nursing practice. Emphasis is placed on having scholars develop their individual approach to innovation and strategize implementation and evaluation strategies for innovation. Prerequisite: Selection as a Hillman Scholar in Nursing Innovation; 1.5 hour seminar every other week until completion of PhD courses with Hillman Scholar. Fall or Spring. 1 Course Unit

NURS 8100 Statistics I
This is the first course in a sequence of two courses designed to provide a broad overview of statistics and its applications to research in the health sciences. Topics covered will include techniques for describing and summarizing observations, for assessing associations among variables, and for determining the extent to which chance may be explaining and/or influencing the observed results. Following inference and basic hypothesis tests, bivariate and multivariable linear modeling techniques will be introduced with an emphasis on application and interpretation, diagnostics and model selection. Emphasis is on application of these techniques to the analysis of health science data. Students will learn how to choose, apply, and interpret commonly used statistical tests and predictive models. Students will be working with a common existing dataset throughout the sequence. In addition, students will gain experience using a commonly used statistical software package, to analyze real world data. Fall. 1 Course Unit

NURS 8110 Statistics II
This is the second in a sequence of two courses designed to provide a broad overview of statistics and its applications to research in the health sciences. Building on the previous course the course will include logistic, Poisson, survival, and repeated measures modeling. Special topics will include mediation and moderation and analytic concepts related to experimental designs along with power analysis and sample size calculations. Emphasis is on application and ethical implications of these techniques to the analysis of health science data. Students will continue to work with an existing dataset and gain experience using a commonly used statistical software package, to analyze real world data. Spring. Prerequisite: NURS 8100. 1 Course Unit
NURS 8130 Qualitative Paradigm Empirical Nursing Research
Study of selected qualitative paradigm empirical research approaches, including design and methodology. Critique of selected qualitative research reports from the literature of nursing and related disciplines. Fieldwork exercise and research proposal required. Prerequisite: PhD Students
Fall
1 Course Unit

NURS 8140 Doctoral Seminar: Ethics and Nursing
A critical review of the theoretical and empirical literature dealing with bioethics, nursing ethics, moral development, women's ethics and specific ethical concerns in health and illness care. Students will study topics related to their own interests/needs, guided by the instructor in relation to the discipline of ethics. Prerequisite: PhD Students
Spring, even numbered years only
1 Course Unit

NURS 8180 Families and Research
This seminar will explore issues related to research of families. Included in the ongoing discussion will be an analysis of nursing and other theories in relationship to research of families. Methodological issues related to research of families will be discussed, as will the analysis of family data and measurement issues common to research of families. The seminar will conclude with an agenda for future directions to research of families. Prerequisite: PhD Students
Spring, odd numbered years only
1 Course Unit

NURS 8190 Seminar on the Social History of Nursing
This course will involve a guided review of the pertinent literature relating to the history of technology in 20th century America. The focus will include a critical examination and review of the social origins and implications of technological development and diffusion in healthcare. Various theoretical frameworks in the history of technology will be closely examined in an attempt to assist the student in the development of their own framework. Prerequisite: PhD Students
1 Course Unit

NURS 8200 Seminar on the Social History of Nursing
This course involves a guided review of the pertinent literature relating to the social and intellectual history of nursing in the late 19th and 20th century. Students will critically examine and review the origins and implications of history and social justice concepts for interdisciplinarity, equity, what we consider as evidence, knowledge and research priorities, innovation, technology, and relevant healthcare issues. This guided review focuses on the United States as well as global perspectives.
Fall
1 Course Unit

NURS 8220 Seminar on the Social History of Nursing
This seminar will explore issues related to research of families. Included in the ongoing discussion will be an analysis of nursing and other theories in relationship to research of families. Methodological issues related to research of families will be discussed, as will the analysis of family data and measurement issues common to research of families. The seminar will conclude with an agenda for future directions to research of families. Prerequisite: PhD Students
1 Course Unit

NURS 8240 Health Equity: Conceptual, Linguistic, Methodological, and Ethical Issues
The course focuses on advanced analysis and evaluation of theories, concepts, and methods related to health equity. Topic areas include models and frameworks of health equity; linguistic choices related to equity, disparity, and vulnerability; role of economics, class, gender, sex, sexuality, race, and ethnicity; health equity in special populations; and issues in health policy, research ethics, and research methods. Emphasis is on advanced discourse and analysis of health equity theory and research. Prerequisites: PhD Students
Fall, odd numbered years only
1 Course Unit

NURS 8250 Seminar on Integrative Science in Aging
This fall semester interprofessional seminar will prepare students and fellows to identify appropriate measurement tools for use in aging research. We will specifically focus on analysis of selected concepts, models and measures central to the integrative science of aging. Topics include measurement of geriatric syndromes, models commonly used in integrative science of aging, outcomes of evidence-based care in older adults, regulatory and ethical issues specific to the conduct of research with older adults. Prerequisite: PhD Students
Spring
1 Course Unit

NURS 8260 Advanced Qualitative Research Methods
The course extends beginning qualitative research methods skills to a more advanced level. Students planning a dissertation or career focus in qualitative or mixed methods may use the course to refine interest and skill. The focus of the course centers on interactionist perspectives and collective analysis through methods tangential to these perspectives. Standpoint and participatory methods and analysis may be considered given sufficient student interest. Students are actively involved in selection and critique of seminal and critical readings. Students must have at their disposal a suitable dataset with commensurate permissions or have plans to collect qualitative data amenable to analysis during the course term. This data base can be from previous research proposals and fieldwork can be used as the building blocks for the course assignment(s). The course will focus on data collection, analyses, interpretation, and presentation of results. Skill building will center on collection and management of data; analytic technique including comparative, narrative, and text analysis; development and management of coding schemas; abstraction and development of situation specific theory; and dissemination and diffusion of findings, theories, and relevance to similar phenomena and use in practice. Prerequisite: PhD Students
Spring
1 Course Unit

NURS 8280 Response to Chronic Illness: Theory and Research
Millions of people of all ages live with chronic illness(es). A diagnosis of a chronic illness is a life-changing event, causing disruption and a sense of loss for many. Common early responses are stress, anxiety, depression, fear, and anger. Over time, with support and experience with the illness, many adjust. But, others report persistent feelings of loss due to physical, emotional, spiritual/existential, social, occupational, and/or financial influences of chronic illness. Those who adjust the best typically find a way to return a sense of normalcy to their lives. Loved ones and caregivers are equally affected by chronic illness and much has been written in recent years about caregiver burden. However, some individuals (caregivers and patients) report positive responses to illness, including a deepened purpose for living and a reordering of life priorities. The focus of this course is on individual responses to chronic illness—the person diagnosed and his/her loved ones. This course is intended to complement N818, which focuses on families and dyads dealing with chronic illness. In this course we will explore the major theoretical perspectives that underlie this field. The literature describing common responses of both those diagnosed and their loved ones as well as the social and cultural context that helps explain the responses of individuals facing chronic illness will be examined. Methods used to study chronic illness will be explored in depth.
Fall
1 Course Unit
NURS 8300 Conducting Research in Global Women's Health
An introduction to theoretical and methodological issues as they relate to conducting research in global women's health. Advanced analysis of historical, social, cultural, economic, political, technological and geographical contexts as they influence the health of girls and women across the lifespan and their relation to health care systems as both clients and providers. This includes contextual issues that constrain the provision and receipt of adequate healthcare. Prerequisites: Completion of course in Global Health (this may include a reputable online course eg: Coursera), or equivalent background (eg. global health field experience). Permission of Instructor. For graduate and professional students from any field with an interest in global women's health; Master students by permission of instructor. A critical examination of theoretical and methodological issues pertaining to research on women and girls conducted around the world across disciplines. A focused and intensive exploration of place as it pertains to women and girls formal and informal structures of health care delivery as those needing and/or seeking health care, and as those providing health care to others. Students will examine the multiple dimensions and qualities of these endeavors (e.g. activity, power, control, visibility, value, and remuneration) and the intersection of gender and health - locally, globally and across borders. Students will focus their examination on the implications of seeking and providing health care for women's and girls' health and well-being. By examining issues in local and global contexts and across geographical boundaries, students will have the opportunity to challenge gendered, class, political, and cultural assumptions related to women's health.
Fall
Also Offered As: GSWS 8300
1 Course Unit

NURS 8330 Measurement of Health-Related Behavior and Determinants
This one semester seminar will provide a detailed overview of measurement of health-related behaviors and determinants of behavior. The course will cover characteristics of measures, data collection, and how to apply the science of measurement to specific health research questions. The course will emphasize This one semester seminar will provide a detailed overview of measurement of the intersection of self-report measures with biological and physical measures, and the use of newer technologies to collect data and improve data quality. Students will integrate concepts and topics covered in the course as they work on a measurement project in their specific area(s) of interest and engage in problem-solving with their peers. This course is intended for doctoral student and advanced masters-level students in the health sciences.
1 Course Unit

NURS 8370 Web-based Research Methodology
This doctoral elective course will provide an introduction to Web-based research methods in health-related disciplines. This course will examine research methods that have been adapted to the study of human subjects through the Web. This course will have particular emphasis on quantitative and qualitative empirical methods using the Web as a data collection medium. Another important feature of this course will be intensive analysis of ethical and methodological issues conducting research through the Web. Areas to be analyzed include: types of Web-based research; advantages and disadvantages of Web-based research; vehicles (e.g. funding, mentoring) that have supported Web-based research; human subject protection issues; issues/concerns in recruitment and data collection in Web-based research; and professional vehicles (e.g. scholarly publication, lay publications, speaking forums) that have helped disseminate the knowledge derived from Web-based research. Prerequisites: PhD Student
Fall
1 Course Unit

NURS 8390 Mixed Methods Research
This course will focus on mixed methods research techniques including mixed methods designs, developing mixed methods research questions, data collection, analyses focusing on data integration of qualitative and quantitative data, interpretation, and presentation of results. Skill building will center on sampling, collection, and management of data; data integration techniques; data visualization, methodological rigor and reporting data including dissemination of findings. Students will complete a mixed methods "mini" proposal.
Fall
1 Course Unit

NURS 8400 Design Thinking in Healthcare Institute
Innovation, defined as a hypothesis-driven, testable, and disciplined strategy, is important for improving health and healthcare processes. Innovation includes the methodologies we use to solve problems, the systems, products and processes we create, social and digital technologies, as well as the way we communicate with our patients, their families, our colleagues and communities at-large. Employing new ways of thinking, such as with design thinking, opens possibilities for creating meaningful and innovative solutions. This course provides foundational content in design thinking and a disciplined approach to innovation as it applies to health and health care. Offered as an online classroom environment coupling synchronous interactive sessions with asynchronous foundational content, students learn innovative approaches for solving a variety of healthcare problems.
Spring
0.5 Course Units

NURS 8410 Transformational Leadership
Transformational leaders create an organizational vision, inspire and motivate others from diverse backgrounds to actualize strategic goals even during uncertainty. Developed and presented by expert Wharton Executive Education faculty in a one-week synchronous online session (or an on-campus intensive as possible) with asynchronous online modules, students explore strategic planning and execution, stakeholder analysis, negotiation and influence, resource allocation, organizational culture and change management. On the path to becoming purpose-driven leaders, students learn of cutting-edge research on the qualities and behaviors of both successful and unsuccessful work environments and how this research can be applied to practical, real-life workplace situations.
Fall
1 Course Unit

NURS 8420 Thriving in an Everchanging Healthcare Environment
Due to a complex and everchanging healthcare environment, efforts to improve population health in innovative and cost-effective ways has proven challenging for providers and insurers alike. Offered in an asynchronous online format and including content taught by expert faculty in the Perelman School of Medicine Health Care Innovation Graduate Program, this course introduces students to main forces affecting the health insurance environment including changing mechanics of the insurance market, health insurance plan costs, and innovative methods for modifying behavior through incentives embedded within benefit design. Students also examine various examples of insurance reform incentivizing practice innovation and the development of new service delivery models in the healthcare industry.
Spring
0.5 Course Units
NURS 8421 Thriving in a Value-Driven Healthcare Economic Environment
Thriving in an everchanging healthcare environment requires that leaders have foundational knowledge of the healthcare insurance market, rivers of value in this industry and available levers of policy change in government and the private sectors. Most policy experts agree that focusing on value will lead to a united approach for improving health care delivery. Offered in an asynchronous and synchronous online format and including content taught by Senior Executives in care transformation and expert faculty in the Perelman School of Medicine Health Care Innovation Graduate Program, this course introduces students to main forces affecting the health insurance environment and drivers of value and practice innovation in the healthcare industry.
Spring
1 Course Unit

NURS 8430 Executive Leadership in Complex Healthcare Systems
Executive leadership in a complex healthcare industry requires the knowledge and skills to revolutionize care delivery models and improve patient and organizational outcomes. Students explore foundational concepts essential for executive leadership decision-making including behavioral economics and principles of systems thinking and complexity theory. Through the exploration of exemplars in transforming facets of healthcare systems, students also examine pragmatic approaches for leading systems-level change in care delivery. Offered in an asynchronous and synchronous online format and including content developed and presented by expert faculty in the Perelman School of Medicine Health Care Innovation Graduate Program as well as healthcare industry leaders, students develop skills inherent for success in leading transformational change in their own organizations.
Spring
1 Course Unit

NURS 8490 Exploring Data Science Methods with Health Care Data
The growth and development of electronic health records, genetic information, sensor technologies and computing power propelled health care into the big data era. This course will emphasize data science strategies and techniques for extracting knowledge from structured and unstructured data sources. The course will follow the data science process from obtaining raw data, processing and cleaning, conducting exploratory data analysis, building models and algorithms, communication and visualization, to producing data products. Students will participate in hands-on exercises whenever possible using a clinical dataset.
Spring
Also Offered As: BMIN 5490
1 Course Unit

NURS 8510 Translating Evidence into Practice (DNP Project #1)
This course focuses on the translation of research into practice to achieve sustainable improvements in clinical, patient and systems outcomes. Course content builds on the foundational principles of evidence-based practice and the critical scientific appraisal of evidence to guide advanced evidence-based reasoning and decision-making for translation and application to practice.
Prerequisite: NURS 5470 OR NURS 6370
1 Course Unit

NURS 8520 DNP Project Planning II (DNP Project #2)
This course provides an overview of the concepts, procedures, and fundamental processes of project management for Doctor of Nursing Practice students. Principles, tools and techniques of project management within an integrative framework are reviewed and applied to the development of the practice change/quality improvement project proposal. Students will develop a proposal for an evidence-based project that addresses a health problem, health promotion opportunity, healthcare system issue, community health concern, clinical problem, integration of technology/informatics in care or a policy-related issue. Students will finalize the project plan by the conclusion of the course. Students will develop a partnership with key stakeholders relative to their intended project and meet with key stakeholders and members within a healthcare agency and/or communities of interest where the project is to be implemented. Students are expected to develop collaborative working relationships and team leadership skills throughout the course of the semester through regularly scheduled team meetings that engage project site stakeholders and project mentors, including both site and faculty project mentors.
Fall
Prerequisite: NURS 8510
0.5 Course Units

NURS 8521 DNP Project II: Project Proposal
This is the second in the series of three project courses. The focus of this course is the development of a complete project proposal. This course provides an overview of the concepts, procedures and fundamental processes of project management for Doctor of Nursing Practice (DNP) students. Principles, tools, and techniques of project management within an integrative framework are reviewed and applied to the development of the DNP project. Students will finalize a project management plan that advances high quality, equitable and accessible health care. Students will continue to meet with key stakeholders and members within healthcare agency and/or communities of interest where the project is being implemented. This course offers individualized faculty guidance and mentored opportunities for the planning process.
Fall
Prerequisite: NURS 8510
1 Course Unit

NURS 8530 DNP Project Implementation (DNP Project #3)
This course requires DNP students to implement their project and determine how the results can be used to improve processes and procedures within the healthcare agency or community of interest. Students are expected to integrate evidence-based practice paradigms and process principles into the development of a final report and present the findings to each other for peer critique. Barriers from people, places and policies will be addressed and strategies developed to negotiate solutions. Principles of sustainable evidence-based practice change across disciplines and within various healthcare settings will be discussed. Students will assume the role of leader in the interprofessional collaboration, consultation, and partnership with the healthcare organization or communities of interest.
Fall or Spring
Prerequisite: NURS 8520
0.5 Course Units
NURS 8531 DNP Project III: Project Implementation
This is the third of a series of three courses with the focus on implementation and dissemination of the Doctoral of Nursing Practice (DNP) project. In this final course students are expected to carry out the project and determine how the results can be used to improve processes and procedures within the healthcare agency or community of interest. Students integrate evidence-based practice paradigm and process principles into the development of a final report and present the findings to each other for peer critique. Barriers from people, places and policies will be addressed and strategies developed to negotiate solutions. Principles of sustainable evidence-based practice change across disciplines and within various healthcare settings will be discussed. Students will assume the role of leader in the interprofessional collaboration, consultation, and partnership with the healthcare organization or communities of interest with the goal to also share findings and advance nursing scholarship. Students demonstrate proficiency in time management, leveraging resources, communication skills and interprofessional collaboration through the implementation of the project.
Spring
Prerequisite: NURS 8521
1 Course Unit

NURS 8540 DNP Project Evaluation and Dissemination (DNP Project #4)
The Doctor of Nursing Practice (DNP) project is the terminal project for fulfillment of the DNP Degree requirements. The DNP Project prepares students to lead and conduct a scientific clinical inquiry project that integrates and applies learning from coursework and clinical practicums. The DNP project is a logical extension of the practice emersion experience, and uses evidence and the literature-related information to guide improvements in either practice or patient outcomes. The DNP Project will culminate in the development of an evidence-based, practice manuscript.
Fall
Prerequisite: NURS 8530
1 Course Unit

NURS 8580 Professional Aspects & Leadership for Nurse Anesthesia Practice
This course will provide students with an opportunity to explore professional issues which affect the practice of nurse anesthesia and the healthcare delivery system. Discussion of professional issues which impact nurse anesthetist practice will include professionalism, scope of practice, patient safety from a systems perspective, medical legal concerns, ethical decision making, reimbursement and other financial issues which impact healthcare delivery. Students will be afforded the opportunity to develop their own sense of professionalism as they explore these issues and develop a professional presentation.
Summer Term
1 Course Unit

NURS 8760 Advanced Clinical Concepts and Professional Role for Critical Care Advanced Practice Providers I
This course examines the complexities of caring for critically ill patients within the modern ICU. Advanced concepts of critical care diagnosis, management and therapeutics are analyzed. Patient cases are evaluated within established professional standards of practice and alternative management strategies are discussed and analyzed. Care provided in patient cases is compared to the quality and safety (QSEN) competencies and strategies to improve care are described. Professional behaviors such as teamwork and collaboration and other interprofessional collaborative competencies are developed within practitioners and demonstrated and applied in simulations. Prerequisites: Admission to the Penn Medicine Critical Care Advanced Practitioner Fellowship or By Permission Only.
Not Offered Every Year
1.5 Course Unit

NURS 8770 Advanced Clinical Concepts and Professional Role for Critical Care Advanced Practice Providers II
This is the second of two courses specifically designed for Advanced Practice Providers enrolled in the Penn Medicine Critical Care Advanced Practitioner Fellowship Program. This course continues to examine the knowledge, skills and professional behaviors required to deliver safe, quality care that meets defined standards of practice. Core competencies to provide evidence-based, cost effective care expected of Advanced Practice Providers in an intensivist-led, multiprofessional critical care team are further developed and honed. Strategies to synthesize and integrate these knowledge, skills and attitudes into the fellow's practice are constructed and demonstrated.
Fall
Prerequisite: NURS 8760
1.5 Course Unit

NURS 8900 Nursing Doctoral Teaching Residency
The purpose of this required one semester teaching residency is to enhance the expertise of students in the role of educator. The residency will be tailored to the student’s individual learning needs. At the minimum, students with no or minimal prior teaching experience will gain a beginning level of expertise in course planning, course evaluation, dealing with difficult student situations, test construction, paper assignment construction and grading, content delivery methods, as well as other aspects of the faculty teaching role. Students with more extensive teaching experience will tailor their residences with their residency supervisor to enhance their expertise in these various areas. Prerequisites: PhD Student
Fall
1 Course Unit

NURS 8970 Nursing Doctoral Research Residency
The purpose of this required one semester research residency is to enhance student research training early in the doctoral program by providing a mentored research experience. The residency is designed to be a tailored hands-on experience to provide students with exposure and the opportunity to participate in one or more aspects of an ongoing research project. Research residencies are experiential activities designed to meet the student’s individual learning needs. At the minimum, students with no or minimal prior research experience will gain a beginning level of experience on a variety of components of an ongoing research project. Students with more extensive research experience will tailor their residences with their residency supervisor to enhance their expertise in these various areas. Prerequisites: PhD Student
Fall
1 Course Unit
NURS 9000 Directed Study
Must be arranged with the written permission of the sponsoring faculty member prior to registration.
Fall or Spring
0.5-2 Course Units

NURS 9950 Dissertation
Dissertation General Tuition
Fall or Spring
0 Course Units

NURS 9999 Nursing Graduate Elective
This is the course number to use for XCAT transfer credit that is equivalent to the Nursing graduate elective
1 Course Unit

Operations, Information and Decisions (OIDD)

OIDD 0001 Prescriptive Analytics: Making Business Decisions using Optimization and Simulation
In this course, we will explore the subject of quantitative business decision making. Specifically, we will study optimization and simulation tools and provide you with a set of key skills in the area of prescriptive analytics. We will illustrate the use of these tools in a variety of business applications, including manufacturing, logistics, inventory management, capital budgeting, insurance, and revenue management.
0.5 Course Units

OIDD 0002 Grit Lab 101: The Psychology of Passion, Perseverance, and Success
The aims of Grit Lab are two-fold: (1) to equip you with generalizable knowledge about the science of passion and perseverance, and (2) to help you apply these insights to your own life—such as when applying to college. At the heart of this course are cutting-edge scientific discoveries about how to foster passion and perseverance for long-term goals. As in any college undergraduate course, you will have an opportunity to learn from current research. But unlike most courses, Grit Lab encourages you to apply these ideas to your own life and reflect on your experience.
0.5 Course Units

OIDD 1010 An Introduction to Operations, Information and Decisions
OIDD 101 explores a variety of common quantitative modeling problems that arise frequently in business settings, and discusses how they can be formally modeled and solved with a combination of business insight and computer-based tools. The key topics covered include capacity management, service operations, inventory control, structured decision making, constrained optimization and simulation. This course teaches how to model complex business situations and how to master tools to improve business performance. The goal is to provide a set of foundational skills useful for future coursework at Wharton as well as providing an overview of problems and techniques that characterize disciplines that comprise Operations and Information Management.
Fall or Spring
1 Course Unit

OIDD 1050 Analytics in Excel VBA
This course introduces the construction and use of data analysis tools that are commonly used for business analysis. The course builds on the spreadsheet and analytical skills developed in OIDD1010, providing a much more extensive treatment of spreadsheet application development (using Excel Visual Basic for Applications). In addition, we will cover best practices in programming and analytics generally which can carry over to other tools and languages. Time permitting, we will do an introduction to some advanced analytical methods that show up in complex data analysis tasks and provide a foundation for further study. In prior years, this course was a 1 cu offering combining the content described here with the content of what is now OIDD3150: Databases for Analytics (0.5 cu). Students seeking this experience can take this course along with OIDD3150 either sequentially or concurrently.
0.5 Course Units

OIDD 2000 Grit Lab: Fostering Passion and Perseverance in Ourselves and Others (SNF Paideia Program Course)
At the heart of this course are cutting-edge scientific discoveries about passion and perseverance for long-term goals. As in any other undergraduate course, you will learn things you didn’t know before. But unlike most courses, Grit Lab requires you to apply what you’ve learned in your daily life, to reflect, and then to teach what you’ve learned to younger students. The ultimate aim of Grit Lab is to empower you to achieve your personal, long-term goals—so that you can help other people achieve the goals that are meaningful to them. LEARN -> EXPERIMENT -> REFLECT -> TEACH. The first half of this course is about passion. During this eight-week period, you’ll identify a project that piques your interest and resonates with your values. This can be a new project or, just as likely, a sport, hobby, musical instrument, or academic field you’re already pursuing. The second half of this course is about perseverance. During this eight-week period, your aim is to develop resilience, a challenge-seeking orientation, and the habits of practice that improve skill in any domain. By the end of Grit Lab, you will understand and apply, both for your benefit and the benefit of younger students, key findings in the emerging science on grit.
Fall
Also Offered As: OIDD 0050, PSYC 0405
1 Course Unit

OIDD 2010 Technology Management, Information and the Digital Economy
OIDD2010 introduces students to two critically important and tightly linked concepts. The first is online business model innovation, including key opportunities to exploit information-based strategies in businesses as diverse as Capital One and Uber (newly vulnerable markets) and Amazon and Airbnb (online channel conflict). The second is computer-based simulation modeling to assess the viability of an online innovation, the strategies for its launch, and its economic value.
1 Course Unit

OIDD 2100 Online Business Models and the Information-Based Firm
This course provides a broad-based introduction to the management of information technology focusing on three interrelated themes: technology, organization, and strategy. The goal of this course is to equip students with the knowledge and tools to utilize information systems to pursue a firm’s strategic and organizational goals. The course has no prerequisites other than a general interest in the applications of information technology.
Fall or Spring
1 Course Unit
OIDD 2150 Intro to Analytics and the Digital Economy
Over the past decade, there has been a dramatic rise in the use of technology skills and data analytic thinking to solve business problems in many domains, including finance, HR, policy, transport, and strategy. As a result, the modern “analytic leader” increasingly requires the use of technology, statistics, and data skills to facilitate business analysis. This includes knowing how to effectively frame data-driven questions and use a new generation of technology tools that are becoming available to acquire, analyze, interpret, and communicate insights derived from data. Students in this hands-on course will engage with weekly labs that introduce them to new technologies, techniques, and data-driven business challenges.

0.5 Course Units

OIDD 2200 Introduction to Operations Management
This course introduces basic concepts of operations management and application of the same in business practice today. We will examine the theoretical foundations of operations management and how these principles or models can be employed in both tactical and strategic decision making. Topics covered in detail are forecasting techniques, planning under deterministic and uncertain demand, operations planning and scheduling, queuing theory, service operations management, newsvendor models, risk pooling strategies in firms, capacity and revenue management, and supply chain coordination. We will conclude by discussing how supply chains evolve under technological change.

Fall or Spring
1 Course Unit

OIDD 2220 Internet Law, Privacy, and Cybersecurity
This course examines the complex and often novel legal issues surrounding the development and current state of the Internet, information privacy, and cybersecurity. Topics include federal- and state-level regulation and enforcement of Internet and privacy legal concepts, data breaches, online privacy protections, how to legally manage a borderless Internet, and the liability of intermediaries such as network operators, social media services, and search engines.

Fall or Spring
Also Offered As: LGST 2220
1 Course Unit

OIDD 2240 Analytics for Service Operations
This course considers tools and concepts that can generate operational excellence for the production and delivery of services in industries such as banking, transportation, health care, and communications. Since services typically are intangible, not storable or transportable, and often highly variable, the management of their operations is complex and involves distributed operations with a significant amount of customer contact. Therefore, the understanding and effective management of service operations requires specialized analytical tools and customer-centric focus. This course covers a mix of topics with the emphasis on quantitative methods, application of analytics and strategic frameworks. The class will introduce simple models and basic concepts that support analysis of tradeoffs in a variety of common service processes. Students also will have the opportunity to apply the ideas and analytical models developed in the course to a particular service industry. They will do so by conducting a guided, application group project which includes opportunities for in-depth analysis of a particular service process and field work.

1 Course Unit

OIDD 2340 M&T First Year Seminar
The objective of this seminar course is to help students understand the intersection of management and technology and how it is being translated in practice. It is designed to lay the foundation for an integrated productive learning program at Penn as students adjust to their new educational environment. The seminar is structured to accomplish this through faculty and alumni speakers from different sectors. Enrollment is limited to the freshman students and the few transfer students admitted to the M&T program only.

Fall
0.5 Course Units

OIDD 2360 Scaling Operations in Technology Ventures: Linking Strategy and Execution
This course helps students learn to make strategic scaling decisions that are grounded in operational reality. Students will study how to build and evaluate the “operation systems” of the firm to maximize value with the focus on scaling the firm’s operations. This involves tailoring the firm’s operational competencies, assets, and processes to a specific business strategy. The course will approach the challenge of scaling operations and operations strategy by taking a holistic view that incorporates competitive strategy, financial evaluation, and the customer experience.

1 Course Unit

OIDD 2380 M&T Global Immersive Week
The M&T Global Immersive week is designed to provide the students in the program with firsthand experience to a global technology hub to further enhance learnings from both Penn Engineering and Wharton. With the number of technology startups in countries like Israel, India, China, especially the unicorns, the world will soon catch up with United States, if it has not already. Hence, the learnings of our future leaders should include a thorough understanding of the driving forces of the technology landscape in countries with a thriving startup culture. Each year M&T students across four years will go on a weeklong trip to a specific country chosen for that year in the first week of January. The global module will incorporate class lectures, workshops, guest lectures and visits to tech focused companies to meet local business founders and executives.

Class will comprise of a group of up to 15 students chosen through an application process. The experiential learning provides the students an opportunity to learn from the leaders while immersing themselves in another culture and building relationships with the alumni in that area.

0.5 Course Units

OIDD 2450 Analytics and the Digital Economy
Students who take this course will engage with the world of data science using tools such as Tableau and R that are becoming increasingly popular in industry. The first half of the course is designed for students with limited experience with data projects, and while familiarity with R, via courses such as STAT 4050 or STAT 4700, will be ideal preparation, students with other programming exposure can pick up the required skills via review sessions and self-instruction. The second half of the course extends students’ experience to industry applications of text mining and machine learning and requires students to work with more unstructured data. Each week of the course will be devoted to analysis of a data set from a particular industry (e.g. HR, sports, fashion, real estate, music, education, politics, restaurants, non-profit work), which we will use to answer business questions by applying analytic techniques. The course is very hands-on, and students will be expected to become proficient at applying data to business decisions and at effectively analyzing large data sets to inform decisions about business problems.

1 Course Unit
OIDD 2550 Artificial Intelligence, Business, and Society
The progression of AI-based technologies promises to transform many aspects of business, labor, and even society. The goal of this course is to provide students with an understanding of the capabilities of modern AI technologies, with an emphasis on being able to critically assess where they can provide business and societal value, and where they may create new challenges. This course is intended to provide a framework for people who may have to confront the legal, ethical, and economic challenges that are likely to arise around AI. A goal of the course is to ensure that students who complete the course are comfortable enough in the inner-workings of these technologies to think critically across many AI contexts as well as different domains ranging from public policy, to criminal justice, to health inspections, HR, and marketing. The course is oriented around hands-on labs, exams, discussions, and presentations. Labs will reinforce your learning of how AI works, and how it is being used to solve business problems. A coding background is not required, but students should be willing to engage with code to a limited degree in order to complete the labs. During labs, students will combine data and algorithms to provide a foundation for understanding the deep challenges that AI brings to organizations. The class is particularly suitable for students who will be searching for jobs in the business of technology, such as product management and business analytics, as well as those interested in the larger social implications of AI technologies.

1 Course Unit

OIDD 2610 Risk Analysis and Environmental Management
This course will introduce students to concepts in risk governance. We will delve into the three pillars of risk analysis: risk assessment, risk management, and risk communication. The course will spend time on risk financing, including insurance markets. There will be particular emphasis on climate risks, although the course will also discuss several other examples, including pandemics, biodiversity loss, and systemic risks, among others. The course will cover how people perceive risks and the impact this has on risk communication and management. We will explore public policy surrounding risk management and how the public and private sectors can successfully work together to build resilience, particularly to changing risks.

Fall or Spring

Also Offered As: BEPP 2610

1 Course Unit

OIDD 2630 Environmental & Energy Economics and Policy
This course examines environmental and energy issues from an economist’s perspective. Over the last several decades, energy markets have become some of the most dynamic markets of the world economy, as they experienced a shift from heavy regulation to market-driven incentives. First, we look at scarcity pricing and market power in electricity and gasoline markets. We then study oil and gas markets, with an emphasis on optimal extraction and pricing, and geopolitical risks that investors in hydrocarbon resources face. We then shift gears to the sources of environmental problems, and how policy makers can intervene to solve some of these problems. We talk about the economic rationale for a broad range of possible policies: environmental taxes, subsidies, performance standards and cap-and-trade. In doing so, we discuss fundamental concepts in environmental economics, such as externalities, valuation of the environment and the challenge of designing international agreements. At the end of the course, there will be special attention for the economics and finance of renewable energy and policies to foster its growth. Finally, we discuss the transportation sector, and analyze heavily debated policies such as fuel-economy standards and subsidies for green vehicles. Prerequisites: An introductory microeconomics course (ECON 1, or another course approved by the instructor) will be sufficient in most cases; BEPP 250 or an equivalent intermediate microeconomics course is recommended.

Also Offered As: BEPP 2630

1 Course Unit

OIDD 2900 Decision Processes
This course is an intensive introduction to various scientific perspectives on the processes through which people make decisions. Perspectives covered include cognitive psychology of human problem-solving, judgment and choice, theories of rational judgment and decision, and the mathematical theory of games. Much of the material is technically rigorous. Prior or current enrollment in STAT 101 or the equivalent, although not required, is strongly recommended.

Prerequisite: STAT 1010

1 Course Unit

OIDD 2910 Negotiations
This course examines the art and science of negotiation, with additional emphasis on conflict resolution. Students will engage in a number of simulated negotiations ranging from simple one-issue transactions to multi-party joint ventures. Through these exercises and associated readings, students explore the basic theoretical models of bargaining and have an opportunity to test and improve their negotiation skills.

Fall or Spring

Also Offered As: LGST 2910, MGMT 2910

1 Course Unit

OIDD 2920 Advanced Negotiation
This course is designed to teach negotiation principles and to enable students to develop their negotiation skills. This course assumes familiarity with the basic negotiation concepts covered in the prerequisite for this course: Negotiations. In this course, we extend the study and practice of negotiations and we develop a deeper understanding for how specific aspects of the negotiation process (e.g., emotions, deadlines, trust violations) impact outcomes. Through course lectures, readings, and case exercises, students will develop a rich framework for thinking about the negotiation process and acquire tools for guiding the negotiation process.

Fall or Spring

Also Offered As: LGST 2920, MGMT 2920

Prerequisite: LGST 2910 OR OIDD 2910 OR MGMT 2910

1 Course Unit
OIDD 2930 People Analytics
This course examines the use of data to understand and improve how people are managed in organizations. People really are organizations’ most important asset, providing the critical link in converting strategy and capital into value. Yet throughout most of our history, most organizations have relied on long-standing traditions, hearsay, political expediency, prejudice and gut instinct to make decisions about how those people should be managed. Recent years have seen a growing movement to bring more science to how we manage people. In some cases, that means ensuring that whatever practices and approaches we adopt are backed up by solid evidence as to their effectiveness. Often, organizations will seek to go further, analyzing their own data to identify problems and learn what is working and what is not in their own context. This course applies the insights of the people analytics movement to help students become better managers and more critical analysts within their organizations. The course aims to develop students in three specific ways. First, it will provide students with an up-to-the-minute grounding in current evidence about managing people, providing a knowledge base that can ensure that their future management is guided by best practices. Second, we will develop the skills and understanding necessary to be thoughtful, critical consumers of evidence on people management, allowing them to make the most of the analysis available to them as they make people decisions. Third, we will provide guidance and practice in conducting people analytics, preparing students to gather data of their own, and making them more skilled analysts. We will pursue these goals through a mixture of lecture, case discussion, and hands-on exploration of a variety of data sets.

Spring
Also Offered As: MGMT 2930
1 Course Unit

OIDD 2990 Judgment & Decision Making Research Immersion
This class provides a high-level introduction to the field of judgment and decision making (JDM) and in-depth exposure to the process of doing research in this area. Throughout the semester you will gain hands-on experience with several different JDM research projects. You will be paired with a PhD student or faculty mentor who is working on a variety of different research studies. Each week you will be given assignments that are central to one or more of these studies, and you will be given detailed descriptions of the research projects you are contributing to and how your assignments relate to the successful completion of these projects. To complement your hands-on research experience, throughout the semester you will be assigned readings from the book Nudge by Thaler and Sunstein, which summarizes key recent ideas in the JDM literature. You will also meet as a group for an hour once every three weeks with the class’s faculty supervisor and all of his or her PhD students to discuss the projects you are working on, to discuss the class readings, and to discuss your own research ideas stimulated by getting involved in various projects. Date and time to be mutually agreed upon by supervising faculty and students. the 1CU version of this course will involve approx. 10 hours of research immersion per week and a 10-page paper. The 0.5 CU version of this course will involve approx 5 hours of research immersion per week and a 5-page final paper. Please contact Professor Joseph Simmons if you are interested in enrolling in the course: jsimmo@wharton.upenn.edu

Fall
0.5-1 Course Unit

OIDD 3110 Business Computer Languages
This course is taught with the more descriptive title of "Scripting for Business Analytics." "Business Analytics" refers to modeling and analysis undertaken for purposes of management and supporting decision making. The varieties of techniques and methods are numerous and growing, including simple equational models, constrained optimization models, probabilistic models, visualization, data analysis, and much more. Elementary modeling of this sort can be undertaken in Excel and other spreadsheet programs, but "industrial strength" applications typically use more sophisticated tools, based on scripting languages. Scripting languages are programming languages that are designed to be learned easily and to be used for special purposes, rather than for large-scale application programming. This course focuses on the special purposes associated with business analytics and teaches MATLAB and Python in this context. MATLAB and Python are widely used in practice (both in management and in engineering), as are the business analytic methods covered in the course. Prior programming experience is useful, but not required or presumed for this course.

Fall or Spring
1 Course Unit

OIDD 3140 Enabling Technologies
Conducting business in a networked economy invariably involves interplay with technology. The purpose of this course is to improve understanding of technology (what it can or cannot enable), the business drivers of technology-related decisions in firms, and to stimulate thought on new applications for commerce (including disruptive technologies). The class provides a comprehensive overview of various emerging technology enablers and culminates in discussion of potential business impact of these technologies in the near future. No prior technical background is assumed and hence every effort is made to build most of the lectures from the basics. However, the Fall semester class will assume basic understanding of statistics and will focus more on big data analytics. Some assignments in the fall will involve data analytics using Python or R.

Fall or Spring
Mutually Exclusive: OIDD 6620
0.5-1 Course Unit

OIDD 3150 Databases for Analytics
Relational databases are the primary way in which business data is stored and processed. This course focuses on the analysis of data in databases and the development of databases to support analytical tasks. Over the course of the semester, students will learn the database language SQL and use this language to perform analytical tasks on existing and self-created databases. In addition, we will cover database scripting languages and extensions. The course is intended as students with little or no database background and does not presume prior computer science or coding experience. This course is nearly all hands-on coding. Students interested in more conceptual discussions of technology should consider other OIDD offerings.

0.5 Course Units
OIDD 3190 Advanced Decision Systems: Evolutionary Computation
This course is taught with the more descriptive title of “Agents, Games, and Evolution.” It explores applications and fundamentals of strategic behavior. Strategic, or game-theoretic, topics arise throughout the social sciences. The topics include—and we discuss—trust, cooperation, market-related phenomena (including price equilibria and distribution of wealth), norms, conventions, commitment, coalition formation, and negotiation. They also include such applied matters as design of logistics systems, auctions, and markets generally (for example, markets for electric power generation). In addressing these topics we focus on the practical problem of finding effective strategies for agents in strategic situations (or games). Our method of exploration will be experimental: we review and discuss experiments, principally computational experiments, on the behavior of boundedly rational agents in strategic (or game-theoretic) situations. Course work includes readings, discussions in class (organized as a seminar), examinations, and a course project on a topic chosen by the participants.
Fall or Spring
1 Course Unit

OIDD 3210 Introduction to Management Science
Understanding how to use data and business analytics can be the key differential for a company’s success or failure. This course is designed to introduce fundamental quantitative decision-making tools for a broad range of managerial decision problems. Topics covered include linear, nonlinear, and discrete optimization, dynamic programming, and simulation. Students will apply these quantitative models in applications of portfolio management, electricity auctions, revenue management for airlines, manufacturing, advertising budget allocation, and healthcare scheduling operations. Emphasis in this course is placed on mathematical modeling of real world problems and implementation of decision making tools.
Fall or Spring
1 Course Unit

OIDD 3250 Computer Simulation Models
This course focuses on agent-based computational models in the social sciences, especially in economic, in commercial and in strategic (game-theoretic) contexts. This relatively recent and now rapidly-developing form of computer simulation seeks to explain and predict complex social phenomena “from the ground up”, through interactions of comparatively simple agents. The course reviews experimental and theoretical results, and exposes the students to modern development environments for this form of simulation. Students have the opportunity to design and implement agent-based simulations. Programming, however, is not required. This course aims to integrate various topics in agent-based simulation, while developing an appreciation of the problems that are particularly characteristic of this form of simulation so that students will understand its promise and potential.
Fall or Spring
1 Course Unit

OIDD 3530 Mathematical Modeling and its Application in Finance
Quantitative methods have become fundamental tools in the analysis and planning of financial operations. There are many reasons for this development: the emergence of a whole range of new complex financial instruments, innovations in securitization, the increased globalization of the financial markets, the proliferation of information technology and the rise of high-frequency traders, etc. In this course, models for hedging, asset allocation, and multi-period portfolio planning are developed, implemented, and tested. In addition, pricing models for options, bonds, mortgage-backed securities, and other derivatives are studied. The models typically require the tools of statistics, optimization, and/or simulation, and they are implemented in spreadsheets or a high-level modeling environment, MATLAB. This course is quantitative and will require extensive computer use. The course is intended for students who have strong interest in finance. The objective is to provide students the necessary practical tools they will require should they choose to join the financial services industry, particularly in roles such as: derivatives, quantitative trading, portfolio management, structuring, financial engineering, risk management, etc. Prospective students should be comfortable with quantitative methods such as basic statistics and the methodologies (mathematical programming and simulation) in OIDD6120 Business Analytics and OIDD3210 Management Science (or equivalent). Students should seek permission from the instructor if the background requirements are not met.
Fall or Spring
Mutually Exclusive: OIDD 6530
Prerequisite: OIDD 3210
1 Course Unit

OIDD 3800 Operations Strategy Practicum
This course focuses on the management of operations at manufacturing and service facilities located in Israel that are used either by domestic corporations or by multinational companies. The emphasis is on the evolving patterns of operations strategies adopted by firms for producing products, sourcing manufacturing, distributing products, delivering services and managing product design as well as on programs for enhancing quality, productivity and flexibility and managing technology. We will focus on formulation and execution of such strategies for established Israeli multinationals with world class operations and innovative strategies as well as start-ups and smaller companies that are scaling their global supply chain infrastructure to support growth. The course will consist of a set of site visits in Israel during Winter Break that will provide the opportunity to observe company processes directly and in-class sessions which include lectures, case discussions and management speakers who will describe their companies’ current strategy. NOTE: THIS COURSE REQUIRES YOU TO SUBMIT AN APPLICATION FOR ADMISSION. Enrollment will be limited. Please contact Ramon Jones at ramjones@wharton.upenn.edu for more information. Application available at https://global.upenn.edu/pennabroad/pgs OIDD 1010 is recommended but not required.
1 Course Unit
OIDD 3970 Retail Supply Chain Management
This course is highly recommended for students with an interest in pursuing careers in: (1) retailing and retail supply chains; (2) businesses like banking, consulting, information technology, that provides services to retail firms; (3) manufacturing companies (e.g. P&G) that sell their products through retail firms. Retailing is a huge industry that has consistently been an incubator for new business concepts. This course will examine how retailers understand their customers’ preferences and respond with appropriate products through effective supply chain management. Supply chain management is vitally important for retailers and has been noted as the source of success for many retailers such as Wal-mart and Home Depot, and as an inhibitor of success for e-tailers as they struggle with delivery reliability. See M. L. Fisher, A. Raman and A. McClelland, "Rocket Science Retailing is Coming - Are You Ready?", Harvard Business Review, July/August 2000 for related research. Mutually Exclusive: OIDD 6970
0.5 Course Units

OIDD 3990 Supervised Study
This course number is currently used for several course types including independent studies, experimental courses and Management & Technology Freshman Seminar. Instructor permission required to enroll in any independent study. Wharton Undergraduate students must also receive approval from the Undergraduate Division to register for independent studies. Section 002 is the Management and Technology Freshman Seminar; instruction permission is not required for this section and is open only to M&T students. For Fall 2020, Section 004 is a new course titled AI, Business, and Society. The course provides a overview of AI and its role in business transformation. The purpose of this course is to improve understanding of AI, discuss the many ways in which AI is being used in the industry, and provide a strategic framework for how to bring AI to the center of digital transformation efforts. In terms of AI overview, we will go over a brief technical overview for students who are not actively immersed in AI (topic covered include Big Data, data warehousing, data-mining, different forms of machine learning, etc.). In terms of business applications, we will consider applications of AI in media, Finance, retail, and other industries. Finally, we will consider how AI can be used as a source of competitive advantage. We will conclude with a discussion of ethical challenges and a governance framework for AI. No prior technical background is assumed but some interest in (and exposure to) technology is helpful. Every effort is made to build most of the lectures from the basics.
Fall or Spring
0.5-1 Course Unit

OIDD 4100 Decision Support Systems
The past few years have seen an explosion in the amount of data collected by businesses and have witnessed enabling technologies such as database systems, client-server computing and artificial intelligence reach industrial strength. These trends have spawned a new breed of systems that can support the extraction of useful information from large quantities of data. Understanding the power and limitations of these emerging technologies can provide managers and information systems professionals new approaches to support the task of solving hard business problems. This course will provide an overview of these techniques (such as genetic algorithms, neural networks, and decision trees) and discuss applications such as fraud detection, customer segmentation, trading, marketing strategies and customer support via cases and real datasets.
Fall or Spring
Mutually Exclusive: OIDD 6720
1 Course Unit

OIDD 4110 How to Make Things: Production Prototyping Studio
The course centers around a sequence of three projects that each culminate in the design and fabrication of functional objects. A 2D Design, 3D Design, and final "Micro-Manufacturing" project will introduce students to a wide variety of design, engineering, and fabrication skills made possible by the new Studios @ Tangen Hall. The micro-manufacturing final project will task interdisciplinary student teams to create a "micro-business" where they will design and utilize 3D printed molding and casting techniques to create a small-scale run of functional products. These products will then be showcased in an end of semester exposition, where the teams will merchandise and market their products to the Penn community. This exposition will also be a wonderful inaugural use of the student and alumni retail space on the 1st floor of Tangen Hall and serve as a great university-wide event to show case the work of SEAS students. Requires proficiency in solid modeling software (e.g., SolidWorks, Maya, Rhino), practice with design process, and hands-on fabrication experience.
Also Offered As: MEAM 4110
1 Course Unit

OIDD 4150 Product Design
This course provides tools and methods for creating new products. The course is intended for students with a strong career interest in new product development, entrepreneurship, and/or technology development. The course follows an overall product design methodology, including the identification of customer needs, generation of product concepts, prototyping, and design-for-manufacturing. Weekly student assignments are focused on the design of a new product and culminate in the creation of a prototype, which is launched at an end-of-semester public Design Fair. The course project is a physical good - but most of the tools and methods apply to services and software products. The course is open to any Penn sophomore, junior, senior or graduate student. The course follows a studio format, in which students meet for three hours each week with Professor Marcovitz for lectures and hands-on making, and students will complete 90 minutes of asynchronous, self-paced content from Professor Ulrich on their own time each week. Professor Ulrich gives one in-person lecture during the semester and attends the Design Fair, but is not present at the weekly studio sessions.
Also Offered As: MEAM 4150
1 Course Unit

OIDD 4180 The India Startup Ecosystem
The objective of OIDD/MGMT 418 and the Wharton India Fellows program is to introduce Penn juniors to the entrepreneurship and innovation ecosystem in India through a course covering topics in entrepreneurship, innovation, venture capital and technology in India and then matching students to a specific short-term project with a Bangalore-based early-stage startup or rapidly scaling company. Students will complete preliminary work on the project assignment during the course, and then travel as a group to Bangalore with the instructor for a two week immersion in the company to which they have been assigned for their entrepreneurship project. Penn Wharton Entrepreneurship will cover airfare and lodging expenses for students selected as Wharton India Fellows for the duration of the 2 week immersion in India. For more information: https://entrepreneurship.wharton.upenn.edu/wharton-india-fellows/
Also Offered As: MGMT 4180
0.5 Course Units
OIDD 4690 Information Strategy and Economics
This course is devoted to the study of the strategic use of information and the related role of information technology, and designed for students who want to manage and compete in technology-intensive businesses. The topics of the course vary year to year, but generally include current issues in selling digital products, intermediation and disintermediation, competing in online markets, emerging technologies, managing artificial intelligence and data science for business, and technology project management. Heavy emphasis is placed on utilizing information economics to analyze businesses in information-intensive industries. Technology skills are not required, although a background in information technology management, strategic management or managerial economics is helpful. The course is designed to complement OIDD 2100, OIDD 2150, OIDD 2450, and OIDD 255X.
Fall or Spring
0.5-1 Course Unit
OIDD 4770 Introduction to Python for Data Science
The goal of this course is to introduce the Python programming language within the context of the closely related areas of statistics and data science. Students will develop a solid grasp of Python programming basics, as they are exposed to the entire data science workflow, starting from interacting with SQL databases to query and retrieve data, through data wrangling, reshaping, summarizing, analyzing and ultimately reporting their results. Competency in Python is a critical skill for students interested in data science. Prerequisites: No prior programming experience is expected, but statistics, through the level of multiple regression is required. This requirement may be fulfilled with Undergraduate courses such as Stat 1020, Stat 1120.
Also Offered As: STAT 4770
Mutually Exclusive: PHYS 1100
0.5-1 Course Unit
OIDD 4900 The Science of Behavior Change
The objective of this 14-week discussion-based seminar for advanced undergraduates is to expose students to cutting-edge research from psychology and economics on the most effective strategies for changing behavior sustainably and for the better (e.g., promoting healthier eating and exercise, encouraging better study habits, and increasing savings rates). The weekly readings cover classic and current research in this area. The target audience for this course is advanced undergraduate students interested in behavioral science research and particularly those hoping to learn about using social science to change behavior for good. Although there are no pre-requisites for this class, it is well-suited to students who have taken (and enjoyed) courses like OIDD 2900: Decision Processes, PPE 2030/PSYC 2650: Behavioral Economics and Psychology, and MKTG 2660: Marketing for Social Impact and are interested in taking a deeper dive into the academic research related to promoting behavior change for good. Instructor permission is required to enroll in this course.
Please complete the application if interested in registering for this seminar: http://bit.ly/bcfg-class-2020. The application deadline is July 31, 2020. Prerequisite: Permission of instructor required.
Fall or Spring
Also Offered As: PSYC 4900
1 Course Unit
OIDD 5110 How to Make Things: Production Prototyping Studio
The course centers around a sequence of three projects that each culminate in the design and fabrication of functional objects. A 2D Design, 3D Design, and final "Micro-Manufacturing" project will introduce students to a wide variety of design, engineering, and fabrication skills made possible by the new Studios @ Tangen Hall. The micro-manufacturing final project will task interdisciplinary student teams to create a "micro-business" where they will design and utilize 3D printed molding and casting techniques to create a small-scale run of functional products. These products will then be showcased in an end of semester exposition, where the teams will merchandise and market their products to the Penn community. This exposition will also be a wonderful inaugural use of the student and alumni retail space on the 1st floor of Tangen Hall and serve as a great university-wide event to show case the work of SEAS students. Requires proficiency in solid modeling software (e.g., SolidWorks, Maya, Rhino), practice with design process, and hands-on fabrication experience.
Also Offered As: IPD 5110
1 Course Unit
OIDD 5150 Product Design
This course provides tools and methods for creating new products. The course is intended for students with a strong career interest in new product development, entrepreneurship, and/or technology development. The course follows an overall product design methodology, including the identification of customer needs, generation of product concepts, prototyping, and design-for-manufacturing. Weekly student assignments are focused on the design of a new product and culminate in the creation of a prototype, which is launched at an end-of-semester public Design Fair. The course project is a physical good - but most of the tools and methods apply to services and software products. The course is open to any Penn sophomore, junior, senior or graduate student. The course follows a studio format, in which students meet for three hours each week with Professor Marcovitz for lectures and hands-on making, and students will complete 90 minutes of asynchronous, self-paced content from Professor Ulrich on their own time each week. Professor Ulrich gives one in-person lecture during the semester and attends the Design Fair, but is not present at the weekly studio sessions.
Also Offered As: IPD 5150
1 Course Unit
OIDD 5250 Thinking with Models: Business Analytics for Energy and Sustainability

Models are lenses. They are instruments with which we view, interpret, and give meaning to data. In this course, students will be exposed to and do work in all phases of the modeling life-cycle, including model design and specification, model construction (including data gathering and testing), extraction of information from models during post-solution analysis, and creation of studies that use modeling results to support conclusions for scientific or decision making purposes. In addition, the course will cover critical assessments of fielded models and studies using them. The course will focus broadly on models pertaining to energy and sustainability. This is not only an inherently interesting and important area, but it is very much a public one. In consequence, models, data, and studies using them are publicly and profusely available, as is excellent journalism, which facilitates introductions to specific topics. The course covers selected topics in energy and sustainability. Essential background will be presented as needed, but the course is not a comprehensive overview of energy and sustainability. Modeling in the area of energy and sustainability analytics is rife with uncertainty, and yet decisions must be made. Uncertainty, and how to deal with it in model-based decision making, is an overarching theme of the course. We will focus on energy and sustainability, but that area is hardly unique in being beset with deep and vexing uncertainties. The lessons we learn will generalize. The overall aim of the course is to teach facility with modeling and to use real-world data, models, and studies in doing so. In addition, students with interests in investment or policy analysis in the energy sphere will find the course’s subject area focus useful. OIDD 325 is not a prerequisite for this course, but it’s helpful if you have already taken it.

1 Course Unit

OIDD 6110 Quality and Productivity

Matching supply with demand is an enormous challenge for firms: excess supply is too costly, inadequate supply irritates customers. In the course, we will explore how firms can better organize their operations so that they more effectively align their supply with the demand for their products and services. Throughout the course, we illustrate mathematical analysis applied to real operational challenges—we seek rigor and relevance. Our aim is to provide both tactical knowledge and high-level insights needed by general managers and management consultants. We will demonstrate that companies can use (and have used) the principles from this course to significantly enhance their competitiveness.

Fall

0.5 Course Units

OIDD 6120 Business Analytics

"Managing the Productive Core: Business Analytics" is a course on business analytics tools and their application to management problems. Its main topics are optimization, decision making under uncertainty, and simulation. The emphasis is on business analytics tools that are widely used in diverse industries and functional areas, including operations, finance, accounting, and marketing.

Spring

0.5 Course Units

OIDD 6130 Online Business Models and the Information-Based Firm

This course is devoted to the study of the strategic use of information and the related role of information technology. It is designed for students who want to manage and compete in technology-intensive businesses. Heavy emphasis is placed on applying information economics principles and theoretical rigor to analyze businesses in information-intensive industries using both qualitative and quantitative techniques. We will study information-based industries like digital media, social networks, financial services, and online retail as well as traditional businesses that are being changed by new digital capabilities. There are four broad themes for the course: the economics of information goods and services, information and consumer behavior, markets and market design, and network economics. Each day we will discuss a core topic in one or more of these themes, with an emphasis on bridging theoretical ideas to real world applications. Application topics might include applying artificial intelligence, platform economics, and cryptocurrencies. Technology skills are not required, although a background in information technology management, strategic management, data science, or managerial economics is helpful.

Spring

0.5 Course Units

OIDD 6140 Innovation

The course is first and foremost an intensive, integrative, project course in which student teams create one or more real businesses. Some businesses spun out of the course and now managed by alumni include Terrapass Inc. and Smatchy Inc. The project experience is an exciting context in which to learn key tools and fundamentals useful in innovation, problem solving, and design. Examples of these tools and fundamentals are: problem definition, identification of opportunities, generating alternatives, selecting among alternatives, principles of data graphics, and managing innovation pipelines. The course requires a commitment of at least 10 hours of work outside of class and comfort working on unstructured, interdisciplinary problems. Students with a strong interest in innovation and entrepreneurship are particularly encouraged to enroll. Please read carefully the syllabus posted on-line before registering for this course.

Fall

0.5 Course Units

OIDD 6150 Operations Strategy

Operations strategy is about organizing people and resources to gain a competitive advantage in the delivery of products (both goods and services) to customers. This course approaches this challenge primarily from two perspectives: 1) how should a firm design their products so that they can be profitably offered; 2) how can a firm best organize and acquire resources to deliver its portfolio of products to customers. To be able to make intelligent decisions regarding these high-level choices, this course also provides a foundation of analytical methods. These methods give students a conceptual framework for understanding the linkage between how a firm manages its supply and how well that supply matches the firm’s resulting demand. Specific course topics include designing service systems, managing inventory and product variety, capacity planning, approaches to sourcing and supplier management, constructing global supply chains, managing sustainability initiatives, and revenue management. This course emphasizes both quantitative tools and qualitative frameworks. Neither is more important than the other.

Spring

0.5 Course Units
OID 6360 Scaling Operations: Linking Strategy and Execution
The goal of this course is to make strategic scaling decisions that are grounded in operational reality. We study how to build and evaluate the operational business model of a firm to maximize value with the focus on scaling the firm’s operations. We will approach the challenge of scaling by taking a holistic view that incorporates competitive strategy, financial evaluation, and the customer experience. We focus on decisions and challenges that many firms that try to scale their operations face with the focus on assessing the readiness of the firm to scale, and the required steps to scale. In particular, we will discuss whether the firm should build competencies in-house (i.e., investing in a portfolio of assets) or buy them (i.e., developing and implementing a global sourcing strategy and integrating external partners) and the risks associated with scaling these. We will also discuss the organizational implications of scaling. There are no formal pre-requisites to the class. Students who have already taken OIDD 611, OIDD 615, and STAT 613 should be equipped for the class. Other students should have a solid understanding of elementary probability and statistics. For questions regarding the specifics of your background, please contact the instructor.
0.5-1 Course Unit

OID 6420 Analytics for Services
This course covers a range of analytical methods that are useful tools for capacity management in services, and it will provide you with insights into the economics of a range of services businesses including (i) High-level planning models that account for multiple dimensions of service capacity, (ii) Low-level models of system congestion that capture the relationship between capacity choices, quality of service and, in some cases, system revenue, (iii) Statistical estimation and forecasting models to characterize key measures of future supply and demand. Students who have already taken OIDD 611, OIDD 612, and STAT 613 should be well equipped for the class. Other students should have a solid understanding of elementary probability, statistics and linear programming. For questions regarding the specifics of your background, please contact the instructor.
0.5 Course Units

OID 6430 Analytics for Revenue Management
This course introduces you to the essential concepts and techniques required to understand and implement revenue management (RM). The need for repeated, rapid and cycles of estimation and optimization has driven the development of a set of analytical tools that are particularly well suited for RM. This course focuses on those tools. Prerequisites: Students who have already taken OIDD 612 and STAT 613 should be well equipped for this class. Other students should have a solid understanding of elementary probability, statistics and constrained optimization. For questions regarding the specifics of your background, please contact the instructor.
0.5 Course Units

OID 6520 Design and Development of Web-Based Products and Services
This course is designed as an introduction to the process of product design with a focus on Web-based desktop and mobile consumer products and services. This is a course on designing products as distinct from (and complementary to) building a business. The course is implemented as a team-based experiential learning exercise; students learn the design process by developing multiple prototypes of a Web/mobile-based product or service. Teams will apply different prototyping techniques (paper, wireframes, landing pages) over multiple iterations of their project. This is not a course on Web engineering. Technical skills are not a prerequisite. Neither should students expect to learn specific programming tools or techniques. This is not an entrepreneurship course. Students do not analyze business models, market size, pricing, costs, etc. This class introduces an iterative, data-driven, experiment-based design process. Through their project, students will practice multiple design iterations and gain exposure to tools for designing digital products and services.
Not Offered Every Year
Prerequisite: OIDD 6140
0.5 Course Units

OID 6530 Mathematical Modeling and its Application in Finance
Quantitative methods have become fundamental tools in the analysis and planning of financial operations. There are many reasons for this development: the emergence of a whole range of new complex financial instruments, innovations in securitization, the increased globalization of the financial markets, the proliferation of information technology and the rise of high-frequency traders, etc. In this course, models for hedging, asset allocation, and multi-period portfolio planning are developed, implemented, and tested. In addition, pricing models for options, bonds, mortgage-backed securities, and other derivatives are studied. The models typically require the tools of statistics, optimization, and/or simulation, and they are implemented in spreadsheets or a high-level modeling environment, MATLAB. This course is quantitative and will require extensive computer use. The course is intended for students who have strong interest in finance. The objective is to provide students the necessary practical tools they will require should they choose to join the financial services industry, particularly in roles such as: derivatives, quantitative trading, portfolio management, structuring, financial engineering, risk management, etc. Prospective students should be comfortable with quantitative methods, such as basic statistics and the methodologies (mathematical programming and simulation) taught in OIDD 612 Business Analytics or OIDD 321 Management Science (or equivalent). Students should seek permission from the instructor if the background requirements are not met.
Fall or Spring
Mutually Exclusive: OIDD 3530
Prerequisite: OIDD 3210 OR OIDD 6120
1 Course Unit
OIDD 6540 Product Management
The course provides the student with a number of tools and concepts necessary for the contemporary practice of product management. The course is most relevant to those who hope to work as product managers, as well as for entrepreneurs who will typically serve as their venture’s initial product managers. General managers and other functional managers may also find the course valuable to better understand the product management function. The key modules in the course comprise (a) creating something from nothing, (b) design and design thinking, (c) performance measurement and the communication of quantitative information, (d) agile development processes, and (e) managing growth. Alumni guest speakers in interesting product management roles will typically be scheduled weekly in the course. Many examples, tools, and methods will come from technology-based industries, but applications will also be drawn from financial services and consumer products. Most assignments will be completed for a focal product selected by each student, which could be an entrepreneurial project, something related to current or prior employment, or simply a product of personal interest. A recent Canvas site for the course is here, and should be viewable by the public. https://canvas.upenn.edu/courses/1575358 Other Information: Pedagogy includes lectures, small-group discussion, current and historical cases, podcasts, documentary films, and application of tools to a focal product. Most assignments are individual. PLEASE NOTE: Only Wharton MBA students may register for OIDD 6540.

Spring
0.5 Course Units

OIDD 6580 Service Operations Management
The service sector represents the largest segment of most industrial economies. In the U.S., for example, it accounts for approximately 70% of GDP and 70% of employment. In addition to this “pure” service sector, the operations and competitive positions of many manufacturing firms are becoming increasingly service-oriented. While operational excellence is critical for success in most industries today, in a wide range of service industries this is particularly true. For example, recent, significant deregulation in banking, health care, and communications has led to intensified competition and pressure on operations. At the same time, the rapid evolution of information technology has enabled firms to operate in a fashion that offer a level of service that has not been previously possible. Elements common to most services make the management of their operations complex, however. In particular, services are intangible, not storable or transportable, and often highly variable. Frequently their delivery involves distributed operations with a significant amount of customer contact. All of these factors make service operations end up looking quite a bit different than manufacturing operations, and the task of achieving excellence in them requires specialized analysis frameworks and tools. This course covers a mix of qualitative and quantitative models that provide the necessary tools. The class will focus on simple models that should help you to better understand both the difficulty of managing and the underlying economics of the service operations being considered. You will have the opportunity to apply these course tools in a group service assessment field project. Prerequisite: Courses in operations management, linear programming, probability and statistics

Fall or Spring
0.5 Course Units

OIDD 6590 Advanced Topics
The specific content of this course varies from semester to semester, depending on student and faculty interest. Recent topics have included global operations, product design and development, quality management, and logistics strategy. See department for course description. Prerequisites for the course change semester to semester depending on the course content.

Fall or Spring
1 Course Unit

OIDD 6620 Enabling Technologies
This course is about understanding emerging technology enablers with a goal of stimulating thinking on new applications for commerce. The class is self-contained (mainly lecture-based) and will culminate in a class-driven identification of novel businesses that exploit these enablers. No prerequisite or technical background is assumed. Students with little prior technical background can use the course to become more technologically informed. Those with moderate to advanced technical background may find the course a useful survey of emerging technologies. The course is recommended for students interested in careers in consulting, investment banking and venture capital in the tech sector. OIDD 6620 will be taught in the regular 1 CU format by Prof Lynn Wu. When taught by Prof Hosanagar, OIDD 6620 will be delivered in a 0.5 CU format. The shorter course will focus primarily on Mobile, Data/Al, and Web3.

Mutually Exclusive: OIDD 3140
0.5-1 Course Unit

OIDD 6630 Databases for Analytics
Relational databases are the primary way in which business data is stored and processed. This course focuses on the analysis of data in databases and the development of databases to support analytical tasks. Over the course of the semester, students will learn the database language SQL and use this language to perform analytical tasks on existing and self-created databases. In addition, we will cover database scripting languages and extensions. The course is intended as students with little or no database background and does not presume prior computer science or coding experience. This course is nearly all hands-on coding. Students interested in more conceptual discussions of technology should consider other OIDD offerings such as OIDD 662.

0.5 Course Units

OIDD 6670 A.I., Business, and Society
The course provides an overview of AI and its role in business transformation. The purpose of this course is to improve understanding of AI, discuss the many ways in which AI is being used in the industry, and provide a strategic framework for how to bring AI to the center of digital transformation efforts. In terms of AI overview, we will go over a brief technical overview for students who are not actively immersed in AI (topics covered include Big Data, data warehousing, datamining, machine learning, etc). In terms of business applications, we will consider applications of AI in Media, Finance, Healthcare, Retail, and other industries. Finally, we will consider how AI can be used as a source of competitive advantage. We will conclude with a discussion of ethical challenges and a governance framework for AI. No prior technical background is assumed but some interest in (and exposure to) technology is helpful. Every effort is made to build most of the lectures from the basics.

0.5 Course Units
OIDD 6730 Global Supply Chain Mgmt.
Several forces, ranging from technology that has dramatically reduced
the cost of communication, to political developments such as the
opening up of China, Vietnam, and Eastern Europe, have created an
avalanche of outsourcing and offshoring and lead to supply chains
that stretch halfway around the world. This course will study the many
questions that arise in the management of such global supply chains,
including: Which design and production activities to do in-house and
which to outsource? Where to locate various activities around the
world? How to forecast the many factors that influence these decisions,
including inflation in cost factors such as labor and freight, and the
likelihood of future government regulation or political instability?
How to keep the supply chain flexible so as to adapt to change? How
to manage a geographically disbursed supply chain, including what
relationships to have with vendors to ensure low cost, high quality,
flexibility, safety, humane labor practices and respect for sustainability of
the environment? The course is highly interactive, using case discussions
in most classes and senior supply chain executives in many sessions.
Grades are based one-third each on class participation, individual write-
ups of the discussion questions for 3 of the class sessions, and a course
paper.
0.5 Course Units

OIDD 6800 Operations Strategy Practicum
This course will focus on the management of operations at
manufacturing and service facilities of domestic corporations and foreign
multinational companies. Our emphasis will be on the evolving patterns
of operations strategies adopted by firms for producing products,
sourcing manufacturing, distributing products, delivering services and
managing product design as well as on programs for enhancing quality,
productivity and flexibility. The course will focus on the formulation and
execution of such strategies for a collection of firms in the context of the
current dynamics of global competition. The course consists of a set of
site visits and in-class sessions which include lectures, case discussions
and management speakers who will describe their company’s current
strategy.
0.5-1 Course Unit

OIDD 6900 Managerial Decision Making
The course is built around lectures reviewing multiple empirical studies,
class discussion, and a few cases. Depending on the instructor, grading
is determined by some combination of short written assignments, tests,
class participation and a final project (see each instructor’s syllabus for
details).
Fall or Spring
Also Offered As: MGMT 6900
1 Course Unit

OIDD 6910 Negotiations
This course examines the art and science of negotiation, with additional
emphasis on conflict resolution. Students will engage in a number of
simulated negotiations ranging from simple one-issue transactions
to multi-party joint ventures. Through these exercises and associated
readings, students explore the basic theoretical models of bargaining and
have an opportunity to test and improve their negotiation skills. Cross-
listed with MGMT 6910/OIDD 6910/LGST 8060. Format: Lecture, class
discussion, simulation/role play, and video demonstrations. Materials:
Textbook and course pack.
Fall or Spring
Also Offered As: LGST 8060, MGMT 6910
1 Course Unit

OIDD 6920 Advanced Topics Negotiation
This is a course the builds on the basic Negotiation course. In this course,
we explore a wide range of negotiation topics from crisis and hostage
negotiations, to the role of emotions including anxiety, envy and anger
in negotiations, to backlash effects for women in negotiations, and the
role of alcohol in negotiations. We will survey many aspects of current
negotiation research, discuss historic negotiation cases, and students
will participate in role-play exercises. Many of the role play exercises will
involve multi-party negotiations and afford opportunities to hone skills in
team-based negotiations.
Fall or Spring
Also Offered As: LGST 6920, MGMT 6920
0.5-1 Course Unit

OIDD 6930 Influence
Building, protecting and using influence is critical for achieving
your goals. This requires good personal decision making as well as
understanding others’ decision-making, proficiency at the negotiation
table as well as with the tacit negotiations before and after sitting at the
table. In this course, we focus on building your facility with a wide range
of influence tools to help with these efforts. Topics include power and
status, informal networks, coalitions and persuasion.
Fall or Spring
Also Offered As: LGST 6930
0.5 Course Units

OIDD 6950 Semester in San Francisco Regional Seminar
As part of the Wharton Semester in San Francisco (SSF) program, this
course is designed to (i) provide integrative material that emphasizes
links between finance, marketing, product design, negotiations, and other
themes in the SSF academic curriculum; (ii) link classroom theories and
principles to actual practice by reflecting on the academic literature and
(iii) highlight the unique characteristics of, and the programs proximity to,
the Bay Area economy. All students participating in the SSF are required
to register for this Regional Seminar.
Fall or Spring
0.5 Course Units

OIDD 6970 Retail Supply Chain Management
This course is highly recommended for students with an interest in
pursuing careers in: (1) retailing and retail supply chains; (2) businesses
like banking, consulting, information technology, that provides services
to retail firms; (3) manufacturing companies (e.g. P&G) that sell their
products through retail firms. Retailing is a huge industry that has
consistently been an incubator for new business concepts. This course
will examine how retailers understand their customers’ preferences
and respond with appropriate products through effective supply chain
management. Supply chain management is vitally important for retailers
and has been noted as the source of success for many retailers such as
Wal-mart and Home Depot, and as an inhibitor of success for e-tailers
as they struggle with delivery reliability. See M. L. Fisher, A. Raman
and A. McClelland, “Rocket Science Retailing is Coming - Are You Ready?”
Fall or Spring
Mutually Exclusive: OIDD 3970
0.5 Course Units
OIDD 7050 Leading With Grit: How to Inspire with Passion and Perseverance for Long-Term Goals
The aims of Leading With Grit are two-fold: (1) to help students apply scientific insights about passion and perseverance for long-term goals to their own career, and (2) to prepare them to lead an organization that encourages grit among its employees. At the heart of this course are cutting-edge scientific insights on the mindsets, strategies, and contextual factors that incline individuals to pursue challenges that take years (or more) to complete. Each week, in addition to a three-hour seminar, students will complete an experiential activity, a brief written reflection, and readings. Most weeks, we will welcome a Grit Guest, an outside speaker who exemplifies grit, for a fireside chat on that week’s topic.
1 Course Unit

OIDD 7610 Risk Analysis and Environmental Management
This course will introduce students to concepts in risk governance. We will delve into the three pillars of risk analysis: risk assessment, risk management, and risk communication. The course will spend time on risk financing, including insurance markets. There will be particular emphasis on climate risk management, including both physical impact risk and transition risk, although the course will also discuss several other examples, including management of environmental risks, terrorism, and cyber-security, among other examples. The course will cover how people perceive risks and the impact this has on risk management. We will explore public policy surrounding risk management and how the public and private sector can successfully work together to build resilience, particularly to changing risks.
Fall or Spring
Also Offered As: BEPP 7610, ESE 5670
1 Course Unit

OIDD 7620 Environmental Sustainability and Value Creation
This course provides an overview of topics related to corporate sustainability with a focus on how environmentally sustainable approaches can create value for the firm. The course explores trends in corporate practices and students consider specific examples of such practices to examine the interactions between the firm and the environment. This course has three objectives: to increase students’ knowledge of sustainability practices and their impact on firm performance; to teach students to think strategically and act entrepreneurially on environmental issues; and to help students design business approaches to improve environmental outcomes, while simultaneously creating value.
Fall or Spring
Also Offered As: LGST 7620, LGST 7620
0.5 Course Units

OIDD 7630 Energy Markets & Policy
Over the last several decades, energy markets have become some of the most dynamic markets of the world economy. Traditional fossil fuel and electricity markets have been seen a partial shift from heavy regulation to market-driven incentives, while rising environmental concerns have led to a wide array of new regulations and "environmental markets". The growth of renewable energy could be another source of rapid change, but brings with it a whole new set of technological and policy challenges. This changing energy landscape requires quick adaptation from energy companies, but also offers opportunities to turn regulations into new business. The objective of this course is to provide students with the economist’s perspective on a broad range of topics that professionals in the energy industry will encounter. Topics include the effect of competition, market power and scarcity on energy prices, the impact of deregulation on electricity and fossil fuel markets, extraction and pricing of oil and gas, geopolitical uncertainty and risk in hydrocarbon investments, the environmental impact and policies related to the energy sector, environmental cap-and-trade markets, energy efficiency, the economics and finance of renewable energy, and recent developments in the transportation sector.
Also Offered As: BEPP 7630
1 Course Unit

OIDD 7770 Introduction to Python for Data Science
The goal of this course is to introduce the Python programming language within the context of the closely related areas of statistics and data science. Students will develop a solid grasp of Python programming basics, as they are exposed to the entire data science workflow, starting from interacting with SQL databases to query and retrieve data, through data wrangling, reshaping, summarizing, analyzing and ultimately reporting their results. Competency in Python is a critical skill for students interested in data science. Prerequisites: No prior programming experience is expected, but statistics, through the level of multiple regression is required. This requirement may be fulfilled with MBA courses such as STAT 6130/6210; or by waiving MBA statistics.
Also Offered As: STAT 7770
0.5-1 Course Unit

OIDD 7930 People Analytics
This course applies the insights of the people analytics movement to help students become better managers and more critical analysts within their organizations. The course aims to develop students in three specific ways. First, it provides students with an up-to-the-minute grounding in current evidence about managing people, providing a knowledge base that can ensure that their future management is guided by best practices. Second, it develops the skills and understanding necessary to be thoughtful, critical consumers of evidence on people management, allowing them to make the most of the analysis available to them as they make people decisions. Third, it provides guidance and practice in conducting people analytics, preparing students to gather data of their own, and making them more skilled analysts. The course addresses these topics through a mixture of lecture, case discussion, and hands on exploration of a variety of data sets.
Also Offered As: MGMT 7930
0.5 Course Units
OIDD 8950 Global Business Week
0.5 Course Units

OIDD 8980 Advanced Topics
The specific content of this course varies from semester to semester, depending on student and faculty interest.
Not Offered Every Year
1 Course Unit

OIDD 9000 Foundations of Decision Processes
The course is an introduction to research on normative, descriptive, and prescriptive models of judgement and choice under uncertainty. We will be studying the underlying theory of decision processes as well as applications in individual group and organizational choice. Guest speakers will relate the concepts of decision processes and behavioral economics to applied problems in their area of expertise. As part of the course there will be a theoretical or empirical term paper on the application of decision processes to each student's particular area of interest.
Fall or Spring
1 Course Unit

OIDD 9010 Introduction to OID Faculty and Their Research
This course introduces first-year Operations, Information and Decisions (OID) PhD students to OID Department faculty members and their research. The course is designed to meet once a week, both in the fall and the spring, allowing most (if not all) OID faculty to present to first-year PhD students either classic or current research in their fields of expertise. The course's goals are twofold. First, it seeks to introduce first-year PhD students to OID faculty in a substantive (as opposed to social) manner and to expose students to the breadth of research conducted in the department. Second, through early exposure, the course aims to pique students' interest in the department's foundational courses in decision making, information systems, and operations management.
0.5-1 Course Unit

OIDD 9040 Experimental Economics
This course will help prepare you to run your own economics laboratory and field experiments. Experimental methods have been widely adopted by economists to develop new insights, and some economic theories and hypotheses are uniquely well-suited for testing with experimental tools and data. Achieving high internal and external validity requires careful experimental design. Substantive areas of application in the course will include market equilibrium, asset bubbles, learning in games, public good provision, and labor market relationships. Additional topics may include biases in individual decision-making; field experiments in development economics; and happiness, neuroeconomics, and behavioral/experimental welfare economics. Economists’ typical interests in strategic and market-based interactions raise particular methodological challenges and opportunities.
Not Offered Every Year
Also Offered As: BEPP 9040
1 Course Unit

OIDD 9060 Proseminar in Operations and Information Management
Advanced seminar focusing on topics in Operations, Information and Decisions research.
Not Offered Every Year
1 Course Unit

OIDD 9120 Introduction to Optimization
This course constitutes the second part of a two-part sequence and serves as a continuation of the summer math camp. Mathematical optimization provides a unifying framework for studying issues of rational decision-making, optimal design, effective resource allocation and economic efficiency. It is a central methodology of many business-related disciplines, including operations research, marketing, accounting, economics, game theory and finance. In many of the disciplines, a solid background in optimization theory is essential for doing research. This course provides a rigorous introduction to the fundamental theory of optimization. It examines optimization theory in two primary settings: static optimization and optimization over time (dynamic programming). Applications from problem areas in which optimization plays a key role are also introduced. The goal of the course is to provide students with a foundation sufficient to use basic optimization in their own research work and/or to pursue more specialized studies involving optimization theory. The course is designed for entering doctoral students. The prerequisites are calculus, linear algebra and some familiarity with real analysis, as covered in summer math camp. Other concepts are developed as needed throughout the course.
Prerequisite: OIDD 9100
0.5 Course Units

OIDD 9130 Advanced Linear Programming
Not Offered Every Year
Prerequisite: OIDD 9100 OR ESE 5040
1 Course Unit

OIDD 9140 Advanced Non-Linear Programming
Not Offered Every Year
Prerequisite: OIDD 9100
1 Course Unit

OIDD 9150 Advanced Graph Theory
Deals mainly with algorithmic and computational aspects of graph theory. Topics and problems include reachability and connectivity, setcovering, graph coloring, location of centers, location of medians, trees, shortest path, circuits, traveling salesman problem, network flows, matching, transportation, and assignment problems.
Not Offered Every Year
1 Course Unit

OIDD 9160 Advanced Integer Programming
In-depth review of solution methods: Lagrangean relaxation and column generation, Benders partitioning, cross-decomposition, surrogate relaxation, cutting planes and valid inequalities, logical processing, probing, branch-and-bound, branch-and-price. Study of special problems and applications: matching, location, generalized assignment, traveling salesman, forest planning, production scheduling. Prerequisite: OIDD 910/ESE 504 or equivalent. Please email the instructor for any questions regarding the prerequisite.
Not Offered Every Year
Prerequisite: OIDD 9100 OR ESE 5040
1 Course Unit
OIDD 9200 Empirical Research in Operations Management
Empirical research in Operations Management has been repeatedly called for over the last 10-15 years, including calls made from the academic thought leaders in the field as well as by many of the editors of the top academic journals. Remarkably though, most researchers in the field would be pressed to name even three empirical papers published in such journals like Management Science or Operations Research. But, has there really been so little published related to Empirical Operations Management (you might be surprised to learn that all five bullets listed above has been addressed by Management Science papers)? What types of problems in operations are interesting and worthwhile studying from an empirical viewpoint? How can one get started with an empirical research project in Operations Management? These are the questions that are at the heart of this course. Specifically, the objective of this course is to (a) expose doctoral students to the existing empirical literature and (b) to provide them with the training required to engage in an empirical study themselves.
0.5 Course Units

OIDD 9300 Stochastic Models
This course introduces mathematical models describing and analyzing the behavior of processes that exhibit random components. The theory of stochastic processes will be developed based on elementary probability theory and calculus. Topics include random walks, Poisson processes, Markov chains in discrete and continuous time, renewal theory, and martingales. Applications from the areas of inventory, production, finance, queueing and communication systems will be presented throughout the course.
Fall
Prerequisite: STAT 5100 OR STAT 5500
0.5 Course Units

OIDD 9310 Stochastic Processes II
Extension of the material presented in OIDD930 to include renewal theory, martingales, and Brownian motion.
Spring
Prerequisite: OIDD 9300
0.5 Course Units

OIDD 9320 Queuing Theory
This course presents the mathematical foundations for the analysis of queueing systems. We will study general results like Little’s law and the PASTA property. We will analyze standard queueing systems (Markovian systems and variations thereof) and simple queueing networks, investigate infinite server models and many server approximations, study GI/G/1 queues through random walk approximations, and read papers on applied queueing models.
Spring, odd numbered years only
Prerequisite: OIDD 9300
0.5 Course Units

OIDD 9340 Dynamic Programming and Stochastic Models
The course goal is to provide a brief but fairly rigorous introduction to the formulation and solution of dynamic programs. Its focus is primarily methodological. We will cover discrete state space problems, over finite or infinite time horizon, with and without discounting. Structured policies and their theoretical foundation will be of particular interest. Computational methods and approximation methods will be addressed. Applications are presented throughout the course, such as inventory policies, production control, financial decisions, and scheduling.
Spring
Prerequisite: OIDD 9300
0.5 Course Units

OIDD 9370 Methods Stumblers: Pragmatic Solutions to Everyday Challenges in Behavioral Research
This PhD-level course is for students who have already completed at least a year of basic stats/methods training. It assumes students already received a solid theoretical foundation and seeks to pragmatically bridge the gap between standard textbook coverage of methodological and statistical issues and the complexities of everyday behavioral science research. This course focuses on issues that (i) behavioral researchers are likely to encounter as they conduct research, but (ii) may struggle to figure out independently by consulting a textbook or published article.
Fall or Spring
0.5 Course Units

OIDD 9400 Operations Management
Concepts, models, and theories relevant to the management of the processes required to provide goods or services to consumers in both the public and private sectors. Includes production, inventory and distribution functions, scheduling of service or manufacturing activities, facility capacity planning and design, location analysis, product design and choice of technology. The methodological basis for the course includes management science, economic theory, organization theory, and management information system theory.
Fall or Spring
1 Course Unit

OIDD 9410 Distribution Systems Seminar
Seminar on distribution systems models and theory. Reviews current research in the development and solution of models of distribution systems. Emphasizes multi-echelon inventory control, logistics management, network design, and competitive models.
Spring
Prerequisite: OIDD 9400
0.5-1 Course Unit

OIDD 9430 Retail Operations
0.5 Course Units

OIDD 9450 Perspectives on Information Systems
Provides doctoral students in Operations and Information Management and other related fields with a perspective on modern information system methodologies, technologies, and practices. State-of-the-art research on frameworks for analysis, design, and implementation of various types of information systems is presented. Students successfully completing the course should have the skills necessary to specify and implement an information system to support a decision process.
Fall or Spring
1 Course Unit

OIDD 9510 Seminar on Logic Modeling
Seminar on the elements of formal logic necessary to read and contribute to the Logic modeling literature, as well as the implementation principles for logic models. The primary topics include elements of sentence and predicate logic, elements of modal logics, elements of semantics, mechanical theorem proving, logic and database, nonmonotonic reasoning, planning and the frame problem, logic programming, and metainterpreters. Permission of the instructor and some prior knowledge of logic or Prolog.
Not Offered Every Year
1 Course Unit
OIDD 9520 Computational Game Theory
Seminar on principles of knowledge-based systems including expert systems. Topics include basics of expert systems, knowledge representation, meta-level reasoning, causal reasoning, truth maintenance systems, model management, planning systems and other applications. Permission of instructor and knowledge of logic and Prolog or Lisp.
Not Offered Every Year
1 Course Unit

OIDD 9530 Explaining Explanation
In the social sciences we often use the word "explanation" as if (a) we know what we mean by it, and (b) we mean the same thing that other people do. In this course we will critically examine these assumptions and their consequences for scientific progress. In part 1 of the course we will examine how, in practice, researchers invoke at least three logically and conceptually distinct meanings of "explanation:" identification of causal mechanisms; ability to predict (account for variance in) some outcome; and ability to make subjective sense of something. In part 2 we will examine how and when these different meanings are invoked across a variety of domains, focusing on social science, history, business, and machine learning, and will explore how conflation of these distinct concepts may have created confusion about the goals of science and how we evaluate its progress. Finally, in part 3 we will discuss some related topics such as null hypothesis testing and the replication crisis. We will also discuss specific practices that could help researchers clarify exactly what they mean when they claim to have "explained" something, and how adoption of such practices may help social science be more useful and relevant to society.
Also Offered As: CIS 7980, COMM 8980
1 Course Unit

OIDD 9550 Research Seminar in Information Systems
This course provides an overview of some of the key Information Systems literature from the perspective of Insormation Strategy and Economics (ISE) and Information Decision Technologies (IDT). This course is intended to provide an introduction for first year OIDD doctoral students, as well as other Wharton doctoral students, to important core research topics and methods in ISE and IDT in order for students to do research in the field of Information Systems. While it is intended as a "first course" for OPIM doctoral students in ISE and IDT, it may also be useful for students who are engaged in research or plan to perform information technology related research in other disciplines.
1 Course Unit

OIDD 9600 Research Seminar in Information Technology - Economic Perspectives
Explores economic issues related to information technology, with emphasis on research in organizational or strategic settings. The course will follow a seminar format, with dynamically assigned readings and strong student contribution during class sessions (both as participant and, for one class, as moderator.)
Fall
1 Course Unit

OIDD 9610 Research Seminar in Information: Strategy, Systems and Economics
This is the advanced doctoral-level research research in information strategy and economics that builds on the foundations developed in OPIM960. Much of the content will be focused on current research areas in information strategy such as the information and organizational economics, information technology and firm performance, search cost and pricing, information and incentives, coordination costs and the boundary of the firm, and the economics of information goods (including pricing and intellectual property protection). In addition, promising empirical approaches such as the use of intelligent agents for data collection or clickstream data analysis will be discussed.
1 Course Unit

OIDD 9890 Topics in Operations and Information Management
The specific content of this course varies form semester to semester, depending on student and faculty interests.
Not Offered Every Year
0.5-1 Course Unit

OIDD 9920 Conflict Mgmt Seminar
This seminar exposes students to the central issues in conflict management research. This course covers both analytic and behavioral perspectives of conflict management, and describes how the field has developed. Through discussions of theory and empirical research, the course aims to develop a foundation for understanding the extant literature and how common methodological tools have shaped the types of questions conflict management scholars have investigated - and neglected.
Spring
1 Course Unit

Organizational Anthropology (ORGC)

The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).

ORGC 1600 Introduction to Team Culture
In this course, students learn about the basics of team dynamics. Students explore the foundations of effective teams, and understand why they inevitably become misaligned. Students then step through a process for generating passion and high-performance in any group that has to work together toward a common goal. Through engaging case studies and role plays, students get practice diagnosing and managing interpersonal issues that can derail teams.
1 Course Unit
ORGC 2010 Virtual Collaboration
Collaboration is an essential ingredient for human growth, learning, and success. Today, there are endless possibilities for collaboration across the globe with colleagues. Course participants will explore the relationship between the technologies, tools, and the human factors associated with the cultural/social frameworks necessary for effective collaboration. Course topics include navigating, learning, collaborating, and leading in today’s complex, socially and technologically interconnected world. Complexity and interdependence are key concepts for virtual teams, virtual leaders, and virtual organizations. Guests from multiple organization will share their own experiences and best practices that made their virtual teams and operations successful. The course foundations are built upon cultural and social sciences that explain how organizations and social order are constructed, sustained and changed. This is a highly practical course, where everything studied can be observed, tested, applied, and interpreted for results.
1 Course Unit

ORGC 3010 Anthropology of Corporations
In this course, students learn what organizational culture is and how it affects performance. Students step through foundational theories that explain how and why culture moves through organizations and changes. Students also learn to identify the drivers of cultural conflict that can hinder strategies and reduce collaboration. Drawing on anthropological frameworks and theories, students develop skills for understanding an organization’s particular cultural characteristics and creating sustainable change.
1 Course Unit

ORGC 3300 Building Influence Across Cultural Boundaries in Organizations
Every organization has subcultures defined by different divisions, departments, and teams that make it difficult to collaborate and get things done. In this course, students develop the ability to communicate across these cultural boundaries to build influence and effectiveness. Drawing on current insights from psychology, anthropology, and behavioral economics, students learn to use practical, field-tested frameworks for connecting with people who have different perspectives and winning support for their ideas. Through interactive discussions and exercises, students master the similarities and differences among influencing, persuading, and negotiating.
1 Course Unit

Organizational Dynamics (DYNM)

DYNM 5010 Perspectives on Organizational Dynamics
"Perspectives" is both a fundamental and integrating course intended for MSOD students at any point in the program who wish to understand and deploy a multiplicity of dynamics operative in organizations and in the minds that create and inhabit them. It is particularly useful for those in their first year and for non-MSOD students. One key focus is on understanding the implicit mental and emotional frameworks or metaphors that "inform" organizing so that we can virtually see more robust and complex approaches to effectiveness and to leadership within them. Several faculty members highlight their specialties. One special theme examines new management models and thinking frameworks designed to prevail in a 21st century context. Lectures, discussion, and experiential learning are used to build an informed grounding in the history, philosophy, theory and practice of Organizational Dynamics. The course requirements are active class participation, potential application projects/weekly journal, a midterm paper and a final paper. Non-Dynamics students: please include a brief job description in your Permissions Request.
Fall or Spring
1 Course Unit

DYNM 5420 Theories, Models, and Practices that Inform Coaching
This course will examine how theory guides the effective practice of coaching. Students will be introduced to a theory and model that encompasses a multi-disciplinary approach to coaching in an organizational setting. With this framework as a basis, students will select, research, and present a theoretical model of their own choosing and design a coaching application that demonstrates theory in action. Students will leave the course with an array of theoretical frameworks and practical techniques that will enhance their own coaching capabilities as managers and consultants. Undergraduates may enroll in 500-level courses only with permission of the instructor. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.
Fall or Spring
1 Course Unit

DYNM 5510 Devil’s Advocate: The Power of Divergent Thinking
Short-term or long-term? Us or them? Build or buy? Margin or volume? My way or the highway! Ad infinitum, apparent forced choices—or no choice—and limited perspectives can create costly tugs of war or constricted judgment without our minds (and hearts) and in organization dynamics, persuasive, and often hidden, divergence in thinking offers great opportunity for learning, creativity, and sound decision-making. This course offers several robust, practical techniques for bringing the value of divergent perspectives in politically productive ways to leadership thinking, communications, and organization dynamics. Non-Dynamics students: please include a brief job description in your Permissions Request.
Summer Term
1 Course Unit
DYNM 5550 The Idea of Nationalism
Nationalism has been the most important geo-political phenomenon of the past two hundred years. Its continuing power has been amply demonstrated by recent events in many parts of the world. The principle of national self-determination and closely related notions of individualism and human rights shape the global context in which businesses, governments, organizations, and individuals must operate in the 21st century. This seminar course will explore the ideology of nationalism through the lens of institutions and organizations, corporations, nonprofits, government, NGOs, unions, religious communities, etc. Starting with concrete examples from students own experiences and the contemporary conflicts confronting governments, organizations, and businesses, we will examine the ideology of nationalism, its meaning and content, its philosophical foundations, its underlying assumptions about the nature of human identity, and its contemporary expressions in nationalist movements and ethno-political conflicts around the world. In the process, we will explore such questions as: What is a nation? Does every identifiable ethnic or national group have a valid claim to a nation-state of its own? How are claims to national self-determination justified? Why do nationalist movements seem so often to engender political extremism and violent ethno-political conflicts? Is national self-determination compatible with our commitments to individualism, rationality, and universal human rights? What are the best strategies to cope with the persistence of nationalism in the 21st century? Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.

Fall or Spring
1 Course Unit

DYNM 5580 Social Media and the Organization
This course explores the use of social media platforms in organizations to achieve varied goals. The course covers topics such as how to use social media for marketing and advertising, how to create and manage social media content, and how to engage with customers and stakeholders on social media platforms. We will explore the virtual, visual, and AI tools that can create a social media campaign. In addition, the course provides academic preparation on the social neuroscience behind the ways that social media platforms attract, engage, and use information generated by user content for their own purposes. This includes the impact of social media on organizational communication and culture, including issues related to privacy, data security, and online reputation management. Students will develop skills in social media strategy development, content creation, and community management, as well as critical thinking and analysis. Non-Dynamics students: please include a brief job description in your Permissions Request.

Spring
1 Course Unit

DYNM 6010 Gender, Power, and Leadership in Organizations
For the last several years, issues related to gender in organizations and organizational leadership have not been hot topics of discussion in the popular media, in organizations themselves, or in academia. That is no longer true. The advent of #metoo and the revelation of sexual harassment in corporations, government sector organizations, and nonprofits has highlighted the ways in which those with more power have been using their power to both harass and silence their victims, many of whom are women—although this dynamic is true for others belonging to groups with less power. Addressing these issues effectively will require more than lawsuits and more than sexual harassment and bystander training. This course will explore what will be required if we are to have organizations that effectively leverage the skills and talents of both men and women. Although in the last 30 years there has been some significant progress made in placing women in leadership roles in organizations, we will take a deep look at the data about where and how gender differences continue to exist in organizations including differences in both professional and outcomes. This class will examine the social, cultural, and structural dynamics within organizations that unintentionally, but differentially, affect women and men. In particular, we will consider how men and women are viewed, how their contributions are evaluated, and the opportunities that are available to them. Specific topics that will be addressed include exploration of theories explaining the development of gender identity and related behaviors that appear to be gender-based; the social construction of gender; the intersectionality of gender, race, and class in terms of power and organizational dynamics; the various explanations for gender differences in organizational life; the theories that connect gender and leadership; policies and practices that reinforce gendered dynamics; how sexual harassment, long illegal, has quietly persisted in organizations and why now new instances of harassment are being revealed nearly every day; methods for understanding the multiple sources of gender inequities in organizations; and methods for changing organizations to create equity in terms of the roles and treatment of women and men. The seminar will involve a substantial amount of reading from required books and articles. Assignments will focus on students’ examination and assessment of gender-linked dynamics in their own workplaces. Classroom time will be structured in a seminar format, including presentation of material by the instructor, group discussions of readings, experiential learning activities, student presentations, and group discussions, and examination of students’ own organizational experiences as they relate to the course material. A significant portion of the learning will result from discussions in class, so attendance is important. The course is structured to first address the development of a theoretical framework for understanding gender issues in the workplace from personal, interpersonal, group, and organizational perspectives. During the second section of the course, we will explore more specific ways in which policies and practices have differential effects on employees and managers by virtue of gender. In the last section, we will focus on alternative conceptualizations, structures, policies, and practices that could enable both men and women to be successful in the workplace and to avoid gender-based inequities. In this last section we will specifically discuss interventions and strategies for enhancing gender equity. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.

Fall or Spring
1 Course Unit
DYNM 6020 Leader-Manager as Coach
New work technologies, increased competition, and employees’ desire for more involvement in their work are changing the traditional role of the manager. Rather than directing, planning, and controlling the work, managers and leaders are facilitating processes and coaching and developing their employees. Team-based organizations are built on coaching as a core requirement of the team leader role. This course explores the theory and practices of individual coaching as leadership behavior. The focus is on helping managers develop their skills and improve their performances as coaches. We will examine the need to provide others with successful performance strategies, timely feedback on strengths and on development needs, and growth opportunities in order to challenge others to reach their potential. We will explore workplace environments that foster the growth and achievement of those we lead. Non-Dynamics students: please include a brief job description in your permission request.
Fall or Spring
1 Course Unit

DYNM 6030 Leading Emergence: Creating Adaptive Space in Response to Complex Challenges
This seminar is designed to be highly experiential so that participants can engage in the practices necessary to enable innovation and adaptation. Participants will examine emergent innovation theory by addressing the dynamics and conditions in which ideas emerge in an informal manner, garner organizational attention, and gain momentum towards becoming successful innovations or bold changes within complex organizations. This will include examining the need for adaptive space in generating value that drives growth by enabling an environment of idea generation, entrepreneurship and innovation while leveraging the benefits of existing, formal systems to scale these ideas. Participants will explore and engage in such topics as creative experimentation, idea emergence, organizational network analysis, social capital, design thinking, organizational analytics and complexity leadership. Non-Dynamics students: please include a brief job description in your permission request.
Fall or Spring
1 Course Unit

DYNM 6050 Organizational Project Risk and Uncertainty
DYNM 605 is a uniquely blended content of thought leadership vetted by subject matter experts worldwide adapted to today’s constraints and challenges of virtual communications. This participant-centered set of seminars is an opportunity to increase both awareness and knowledge of risk and uncertainty by examining causes of unexpected events in predictive (classic) and adaptive (agile) project frameworks. Successful applications of non-deterministic approaches are explored as antidotes to constrained command and control project environments. Course content is valuable in roles, organizations, and sectors of all types. Prominent project/operational risk management methodologies are included in this seminar. Processes advanced by the Project Management Institute, AACE International, U.K. Association for Project Management, International Council on Systems Engineering, and by the International Organization for Standardization are contrasted with industry specific practices, including the U.S. Food and Drug Administration, NASA, and the Departments of Defense and Energy. Case examples are based on relevant experience. Participants perform hands-on implementation of processes in realistic team working sessions and facilitated dialogue. Spreadsheet/network analysis using Monte Carlo Simulation tools will be included in the course and clinics (see syllabus). Permits for non-DYMN students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit
Fall
1 Course Unit

DYNM 6060 Leading from the Center: Unleashing Your Leadership Potential
This seminar is designed to support existing and emerging leaders who recognize their need for more adaptive leadership skills to effectively respond to rapidly changing environments. We will weave leadership theory and practice in a highly experiential seminar so that participants can actively engage in a leadership lab including deep reflective thinking, rapid prototyping and experimenting with new behaviors and practices. The purpose of the seminar is to evoke personal leadership at more impactful levels and improve organizational performance and personal satisfaction. Participants will examine their own, and others’, leadership theories by identifying assumptions about leading, creating a preferred model for individual leadership, and field testing actual shifts in behavior. Participants will engage in a three-part exploration over the course of the seminar: first, we will have an opportunity to examine our own models and those of the leading theorists in the field; second, participants will be asked to articulate and improve their own model; and finally, participants will be asked to activate and test their model and report back on the experience. This course is designed to create an ‘action-learning’ community in which you will integrate your professional experience, this class, and other graduate course work with a final exploration of leadership concepts, theory, and applied practice. This course is also designed to strengthen your ability to lead, including as a colleague who can support leadership behavior in peers and as one who can promote leadership behavior in supervisors and subordinates. Permission requests from Non-DYMN students: please include a brief job description. Not Offered Every Year
1 Course Unit

DYNM 6070 Psychodynamics of Organizations
As an area of study, the psychodynamics of organizations draws out attention to the tacit, implicit, and unconscious dimensions of organizational life. It presumes that a person takes up his or her role at work by drawing on both individual history and the organizational context that helps define a role, its boundary, and the resources available to take it up. In both these aspects, the organizational context, and one’s individual biography, people are often unaware of the thoughts and feelings that animate their behavior. This course will introduce students to some basic concepts of psychoanalysis, which focuses on individual motivation, and systems psychodynamics, which focuses on group dynamics and group psychology. System psychodynamics also emphasizes how an organization’s primary task, or its “reason for being” influences individual experience. Readings include case studies as well as expositions of theory. The instructor will also draw on his own consulting cases. Course permits for non-DYMN students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit
Fall or Spring
1 Course Unit
DYNM 6090 Critical Imagination: Diverse Strategies for Meaningful Change

In her novel Parable of the Sower, MacArthur “Genius Grant” awardee Octavia E. Butler reminds us that “the only lasting truth is change.” While this mantra comes from the pages of science fiction, it speaks to an important fact about the shifting social realities that affect organizations in our technological age. If we want to develop lasting strategies for leading through change, we must think carefully about the resources we turn to for guidance—including which perspectives are represented in those resources. Critical imagination can help us do this work by encouraging creative thinking that fosters substantive change. We’ll begin this project-based course by asking how work within organizations can better reflect the diversity of perspectives and research which have already transformed our world. This will involve looking closely at a range of case studies and scholarship across disciplines—as well as speculative texts that invite us to think about the future of work within agile teams. We’ll discuss models for inclusive leadership, adaptive facilitation, and intercultural collaboration which highlight emergent strategies for change. This means turning to research on organizational dynamics in our digital era—where science fiction is closer to social and technological fact than ever before. This also means exploring questions like: • How can we leverage critical imagination as a practical tool within organizational dynamics? • How do we design for equity and justice that goes deeper than representation, toward systemic and structural change? • What meaningful outcomes can we articulate and build towards within our projects? • Which personal and professional communities do we hope to serve through our work? • What do we need to unlearn, and which methodologies will support this process? • Which strategies can we use to foster mission-oriented thinking that’s specific to our roles within organizations? Our culminating efforts will include projects that we will develop throughout the course via discussion posts, reflective activities, collaborative presentations, simulations, and reading groups. Much of this will entail using imaginative work to think critically about what’s possible, as we advocate for meaningful change within diverse organizations. Permission requests from Non-DYNM students: please include a brief job description.

DYNM 6100 Knowing Yourself: The Coach as an Instrument of Change

Note: This class is predicated on the assumption that prior to offering coaching assistance, a coach should have a deep understanding of his or her own behavior and its impact on a client. Utilizing validated tools and strategies available for coaches, the students practice sets of coaching skills on each other. This includes practice in interviewing and observational skills. In addition, students will have the opportunity to give and analyze 360 degree feedback data, as well as use a variety of other instruments that can be foundational for a useful coaching experience. Premise: Coaching others is very serious business. Intrepid individuals willing to take on this responsibility should be willing to answer the following questions: Who am I as a leader and helper? What are the assets I bring to the coaching relationship? What are my deficits, overused strengths, or underutilized skills and behaviors? What historical influences from my family of origin influence my capacity to build a positive relationship with my coaching client? Are there discrepancies in relation to my self-perceptions and those who know me well—family members, peers, colleagues, friends, boss, and direct reports? As a result, are these specific areas of personal development that I need to address as I move? Similar to most traditional programs where the focus is on the management of change, the course is organized to: 1) A diagnostic phase in which the values, history, assumptions, and behaviors of the client will be assessed. In this case the client will be the student/coach. 2) The applied phase in which analysis, interpretation, and formal learning will be the central focus. The end result will be individuals with a deep and abiding understanding of their own psychodynamics and their personal impact. Finally, by modeling many of the tools and strategies useful in any effective coaching effort and practicing them on themselves and their student peers, it is hoped that the experiential nature of the course will allow maximum transference to the real work of coaching. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.

Fall or Spring
1 Course Unit

DYNM 6110 Effective Collaboration for a Changing Global Workplace

Effective collaboration requires a combination of strong self-awareness and an ability to make adjustments at the individual and group level. This course provides tools for building teams that leverage individual strengths and a mutual learning process of continuously addressing collaboration barriers to improve team performance. This seminar/lab is designed to extend each participant’s analytical skills and gain practice implementing high performance practices through a team-based simulation. Specific learning objectives are to: 1. Understand leading-edge frameworks for building effective teams. 2. Learn and apply tools for diagnosing barriers to collaboration. 3. Develop implementation plans for teams and organizations consistent with best practices. 4. Provide tools for self-assessment of participants to leverage their strengths for teamwork success. 5. Apply learning from classroom-based teamwork simulation to participants’ real life experiences. The course will be conducted in a university classroom and use several breakout rooms for teamwork among participants. Case study teams will use web-based communication software (TBD) for inter-session collaboration on projects. Weekly facilitated discussions by course instructors will be conducted at each weekend session. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.

Not Offered Every Year
1 Course Unit
DYNM 6120 Mastering Organizational Politics and Power
The purpose of this course is to explore, enhance, and expand the participants' competence in organizational politics. Students will observe political dynamics as they occur in their own organizations and will interview senior managers in other organizations to learn how political realities vary from one organization to another. Theoretical ideas about a dimension of organizational politics of particular interest to each individual participant will be analyzed in a term paper. In addition, each participant will keep a personal diary of political dynamics in his or her own workplace. The course will also explore ways to master the political skills of networking, negotiating, influencing, leading, and following, as well as developing a political strategy. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.

Fall
1 Course Unit

DYNM 6130 Is Bigger - Inevitable, Better or Worse in Organizations?
Is the modern large corporation alienating, inflexible, unproductive? Is the small organization or work team engaging, innovative or creative, productive? Has it always been this way in the U.S.? Is change possible? In this unique, informal, "turbo" seminar, we will examine the large corporation in terms of history, governance and control, and delivery of (office) work. We will consider whether "bigness" and bureaucracy are inevitable, and how organizations of the present, and probably the future, are affected by those of the past. This seminar has been structured to cover a good deal of ground in a short time. The seminar will meet on six Saturdays. The subject matter of these seminar is the large-scale organization. Questions to be raised include: 1) Is the modern large corporation alienating, inflexible, and unproductive? 2) Are bigness and bureaucracy inevitable? 3) Is the small organization or work team engaging, innovation, creative, and productive? 4) What does the historical record for the United States reveal? 5) Are organizational alternatives and change possible? Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.

Fall or Spring
1 Course Unit

DYNM 6140 Consulting/Coaching Tools and Techniques
This course will offer a conceptual comprehension of the tools and techniques used in effective internal and external organizational consulting engagements. By contrasting the theory and practice of alternative coaching models, we will build tools and techniques for effective coaching as a leadership competency. Through an analysis of the coaching relationships in your organization, you will learn to develop a personalized approach to coaching and expand upon and within organizational settings. Participants learn the "how and why" as well as consulting frameworks. Additionally, the relevant and often symbiotic connection between consulting and coaching will be studied. What process tools are most useful to today’s executive coach in a consultative environment? How do approaches to consulting and coaching differ? How are they similar? How can a confluence of coaching and consulting lead to more effective decision-making and wide-scale organizational performance? This course will be presented over five class meetings. The class sessions will be taught utilizing lectures, case studies, structured small group discussions, individual and team presentations, faculty and participant experience, and guest speakers. In addition to textbooks for this course, students will also need to purchase an assessment. Details on this process will be provided to students before the course start. Permission requests from Non-DYNM students: please include a brief job description.

Fall or Spring
1 Course Unit

DYNM 6150 Global PENNovation
Environmentalist Paul Hawken challenged a class of college graduates that they would have to "figure out what it means to be a human being on earth at a time when every living system is declining, and the rate of decline is accelerating." That theme is at the heart of this course. While we have seen the notion of sustainability gaining traction in recent years, our quality of life in the near future hinges on the development and implementation of sustainable solutions to enormously complex global environmental and social problems. This course is designed to foster the thinking that is needed to address those enormous problems. It involves focusing on a critical global problem with sustainability and social dimensions - this course, the rapid shift of an increasing global population to cities - and providing the framework for students to take a deep dive into evaluating and recommending solutions to meet that challenge. The World Health Organization (WHO) estimates that in 1990, less than 40% of the global population lived in cities, and that figure is expected to grow to 60% by 2030 and 70% by 2050. Such growth brings tremendous sustainability and design challenges in both developed and developing countries in terms of resource consumption, food security, water security, energy security, air quality, transportation, re...
**DYNM 6160 Myths to Media: Stories on a Mission**
What determines our behavior? How do we come to understand? Who determines our purpose? Is now the only time? When asked “What if there were nothing in the universe,” one professor replied, “How do we know there isn’t?” The more our world seems to dis-integrate into discrete and unpredictable units and actors, the more we crave guidance from robust human models and conceptual frameworks of intellect, emotion, psyche, and action. Fortunately, our 100,000-year-old brains retain mechanisms enabling us even now to enhance our choice using the “stories beneath the stories” that—in form and content—have driven our purposes and actions since sentient beings could communicate. Yoda you should ask. This course offers several means of deploying these powerful ancient sense-making tools—myths and stories—to purposefully communicate and foment action with individuals, groups, and organizations, particularly in our global social media milieu. We will learn many practical story-based ways to apply this power to several “missions”: engaging others in individual and collective action, increasing understanding of patterns in human behavior, and harnessing the driver of purpose for business and social enterprise. Seek help from Prometheus. Non-Dynamics students: please include a brief job description in your Permissions Request. Fall or Spring 1 Course Unit

**DYNM 6170 Economics of Human Behavior and Organizational Life**
As a society, we choose many different ways to organize different aspects of our lives. The institutions and organization we choose to provide us with the necessities and comforts of life range from the fundamental institutions of family and religious organizations, to firms in the capitalistic market and democratically elected governments. We respond to this environment in unique ways: we marry, we worship, we buy and sell goods and services, and we vote. The primary goal of this course is an examination of the various aspects of human behavior in the context of organizational and institutional life from an economic perspective. We recognize that the choices we make are sensitive to the costs and benefits of different actions and use this economic perspective to gain insights into social, economic and political behavior in our daily lives. We start the course with an examination of how micro economists view the world and examine their favorite toolkit. We discuss concepts such as: efficiency, opportunity cost, marginal analysis, externalities, incentives, free-riding, rent-seeking, and transaction costs. These concepts are fundamental if an economic perspective and they will be presented using everyday examples. Before concluding the course, we will look at several topics such as: Human capital and investment in education (Should you invest in an Ivy League school education?); Law and enforcement (When is it profitable to break the law?); Bribes and gifts (Quid pro quo?); Economics of information (Used cars and the market for “lemons”); Why do we discriminate against minorities?; Property rights and externalities (The tragedy of the commons: Should we have smoke-free environments?); and Free-riding (Should I vote in the next election? Should I volunteer to clean up?) Non-Dynamics students: please include a brief job description in your Permissions Request. Summer Term 1 Course Unit

**DYNM 6180 Social Dynamics and the Future of Work in Hybrid**
This course will focus on the social dynamics of work in both a face-to-face and virtual environment. Grounded in much of the early work from Kurt Lewin at the Research Center for Group Dynamics (RCGD) on group productivity, communication, social perception, intergroup relations, and group membership participants will look backwards to propel forward on the landscape of the future of work. The COVID-19 pandemic has led organizations to embrace virtual work, with some initial data suggesting that productivity may have increased. But these short-term gains may mask longer-term threats to the ability of organizations to innovate and actively cultivate culture. Drawing on social network theory, participants will explore alternative approaches of work. An approach that recognizes the value of various types of network connections and different types of social capital to help managers identify a blend of virtual and face-to-face work to avoid the loss of connections and social capital that virtual work brings. This seminar is designed to be highly experiential so that participants can engage in the practices necessary to enable productivity, innovation and adaptation. Non-Dynamics students: please include a brief job description in your Permissions Request. Fall 1 Course Unit

**DYNM 6190 Organizational Project Management**
The course provides an overview of the concepts, procedures, and fundamental processes of project management for working professionals. Participants are introduced to the principles, tools, and techniques of project management within an integrative framework. The course emphasizes that, for most organizations, projects are the primary means for implementing strategic initiatives. Course Objectives:
1) Understand and critically evaluate expectations, procedures and processes of program management as currently practiced in large for-profit enterprises; 2) Understand the content and processes and standards of practice as defined by the Program Management Institute (PMI); 3) Understand how to build and manage effective project teams; 4) Become familiar with the critical components of effective project plans. In addition to the scheduled meeting dates, additional class activities will be planned between faculty and students. Non-Dynamics students: please include a brief job description in your Permissions Request. Fall or Spring 1 Course Unit
DYNM 6200 The Art and Science of Understanding Paradox in Organizations
This course introduces multiple approaches to understand and interpret the paradoxes that baffle us, such as: 1) Why is it that we go to hospitals to be healed and get well, but we leave sick and infected? 2) How is it that we come together to do purposeful work and end up doing mundane, boring tasks? 3) Why is it that banks were created to protect and ensure financial security, but banks have caused a global recession? 4) Why do we not learn from history? Why do we repeat the mistakes we have made before? 5) Why is it that the "Developed and Advanced" countries of the world are destroying the planet? This highly interactive, flexible, and remarkably diverse online course will offer frames to observe the paradox in ourselves, our families, our friendships, our workplace, and our relationships with individuals, teams, and systems—the three units of analysis that constitute every paradoxical situation. Paradox appears in our organizations, our relationships, and our experience as contributing members and leaders of our society. The value proposition of this course is for managers, leaders, and strategic thinkers who wish to understand the art and science behind the paradoxes in the systems within which we live and operate—the visible and the invisible and the rational and irrational. Understanding the unconscious forces that lead to inconsistencies and contradictions will help us be resilient in the face of paradox. This online course will have weekly synchronous and asynchronous sessions of 2-3 hours in length. Through guest speakers and multiple interdisciplinary discussions, we will explore many angles of our understanding of paradoxes. Course grading will be based on class participation, contribution to the collective wisdom, and academic excellence in written assignments. Non-Dynamics students: Please include a brief job description in your permission request.
Fall or Spring
1 Course Unit

DYNM 6220 Diversity and Inclusion: Strategies to Confront Bias and Enhance Collaboration
In the workplace it is inevitable that difference between individuals will cause conflict—whether explicit or beneath the surface. Denial and unconscious bias will prevent issues from being addressed. This course will expand participant perspectives about strategies for addressing bias and for creating effective collaborations that bridge difference. The approach of the course is based heavily in experiential learning, structured reflection, and practical application. Through a self-assessment and group reflection, participants will create, implement, and adjust action plans for addressing unconscious bias and for enhancing communication that drive inclusive goal and norm setting. A live, building case provides an opportunity to apply the course concepts in a dynamic team setting. One additional facilitator per weekend will be brought in for short guest lectures and team observation/debriefing to provide an appropriate and relevant source of challenge to work through difficult issues raised through course concepts. The overall course structure will combine three intensive on-site Saturday meetings with opportunities for remote collaboration to create a seamless and continuous learning community. To maximize collaboration and networking opportunities, students will participate in two teams: one in which they will be tasked to solve a business challenge related to diversity and inclusion and the other for discussing strategies to implement course learning within their workplace or organization. Permits for Non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit
Not Offered Every Year
1 Course Unit

DYNM 6230 Building Intercultural Competence in A Global Work Environment
This engaging course will promote intercultural competence and heighten cross-cultural awareness. You will engage in activities, simulations, and discussion about culture, values, perceptions, communication styles, and cultural patterns of thought and behavior that will help you understand the basic concepts, theories, and issues of intercultural communication related to intercultural relationships and how these concepts apply to your personal and professional lives. This fun and stimulating course will also explore ways to create an interculturally-competent work environment. Learning opportunities will examine tools to interact more positively with each other. As we build intercultural competence, we will sometimes encounter barriers as we interact with people whose cultural backgrounds vary from our own. As learners of intercultural communication, we will be bringing different cultural experiences and perspectives. As we interact and learn together, you will be exposed to different viewpoints and cultural lenses. We will all realize that as we unravel differences, you will find that what is acceptable and appropriate in one culture may be disrespectful from another cultural vantage point. As we cultivate, learn, and shape our intercultural competences, we may need to have an open mindset to learn new things and unlearn misinformation. The cultural competency of learning and unlearning, shaping and reshaping is a life skill that will be useful and extended well beyond the course to our work settings and personal lives. Finally, this real-life application course will help you develop a greater understanding of the behaviors and practices other individuals from your workplace may bring with them from their cultural backgrounds. Areas that will be tackled will include: 1) practical tips for working with diverse cultures and individuals, 2) how values, perceptions, and expectations differ between cultures, 3) how to manage conflicts and problems with other individuals, and 4) what you need to know about the workplace dynamics, behaviors, and practices in international cultures. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.
Not Offered Every Year
1 Course Unit

DYNM 6240 Leadership: Mindset to Action
In this experiential course, theory and learning are put to work towards action in consideration of your personal context. We will examine various mindsets for leadership such as systems thinking, appreciative inquiry, servant leadership, feedback, and reflection. Through discussions and assignments, you will strengthen and deepen your knowledge of leadership styles, develop and refine your leadership style, and better articulate who you are as a leader. Throughout the course, you will assess and reflect on your leadership mindsets to explore how those mindsets are manifested in your actions; identify areas to explore and develop; and determine ways to experiment with and implement new approaches. You will reflect upon and reconcile what your leadership mindsets offer with what you do in your actions. A personal leadership narrative will be created, incorporating analysis of your past and present leadership mindsets with your plan for moving forward. Theory and practice unite to support you wherever you are on your leadership journey: whether you are an emerging leader, a new leader, a transitioning leader, or a leader of leaders. Non-Dynamics students: please include a brief job description in your Permissions Request.
1 Course Unit
DYNM 6250 Ethnography of Everyday Life: A Master Class
Ethnography is a fundamental method within the social sciences that concerns the systematic study of culture. It involves a "thick description" of how people actually live their everyday lives, personal or professional. Ethnographers study how human groups form institutions and how these structures grow, function, maintain themselves, and persist. Also at issue is how people share their understandings and develop ideologies pertaining to these processes. Social negotiation and the development of "local knowledge" in the culture of interpersonal affairs will be emphasized, particularly as it is transmitted from one generation to the next. Through direct observation and discussion, students will treat Philadelphia as an "urban laboratory" and seek to identify, to study, and to learn about local people and places. In this vein, the class will visit communities and organizational settings to gain exposure to ordinary people but, particularly, to apply ethnographic methods to the complexities of the modern workplace as well as to everyday life of the city. The final paper will be a synthesis of ethnographic literature and observations of local urban life and culture, particularly as these issues apply to understanding and organization or a local community. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.
Summer Term
0.5 Course Units

DYNM 6260 Navigating the Post-Professional World
This course will explore the emerging space between virtual reality and augmented reality as they manifest themselves in the marketplace shifts in both startups and large corporations. The goal of this course is to design, from the future back to the present, a graduate curriculum that supports the evolution and transformation of traditional professional training and development. Leaders of professional services from disparate fields, including health/medicine, law, architecture/design, information technology, and spirituality/religion will be engaged to participate in identifying trends for future professional enhancement. These representatives would be asked to be both resources to the class and recruiters within their own organizations so we can obtain participants for a Delphi study for the future of that profession. Course work will include the literature on the post-professional world as well as the use of both virtual reality and augmented reality. A capstone quality paper will be supported as a project group and could serve as a pre-capstone individual project. A particular focus will be on the trend of white-collar automation and its impact on the professions. Students interested in engaging with colleagues around the future and trend of white-collar automation and its impact on the professions. A particular focus will be on the evolution and transformation of traditional professional training and development of "local knowledge" in the culture of interpersonal affairs. Social negotiation and the development of "local knowledge" in the culture of interpersonal affairs will be emphasized, particularly as it is transmitted from one generation to the next. Through direct observation and discussion, students will treat Philadelphia as an "urban laboratory" and seek to identify, to study, and to learn about local people and places. In this vein, the class will visit communities and organizational settings to gain exposure to ordinary people but, particularly, to apply ethnographic methods to the complexities of the modern workplace as well as to everyday life of the city. The final paper will be a synthesis of ethnographic literature and observations of local urban life and culture, particularly as these issues apply to understanding and organization or a local community. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.
Fall or Spring
1 Course Unit

DYNM 6280 Organizational Diagnosis: Diagnostic Strengths for Effectiveness
This seminar introduces participants to multiple approaches to diagnosing organizations to understand the complex ways issues show up and how to work through them. When organizations find themselves in trouble, i.e., rumblings about lack of leadership, cultural challenges, poor communication, diminished productivity, low morale, etc., they tend to frame the problem(s) simplistically or locate blame in a few difficult individuals or groups. On closer examination, problematic issues are often found to be symptomatic of multiple systemic or cultural issues within the organization. Change can only be successful when it starts from a clear evidence-based assessment. The course provides students with tools, frameworks, and theories to understand these organizational challenges and opportunities, focusing on systems thinking, culture/ethnography, and group dynamics, as well as application skills necessary for identifying and framing problem areas, collecting data, and organizing feedback to the client system. Real-time examples, case simulations, enactments and diagnostic project work will inform our discussions as we consider the relationships between diagnosis, organizational reflection and appropriate action. Non-Dynamics students: please include a brief job description in your Permissions Request.
Fall
1 Course Unit

DYNM 6300 Digital Business Transformation: A Process Approach to Results at Minimum Risk
According to newest research, over 70% of organizations worldwide have started digital transformation initiatives or at least plan for them. New digital tools are available almost daily - and many of them have the potential of a major business impact. They enable high performance practices and often even new business models. The resulting transformation of business processes leads to superior customer or supplier experience and organizations become more efficient, agile, meet compliance requirements, or improve the quality of products and services. They help achieving a level of process performance you would never have thought of before. Robotic Process Automation (RPA), Blockchain, Artificial Intelligence, the Internet of Things and Cloud-based software architectures with next generation automation approaches are some examples. However, many organizations underestimate the challenges of digital business transformation resulting in initiatives delivering little or no business value. A major financial organization, for example, stopped the use of over 1000 robots since that digital workforce had created severe issues: processes changed more frequently than expected - the robots didn't which led to numerous exception cases that had to be handled manually. The elimination of bottlenecks created more severe issues downstream. Value-driven Digital Business Transformation addresses those challenges. It proposes approaches, methods and tools that help to focus on the right sub-processes to transform and improve those areas considering the end-to-end business context as well as sustain the results through appropriate governance. The systematic use of digital technologies requires a hybrid workforce management aligning people, robots and other technologies through appropriate business processes management practices. A value-driven digital transformation prepares for this situation. The course discusses design and execution principles as well as related methods and tools to realize the full business value of digital business transformations, delivering results fast and at minimal risk. It combines newest case studies with current research findings to master business impacts of digitalization. Non-Dynamics students: please include a brief job description in your Permissions Request.
Fall
1 Course Unit
DYNM 6310 Everyday Intergenerational Conversations: Baby Boomers and Millennials
This hybrid course delves into three big questions around the burning theme of everyday intergenerational conversations. The class experience will be a living such conversation with Dr. Barstow, a Baby Boomer, and Amrita Subramanian, a millennial. The course format is 20% in person and 80% on a virtual platform. It’s a learner-centric and a learner-driven course. It is to mine the practical know-how and life experiences of all participants, so all generations within the class can have a revealing experience that they can immediately apply at work and their personal relationships in life. At this exact point in time there are 300+ million people in the workforce and four generations at play. We begin to see the tiers of own understanding falling apart. It’s no longer about stereotyping or simply managing by default or banking on quick-recall labels—and here’s why—workplace performance or productivity or engagement or intergenerational respect and trust cannot be left to chance or opinions. We have to pause and consider the following questions: 1) What: What are the generation names and labels we use? What purpose do they serve? How do they help and how do they hurt? What do they help us see? What do they hide, obstruct or make us miss? 2) So what? Intergenerational communication is poor and we can do better. Understand it and skills (strategies and tactics) to prosper and cope. How to use agency and brokerage? What of cognitive dissonance? Responding versus reacting to Fake News? 3) What’s next? What have we learned from this whole century about the 4 generations at work? At home? At meetings or webinars or potluck parties? What of families at Thanksgiving? How can we expect to have valuable and meaningful conversations and relationships with all generations—current and future? The primary goal is not to make up our minds just yet or have cookie-cutter retorts. It’s not just what to think but how to think about this very pertinent issue at hand for all practitioners, leaders, managers, and folks from all walks of life. There are bound to be far more questions than answers as we begin, and by the time we close, we would have configured our own responses to these questions that appreciate the context of our own unique lives. Non-Dynamics students: please include a brief job description in your Permissions Request.
Fall or Spring
1 Course Unit

DYNM 6320 Coaching and Developing the Agile Leader and Their Organization
By taking the essence of the Agile practices used in IT and removing the technical requirements, this course explores an innovative way to create a more humanistic approach to complex organizational change. Students will learn how to apply these mindset and methods effectively, including focused attention on: (1) effectively probing, sensing, and responding to wicked problems; (2) promoting the right conversations to increase engagement and opt-in-to-change initiatives; (3) identifying and then using patterns and anti-patterns that can make or break organizational transformation; (4) obtaining alignment, agreement and accountability around goals; (5) implementing new ways of thinking and working in an Agile-like way; (6) developing open, inclusive teams; and (7) creating a more generative culture that embraces continuous learning. Students will have an opportunity to learn from, and work directly with, senior-level leaders at organizations such as Neiman Marcus, Facebook, ServiceNow, MUFG, AT&T, and Unilever who will share with the class their own stories of transformation through Agile mindset and methods. The final project will be a comprehensive transformation plan that students will present to a live panel of business leaders who will serve as judges and mentors for students’ transformation plans. Non-Dynamics students: please include a brief job description in your Permissions Request.
Spring
1 Course Unit

DYNM 6340 Process Improvement Tools and Strategies
Process improvement as taught in this course often provides high-leverage, high-visibility opportunities for showcasing coaching and leadership skills as a member, coach, or leader of cross-functional process improvement teams. Cross-functional process improvement teams (running lean and six sigma projects) have evolved into a major pathway for developing leadership and coaching talent in such organizations as Baptist Healthcare, Federal Express, Ritz Carlton, Toyota Motor Co., and General Electric. Process improvement project leaders and team members use specific tools and capabilities to analyze as-is processes and to define and deploy new or improved processes that deliver better outcomes and customer satisfaction with less non-value added effort. Leading or serving on cross-functional process improvement teams creates opportunities to work and network with people from other parts of your organization and creates opportunities for visibility to executives and managers sponsoring strategic improvements. Participating in or leading process improvement is also a great leadership, coaching and professional development activity. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.
Fall or Spring
1 Course Unit
DYNM 6350 Organizational Essentials for Leadership

Through presentations by expert speakers, case discussions, and participation in team projects, students will review and evaluate critical issues from across the frames of business, including general; human resource; marketing; information and stakeholder management; leadership; corporate culture; communications; organizational behavior; sales, marketing and public relations; finance and financial reporting; ethics and social responsibility; unions and government relations; and business law. Each of these elements will be studied in light of changing environmental conditions, including the economy; society; consumer behavior; market trends; regulation; politics, unpredictable events such as 9/11; organizational change; history; and internationalism. Non-Dynamics students: please include a brief job description in your Permissions Request.

Summer Term
1 Course Unit

DYNM 6360 Frontiers of Leadership Development

The best organizations for leadership development use a blend of internal and external coaching to a.) Support leadership performance; b.) Develop high-potential talent capabilities; c.) Accelerate individual, team, and organizational agility; and d.) Support strategy execution. Leaders must navigate increasingly complex and volatile global environments and rapid technological developments that are accelerating the pace of change in the nature of work, organizational arrangements, and workforce compositions. This context demands agility, resilience, proactive, continuous learning, and the ability to cultivate diverse relational networks. Coaching must support these capabilities. This course is intended for students with an interest in culturally complex leadership development and organizational change. Existing coaching models focus on a variety of "soft" skills, but few focus directly on culture learning and the ability to lead in a variety of cultural environments. The course is based on the premise that our current workplaces require an ability to function effectively in a variety of cultural environments and that leadership requires an ability to recognize and leverage "cultural diversity" in teamwork, communication, collaboration, conflict, and change. Coaching, as a leadership development practice, must help leaders grow in their ability to recognize and leverage the national, professional, functional, and organizational cultures that influence workforce engagement, productivity, satisfaction, and innovation. The purpose of this course is to enhance student understanding of coaching models, methods, and cases informed by cross-cultural psychology, intercultural communication, anthropology, and international business disciplines. Through reading, class discussion, written reflection, and guided practice, students will develop their skills in coaching across cultural differences. Students will co-facilitate organization development exercises designed to illustrate how to leverage cultural differences. Using Rosinsky's global coaching process as an illustrative example of this kind of coaching, students will coach one another through a self-assessment, development planning process, and initial movement toward their objectives using a global scorecard. Students will then apply what they learned in a final coaching project. Course permits for non-DYM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.

Fall or Spring
1 Course Unit

DYNM 6380 Organizing for Entrepreneurial Effectiveness

This course is a mix of in-person and virtual sessions. In-person meeting dates are 9/5, 10/3, 11/14, 12/12. Entrepreneurship has become a popular aspiration for many individuals in the United States and around the world. In fact, a recent survey by UK Trade & Investment confirmed that roughly 1 in 3 individuals under the age of 34 have expressed a desire to form their own new venture within the next five years. This represents a marked increase in aspirational levels over the past two decades. Although not all new ventures are entrepreneurial in nature, the motivation for starting a new venture is ultimately rooted in a desire to change one's professional and/or personal circumstances. Most individuals never achieve this objective because they fail to take the first step in organizing their entrepreneurial aspirations into an effective plan. This course is designed for mid-career professionals who aspire to either form an independent new venture (i.e., entrepreneurial venture) or lead the creation of a new venture within their existing organization (i.e., intrapreneurial venture). Participants in this course will: 1) learn the internal and external motivational forces that drive individuals in general and themselves in particular; 2) become familiar with the general competencies and skills needed for a new venture to be effective; 3) understand the unique needs associated with creating a balanced team for the new venture; 4) cover the practical aspects of developing an effective new venture; and 5) prepare a formal plan designed to marshal the necessary resources and support the new venture. The course will culminate with each student preparing a formal executive summary and professional presentation to support the creation of a new venture in a new or existing organization.

Not Offered Every Year
1 Course Unit

DYNM 6390 Sustainable Change: Managing Organizational Culture to Achieve Leadership Goals

"Culture eats strategy for breakfast," as management guru Peter Drucker famously said. We know that leaders who can effectively manage their organization's culture are better at adapting to market trends, retaining employees, and engaging external stakeholders who demand more corporate transparency and social responsibility. Yet most of us find it difficult to understand what culture really is, let alone manage it successfully. This challenge is magnified at a time when technological and demographic trends have made organizational boundaries more porous and ambiguous than ever, threatening to make traditional models of top-down change management ineffective. This course will therefore take a bottom-up, contextual approach to helping students understand and manage organizational culture in order to achieve their strategic and career goals. We will start with the individual, learning how culture works to shape organizational politics. We will discuss ways in which students can develop strategies for navigating organizational culture to achieve their career goals. We will then move to the group level, examining how cultural barriers form between teams, functions, and divisions, harming communication and coordination. The final section of the course will build to the organization level and provide students with a toolkit for creating strategies to achieve sustainable cultural change. The course will be heavily focused on practical application: students will conduct semester-long cultural research/consulting projects with organizations located in Philadelphia. We will also apply course frameworks and tools to case studies of leaders attempting to create sustainability-oriented cultures in their organizations. Course permits for non-DYM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.

Fall or Spring
1 Course Unit
DYNM 6400 Virtual Collaboration
NOTE: Logitech ClearChat Headphones and Logitech QuickCam Pro9000 are required for this course. Please see the syllabus for other requirements. Across the globe companies, both large and small, are increasingly conducting culturally complex work through technology channels and virtual personnel transfers, making multicultural organization and virtual work inextricably intertwined. In this context electronically mediated collaboration and communication capabilities across time, distance, organization, culture, and other knowledge boundaries have become necessary for the everyday work of telecommuters, virtual teams, remote managers, professional knowledge communities, and electronic marketplaces. This course is primarily intended for students with an interest in globally distributed work and collaborative virtual organizations. The purpose of this elective is to enhance student understandings of virtual forms of human collaboration and to develop student abilities to work jointly with others via electronic tools. This course design makes typical social patterns encountered in virtual organizations visible so that students can learn from participating and collectively reflecting on their course experiences. This course has an online course fee of $150. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.
Fall or Spring
1 Course Unit

DYNM 6410 The Art and Science of Organizational Coaching
Coaching has become a primary tool for consultants, human resources professionals and administrators interested in promoting and sustaining leadership and executive development, behavioral change, and role transition. This course explores the theory and practices associated with organizational coaching. We examine and practice the steps of the normative coaching process, the issues and boundaries that effect coaching, and pitfalls to avoid. This is an introductory course that follows a hybrid model of instruction, learning and application in class and in virtual class. The first class will be a weekend face-to-face experience followed by consecutive virtual classroom sessions with a variety of different applications. Students will practice phone coaching and virtual coaching as well as virtual group written discussion. Throughout the course we will contrast theory and practice through our own experience and observation via assignments and behavioral experimentation. Non-Dynamics students: please include a brief job description in your Permissions Request.
Fall or Spring
1 Course Unit

DYNM 6420 A Cognitive Playbook: Frames for Smart Thinking
This course integrates strategy and organization through abstract thinking—what psychologists call metacognition. You will gain both big-picture scope and nitty-gritty tools for organizational analysis, planning, and change. You will learn how to speed-read the literature on strategy, organization, leadership, management, and the like—because so much of it is derivative and redundant. Old wine in new bottles. At the core of DYNM 6420 are five “cognitive plays,” or geometries of thinking: point, linear, curvilinear, angular, and triangular. Each play has its time and place. The challenge is to mix and match appropriately. Playbook shows how.
Fall or Spring
1 Course Unit

DYNM 6430 Trappings, Substance, & Memories: Effective Public Presentations in Orgs
In spite of the technological advances that have transformed organizational communication, the ability to articulate and present ideas, arguments, and positions in a face-to-face context remains a vital skill. At the same time, the opportunities to develop fundamentally sound presentation skills are rather limited, and, in many cases, organizations don’t train their employees to do so. In this very hands-on course, we will resurrect this age-old practice by exploring the tried and true presentation methods and approaches while simultaneously making direct connections to how technology has transformed presentation speaking in organizations. We will initially explore the fundamentals of public presentations: what makes an effective presentation, the arguments for developing strong presentation skills, and specific analysis of business speech. How does one establish proper credibility and build the trust necessary for success? Where does structure play a role and how can certain elements from theater, storytelling, and narrative help create highly impactful organizational presentations. We’ll explore what determines ethical presentations, where charisma (or lack thereof) plays a role, and how to most effectively incorporate visual accompaniments such as PowerPoint into presentations. We will dig much deeper into the development of strong persuasive arguments with emphasis on how social media has impacted credibility in novel ways. Finally, we will use improvisational techniques as a way to prepare for those sudden moments when one is called upon to make a quick presentation. Non-DYNM students: please include a brief job description in your permissions request.
Fall or Spring
1 Course Unit
DYNM 6440 Applied Organizational Change: Methods Dojo
This seminar is designed to support existing and emerging leaders who recognize their need for more adaptive practices to effect organizational and individual change in complex and rapidly changing environments. Building on a strong base of theory, this seminar is largely experiential. Students are expected to identify a real need in a system (work, internship, or volunteer), which, if improved, would have a substantial improvement on overall organizational performance and satisfaction. Beginning with this problem or dilemma, the seminar is designed as a ‘dojo’ or practice space, where students can clarify their own assumptions about how and why change occurs and practice new techniques and approaches for elicit change. Theory provides the foundation for our work and students will be expected to recognize and be able to articulate how they are operationalizing theory in their setting. The purpose of the seminar is to evoke change at more impactful levels and improve organizational performance and personal satisfaction. Participants will examine their own and others’ change theories by identifying assumptions about change, testing methods that evoke change, and field-testing actual shifts in behavior. Participants will engage in a four-phase exploration over the course of the seminar: first, participants will have an opportunity to articulate their mental models about how change occurs and examine those of a few cutting-edge theorists; second, participants will be asked to learn and practice a minimum of 16, and possibly up to 25, organizational change micro-methods in class; third, participants will be asked to activate and test their change model using some selection of these methods learned in class on the problem they identified at the beginning of class real-time; and finally, participants will be asked to report on their experiences and re-examine their own models for possible revisions. This course is designed to create an ‘action-learning’ community in which participants will gain new knowledge and applied skills and give and receive feedback while weaving their professional experience, this class, and other graduate course work into a new, more robust toolkit of change methodology. This course is also designed to strengthen students’ ability to lead change from wherever they find themselves in a system. Non-DYNAM students: please include a brief job description in your permissions request.
Fall
1 Course Unit

DYNM 6450 Project Based Laboratory
Project based lab course.
Not Offered Every Year
1 Course Unit

DYNM 6460 Race, Ethnicity, and the American Workplace
The U.S. workplace has long been one of the foremost spheres in which racial and ethnic inequality is created and perpetuated. This course investigates how racial and ethnic inequality affect our experiences in the workplace as well as how we as employees, managers, and the like, can positively impact upon our work environments against bias to promote equality and inclusion. Although most Americans largely perceive the employment relationship as one’s personal relationship with his/her “boss,” one’s occupation and/or “job” encompasses much more than that. How we come to work at the jobs that we do is about our access to larger institutional structures within society including education, family background, and, importantly our ascribed location within the social hierarchy. At the beginning of the course, we will spend time studying race and ethnicity as dynamic social and political constructs that evolve through time and space. We will examine how these constructs relate to social stratification, intergroup and intragroup relations, and economic and political hierarchies within U.S. society. The objective here is to provide you with a better understanding of how and why race continues to be such a powerful stratifying agent in contemporary America. We will spend time discussing the enduring power of structural racism in U.S. society—it’s evolution since slavery, and its ability to restrict Black & Brown achievement and success within all spheres. How has the Covid-19 pandemic and the BLM movement further brought to light the rigidity of our peculiar system of racial stratification? How can we work to promote true equity and inclusion now? How can we come to work as our “authentic selves” where everyone has a seat at the table? What has history taught us about these issues? And, how can we learn both as individuals and members of organizations to make racial diversity, equity, and inclusion normative experiences for all? Work is a microcosm of our broader lived experiences and it is likely the most “diverse” place we experience in our lifetime. Simultaneously, we will focus on understanding history and evolution of diversity, equity and inclusion practices in the workplace as they relate to addressing racial and ethnic inequality. How have diversity and inclusion practices in the private and public sector evolved over time? How do these practices reflect broader historical and societal trends concerning social and racial inequality? What does it mean to go from compliance to commitment? Have we moved from “diversity for its own sake” to true and meaningful inclusion? What kinds of new initiatives and commitments have organizations made since the BLM protests this summer? How has BLM impacted the experiences of employees of color to-date and where are things headed now? For the rest of the semester, we will examine how workplace inequality gets produced and reproduced along racial and ethnic fault lines. Do D, E, & I programs tailored to distinct groups alleviate issues of marginalization for employees? Why are successful D, E, & I programs profitable for big business? In addition, we will examine the intersections of race, gender, and class in the workplace; how do these intersections impact how we address inequality in hiring, promotions, and recidivism? We will study in-depth how and why personal and organizational biases remain mechanisms of inequity as well as how social class and gender intersect with race/ethnicity to contribute to workplace discrimination. We will host several guest lecturers throughout the semester. Non-Dynamics students: please include a brief job description in your Permissions Request.
1 Course Unit
DYNM 6470 Influence and Persuasion

Former Chrysler chairman Lee Iacocca once noted, “You can have brilliant ideas; but if you can’t get them across, your ideas won’t get you anywhere.” This course builds on Iacocca’s insight, helping students develop the ability to win support for their perspectives, proposals, and projects from key people in the workplace. Everyone needs to know how to sell ideas. Sales people obviously need this skill and so do managers of all kinds. Even CEOs need it to gain buy-in for a vision. Influence and persuasion help you work with and through others—customers, teammates, colleagues, direct reports, and stakeholders—who have different professional backgrounds, roles, opinions, and agendas. In highly interactive discussions and exercises, students will learn about practical field-tested frameworks that draw on current insights from psychology, anthropology, and behavioral economics. When the course is completed, students will have mastered the latest thinking about:

1) Persuasion styles and how they can adapt them to achieve desired outcomes. 2) The five barriers to communication and collaboration and methods for overcoming the barriers. 3) The systematic steps in the process of selling ideas and negotiating when you need to. 4) The similarities and differences among influencing, persuading, and negotiating. 5) Ways to build momentum for ideas. 6) Techniques for motivating others to take action. 7) Winning support for culture change. These insights will enable students to work across the boundaries that create warring workplace tribes. Nearly every organization contends with this tribal warfare and leaders need to know how to counteract the natural human tendency to square off against co-workers who have different professional backgrounds or roles. Non-DYNM students: please include a brief job description in your permissions request.

1 Course Unit

DYNM 6490 From Compliance to Commitment: Positioning Organizations to Develop Authentic DEI Initiatives

Following the 2020 social justice uprising, many organizations have created and/or expanded their efforts to develop diversity, equity, and inclusion programs and initiatives, without much large-scale success. To implement these programs and initiatives, organizations have hired executive coaches and consultants to help them implement a top-down approach to create effective and sustainable DEI programs; however, sustainable efforts must focus on the intentional inclusion of historically underrepresented communities while drawing on established best practices of organizations that remain successful within this longitudinal agenda. Specifically, this course will provide scholars-practitioners with an overview of relevant social science research and organizational development literature that can inform organizational approaches to the multidimensional corporate workforce of the 21st century. In addition, it will provide case studies of organizations within the technology and financial services industries that have been traditionally ahead of the curve in creating and sustaining diverse and equitable environments before Black Lives Matter, COVID-19, and the overwhelming adoption of remote work. Lastly, this course will provide practitioners insights to qualitative methods, as they are a critical piece in allowing practitioners to assess the authentic needs of their stakeholders (leadership, employees, and consumers) and developing tailored strategies for the environment that plans to implement them.

Spring
1 Course Unit

DYNM 6500 Outdoor Dynamics

This course will have a course fee to support the travel logistics. This course explores the implications of past and future changes in land use and population changes over time in one of the least densely populated areas of the country, but which serves as both a winter and summer playground for millions of urban residents each year. Set in the White Mountains of New Hampshire, only a day’s drive for over 10 million Americans, the area boasts some of the most pristine and exotic microenvironments in the world, left from the last Ice Age. Over 250,000 people visit the summit of Mt. Washington, the region’s highest peak, every year, driving, hiking or riding the cog railway to the top. The focus of this course is the growing interest in promoting “sustainable development,” which most people envision as protecting the environment and wild species from human encroachment and pollution. The course will examine the human sphere and the natural sphere as common ground in the analysis of competing issues; areas of compatibility; and future plans to promote a sustainable environment in this region. The course will focus on three themes: 1) how the people and institutions tasked with being the environment’s guardians go about their jobs; 2) how the area is used by visitors; and 3) how industry and its stakeholders have worked with local regulators and politicians to create jobs and promote growth. The course will ask students to overlay the principles of sustainability and issues management, in managing the increasing concern that the trajectory of land use and industrial growth will compromise the region’s native ecology and wilderness and backcountry attractiveness. Left to its own momentum, how will the future of the area fare versus promoting and implementing more sustainable goals? Changes in behavior will be needed to bring the two into line, and that leads to organizational dynamics. How will stakeholders resolve the natural tensions of the institutions’ (primarily those that operate in the region) mission and development goals with outsiders’ desires? What leverage do they and others have in the debate over the future of the region? In addition to an active outdoor week in the White Mountains, participants will meet with key players and leaders from the area and come away with a deeper understanding of the major issues in the tensions between “the place no one knew and the place that got loved to death.” Interested students must: 1. complete a course application:

Summer Term
1 Course Unit
DYNM 6510 Group and Team Dynamics

Although groups and teams are often lauded as the mechanisms that provide the competitive edge for organizations in today's challenging economic environment, there is often little attention paid to the deeper social and psychological currents influencing group and team dynamics. Organizational leaders and facilitators frequently lack an in-depth understanding of how work groups, multifunctional teams, and cross-national executive groups develop, operate, accomplish their goals—or not—and end. Team members often struggle to make meaning of the myriad spoken, as well as unexpressed, factors influencing the process and outcomes of the groups of which they are a part. This course, by emphasizing both theory and practice, provides students with a thorough grounding in the ways groups and teams develop and learn. The class will also examine approaches to building group and team competencies related to effective communication, conflict-resolution, and solving complex strategic problems as well as ways to manage the range of intentional and more hidden dynamics that both support and challenge high performance. In addition to drawing on the extensive literature and research in group dynamics and team building, the class will rely on experiential methods to help students develop keener understanding and insight into the ways in which their own leadership and followership dynamics, as well as the dynamics of the group-as-a-whole, influence their team's ability to accomplish its tasks. Non-DYNM students: please include a brief job description in your permissions request.

Fall or Spring
1 Course Unit

DYNM 6530 Coaching Others to Manage Conflict

Not a day goes by when you or I, or a person we are coaching, is not faced with some tantalizing, challenging conflict. It may be with someone we love, a conflict in a team, a struggle between two direct reports, a difference with our boss, or the challenge of a difficult, perhaps aggressive persona in a meeting we facilitate. The problem is not that there is a conflict. The problem is that most of us have a very thin, often inadequate repertoire of responses to the conflicts that engage us on a daily basis. The result is that all too often we are predictable in our responses. Thus, if we take these same limited skills and attempt to provide them to a client in our role as a coach, the consequences will more than likely be similar. This course is about expanding your repertoire of responses to a wide array of conflict situations. In the process, you will increase your understanding of the theoretical constructs that underlie successful conflict management. Not only will your strategies for managing a variety of conflicts expand, but you will be better able to design unique responses that relate to the particular situation with which your client is faced. How you translate these ideas to your clients and, in the process, provide them the confidence to use them, will be a central theme throughout the course. This course provides a balance between intellectual theory, skills, and applied strategies along with the time to practice them. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.

Fall or Spring
1 Course Unit

DYNM 6540 Crisis Communications and Reputation Risk

All organizations confront crises, either of their own making or from external events. To be ready, equipped, and able to extricate itself from a potential calamity, major or minor, can mean the difference between continued operation and obsolescence. This course focuses on strategies for managing communications during times of organizational crisis by exploring topics such as crisis planning and preparedness, crisis communication strategies, and reputation management techniques as well as the use of social media and other digital platforms in these communications. The course uses case studies of organizations that have faced crises and examines the communication strategies that were employed, both effectively and ineffectively. Outside speakers will include serving and former senior officials in government whose positions required crisis communication skills and expertise. These include Penn's VP of Public Safety, the Philadelphia Fire Commissioner, and the former Director of the U.S. Secret Service. Students will develop skills in crisis-communication planning, message development, and crisis response coordination. They will learn to analyze and evaluate the effectiveness of crisis communication strategies in real-world scenarios. As part of these learned competencies, students will be media-trained in bridging techniques, smart brevity presentation and writing principles, and message development. As a wrap-up of these acquired skills and techniques, students will be presented with an actual crisis case and serve as the company spokesperson. Non-Dynamics students: please include a brief job description in your Permissions Request.

Spring
1 Course Unit
DYNM 6550 Using the Political Process to Effect Organizational Change
At one time or another, each of us has said something like, "I know what to do, but it’s hard to make it happen" or "I have great ideas, but it’s almost impossible to get anything done." The sense is that, although there are changes that could be made to improve organizational performance, politics (internal, external, governmental) simply obstruct our ability to make a difference. Frustrations notwithstanding, depending on how it is employed, politics can be either an impediment or, more importantly, a source of opportunities for improving organizations. Politics is the art and science of coordinating individuals, departments, management, markets—the entire organizational environment—to effect a balance between the organization’s objectives and the means used to achieve them. As with the other factors that are employed to affect organizational performance—the methods used to improve manufacturing, marketing, sales, finance, and so on—politics is a means that organizations can use to initiate and maintain critical personal and institutional relationships. One of the seminar readings—Latimer’s "Why Do They Call It Business If It’s Mostly Politics?"—is used to provide illustrations of the ambiguous nature of much of what is regarded as organizational politics. What is critical to understand and appreciate from the outset, however, is that politics is not an external factor that is imposed on organizations. Politics is not only a means for achieving personal or institutional power; it is also a method for developing and maintaining personal and institutional relationships within and among individuals and organizations of all types. This seminar will discuss organizational politics and the ways that it is used to identify, characterize, and effect change—both within and among organizations. After reviewing several perspectives on organizations and the roles that political processes play in decision-making, a series of cases is presented that illustrate the contexts and conditions for effective political communication and coordination. Prerequisite: Course Permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit
Fall or Spring
Also Offered As: GAFL 5550
1 Course Unit

DYNM 6560 The New Normal: Racial and Ethnic Diversity in the 21st Century Workplace
This course examines the social construction of race and ethnicity, including relations within and across groups, with a particular focus on their implications for organizational culture and management. In a very real sense, the workplace is a microcosm of the larger society; a place where our individual experiences, beliefs, and biases related to race and ethnicity intersect, creating both opportunities and challenges. Our capacity to understand the different backgrounds and experiences that individuals and groups bring to the organization, as well as recognizing our own biases and the biases of others are directly implicated in our ability to both manage and be managed in the organizations that we are a part of. A primary objective in this course is to increase our capacity to first understand the contours of racial and ethnic diversity in twenty-first century America by investigating (1) the historical context that influences present-day understandings of racial/ethnic diversity (2) how and why individuals from different racial/ethnic backgrounds can "see" the same thing but interpret it very differently, depending on experience, culture, and social position relative to race/ethnicity (3) the meaning and importance of dominant and minority groups, the degree to which a racial hierarchy exists, and the implications of that hierarchy for important outcomes (4) the degree to which the workplace is, indeed, a microcosm of the larger society (5) the pitfalls of "colorblindness" (6) the nature of stigma and its workplace implications and (7) the benefits and drawbacks of affirmative action policy in the workplace.
Summer Term
1 Course Unit

DYNM 6570 Strategic Engagement with Government
Strategic Engagement with Government will be offered as an intensive one-week course during spring break 2024. The course will meet for three days on campus and will then shift to Washington, DC, for the final three days. Government actions play a major role in business and most other organizations, shaping the environment in which organizations operate and making direct purchasing and investment decisions. Effective organizations consider, respond to and shape government decisions that impact them. This course will explore ways in which the private and public sectors interact and which organization leaders to engage strategically with governments around the world. Students will study how government actions influence results and will learn proven methods for optimizing growth and reducing risk from interaction with governments. Students will engage with business, non-profit and government leaders, who will discuss challenges they currently face and successful approaches to addressing those challenges. The course uses case studies and small group exercises to illustrate and emphasize key points. Non-Dynamics students: please include a brief job description in your Permissions Request.
Spring
1 Course Unit
DYNM 6580 Fundamentals of Sustainability
This course is designed to provide an introduction to sustainability concepts and challenges through the lens of the world’s most significant framework to address them: the United Nations’ Sustainable Development Goals (UN-SDGs). The UN-SDGs serve as a blueprint for addressing the world’s most critical social and environmental challenges, calling for urgent collaboration and change to reset the world on a path that operates within planetary boundaries and promotes global prosperity and security. This course will explore extraordinarily significant threats to the way of life of future generations—such as climate change, ecosystem degradation, health and nutrition, pollution, and resource depletion—with specific attention to sustainability challenges and solutions involving food, water, energy, oceans, waste, plastics, biodiversity loss, and urbanization. Further, the course will include focus on the importance of transitioning from linear to circular systems and maximizing life cycle resource utilization. Case studies of scalable sustainability practices and organizational leadership for sustainability will be reviewed with additional input from global thought leaders. Course permits for students outside of the DYNM, MES, or MSAG programs: please include a brief job description in your permissions request.
Fall or Spring
1 Course Unit

DYNM 6590 Art and Relational Skills
Art and creativity offer a rich experiential learning opportunity to develop personal and interpersonal skills. This understanding builds on existing research and literature as well as in the experience of the instructors implementing art and creativity. This course offers an opportunity to create a safe environment to learn, practice and develop key relational skills using art and creativity, shared learning experiences and reflection, modeling newly acquired skills for the participants’ professional and personal practice. This experiential course will support the development of relational skills, such as interpersonal connection, presence, and empathy using art and creativity. It is a 100% hands-on course that requires personal commitment, an open mind, and a desire to learn and grow in new, non-traditional and effective ways. Throughout the course, participants will assess their own relational skills, choose areas for development, and work on enhancing their continuing growth and development using the means provided. Participants will be able to use the tools and models to continue their development after the course as well as for implementing them in their coaching practice or leadership roles. Non-DYNM students: please include a brief job description in your permissions request.
Summer Term
1 Course Unit

DYNM 6610 Organizational Culture Change: Theory and Practice
Organizational culture influences organizational performance. The success of high-profile firms with “quirky cultures,” such as Southwest Airlines and various big tech firms, have led to the creation of “Great Places to Work” lists and associated awards recognizing healthy organizational cultures. These accolades contribute to organizational performance. The related acknowledgment that organizational culture can trump the organizational strategy has led to competition among companies to attract and retain the best employees. More recently, events related to the MeToo Movement and Black Lives Matter have focused our attention on the degree to which all members of an organization are welcomed, respected, valued and heard. And COVID-19 has had a substantial impact on many organizations’ cultures. The response of each organization’s leaders has either reinforced the culture of the organization or revealed underlying values different from those that were espoused. This course addresses such complexities within organizational cultures and explores the ways we can change deep-rooted cultures that favor some groups over others. We will also consider the relationship that formal policies and informal practices have on reinforcing or shifting cultures as well as the daily form of interactions among organization members that may be ignored. We will discuss what is meant by “inclusive culture” and how organizations can become more inclusive and equitable. Finally, this course will provide students with tools for assessing and understanding organizational culture and change. Non-Dynamics students: please include a brief job description in your Permissions Request.
Spring
1 Course Unit

DYNM 6620 Entrepreneurship and Leadership: Creating Winners
Peter Drucker once famously said that “entrepreneurs innovate.” The course looks at how innovation drives the entrepreneurial process in both large organizations and in startup ventures. It stresses the importance of bringing entrepreneurial vision and energy to all organizations: profit and non-profit, as well as government and institutional. The course examines the characteristics of successful entrepreneurs. Participants will learn how to develop their own entrepreneurial instincts and how to encourage an entrepreneurial culture in their organizations. The course examines the challenges of startup ventures and provides practical information to participants who are considering an entrepreneurial venture. It explores strategies for identifying opportunities, creating successful business models, valuing a business, raising capital and managing the business. The course builds understanding of how a culture of entrepreneurship and innovation are critical to any organization that wants to survive and prosper in the future. The course discusses how sustainability is becoming a global force for change, creating exceptional entrepreneurial opportunities. The course looks closely at the leadership roles of both the CEO in a large organization and the entrepreneur in a venture. The course examines how leaders in all kinds of organizations set priorities, identify game-changing opportunities, shape the organizational culture and motivate their teams to achieve outstanding performance or, sometimes, fail. The course stresses the leadership responsibilities of the board of directors in providing governance and oversight in both for-profit and non-profit organizations. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.
Fall or Spring
1 Course Unit
DYNM 6630 Green Skepticism: Communicating and Implementing Sustainable Business

Green initiatives are creating competitive advantage for businesses. Smart companies are integrating environmental stewardship into their strategies, operations, marketing, and product innovation. Companies that successfully embed sustainability in their core business strategy and culture—rather than "bolting it on" as a peripheral activity— are gaining the most value added. Embedding sustainability requires the active engagement of all organizational stakeholders, many of whom may be green skeptics, dubious of the need to change. "Many people who feel passionately about sustainability cannot relate to those who have a harder time understanding the need for a change..." - Corporate associate & MBA candidate. The business case for sustainability has been made many times, yet skepticism about the need for change remains widespread. While adopting sustainable business practices must make sense financially, an economic argument alone may not be enough to convince people to purchase green business products and services or to implement sustainability practices. The course is based on the assumption that "task significance" is an important factor for implementing sustainable business practices. This means helping people see the connection between small tasks they are being asked to do and the big picture of global sustainable business. The first part of the course focuses on understanding sustainability driven changes in the global business landscape through a coherent framework. The second part of the course focuses on what those changes mean for business fundamentals: consumption, production systems, innovation, and emerging economies. The third part of the course focuses on communicating and implementing sustainable business strategies and initiatives. Students will have the opportunity, with a team, to design a communication and implementation program for an organization. Throughout the course, strategies and tactics that work to engage skeptics who do not understand the need for change, as well as tactics that don't work, will be studied. The course is based on the instructor's experience leading hundreds of business and environmental professionals from skepticism to enthusiasm for sustainable business over the past decade. This course is designed for everyone tasked with engaging others in implementing sustainable business practices and for entrepreneurs selling green business products and services. It will provide strategies for enhancing a technical and economic sales pitch. The course is also for those who may be skeptical themselves, and want to reconsider their skepticism. Categories: A Concentrations LMC, SD Fall or Spring

1 Course Unit

DYNM 6660 Systems and Design Thinking

This course is designed to challenge the traditional thinking of basic management strategy and practice and to show why organizations must learn to think differently. This course takes a multidisciplinary approach to challenge participants to rethink their assumptions and move beyond the traditional practice of complex problem formulation and execution. The course will look at the challenges and opportunities that come from integrating Systems and Design Thinking to create more sustainable solutions. The prevailing pattern of thought employed by management is analytical. A new pattern of thought is required: synthetic. Systems thinking involves both analysis - to produce knowledge of organizations (systems) - and synthesis to provide understanding. Without both, effective solutions to problems cannot be obtained. To go beyond understanding to wisdom requires awareness of the difference between doing things right (efficiency) and doing the right thing (effectiveness). The better we do the wrong thing, the more wrong we become. Today a great deal of energy is expended by organizations in an effort to increase the efficiency with which wrong things are done. This course looks at how systems and design thinking can increase the chances of making the right decisions; doing the right thing. Non-Dynamics students: please include a brief job description in your Permissions Request.

Fall

1 Course Unit

DYNM 6640 Organizational Culture and Learning

What is organizational culture? What is organizational learning? How do organizations learn effectively and change their culture? A learning organization is skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge (Garvin, 1993). According to Ray Stata, Chairman of Analog Devices, "The rate at which individuals and organizations learn may become the only sustainable competitive advantage." However we define and prioritize organizational learning, we must still struggle with how to do it. This is a tougher question. The thesis of this seminar is that an enriched understanding of culture can enhance organizational learning. Participants will explore the concept of culture, study the work of Chris Argyris, and discover practices and behaviors that promote organizational learning and culture change. The objective of this seminar is to help participants get beyond highly abstract philosophy and develop a deeper understanding and useful skills based on these concepts. This course will meet on the following Wednesdays: May 27th; June 3rd, 10th, and 17th; July 22nd and 29th. Fall or Spring

1 Course Unit
DYNM 6690 The Power of Confusion
Confusion is a lack of clarity about some situation that matters to you, which causes you to feel so uncertain or uncomfortable that you have a hard time making decisions. You may be confused about whether you fit into an organization; or about what work makes you feel great versus work that you are good at or about the right thing to do when you are frightened. The power of confusion is that it forces you to stop and seek clarity in your life and career. This seminar addresses seven types of personal and organizational confusion encountered in organizational life during a professional career: 1) confusion over which personal ethics, skills, and talents you find most meaningful; 2) confusion over discovering what is really going on in an organization; 3) confusion of who is in charge—leadership and which direction ‘we’ are moving toward? 4) confusion over ‘what’s in it for me?’ How motivation and satisfaction relate to incentives and pay schemes; 5) confusion caused by blaming, rather than developing skills needed to make lasting changes and improvements; 6) confusion about how teams pull together; 7) confusion caused by committing random acts of improvement instead of building a system for making customer-oriented organizational innovations and improvements. You were not born with any inherited knowledge or wisdom, yet you are certain to face fear and confusion during your lifetime. You were born with curiosity and the ability to ask ‘why?’ when you face a confusing situation. You were also born with the ability to think for yourself, listen to others, and learn from experience. Confusion spurs you to use these abilities to gain the clarity that leads to understanding and wisdom; you will need tools to guide your learning. This seminar will show you how to use simple tools to achieve that clarity. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.
Fall or Spring
1 Course Unit

DYNM 6710 Workplace Ethics: Ownership, Participation, Productivity
In this course, you will have the opportunity to: 1) examine ethical, religious, legal, technological, and economic bases for different ownership systems from early human history through the 20th century; 2) develop a theoretical framework for understanding ownership issues in the contemporary workplace; 3) review social science concerning ownership and the related organizational issues of motivation, performance, productivity, profitability, culture, diversity, and equity; 4) analyze a variety of cases to measure ownership’s effects across many industries and business situations; 5) learn about various forms of ownership and compensation in use today in small and large organizations, both public and private; 6) utilize a diagnostic tool for assessing the ways in which your own organization’s culture and business outcomes are impacted by the firm’s ownership system; 7) describe your own experiences of the different ownership systems with which you may have engaged, including: family, schools, little leagues and professional sports, volunteer service organizations, charities, religious institutions, professional service providers (e.g., doctors, lawyers, veterinarians), the places where you shop (e.g., think about Genuardi’s before and after it was sold to Safeway), and the different places you have worked...as a way of systems; 8) assess and refine your views regarding ownership in light of your own social, political, religious, and ethical commitments. Who is going to own what we all have a part in creating? The history of American business is an evolving answer to the question of ownership. Of all the issues relevant to organizational dynamics, ownership is arguably the most important and least understood. Matters of ownership have also been and remain of intimate concern to ordinary Americans—the slave yearning to be free, the young couple with a dream of home ownership, the entrepreneur who wants to be his own boss, the consultant who wants to form a partnership with her best friends, and the indebted, mid-level manager reviewing last year’s 401(k) statement. Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit.
Spring
1 Course Unit

DYNM 6730 Stories in Organizations: Tools for Executive Development
As we all know, living in–and out–of organizations is getting exponentially harder. Things seem to be multiplying, splintering, and coalescing kaleidoscopically, and each of us is increasingly taxed to make sense of it all, let alone create meaning for ourselves and those we manage and care about. Remarkably, a powerful tool for helping us is one we have already mastered: stories. As humans we think, feel, speak, listen, explain, and believe in narrative form. Yet this capability is dramatically under-exploited at work. This course examines a variety of ways to bring the power of stories to organizational life. We will look at how stories enhance communication, support change, and intensify learning and development in individuals and organizations, thus informing your leadership style and effectiveness. We will have many opportunities in class to apply "story-based technologies" to issues you face in personal or professional life. Readings come from the literatures of human development, narrative psychology, organizational change, executive learning, and, of course, from literature itself. Non-DYNM students: please include a brief job description in your permissions request.
Not Offered Every Year
1 Course Unit
DYNM 6750 Advanced Seminar in Organizational Politics
This course will meet both synchronously and asynchronously. The synchronous sessions will be Tuesday evenings from May 19th to July 7th. The goal of this course is to assess/advance the participant's competence in applying the "eighth habit"—that of organizational politics and power, in a variety of organizational settings, system levels and contexts. Course requirements are: 1) a detailed learning log (to be supplied and reviewed weekly; 2) A political autobiography (guide to be supplied); 3) Active participation in all sessions; 4) Three interviews of senior managers on the topic of politics (interview guide to be supplied;Note: Additional interviews may be done for extra credit; 5) An assessment of the political map of a complex organization (map to be developed in class; 6) A peer completed assessment using the "political skills inventory" (see Ferris). Course permits for non-DYNM students: https://www.sas.upenn.edu/lps/graduate/dynamics/course-permit. Not Offered Every Year
1 Course Unit

DYNM 6760 Communication Competence: Extracting Value in Key Organizational Interactions
This course explores the direct and indirect relationships between interpersonal communication skills and the ability to derive increased value from organizational interactions. Participants will assess their own interpersonal communication skills while expanding their own communication practices within organizational contexts. At the same time, students will develop greater insights into their own organization's communication norms. Students should prepare to be co-collaborators throughout the semester, adding personal insights and expertise to the conversation. Through this course, class participants will work to expand their personal communication repertoire as they develop critical listening and empathy skills. Participants will conduct their own communication skills assessment, determining their own communication strengths and identify specific areas for improvement. Finally, throughout the semester participants engage in creative multi-modal research projects, the findings of which will be presented in class. Non-Dynamics students: please include a brief job description in your Permissions Request.
Spring
1 Course Unit

DYNM 6770 Post-Disruptive Growth: Scaling and Growing for Individuals and Systems
Reality has moved from a physical location to a cognitive location—in our minds. An exceptionally hands-on course that brings in the intellectual discipline with real-time application to look at the shattering of assumptions in face of crisis (as the current one) and what happens to individuals, groups, communities, and systems—when the world takes the blue pill overnight (goes virtual and hyperreal). The interaction with the altered reality is often hindered by cognitive traps of ghost structures (i.e. only stay in memory but have disappeared from concrete reality) that lead to counter-productive decisions by individuals (personal and professional) and systems. The course is highly recommended for leaders and managers of complex organizational structures who must continue to create a "holding environment" for psychological safety for their teams, managers, leaders, customers, vendors, and themselves in redefining post-disruptive growth in micro-and-macro decisions for Value Creation in everyday interactions. There will be conceptual and experiential assignments that will enable rich scrutiny with immediate application in their work and life. This course will have both synchronous and asynchronous sessions. Non-DYNM students: please include a brief job description in your permissions request.
Spring
1 Course Unit

DYNM 6800 Developing Emotional Intelligence through Art
This course is designed for those who want to increase their emotional intelligence awareness and understanding and develop their emotional intelligence skills. Students will explore the five competencies of emotional intelligence - self-awareness, self-management, motivation, empathy, and relationship management - using art as a creative tool for experiential learning. The course is a deep and innovative way of learning. It will engage students in an interactive and reflective way. It is a highly experiential, 100% hands-on course that requires personal commitment, an open mind and a desire to learn and grow in new, non-traditional and effective ways. Participants will be able to use the tools and models to continue their development after the course as well as for implementing them in their coaching practice or leadership roles. This course is designed to: Develop emotional intelligence skills for successful relationship building and transformational actions such as coaching, leadership, management and consulting. Support participant transformation based on strength-building. Provide effective and creative tools for experiential learning in the areas of coaching and leadership stimulate and encourage creativity and innovation in coaching practices and in the leadership space. Provide tools for ongoing self-assessment and reflection, action planning and continuous development. Non-DYNM students: please include a brief job description in your permission request.
Summer Term
1 Course Unit

DYNM 6810 Diversity Beyond Lip Service: The Evolution of the Corporate Experience
The COVID-19 pandemic accelerated the future of work trends. The world has changed in ways that can't be undone. We must consider the new context for how we work inclusively in organizations, and the efficacy of our systems and practices to best serve internal and external stakeholders. This course is designed to help students navigate the cutting-edge of this corporate evolution. We will analyze theoretical approaches and practices for DEI strategy and implementation. Class sessions, case studies, everyday culture scenarios, group projects, DEI strategy proposals, and discussions will examine practical approaches to address the dynamics that create discomfort, fear, and apathy in organization leaders. Students will be encouraged to develop proactive and innovative solutions integrating modern theories and practical application to help mitigate this discomfort and fear; while also cultivating sustainable accountability and tangible outcomes. Students will gain practical skills to join the movement of the post-COVID workforce towards creating the long overdue—and lasting—social, cultural, organizational change, and evolution. DYNM Category: DE, A; DYNM Concentrations: LMC, GL, OC.
Fall
1 Course Unit
DYNM 6930 The Global Leader
The "Global Leader" is a co-listed INTS/DYMN course, developed as part of the Lauder Institute's new Global Program that will prepare students for leadership roles in international and culturally diverse environments. The course will focus on developing skills through a hands-on approach that includes using case studies, in-class exercises, movie clips, and class discussion, with readings that emphasize theory and application. The course is comprised of two modules. The first module - Globally Capable Leadership - will introduce students to the core qualities of leadership that transcend cultural contexts, as well as examine how cultural context influences leadership efficacy. The second module - Managing Across Borders - will teach students how to negotiate effectively in a variety of contexts, including conflict resolution, transactional settings, conflict resolution, and across borders, such as those of gender, ethnic identity, national culture, and differences in values and beliefs.
Fall or Spring
1 Course Unit

DYNM 7050 Capstone Course
This course will help you prepare your Capstone Project by synthesizing previous Dynamics course materials and guiding you through the development phase of your final research project. You will learn how to: plan to create an academic research project; narrow a topic and frame a research question; establish a Capstone committee; conduct interdisciplinary research; develop a methodology that suits your research goals and timeline; read critically and write clearly for your specified audience.
Fall or Spring
1 Course Unit

DYNM 7200 Foundations of Leadership Coaching
This five and a half-day intensive is the first in a cohort program in Leadership and Executive Coaching. During this course, students will experience the formation of a learning cohort, explore the foundational elements of helping relationships and the adult developmental journey, observe and respond to the dynamics that commonly affect groups, and begin applying coaching concepts and skills through interactive live coaching sessions. DYNM 7200 is wholly experiential, meaning learning will occur through students’ direct interaction with course exercises, and with peers in the class. The core requirement is a willingness and courage to “be yourself” and to be open to the impact your being has on others. This course is open to LCC members only.
Fall
1 Course Unit

DYNM 7220 The Four Provinces of Coaching
The territory of professional coaching spans four distinct provinces: The Coaching Context, The Coaching Relationship, The Coaching Process, and the Coaching Self. Each of these provinces represents a special area of interest and responsibility for practitioners, as well as an area of intellectual inquiry. This course continues to build on the foundational skills established in DYNM 7200 and DYNM 7230 through a practical exploration of the core theoretical perspectives that underlie and inform coaching practice. Knowledge of coaching theory serves to illuminate complex social phenomena, provides a sense of direction for your actions and choices in coaching, and helps you evaluate the results of your efforts in terms of client outcomes and progress. DYNM 7220 culminates with cohort members working together in small groups to research and execute a high-level presentation of the theoretical perspectives underlying each of the Four Provinces, as well as their applications in practice. This course is open to LCC students only.
Spring
1 Course Unit

DYNM 7230 Becoming a Coach
The territory of professional coaching spans four distinct provinces: The Coaching Context, The Coaching Relationship, The Coaching Process, and the Coaching Self. Each of these provinces represents a special area of interest and responsibility for practitioners, as well as an area of intellectual inquiry. This course continues to build on the foundational skills established in DYNM 7200 and DYNM 7230 through a practical exploration of the core theoretical perspectives that underlie and inform coaching practice. Knowledge of coaching theory serves to illuminate complex social phenomena, provides a sense of direction for your actions and choices in coaching, and helps you evaluate the results of your efforts in terms of client outcomes and progress. DYNM 7220 culminates with cohort members working together in small groups to research and execute a high-level presentation of the theoretical perspectives underlying each of the Four Provinces, as well as their applications in practice. This course is open to LCC students only.
Spring, even numbered years only
1 Course Unit

DYNM 7240 Beyond the Dyad: Group Coaching Theory and Practice
This course explores the application of coaching principles, models, and techniques in the context of groups and teams. While most coaching is dyadic in nature, coaching in group or team settings requires an understanding of the complex social dynamics that shape learning and change in groups, as well as the levers and mechanisms that enable collective action toward common goals. The course is designed to build on and complement your growing base of scholarship and practice from 7200, 7220, and 7230. This hybrid course blends synchronous virtual class sessions and team meetings with asynchronous learning, readings, and other self-study activities. It is a highly experiential course combining conceptual knowledge, integrated practice, and interactive sessions that serve the development of group and team coaching competency, capability, and capacity. Learners will participate in real-time collaborative team projects, through which they will experience team coaching as both client and coach. They will also meet regularly in peer coaching groups to reflect on their personal learning, emergent challenges, and achievements in the course. Course limited to those in the LCC concentration.
Spring
1 Course Unit

DYNM 7270 Practicum Experience in Consulting and Coaching
Participants integrate everything they have learned by contracting with a client to provide consulting/coaching services. Individual supervision is provided on a weekly basis by a core faculty member and peer supervision is provided in two clinics, where cohort members share their experiences and learning with one another and, at the conclusion of the second clinic, bid the cohort farewell as members are now ready for their internship experiences. This course is open to OCEC students only. This course fills the following Organizational Dynamics requirements: Categories: A Concentrations: OCEC
Fall or Spring
1 Course Unit

DYNM 7290 Executive Coaching Internship
In this course, each participant is exposed to a variety of executive coaching opportunities designed to enable them to utilize their skills in multiple situations and contexts. Access to an advisor/coach during this period ensures that each participant’s advanced learning will be provided in a timely and individualized manner.
Fall or Spring
1 Course Unit
DYNM 7580 Sweden: Strategies for Thriving in the 21st Century
Neutral during WWII, and claiming a "Middle Way" between east and west in the post-war twentieth century, Sweden - its people, institutions, and culture - has left its mark on our global society. In today’s world, the influence of Swedish ideas and innovations can be seen in government structures, health and social policies, business organizations, working life, education, science, art, literature, and, of course, the design and style of many products and services which enjoy high demand. These are impressive impacts from a nation-state of only eight million people. What lessons are there for Americans and our institutions as we enter the twenty-first century where our leadership position, ability to determine the rules and control the agenda of world economic and political affairs are diminished? In this course, we focus on "the people philosophy" of Sweden, its government, businesses and organizations. We cover healthcare issues and policy, sustainable development, the European Community and the human relations issues in organizations. This course will include meetings with academics and leaders from industry, government, health care, science, media, arts and culture. Students will meet with and learn from these representatives in order to explore Swedish organizational dynamics, both in terms of its economic prosperity and the problems Swedish society faces today.

Summer Term
1 Course Unit

DYNM 7660 Global Collaboration for Sustainability - The Food-Water-Energy Nexus in Italy
Environmentalist Paul Hawken challenged a class of 2009 college graduates that they would have to "figure out what it means to be a human being on earth at a time when every living system is declining, and the rate of decline is accelerating." That theme is at the heart of this course. Our quality of life in the near future hinges on the development and implementation of sustainable solutions to the enormously complex environmental and social problems embodied in the Sustainable Development Goals – particularly around food, water, energy, and waste. This course is designed to foster the thinking, and the collaborative spirit, that is needed to address those enormous problems. It involves focusing on a critical global sustainability problem with vast social, cultural, and environmental dimensions – in this case, the need to balance global food, water, and energy needs in a manner that allows the world to feed 9.6 billion citizens by 2050 while preserving the environment for future generations. It also involves collaboration and the exchange of ideas between multi-disciplinary leaders and students from multiple countries, and perspectives on how to manage diverse views and sustainability initiatives that are extremely relevant to the success of today’s organizations (i.e., how to lead "big change" for competitive advantage). DYNM 7660 will explore the food-water-energy nexus in Italy amid a culture that literally celebrates food, with special emphasis on the systemic challenge of global food loss and waste. The course will involve a special session with experts at the Food and Agriculture Organization (FAO) of the United Nations in Rome – the hub of agriculture and food security research for the world – and additional sessions on food, water, energy, SDG and innovation topics with international students and food system experts at the University of Bologna (the oldest University in the world) and the Food Innovation Program led by food system leader Sara Roversi. Potential side trips include tours of Parmigiano-Reggiano cheese and balsamic vinegar producers, a pasta producer, an Italian supermarket, FICO/Eataly, and Food For Soul (Modena). Students will have some time to explore the wonders of Rome and Bologna on their own as well.

Summer Term
1 Course Unit

DYNM 7700 Process Excellence in South America: Chile on Its Journey to Productivity and Performance
This course will travel to Chile July 21st through 29th. The class will meet on campus before and after departure on dates to be determined. This course will have an additional course fee to cover lodging and other program logistics. Registration permits will be issued upon a signed Travel Agreement being returned to the Organizational Dynamics program office. Chile is a long and narrow strip of land along the pacific coast of South America. It is the longest country in the world, 2,700 miles in length, which is about the distance from San Francisco to New York. In 1973 the military imposed a dictatorship, led by Augusto Pinochet, who ruled the country until 1990. The Chilean strategy to be part of the world economy has been based on open markets and the development of Free Trade Agreements. A report by The Economist Intelligence Unit shows Chile has the best environment in the region for business and is among the top 20 countries worldwide. Chile stands out for the effectiveness of its policies, labor, and infrastructure. The strength and stability of its banking and financial systems have generated high credibility indexes in foreign markets, which has meant that big companies want to invest in the country, improving access to goods and services. Chilean companies have started improving the way they organize themselves. Business Process Management and Digitalization have become important topics in many organizations. The Universidad de Chile offers numerous courses and certificates in that field. Chile is making good progress on its journey to productivity and performance. Students will meet with academics and business leaders and observe the organizational dynamics. Students will also learn Chile’s journey to high performance and what it means to do business with organizations in this emerging market.

Fall or Spring
1 Course Unit
DYNM 7810 Dynamic Hub of the Americas: Entrepreneurship & Sustainable Development on the

Creating meaningful solutions to the biggest challenges facing humanity today requires diverse interventions at all scales: macro, micro, and everything in between. The projects reshaping business as usual and driving more sustainable cooperation at the highest levels and place-specific interventions at the scale of individuals, families, and communities. This course will explore innovative, cross-scale initiatives through which Central America’s largest and fastest growing economy is tackling sustainability challenges while balancing cultural values and conservation of biodiversity with economic growth and exploitation of natural resources. On the international stage, the Republic of Panama leads the way on environmental conservation, even surpassing ambitious global targets by protecting more than 50 percent of its oceans and becoming one of the first certified carbon-negative countries. The globalization-defining Panama Canal epitomizes human efforts to make something happen that was colossal in scale and macro in scope. Today’s Panama also offers opportunities to study bright spots, positive deviance, and the emergence of new economic initiatives based on diverse worldviews—despite the micro scale of some of these projects, they too have the potential to change world order. Geographically, politically, culturally, and economically, Panama is an excellent place to prototype. Underdeveloped relative to its potential, the nation provides a fruitful environment for Panamanian and expatriate entrepreneurs alike to develop new ventures, organize from the ground up, and intentionally design for sustainable scalability. At the core of this experiential travel course is the opportunity to visit a range of Panama’s land, sea, and cityscapes and interact with pioneering companies, entrepreneurs, policymakers, NGOs, and scientists. Organizational Dynamics students will be challenged to create and contribute while learning in this dynamic environment. Travel abroad will take place in Panama over Penn’s Spring Break (March 1-10, 2024), with pre-departure and post-trip sessions TBD. Students are expected to complete readings in advance of the trip, keep a field journal, participate in scheduled meetings and activities, complete a paper or applied project synthesizing their learning, and give a presentation on their work during the final session. Interested students will sign a travel agreement. There will be an additional course fee to cover logistics. Summer Term
1 Course Unit

DYNM 7860 European Approaches to Multi-Stakeholder Project Management

In the interconnected world of global corporations, studying Project Management from the standpoint of U.S. firms is not enough. Broadening perspectives is the goal of the seminar in Paris, France. Dr. Jean-Marc Choukroun will lead Organizational Dynamics students in a study of European approaches to the challenges of large project management, particularly those involved in public-private and other multi-group projects. Dr. Choukroun notes that “In today’s global economy, managing multi-national, multi-cultural teams, devising innovative financing arrangements and securing public-private cooperation are increasingly becoming standard requirements for complex projects. European integration has made dealing with these issues a priority with many European organizations. Students will be exposed to new ideas, and new ways of applying time-tested methods and techniques that European organizations in general, and more specifically French organizations, have developed to address these issues. Properly adapted, some of these ideas should prove to be readily applicable in the US context. In addition, students will discover how French managers in the public and private sectors frame issues, approach problems and implement solutions.” Summer Term
1 Course Unit

DYNM 7870 The Intersection Between Business Agility and Sustainability and Its Impact on Organizational Design

This course requires a signed Travel Agreement prior to registration. This course will have an additional course fee to cover logistical arrangements. For the last three years, Organizational Dynamics has partnered with Human Resources at ING, a global financial services firm headquartered in Amsterdam, Netherlands, through our course “Developing the Agile Leader and Their Organization.” Our partnership with ING has allowed our students to learn and gain practical experience with Agile mindset and methods. ING is a pioneer in the implementation of agile business practices especially in their HR programs. Climate change is one of the biggest challenges of our time. As a financial institution, ING can play a role by financing change, sharing knowledge, and using their influence. Being sustainable is not just about reducing their own impact, it’s in all the choices they make—as a lender, in their financing and through the services they offer their customers. That’s why sustainability is inherent to their purpose of empowering people to stay a step ahead in life and in business. At ING in the Netherlands (DBNL), they have sharpened their Vision ‘Sustainable progress for all.’ They have set extra ambitions and targets on sustainability and launched a program to deliver new sustainable propositions. ING calls on all domains to create a roadmap by which they will be able to achieve its sustainability goals and ambitions. But how does such a central program relate to their Agile way of working where tribes have a lot of autonomy? ING is looking forward to expanding their relationship with Organizational Dynamics at Penn by inviting our students to join with their team to identify potential strategies for moving ahead with their sustainability efforts using an agile framework. The course includes daily meetings, seminars, tours, and networking with ING leaders and staff. In addition, the participants will also have an opportunity to meet with and learn from Dutch representatives involved in academia, government, healthcare, art, science, culture, and the media. Not Offered Every Year
1 Course Unit

DYNM 8990 MPhil Capstone Registration

Course is used for MPhil Capstone Registration.
0 Course Units
Pashto (PASH)

PASH 0100 Elementary Pashto I
The first semester is focused on mastering the writing system, basic structures, and simple conversation using texts, writing samples, and numerous structure and dialogue drills. We remain within the present and future tenses only, developing vocabulary with lessons and discussions centered around greetings, family, weather, foods, and directions. Students use authentic online and textbook materials.
Fall
1 Course Unit

PASH 0200 Elementary Pashto II
The second semester covers more advanced structures with reinforcing drills, and begin reading longer texts of an assorted variety, mostly short stories and some news articles. The past tense is introduced, as well as longer more complex texts. Topics within simple simulated contexts (taxi, hotel, restaurant, food shopping, time, family). Short writing exercises and dictations are expected at this time, as well as simultaneous translations to and from Pashto.
Spring
Prerequisite: PASH 0100 OR PASH 5100
1 Course Unit

PASH 0300 Intermediate Pashto I
A more in-depth study of the Pashto language. Reading, writing, speaking, and listening comprehension are all stressed in this more advanced course which also builds on the grammar of beginning level.
Fall
Prerequisite: PASH 0200 OR PASH 5200
1 Course Unit

PASH 0400 Intermediate Pashto II
The second semester of intermediate study and a more in-depth study of the Pashto language. Reading, writing, speaking, and listening comprehension are all stressed in this more advanced course which also continues to build on grammar skills.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: PASH 0300 OR PASH 5300
1 Course Unit

PASH 1500 Advanced Pashto Readings
Advanced Pashtu Reading course for undergraduates.
Fall or Spring
1 Course Unit

PASH 5200 Elementary Pashto II
The second semester covers more advanced structures with reinforcing drills, and begin reading longer texts of an assorted variety, mostly short stories and some news articles. The past tense is introduced, as well as longer more complex texts. Topics within simple simulated contexts (taxi, hotel, restaurant, food shopping, time, family). Short writing exercises and dictations are expected at this time, as well as simultaneous translations to and from Pashto.
Spring
1 Course Unit

PASH 5300 Intermediate Pashto I
A more in-depth study of the Pashto language. Reading, writing, speaking, and listening comprehension are all stressed in this more advanced course which also builds on the grammar of beginning level.
Fall
1 Course Unit

PASH 5400 Intermediate Pashto II
The second semester of intermediate study and a more in-depth study of the Pashto language. Reading, writing, speaking, and listening comprehension are all stressed in this more advanced course which also continues to build on grammar skills.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

PASH 5500 Advanced Pashto Readings
Advanced Pashtu Reading course for graduate students.
Fall or Spring
1 Course Unit

Persian (PERS)

PERS 0100 Elementary Persian I
This course is designed to help you start learning Persian and to give you the necessary tools to continue your study of Persian. This course introduces the Persian alphabet alongside grammar and vocabulary. Emphasis is placed on actively using the language for interpersonal, interpretive, and presentational modes of communication. The four language skills (i.e., listening, speaking, reading and writing) as well as pronunciation and culture are integrated into the curriculum. There is no prerequisite.
Fall
1 Course Unit

PERS 0180 Introduction to Sorani Kurdish
Introduction to Sorani Kurdish is an introductory-level course designed to help you start learning Sorani Kurdish and to give you the necessary tools to continue your study of Kurdish language. This course introduces the Kurdish alphabet (Arabic script) alongside grammar and vocabulary. Toward the end of the semester, the course will also involve some Kurdish classical and modern poetry. Emphasis is placed on actively using the language for interpersonal, interpretive, and presentational modes of communication. The four language skills (i.e., listening, speaking, reading and writing) as well as pronunciation and culture are integrated into the curriculum. There is no prerequisite.
Fall
1 Course Unit
PERS 0200 Elementary Persian II
This course is designed to help you build upon what you have learned in Elementary Persian I. Emphasis is placed on using the language for interpersonal, interpretive, and presentational modes of communication. Therefore, use of English is restricted. Listening, speaking, reading, and writing-as well as culture, vocabulary, grammar, and pronunciation—are integrated into the course. Students must either have successfully completed Elementary Persian I or take the departmental exam.
Fall
Prerequisite: PERS 0200
1 Course Unit

PERS 0300 Intermediate Persian I
This course is conducted in Persian and designed to help you continue expanding upon what you have learned in Elementary Persian II. In this course, we will begin to address a variety of topics in order to increase your proficiency in linguistic as well as cultural terms. Emphasis is placed on actively using the language for interpersonal, interpretive and presentational modes of communication. Therefore, use of English is restricted. Listening, speaking, reading, and writing are integrated into the course, as are culture, grammar, vocabulary, and pronunciation. Students must either have successfully completed Elementary Persian II or take the departmental placement exam.
Fall
Prerequisite: PERS 0200
1 Course Unit

PERS 0390 Persian for Heritage Speakers I
Persian for Heritage Speakers is conducted in Persian and designed to help you strengthen your skills by learning not only to read and write, but also to engage in more complex forms of discourse in Persian. In this course, we will begin to address a variety of topics in order to increase your proficiency in linguistic as well as cultural terms. Emphasis is placed on actively using the language for interpersonal, interpretive and presentational modes of communication. Therefore, use of English is restricted. Listening, speaking, reading, and writing are integrated into the course, as are culture, grammar, vocabulary, and pronunciation. Prerequisite: Students must be proficient in spoken Persian (whether Farsi or Dari), and lack reading and writing skills.
Fall
1 Course Unit

PERS 0400 Intermediate Persian II
In this course, we will continue to address a broader variety of cultural topics in order to increase your proficiency in linguistic as well as cultural terms. Emphasis is placed on actively using Persian for interpersonal, interpretive and presentational modes of communication. Therefore, use of English is restricted. Listening, speaking, reading, and writing are integrated into the course, as are culture, grammar, vocabulary, and pronunciation. Students must have successfully completed either Intermediate Persian I or Persian for Heritage Speakers I, or take the departmental placement exam.
Spring
Prerequisite: PERS 0300 AND PERS 0390
1 Course Unit

PERS 0600 Persian for Heritage Speakers II
A course designed to develop greater skills in reading and writing standard modern Persian for those with a competency in spoken Persian. The course will focus on the lexical and syntactic differences between written and spoken Persian, and the problems of Persian spelling.
Fall or Spring
Prerequisite: PERS 0500
1 Course Unit

PERS 2000 Advanced Persian I
A continuation of Intermediate Persian II, students will advance their skills in reading and listening, as well as in writing and speaking.
Fall
Prerequisite: PERS 0400 OR PERS 0600
1 Course Unit

PERS 2100 Advanced Persian II
A continuation of Advanced Persian I, students will advance their skills in reading and listening, as well as in writing and speaking near fluency.
Spring
Prerequisite: PERS 2000
1 Course Unit

PERS 2300 Advanced Persian in the Media
This course is designed for advanced students of Persian interested in contemporary Persian media from Iran as well as Afghanistan and abroad, who wish to gain a deeper understanding of contemporary Persian-speaking societies and politics. Students will advance their skills in reading and listening, as well as in writing and speaking.
Spring
Prerequisite: PERS 2100
1 Course Unit

PERS 4000 Persian Culture, Literature and Film for Advanced Learners I
This course is designed for those undergraduate students who have successfully passed the intermediate Persian course. Undergraduate students who take this course must either have successfully completed Intermediate Persian II, or take the placement exam. The main objective of this course is to further enhance the students' knowledge about the millennium-old Persian literary tradition and culture as well as its world-renowned cinema through reading primary sources or watching Iranian films in original Persian. Students who take this course are expected to use Persian language at all times during their time in class. Using English inside the classroom is restricted in order to improve the students' proficiency in Persian language.
1 Course Unit

PERS 5100 Elementary Persian I
This course is designed to help you start learning Persian and to give you the necessary tools to continue your study of Persian. This course introduces the Persian alphabet alongside grammar and vocabulary. Emphasis is placed on actively using the language for interpersonal, interpretive, and presentational modes of communication. The four language skills (i.e., listening, speaking, reading and writing) as well as pronunciation and culture are integrated into the curriculum. There is no prerequisite.
Fall
1 Course Unit

PERS 5101 Persian for Heritage Speakers I
Persian for Heritage Speakers is conducted in Persian and designed to help you strengthen your skills by learning not only to read and write, but also to engage in more complex forms of discourse in Persian. In this course, we will begin to address a variety of topics in order to increase your proficiency in linguistic as well as cultural terms. Emphasis is placed on actively using the language for interpersonal, interpretive and presentational modes of communication. Therefore, English is restricted. Listening, speaking, reading, and writing are integrated into the course, as are culture, grammar, vocabulary, and pronunciation. Prerequisite: Students must be proficient in spoken Persian (whether Farsi or Dari), and lack reading and writing skills. Placement test or instructor permission required.
Fall
1 Course Unit
PERS 5200 Elementary Persian II
This course is designed to help you build upon what you have learned in Elementary Persian I. Emphasis is placed on using the language for interpersonal, interpretive, and presentational modes of communication. Therefore use of English is restricted. Listening, speaking, reading, and writing—as well as culture, vocabulary, grammar, and pronunciation—are integrated into the course. Students must either have successfully completed PERS-011, or take the departmental exam. Spring
Prerequisite: PERS 0100
1 Course Unit

PERS 5300 Intermediate Persian I
This course is conducted in Persian and designed to help you continue expanding upon what you have learned in Elementary Persian II (PERS-012). In this course, we will begin to address a broader variety of cultural topics in order to increase your proficiency in linguistic as well as cultural terms. Emphasis is placed on actively using the language for interpersonal, interpretive and presentational modes of communication. Therefore use of English is restricted. Listening, speaking, reading, and writing are integrated into the course, as are culture, grammar, vocabulary, and pronunciation. Students must either have successfully completed Elementary Persian II at the graduate level, or take the departmental placement exam. Fall
Prerequisite: PERS 0200
1 Course Unit

PERS 5400 Intermediate Persian II
In this course, we will continue to address a broader variety of cultural topics in order to increase your proficiency in linguistic as well as cultural terms. Emphasis is placed on actively using Persian for interpersonal, interpretive and presentational modes of communication. Therefore use of English is restricted. Listening, speaking, reading, and writing are integrated into the course, as are culture, grammar, vocabulary, and pronunciation. Students must either have successfully completed PERS 613 or PERS 617, or take the departmental placement exam. Spring
Prerequisite: PERS 0300
1 Course Unit

PERS 5550 Introduction to Kurdish
Introduction to Kurdish is an introductory-level course designed to help you start learning Kurdish and to give you the necessary tools to continue your study of Kurdish language. This course introduces the Kurdish alphabet (Arabic script) alongside grammar and vocabulary. Toward the end of the semester, the course will also involve some Kurdish classical and modern poetry. Emphasis is placed on actively using the language for interpersonal, interpretive, and presentational modes of communication. The four language skills (i.e., listening, speaking, reading, and writing) as well as pronunciation and culture are integrated into the curriculum. There is no prerequisite. The course will focus on a variety of Kurdish dialects as well. Spring
1 Course Unit

PERS 5650 Elementary Kurdish Part II
This course is designed to help you build upon what you have learned in Elementary Kurdish I (Introduction to Kurdish). Emphasis is placed on using the language for interpersonal, interpretive, and presentational modes of communication. Therefore, use of English is restricted. Listening, speaking, reading, and writing—as well as culture, vocabulary, grammar, and pronunciation—are integrated into the course. Students should have fulfilled the prerequisite (PERS-5550-680 202230) with a grade of C better, or taken the placement exam, in order to take this course. Spring
Prerequisite: PERS 5550 or permission of instructor
1 Course Unit

PERS 6200 Advanced Persian I
A continuation of Intermediate Persian II, students will advance their skills in reading and listening, as well as in writing and speaking. Graduate students may have additional assignments. Fall
Prerequisite: PERS 5400 OR PERS 0600
1 Course Unit

PERS 6250 Advanced Persian II
A continuation of Advanced Persian I, students will advance their skills in reading and listening, as well as in writing and speaking to near fluency. Graduate students may have additional assignments. Spring
Prerequisite: PERS 6200
1 Course Unit

PERS 6300 Persian for Heritage Speakers
This course is conducted in Persian and designed to help you strengthen your skills by learning not only to read and write, but also to engage in more complex forms of discourse in Persian. In this course, we will begin to address a variety of topics in order to increase your proficiency in linguistic as well as cultural terms. Emphasis is placed on actively using the language for interpersonal, interpretive and presentational modes of communication. Therefore, English is restricted. Listening, speaking, reading, and writing are integrated into the course, as are culture, grammar, vocabulary, and pronunciation. Students must be proficient in spoken Persian (whether Farsi or Dari), and lack reading and writing skills. Fall or Spring
1 Course Unit

PERS 6700 Persian Culture, Literature and Film for Advanced Learners I
This course is designed for those graduate students who have successfully passed the intermediate Persian course. Undergraduate students who take this course must either have successfully completed Intermediate Persian II, or take the placement exam. The main objective of this course is to further enhance the students’ knowledge about the millennium-old Persian literary tradition and culture as well as its world-renowned cinema through reading primary sources or watching Iranian films in original Persian. Students who take this course are expected to use Persian language at all times during their time in class. Using English inside the classroom is restricted in order to improve the students’ proficiency in Persian language. Fall or Spring
1 Course Unit
Pharmacology (PHRM)

PHRM 4950 High Throughput Discovery: A Multidisciplinary Approach to Cancer
The newly developed massively parallel technologies have enabled the simultaneous analysis of many pathways. There are several large scale international efforts to probe the genetics and drug sensitivity of cancer cell lines. However, there are some rare cancers that have not been analyzed in depth. One of these rare cancers is malignant peripheral nerve sheet tumors (MPNST). MPNST, although a rare cancer, are common in patients with neurofibromatosis type. In the course, students will take part in a high throughput discovery effort in two phases. Phase 1 is a training phase, which will consist of quantitative profiling the sensitivity of MPNST cell lines to a library of >120 common and experimental cancer drugs. These will be conducted in the UPenn High Throughput Screening Core. (http://www.med.upenn.edu/cores/HighThroughputScreeningCore.shtml). While we call this a training phase, the data from this will be subject to rigorous quality control for eventual publication and development of a public database for rare tumors. Phase 2 is an independent research project. Examples of projects include, but are not limited to: Combinatorial screens (synthetic lethal); siRNA screens; novel compound screens; determining mechanisms of cell death; developing tools for data analysis and database development. During phase 2, students will also modify compounds of interest using the Penn Chemistry: Upenn/Merck High Throughput Experimentation Laboratory (https://www.chem.upenn.edu/content/penn-chemistry-upenn-merck-high-throughput-experimentation-laboratory), and then retest them for activity to determine structure activity relationships. We will sponsor phase 2 projects relevant to neurofibromatosis. However, in phase two students can also research other areas if they develop sponsorships from professors. We expect the course to be a hypothesis engine that generates ideas for further research. Prerequisites include a strong foundation in biology and chemistry. Students will prepare an abstract proposal by week three on their phase 2 project, and a report, in scientific paper style, due on the last day of the semester.

Spring
Also Offered As: CHEM 4950
1 Course Unit

PHRM 5100 Neurotransmitter Signaling & Neuropsychopharmacology
The goals of this course are three-fold: 1) Provide an overview of major psychiatric disorders. 2) Provide in-depth information on neurotransmitters, emphasizing the wealth of new molecular information on how neurons function and communicate, as well as the basis for psychotherapeutics (one class per week). 3) Develop skills to appreciate, present and critically evaluate the the current literature in neurotransmitter signaling and neuropsychopharmacology (one class per week). Prerequisite: Permission of course director
Spring, odd numbered years only
Also Offered As: NGG 5100
1 Course Unit

PHRM 5320 Human Physiology
This course will present a survey of the physiology of most of the major organ systems. It will integrate knowledge of cellular and molecular mechanisms into an understanding of function at the tissue, organ, and organism levels. It will begin with a brief review of membrane physiology, followed by electrophysiology and signaling in nerve. Then, after a brief outline of neural control systems and their role in homeostasis, it will present motility and muscle, the cardiovascular system, respiration, the renal and gastrointestinal systems, and selected topics from the endocrine system, the reproductive systems, environmental and exercise physiology. As well as providing a basis of integrative physiology for students in fields such as physiology, bioengineering and pharmacology, it should be of interest to students of cellular and molecular biology and genetic engineering who will need to appreciate the roles of specific systems and molecules at higher levels of organization. Prerequisite: Although not a formal prerequisite, a good foundation in cell bio level of BIOM/CAMB 6000 (or an equivalent upper level undergraduate strongly recommended. A general understanding of the chemistry a biochemistry of macromolecules, and of basic molecular biology is assumed. This course is primarily designed for 2nd year BGS study students in BGS or other programs will require the permission instructor. This course is not open to undergraduates.
Fall
Also Offered As: CAMB 5320
1 Course Unit

PHRM 5340 Experimental Genome Science
This course will survey methods and questions in experimental genomics, including next generation sequencing methods, genomic sequencing in humans and model organisms, functional genomics, proteomics, and applications of genomics methods. Students will be expected to review and discuss current literature and to propose new experiments based on material learned in the course. Prerequisite: Undergraduates and Masters students need BIOL 431.
Also Offered As: GCB 5340
Prerequisite: BIOL 4231
1 Course Unit

PHRM 5350 Advanced Epigenetics Technology
Second year students in GCB, CAMB (G&E), or IGG programs using genomics methods to measure transcriptomics and epigenomics changes in their experimental systems. The goal is to familiarize students with the latest cutting-edge genomics tools and cover solutions to major experimental and computational challenges in the investigation of genome-wide epigenetic data sets. Students will develop competence in (i) variations of experimental techniques improving resolution and throughput, (ii) issues related to the computational analyses closely related to the various genome-wide assays used to probe epigenetic processes and signals, (iii) computational approaches useful to overcome pitfalls associated to the analysis of a given epigenetic data modality, (iv) methods, techniques and studies on the integration of multi-layer epigenetic data sets.
Spring
Also Offered As: CAMB 5770, GCB 5770, MTR 5350
Prerequisite: (BIOL 4234 OR BIOL 4244) AND GCB 5340 AND (GCB 5350 OR GCB 5360)
1 Course Unit
**PHRM 5420 Topics in Molecular Medicine**
TiMM is planned as a once-weekly seminar course whose goal is to introduce students to the ways in which biomedical research can provide new insights into clinical medicine and, conversely, how knowledge of clinical disease impacts scientific discovery. There are two sections for the course – 401 and 402. Section 401 is for first year MD/PhD students only and section 402 is for VMD/PhD and PhD students.

Fall
Also Offered As: CAMB 5420
1 Course Unit

**PHRM 5640 Drug Delivery Systems: Targeted Therapeutics and Translational Nanomedicine**
The topics include the need for new drug delivery systems (DDS), advantages and applications of biotherapeutic drugs, routes for drug transport in the body, pharmacokinetics and biodistribution, nanocarriers as DDS, targeted drug delivery, challenges with developing new DDS, and translational aspects of new DDS. Directors of the course are Miriam Wattenbarger and Vladimir Muzykantov (Pharmacology). In addition to lectures from the course directors, faculty from engineering and medicine will give guest lectures related to their research interests. The students read current journal articles on DDS. The major group assignment for the course is a written and oral group proposal on a new drug delivery system. Technical communication skills and working with students from different disciplines are an important aspects of the course.

Spring
Also Offered As: CBE 5640
1 Course Unit

**PHRM 5700 Principles of Cardiovascular Biology: Vascular biology, medicine and engineering**
Lectures to be presented by various Medical School faculty members.
Topics covered include: general principles of vascular biology and hemodynamics, endothelial cells and integral vascular functions, signaling in the cardiovascular system, angiogenesis, hemostasis and thrombosis, platelets, platelet/vascular interactions, vascular integrins and adhesion molecules, vascular inflammation and oxidative stress, white blood cells, vasoactive compounds and drugs, mechanisms of atherosclerosis, cholesterol and lipid metabolism, hypertension, novel vascular directed gene and enzyme therapies. Permission of course director required to enroll.

Spring
1 Course Unit

**PHRM 5800 Pharmacogenetics**
This is a "literature-based" course (i.e. a seminar course/literature survey). It will survey the emerging technologies and computational advances that have permitted the field of Pharmacogenomics to mature into a major biomedical discipline over the past few years. It will consider the likely impact on disease target identification; the development of new drugs for established and "niche" markets; the advent of "personalized medicine" including the selection of therapies that have maximum efficacy and minimum side-effect profiles. This course will also touch on some of the ethical issues associated with the routine genetic testing of patients to facilitate treatment choices and clinical monitoring.

Spring
1 Course Unit

**PHRM 5900 Molecular Toxicology: Chemical and Biological Mechanisms**
Course Goals: Exposures to foreign compounds (drugs, carcinogens, and pollutants) can disrupt normal cellular processes leading to toxicity. This course will focus on the molecular mechanisms by which environmental exposures lead to end-organ injury and to diseases of environmental etiology (neurodegenerative and lung diseases, reproduction disruption and cardiovascular injury). Students will learn the difficulties in modeling response to low-dose chronic exposures, how these exposures are influenced by metabolism and disposition, and how reactive intermediates alter the function of biomolecules. Mechanisms responsible for cellular damage, aberrant repair, and end-organ injury will be discussed. Students will learn about modern predictive molecular toxicology to classify toxicants, predict individual susceptibility and response to environmental triggers, and how to develop and validate biomarkers for diseases of environmental etiology. Students are expected to write a term paper on risk assessment on an environmental exposure using available TOXNET information. Pre-requisites: Must have taken or will take Fundamentals of Pharmacology concurrently. Undergraduate course work in biochemistry and chemistry essential. Exceptions allowed based on past course work. Please consult with students with required prerequisites; residents in in Environmental and Occupational Health, and professional masters students (MPH and MTR).

Spring
Also Offered As: REG 5900
1 Course Unit

**PHRM 5990 Pharmacology Graduate Group Journal Club**
The major goals of this journal club are 1) to gain experience presenting recent original research articles from the primary scientific literature, and 2) to learn to critically evaluate the research contained in these articles with respect to their context, documentation, authentication, presentation, scientific rigor, reproducibility, inferences, and any other factors that contribute to the quality of the research and its communication. This class is open ONLY to students in the Pharmacology Graduate Group
Two Term Class, Student may enter either term; credit given for either 0.5 Course Units

**PHRM 6050 Drug Discovery and Development**
This course will expose graduate-level students to the process of drug discovery and development. The course will be structured to cover topics from the identification of a disease-relevant target through to Phase III Clinical Trials. The course will be lecture based and there will also be student-led journal club presentations as part of the course. There will also be a writing project consisting of a 3 page proposal of how to advance one of the areas of Drug Discovery & Development covered in the course.

Spring
Also Offered As: BMB 6050, CAMB 7100
1 Course Unit

**PHRM 6230 Fundamentals of Pharmacology**
This course is designed to introduce students to basic pharmacological concepts with special emphasis on the molecular actions of drugs. Subject matter includes use of microcomputers to analyze pharmacological data. Prerequisite: Permission of course director
Fall
Also Offered As: REG 6230
1 Course Unit
PHRM 6240 Medical Pharmacology
This course surveys the major classes of drugs used to treat human conditions, and focuses on their molecular mechanisms of action. It consists of two 2-hour lectures per week and problem sets. Student evaluation is based 50% on exams and 50% on problem sets. Prerequisite: BIOM 6000

PHRM 6285 Introduction to Superfund Sites and Health Effects of Hazardous Waste
Superfund hazardous waste sites are prevalent in our nation and the exposures to toxicants from these sites raise immediate health concerns. The aims of this course are to educate students about such sites and provide a scientific basis for hazard identification, hazard characterization, risk communication and risk management. The course will describe the effect of these hazardous chemicals on the ecosystem and vice-versa, and remediation and mitigation approaches. These environmental science issues will lead into the environmental health aspects of exposures including: biomonitoring (external and internal dose, biomarkers and the exposome), toxicological properties of contaminants and mode-of-action. The course will be complemented with visits to two Superfund sites in the region: Ambler (asbestos) and Palmerton (heavy metals). Prerequisite: 400 level course in Biology/Chemistry and Biochemistry

PHRM 6320 Cell Control by Signal Transduction Pathways
This course, "Targeting the cancer cell: from mechanism to precision medicine", will examine how various signal transduction mechanisms influence cell functions including replication, growth, transcription, translation and intracellular trafficking. We will also consider how non-cell autonomous mechanisms, such as the tumor microenvironment and the immune system influence cancer cell signaling. We will consider how important signaling pathways, such as Ras, Raf, Notch, Wnt, TGF beta, and various kinases/phosphatases become dysregulated in cancer, as well as delve into how the DNA damage response, immune system, and tumor microenvironment exert important influences on oncogenic signaling. In the first half of the course, invited faculty members will pick 2 relatively recent papers from their field that highlight important areas. Each paper will be assigned to a student, who will meet with the faculty mentor prior to the class to discuss the paper and their presentation. During the class, students will present each paper for approximately 45 minutes with time for discussion. Students will present the important background, break down the paper, look for strengths and weakness and come up with a plan of what the next set of experiments could or should be. In the second half of the course, students will independently pick a relevant paper for class presentation and will also write a short "News and Views" style article based on the paper they have chosen. The goal of the course is to provide students with a view of the cancer cell that integrates both cell autonomous and non-cell autonomous signals and to use this information to consider how to successfully treat cancer.

PHRM 6570 Introduction to Superfund Sites and Health Effects of Hazardous Waste
Superfund hazardous waste sites are prevalent in our nation and the exposures to toxicants from these sites raise immediate health concerns. The aims of this course are to educate students about such sites and provide a scientific basis for hazard identification, hazard characterization, risk communication and risk management. The course will describe the effect of these hazardous chemicals on the ecosystem and vice-versa, and remediation and mitigation approaches. These environmental science issues will lead into the environmental health aspects of exposures including: biomonitoring (external and internal dose, biomarkers and the exposome), toxicological properties of contaminants and mode-of-action. The course will be complemented with visits to two Superfund sites in the region: Ambler (asbestos) and Palmerton (heavy metals). Prerequisite: 400 level course in Biology/Chemistry and Biochemistry

PHRM 6990 Laboratory Rotation
Lab rotation.

PHRM 7990 Independent Study
Fall or Spring

PHRM 8990 Pre-Dissert Lab Rotation
Pre-dissertation research lab rotation.

PHRM 9700 Candidacy Examination
Fall or Spring

PHRM 9950 Dissertation

Philosophy (PHIL)

PHIL 0210 First Year Seminar: Philosophy and Autobiography
In this course, we will study the interaction of autobiography and philosophy. We will read some autobiographies written by philosophers to understand how their philosophical thinking and commitments arose and how these commitments shaped their lives. We will also read texts that examine philosophical issues related to the phenomenon of writing autobiographies, including the nature of the self, questions surrounding interpretation and understanding, the paradoxes of self-deception, and the meaning and narrative structure of human life.

PHIL 0220 Knowledge, Religion, and Values
This First Year Undergraduate Seminar is an introduction to Philosophy organized around the topics of knowledge (epistemology), religion (metaphysics) and values (ethics). We will examine questions such as what is the difference between true knowledge and mere beliefs, the challenge of skepticism, the nature of the human mind, the nature of God and arguments for and against the existence of God, and ethical questions such as how should I live and what do I owe to others. We will draw on a range of philosophical writings, historical and contemporary, from different philosophical traditions. Examples of authors we will read include Plato, Descartes, Hume, Zhuangzi and Mengzi.

PHIL 9950 Dissertation
PHIL 0330 Seminar in Moral Philosophy
Four sorts of questions belong to the study of moral philosophy in the analytic tradition: (1) Practical ethics discusses specific moral problems, often those we find most contested (e.g. abortion, euthanasia, killing noncombatants in war). (2) Ethical theory tries to develop systematic answers to moral problems, often by looking for general principles that explain moral judgments and rules (e.g. consequentialism, contractarianism). (3) Meta-ethics investigates questions about the nature of moral theories and their subject matter (e.g. are they subjective or objective, relative or non-relative, related to a deity or not?). (4) Finally, there are questions about why any of this does, or should, matter to us (e.g. what kind of reason for acting is a moral reason and how is it related to a prudential reason?). We will investigate all four of these types of questions. A large part of the course will be focused on two highly contentious moral problems, abortion and killing noncombatants in war. The central aims of the required readings and discussion are: a) to develop each question deeply and sharply enough for us to understand why it has been contentious; b) to see what new evidence could change the nature of the problem; and c) to suggest how to seek that further evidence. We will focus on how to read complex contemporary philosophical prose in order to outline and evaluate the arguments embedded within it. This will provide the basis for writing papers in which you defend a position with evidence and arguments. These skills are central to the practice of Philosophy. This course does not presuppose that students already have these skills. It is intended to teach them and presupposes a willingness on the part of students to do what is necessary to learn them. What this involves is detailed in “Success in this Course”. You should read this note to understand the commitment this course involves.
Fall
1 Course Unit

PHIL 0340 The Self: Aspiration and Transformation
Novels, memoirs, and alles of self-help books attest to our desire to transform ourselves. Yet, the idea of self-transformation is puzzling. If a person decides to embark on a new adventure in the hopes of transforming herself, can she really become a new self or is she merely exhibiting her preexisting adventurousness? What about the aspiring college student who is hoping that college will change him? How can we make sense of his aspiration? In this class, we will critically examine the idea of aspiration and transformation. Readings for this course will be drawn from philosophy, fiction, and literary criticism.
1 Course Unit

PHIL 0341 Ethics of Artificial Intelligence
This course surveys some ethical issues related to artificial intelligence (AI) and related technologies. We’ll investigate such questions as: Can a machine learning algorithm be fair? When is an AI trustworthy? What privacy and other rights do people have to their data? How much autonomy in weapons is too much? When Als make mistakes, who should be held responsible? What risks are there for Al to exacerbate gender and racial oppression and how can we mitigate those risks? What are the potential benefits and risks of increased societal integration with social AIs and robots, for example in healthcare? How can policy keep up with rapidly advancing and changing technology?
1 Course Unit

PHIL 0430 Markets and Morality First-Year Seminar
Market exchange, where the seller provides a good or service at a price the buyer accepts, serves as a basic element of our society. It embodies certain values of freedom of exchange, and, when well-functioning, promotes economic efficiency. We also know there are illegal markets for human organs, an enormous amount of money is spent to influence our democratic elections, and that giving a friend a loan can change the dynamics of your relationship. Should everything be for sale? How should we balance the benefits and values of free market exchange with other values? What influence do markets have in shaping the way we relate to one another? This course will consider questions like these to explore when and what kind of moral limits should be placed on markets.
1 Course Unit

PHIL 0700 Critical Thinking
This course will provide the student with informal techniques for identifying and analyzing arguments found in natural language. Special attention will be paid to developing the ability to assess the strength of natural language arguments, as well as statistical arguments.
1 Course Unit

PHIL 0710 Logic and Formal Reasoning
This course offers an introduction to three major types of formal reasoning: deductive, inductive (probabilistic and statistical), and practical (decision-making). The course will begin with the study of classical sentential and predicate logics. It will move on to elementary probability theory, contemporary statistics, decision theory and game theory.
Spring
1 Course Unit

PHIL 0901 Philosophy for the Young
This Academically Based Community Service course brings philosophy to Philadelphia area schools (K-12). Anyone who has pondered questions about goodness, value, personal identity, justice, how to live well, or how to do the right thing, has thought philosophically. These issues are important not just to adults, but to children and teenagers. Introducing younger students to philosophical thought involves showing them the ways in which they are already thinking philosophically. In this course, Penn students will study selected topics in philosophy with the aim of developing curricula and lesson plans for delivery students in local Philadelphia schools. Part of the course will be held on the Penn campus and part will be held on site in our partner schools. Registration is by permit only, after an interview with the instructor.
1 Course Unit

PHIL 0902 High School Ethics Bowl
In this course, teams of Penn undergraduates, each joined by a graduate student in philosophy, will coach teams of high school students for participation in the National High School Ethics Bowl, an annual competitive yet collaborative event in which teams analyze and discuss complex ethical dilemmas. Cases for the Ethics Bowl will will serve as a foundational starting point for the undergraduate students’ investigations into ethical theory, and the study of the Ethics Bowl itself will develop the capacities to provide coaching and mentorship to the teams of high school students from West Philadelphia and across the city. Undergraduates will travel to these school as part of the course, and there will be one or two Saturday sessions. This course will introduce the ethics bowl to many new Philadelphia School District schools and students, and it will provide Penn students with the opportunity to develop their teaching and communication skills, build collaborative relationships with community schools, and solidify their knowledge of ethical theory through coaching.
1 Course Unit
PHIL 0903 Public Philosophy & Civic Engagement
In recent years professional philosophy has witnessed numerous efforts to breakdown the barriers that stand between the academy and its neighboring communities. Such work has invited a lively debate across the discipline about the role philosophy can and should play outside the classroom. This course gives students the opportunity to make a substantive contribution to this timely issue both by reflecting upon and by engaging in 'public philosophy.' Undergraduates will have the opportunity to read, discuss, and distill philosophical texts on a range of topics in moral and political philosophy, especially topics that pertain to civic life in democratic society. Topics include duties and obligations (e.g., the duty to vote), oppression and injustice, cosmopolitanism, patriotism, civil disobedience, propaganda, and political liberalism. Students will also engage with public-facing work done by philosophers on these topics, with the aim of preparing students from a West Philadelphia high school (details TBA) to produce a written piece of public philosophy of their own at the end of the semester. Guest speakers will on occasion visit the seminar to discuss public philosophy or pre-college pedagogy. This course is an Academically Based Community Service course.
1 Course Unit

PHIL 0990 Communicating in Philosophy
The subject of this CWiC seminar will vary. It stresses the comprehension and expression of philosophical ideas in both oral and written presentation. Grades will be based on at least two oral presentations, as well as general participation in other classroom activities.
Not Offered Every Year
1 Course Unit

PHIL 0991 Topics in Philosophy
This first-year seminar presupposes no background in philosophy. Topic will vary by semester.
Not Offered Every Year
1 Course Unit

PHIL 1000 Introduction to Philosophy
Philosophers ask difficult questions about the most basic issues in human life. Does God exist? What can we know about the world? What does it mean to have a mind? How should I treat non-human animals? Do I have free will? This course is an introduction to some of these questions and to the methods philosophers have developed for thinking clearly about them.
Fall or Spring
1 Course Unit

PHIL 1110 Ancient Greek Philosophy
What is philosophy? How does it differ from science, religion, literature, and other modes of human discourse? This course traces the origins of philosophy as a discipline in the Western tradition, looking to thinkers of Ancient Greece and Rome. We will examine how natural philosophers such as Thales, Anaximander, and Heraclitus distinguished their inquiries from the teachings of poets such as Homer and Hesiod; how ancient atomism had its origins in a response to Parmenides' challenge to the assumption that things change in the world; how Socrates reoriented the focus of philosophy away from the natural world and toward the fundamental ethical question, how shall I live? We will also examine how his pupil, Plato, and subsequently Aristotle, developed elaborate philosophical systems that address the nature of reality, knowledge, and human happiness. Finally, we will examine the ways in which later thinkers such as the Epicureans and Stoics transformed and extended the earlier tradition.
Fall
Also Offered As: CLST 1501
1 Course Unit

PHIL 1111 Greek and Roman Moral Philosophy
A survey of ethical philosophy in the Ancient Greek and Roman tradition. Works studied will include those of Plato, Aristotle, Epicurus, and the Stoics, including writings of later Roman authors such as Cicero, Seneca, Epictetus, and Marcus Aurelius. The class will be run as a seminar. All works will be read in English translation.
Not Offered Every Year
Also Offered As: CLST 1502
1 Course Unit

PHIL 1170 History of Modern Philosophy
This course is an introduction to a few central themes in philosophy in the 17th and 18th centuries, and to some of the crucial thinkers who addressed those themes. Topics to be covered may include, among others, the nature of the human being (including the human mind), the relationship between God and the created world, the nature of freedom, and the relations among natural sciences, philosophy and theology in this rich period of human history.
Spring
1 Course Unit
PHIL 1180 Benjamin Franklin and His World
Benjamin Franklin was a preternaturally talented Renaissance man. He was a world-famous scientist whose insights into electricity are still relevant today; a leading citizen and civic leader; a first-class printer who helped define and expand the world of letters; a preeminent printer, essayist, and aphorist; a skilled politician and diplomat. His tremendous legacy of political, cultural, scientific and civic organizations continues to influence his city and his country. His Autobiography is an essential feature of the American literary canon. But Benjamin Franklin's life also raises deep and disturbing questions for students. He owned slaves and profited from the sale of enslaved persons. He copied and reworked many of his most famous phrases. His sexual habits and behavior are incompatible with the character of the "Me Too" era. He broke promises, circulating - knowing they would become public- personal letters of great political import, which he had pledged to keep private. Through examining Franklin's life, we will consider weighty questions in history, citizenship, ethics, and science. This course will explore the life and ethos of Benjamin Franklin. We will study the history of the 18th century, including the American Revolution, the details of Franklin's life and accomplishments, and six major ethical issues he confronted. Over the course, students will follow Franklin's own advice for establishing order in life. Students will keep a detailed moral diary modeled on Franklin's. For a 5-day period, students will emulate the diet he had as a young and low-paid-adult. The course will encourage students to critically examine the 18th Century, the "great man" theory, and the ability to make moral evaluation of people living in other times. They will critically examine the relevance of the life of a world historical figure for how to lead their own civicly engaged, ethical life.
1 Course Unit

PHIL 1220 World Philosophies
In this Benjamin Franklin Seminar, we will study philosophies or thought systems from around the world. Placing these philosophies within historical, cultural and political contexts, we will study the theoretical bases (including questions regarding the nature of reality, human nature, claims about knowledge and memory) of practical engagement with the world (including concerns with individual human interactions, social-political structures, educational theory, the nature of history, the nature of the arts and the like). Philosophies or thought systems we will study will come from across Africa and Asia, and from native peoples of the Americas, the South Pacific, New Zealand, and Australia.
Not Offered Every Year
1 Course Unit

PHIL 1221 World Philosophies
In this seminar, we will study philosophies or thought systems from around the world. Placing these philosophies within historical, cultural and political contexts, we will study the theoretical bases (including questions regarding the nature of reality, human nature, claims about knowledge and memory) of practical engagement with the world (including concerns with individual human interactions, social-political structures, educational theory, the nature of history, the nature of the arts and the like). Philosophies or thought systems we will study will come from across Africa and Asia, and from native peoples of the Americas, the South Pacific, New Zealand, and Australia.
1 Course Unit

PHIL 1225 Environmental Ethics
We investigate some of the ethical issues that arise from our relationship with the environment. Topics may include: What are our responsibilities toward the environment, as individuals and as members of institutions? How do our responsibilities toward the environment relate to other ethical considerations? Do non-human animals/species/ecosystems have intrinsic value? What should conservationists conserve? What is the appropriate response to climate change?
Not Offered Every Year
1 Course Unit

PHIL 1226 Environmental Ethics
We investigate some of the ethical issues that arise from our relationship with the environment. Topics may include: What are our responsibilities toward the environment, as individuals and as members of institutions? How do our responsibilities toward the environment relate to other ethical considerations? Do non-human animals/species/ecosystems have intrinsic value? What should conservationists conserve? What is the appropriate response to climate change?
Not Offered Every Year
1 Course Unit

PHIL 1241 Introduction to Bioethics
This course is an introduction to bioethics, focusing on ethical questions arising at the beginning and end of life. Topics will include procreative responsibilities, the question of wrongful life, and prenatal moral status as well as questions of justice related to markets for sperm, eggs and gestation. We will also attend to dilemmas at the end of life, including the authority of advance directives, euthanasia and the allocation of life-saving therapies.
Not Offered Every Year
1 Course Unit

PHIL 1242 Bioethics
This course is an introduction to bioethics, focusing on ethical questions arising at the beginning and end of life. Topics will include procreative responsibilities, the question of wrongful life, and prenatal moral status as well as questions of justice related to markets for sperm, eggs and gestation. We will also attend to dilemmas at the end of life, including the authority of advance directives, euthanasia and the allocation of life-saving therapies.
Not Offered Every Year
1 Course Unit

PHIL 1251 Yoga and Philosophy
"Yoga" means to yoke in Sanskrit. Metaphorically, this is often interpreted as union, or integration. This course will explore central aspects of yogic philosophy and practice, and how they relate to, and might be integrated with, contemporary analytic philosophy, college life, and beyond. We will focus on three key issues: (1) What is yogic philosophy? How does it relate to the western philosophical tradition more commonly taught in philosophy departments in the U.S.? (2) What does the practice of yoga have to do with theoretical understanding? (3) Is it possible to integrate a yogic worldview and a scientific worldview? Is there scientific evidence that yoga "works"? What does that even mean? This course will contain both a theoretical component and a practice component. In addition to writing analytical essays on these topics, students will maintain a yoga practice and a reflective journal throughout the course. No prior experience with yoga is required.
1 Course Unit

PHIL 1252 Introduction to Indian Philosophy
This course will take the student through the major topics of Indian philosophy by first introducing the fundamental concepts and terms that are necessary for a deeper understanding of themes that pervade the philosophical literature of India -- arguments for and against the existence of God, for example, the ontological status of external objects, the means of valid knowledge, standards of proof, the discourse on the aims of life. The readings will emphasize classical Hindu, Buddhist, and Jain philosophical articulations (from 700 B.C.E to 16th century CE) but we will also supplement our study of these materials with contemporary or relatively recent philosophical writings in modern India.
Fall or Spring
Also Offered As: RELS 0055, SAST 0050
1 Course Unit

PHIL 1253 Ethics
Ethics is the study of right and wrong. This introductory course will introduce students to major ethical theories, the possible sources of normativity, and specific ethical problems and questions. Topics may include euthanasia, abortion, animal rights, the family, sexuality, bioethics, crime and punishment, and war.
Fall or Spring
1 Course Unit

PHIL 1254 Bioethics
This course is an introduction to bioethics, focusing on ethical questions arising at the beginning and end of life. Topics will include procreative responsibilities, the question of wrongful life, and prenatal moral status as well as questions of justice related to markets for sperm, eggs and gestation. We will also attend to dilemmas at the end of life, including the authority of advance directives, euthanasia and the allocation of life-saving therapies.
Not Offered Every Year
1 Course Unit

PHIL 1255 Environmental Ethics
We investigate some of the ethical issues that arise from our relationship with the environment. Topics may include: What are our responsibilities toward the environment, as individuals and as members of institutions? How do our responsibilities toward the environment relate to other ethical considerations? Do non-human animals/species/ecosystems have intrinsic value? What should conservationists conserve? What is the appropriate response to climate change?
Not Offered Every Year
1 Course Unit
PHIL 1345 Business Ethics
We will examine practical ethical issues facing businesses, and the philosophical tools for addressing them. Topics may include corporate responsibility, shareholders vs. stakeholders, whistle blowing, raiding and restructuring, the morality of markets, fair hiring practices, workers rights, sexual harassment, environmental impact.
Not Offered Every Year
1 Course Unit

PHIL 1360 Philosophy of Sport
This is an introductory philosophy course that uses philosophical tools to understand and answer questions that arise in and about sports. Is there a principled basis for determining which methods of performance enhancement are acceptable? Developing a framework to answer this question will take us through: 1) questions about rules: what is their point in sports and what are appropriate reasons to change them; 2) questions about the point of participation in a sport; 3) questions about the kinds of virtues sports participants can demonstrate; and 4) questions about integrity of participants and a sport itself. A related set of questions concerns the appropriate competitors in sporting events: Should competition be restricted to single sex categories; Should competition be divided into disabled and non-disabled categories?
Not Offered Every Year
1 Course Unit

PHIL 1380 Aesthetics
This course examines philosophical issues centering on the nature and value of the arts. What is art? What does it mean to have an aesthetic experience? How are aesthetic experiences different from non-aesthetic ones? What is the relation between art and truth? How do the moral qualities in a work of art affect its aesthetic qualities? Why are emotions important in our interpretations of artworks? What is the relation between art and expression? Do forgeries necessarily have less aesthetic value than original artworks? What are aesthetic judgments, and are they merely expressions of taste? Lecture and discussion will center on both classical and contemporary works in aesthetics.
Not Offered Every Year
1 Course Unit

PHIL 1430 Political Philosophy
An introduction to some central issues in social and political philosophy: liberty, equality, property, authority, distributive justice. Readings may be from Hobbes, Locke, Mill, Marx, and more recent theorists such as Rawls and Nozick.
Not Offered Every Year
1 Course Unit

PHIL 1433 The Social Contract
This is a critical survey of the history of western modern political philosophy, beginning from the Early Modern period and concluding with the 19th or 20th Century. Our study typically begins with Hobbes and ends with Mill or Rawls. The organizing theme of our investigation will be the idea of the Social Contract. We will examine different contract theories as well as criticisms and proposed alternatives to the contract idea, such as utilitarianism. Besides the above, examples of authors we will read are Locke, Rousseau, Hume, Mill and Marx.
Spring
1 Course Unit

PHIL 1439 Marx, Marxism, and the Culture of Revolution
Capitalist society is the object of Karl Marx’s analysis and critique—a society that is the product of history and may one day vanish. This course will trace Marx’s critique by moving between the fields of philosophy, economics, and politics. We will locate key interventions of Marx’s thought that transform modern conceptions of history, the relation between economics and politics, and the limits of struggle and emancipation in capitalist society. We will consider the historical conditions of Marx’s writing and the development of his thought to discover many sides of Marx and many divergent Marxisms (humanist, post-structuralist, feminist, and others) that follow, often at odds with each other. Further, we will ask about what kind of horizons Marx’s and Marxist interventions open up for critique and analysis of capitalist society with respect to gender, race, class, and nation. “Theory becomes a material force when it has seized the masses,” argues the young Marx; indeed, his theories have fueled emancipatory movements and propped up tyrannical regimes, substantiated scientific theories and transformed philosophical debates. In examining Marx’s legacy, we will focus on the elaborations and historical limitations of his ideas by examining the challenges of fascism, the communist experiment in the Soviet Union and its collapse, as well as the climate and other crises currently taking place. In conclusion, we will turn to the question of whether and to what extent Marx’s ideas remain relevant today, and whether it is possible to be a Marxist in the contemporary world dominated by global capital.
Not Offered Every Year
Also Offered As: COML 1020, GRMN 1020, REES 1172
1 Course Unit

PHIL 1440 Machine Fairness: Algorithms and the Theory of Justice
Artificial intelligence is causing unprecedented changes and disruptions in many sectors of society, raising fundamental ethical and philosophical questions. Although many researchers are currently studying how tasks can be automated efficiently, only a few have discussed how tasks can be automated fairly, to produce the best possible outcome for society. Machine Fairness is an emerging area of research at the intersection of philosophy, machine learning, computer science, statistics, and psychology. This course is designed as a non-technical introduction to the basic problems involved in answering questions about machine fairness. It focuses on a number of applications, including criminal sentencing, predictive policing, self-driving vehicles, autonomous weapons, and healthcare. Although these areas are quite different, they involve similar questions. What biases might enter into algorithms, and what is their origin? How should we evaluate whether the outcomes of an algorithmic process are just? When things go wrong, who should be held accountable? The course addresses these questions by using methods from philosophical ethics.
Fall or Spring
1 Course Unit

PHIL 1450 Philosophy of Law
An introduction to some of the central philosophical problems of law: What is law? What makes law? What is the relationship between law and morality? Can laws be unjust? Is there a moral obligation to obey the law? We will look at different theories of law, such as positivism and natural law theory, and discuss topics like civil disobedience, liberty and the law, and punishment and the law, and the special status of constitutional law. Readings from both classic and contemporary philosophers such as Michelle Alexander, Jeremy Bentham, Angela Davis, Ronald Dworkin, John Hart Ely, H.L.A. Hart, Thomas Hobbes, John Locke, John Stuart Mill, Robert Nozick, Martha Nussbaum, Richard Posner, and Jeremy Waldron.
Not Offered Every Year
1 Course Unit
PHIL 1510 Black Philosophy
This is a survey course that will cover issues in the Black and African American philosophical tradition. The course will give an overview of the ethics, political theory, epistemology, metaphysics, and philosophy of language relevant to the experience of Black people with an aim of understanding the distinctive and important contributions of the Black intellectual tradition. Topics covered may include race, culture, racism, justice, oppression, agency, violence, class, identity, nationalism, white supremacy, intersectionality, and power. Readings may include work by Martin Delaney, Frederick Douglass, Sojourner Truth, W.E.B. DuBois, Marcus Garvey, Alain Locke, Martin Luther King Jr., Malcolm X, James Baldwin, Angela Davis, Anthony Appiah, Bernard Boxill, Cornell West, Tommie Shelby, bell hooks, Charles Mills, and related authors. 
1 Course Unit

PHIL 1540 Introduction to Feminist Philosophy
This course is an introduction to feminist thought, both in theory and in practice. We will consider how feminist thought emerged and evolved, as well as how feminist theories respond to various intellectual, social and political challenges. Questions we will address may include: What exactly is feminism? How does one's gender identity impact one's lived experiences? How should we revise, reformulate, or rethink traditional answers to political and ethical issues in light of feminist theories? How can feminist analyses contribute to the development of better science, and our conceptions of knowledge? 
Not Offered Every Year
1 Course Unit

PHIL 1571 Repairing the Planet: Tools for the Climate Emergency
This course is a comprehensive introduction to the climate emergency and the tools with which we can fight it. It will integrate natural science, social science, philosophy of science, history, ethics, and policy. The course opens with an overview of the historical discovery of global warming and our contemporary understanding of climate change. We then turn to the framework that the United Nations’ Intergovernmental Panel on Climate Change has developed to study climate risks, focusing on both general issues and case studies throughout the world. The existence and severity of these risks raises questions of climate justice at many levels: individuals to individuals, countries to countries, and the present generation to future generations. We will study these issues in detail, and then examine the policy tools developed to address them. Although we will discuss national and sub-national policy and policy proposals such as the Green New Deal, special attention will be given to global policy tools, especially the Framework Convention on Climate Change and the Paris Agreement. In addition to standard writing assignments, students will have a chance to develop policy proposals that address the core issues of the class. 
Also Offered As: ENVS 1043
1 Course Unit

PHIL 1580 Philosophy of Religion
An introduction to philosophical questions regarding the nature of religious experiences and beliefs; arguments for and against the existence of God; the problem of evil; the relationships of faith, reason and science, the possibility of religious knowledge, the role of religious communities, etc. Readings from the history of philosophy as well as from 20th century and contemporary philosophy. 
Not Offered Every Year
1 Course Unit

PHIL 1581 Jewish Philosophy
This course is an inquiry into questions that lie in the intersection of philosophy and Jewish thought, and it approaches these questions through the writings of classical Jewish philosophers. Topics to be covered include: The problem of evil, the problem of divine foreknowledge and free will, the nature of the human being and the immortality of the soul, the existence and nature of God, the origins of the universe and the possibility of miracles, prophecy, what constitutes the good life and human perfection, and the purpose and nature of divine law. Readings will be drawn from traditional Jewish texts, from medieval and modern Jewish and non-Jewish philosophers, and from contemporary analytic philosophy. 
1 Course Unit

PHIL 1710 Introduction to Logic
This course provides an introduction to some of the fundamental ideas of logic. Topics will include truth functional logic, quantificational logic, and logical decision problems. 
Fall or Spring
Also Offered As: LGIC 1710
Mutually Exclusive: PHIL 5710
1 Course Unit

PHIL 1800 Philosophy of Science
What counts as a scientific theory? What counts as evidence for a scientific theory? Are scientific inferences justified? Does science give us truths or approximate truths about a world that exists independently of us? How can we know? Does it matter? These are all perennial questions in the philosophy of science, and the goal of this course is to look at how philosophers have answered these questions since the scientific revolution. In addition to reading classic work by philosophers of science, we will read material from living and dead scientists in order to gain a deeper appreciation of the philosophical questions that have troubled the most brilliant scientists in Western science. 
Fall or Spring
1 Course Unit

PHIL 1810 Philosophy of Space and Time
This course provides an introduction to the philosophy and intellectual history of space-time and cosmological models from ancient to modern times with special emphasis on paradigm shifts, leading to Einstein’s theories of special and general relativity and cosmology. Other topics include Big Bang, black holes stellar structure, the metaphysics of substance, particles, fields, and superstrings, unification and grand unification of modern physical theories. No philosophy of physics background is presupposed. 
Fall or Spring
1 Course Unit

PHIL 1830 Philosophy of Biology
This course will examine evolutionary theory and its philosophical foundations. We begin with Darwin’s formulation of evolutionary theory and the main influences on Darwin. We then consider two contemporary presentations of the theory, by Richard Dawkins and Richard Lewontin. The rest of the course addresses a number of foundational issues including adaptation, the units of selection, the evolution of altruism, and the possibility of grounding ethics in evolutionary theory. 
Not Offered Every Year
1 Course Unit
PHIL 1831 Evolution's Laboratory
This Global Seminar is a version of PHIL 1830 and will conclude with field work in the Galapagos Islands. This course is a Penn Global Seminar, which includes a travel component. An application is required. For more information and to apply, visit: https://global.upenn.edu/pennabroad/pgs
Not Offered Every Year
1 Course Unit

PHIL 1840 Introduction to Cognitive Science
How do minds work? This course surveys a wide range of answers to this question from disciplines ranging from philosophy to neuroscience. The course devotes special attention to the use of simple computational and mathematical models. Topics include perception, learning, memory, decision making, emotion and consciousness. The course shows how the different views from the parent disciplines interact and identifies some common themes among the theories that have been proposed. The course pays particular attention to the distinctive role of computation in such theories and provides an introduction to some of the main directions of current research in the field. It is a requirement for the BA in Cognitive Science, the BAS in Computer and Cognitive Science, and the minor in Cognitive Science, and it is recommended for students taking the dual degree in Computer and Cognitive Science.
Fall
Also Offered As: CIS 1400, COGS 1001, LING 1005, PSYC 1333
1 Course Unit

PHIL 1850 Philosophy of Social Science
This course discusses the foundations of contemporary social science. It focuses on the nature of social systems, the similarities and differences between social and natural sciences, the construction, analysis, and confirmation of social theories, and the nature of social explanations. Specific topics may include: What are social norms and conventions? What does it mean to have one gender rather than another, or one sexual orientation rather than another? Should social systems be studied quantitatively or qualitatively?
Not Offered Every Year
Prerequisite: PHIL 1433 OR PHIL 1800 OR PSYC 2737 OR ECON 0100 OR ECON 0200
1 Course Unit

PHIL 1860 Philosophy of Environmental Science
This course studies the conceptual foundations and methods of the environmental sciences including Geology, Environmental Chemistry, Oceanography, and Climate Science. We will study the methods deployed in understanding the complex interactions between land, atmosphere, and ocean, and look at the ways that predictions can be made about the future. The course will also address issues of ethics and global justice raised by the earth's rapidly changing climate.
Fall or Spring
1 Course Unit

PHIL 2112 Introduction to Plato
A survey of selected dialogues of Plato, an Athenian philosopher of the fourth century BCE. Works read may include the Euthyphro, Crito, Gorgias, Laches, Charmides, Phaedo, Philebus, Statesman, and Laws. The course will be run as a seminar. All works will be read in English translation.
Topics to be discussed may include metaphysics, epistemology, psychology, ethics, and political theory.
Not Offered Every Year
1 Course Unit

PHIL 2113 Introduction to Aristotle
Aristotle (384-323 BCE) was one of the most important philosophers in Classical Greece, and his legacy had unparalleled influence on the development of the Western philosophical thought through the medieval period. We will study a selection of his works in natural philosophy, metaphysics, epistemology, psychology, ethics and politics. All texts will be read in English translation. No background in Greek philosophy or knowledge of Greek is required.
Not Offered Every Year
1 Course Unit

PHIL 2200 Continental Philosophy
This course is an introduction to 20th-century continental European philosophy, focusing on the origins and development of phenomenology, existentialism, hermeneutics, and deconstruction. The centrality of phenomenology to an understanding of these movements and other contemporary trends in European thought will be emphasized throughout. No previous background in philosophy is required.
Not Offered Every Year
1 Course Unit

PHIL 2221 Philosophy East and West
Our goal in this course is to bring Western Philosophy and Eastern Philosophy into dialogue. Topics will include skepticism and knowledge, ethics and the good life, moral responsibility and personal relationships, and political obligations and justice. Do the Western and Eastern philosophical traditions approach these topics in the same way? Do they even share an understanding of what the problems and issues at stake are? And what can we learn from comparative philosophy? This seminar does not presuppose prior knowledge of philosophy. Examples of authors we will study include Descartes, Aristotle, Mencius, and Confucius.
Not Offered Every Year
1 Course Unit

PHIL 2430 Global Justice
This course is an introduction to some of the central problems in global justice. Samples of these topics include: What are our duties to respond to world poverty and what is the basis of this duty? Is global inequality in itself a matter of justice? How universal are human rights? Should human rights defer to cultural claims at all? Is there a right to intervene in another country to protect human rights there? Indeed can intervention to protect human rights ever be a duty? Who is responsible for the environment? We will read some influential contemporary essays by philosophers on these topics with the goal of using the ideas in these papers as a springboard for our own further discussion and analysis.
Not Offered Every Year
1 Course Unit

PHIL 2450 Justice, Law and Morality
The course will focus on the philosophical background to the individual rights protected by the U.S. Constitution, including 1st Amendment freedoms of religion, expression, and association; the 14th amendment guarantee of Due Process and the rights of privacy; abortion, assisted suicide, and marriage; the Equal Protection clause and equal political rights and the legitimacy of affirmative action; and the Takings and Contract clauses and their bearing on rights of private property and economic freedoms. In addition to Supreme Court decisions on these issues, we will read works by political philosophers and constitutional theorists, including J.S. Mill, Ronald Dworkin, Cass Sunstein, Martha Nussbaum, Katherine MacKinnon and others.
Not Offered Every Year
1 Course Unit
PHIL 2510 Philosophy of Race
Historically, philosophical questions about race have been about the nature and reality of race, the nature of racism, and social or political questions related to race or racism. In fitting with that history, the first part of the course will focus on the nature and reality of race, as understood in biology and as understood by ordinary people. We will begin by looking at biological race theories from Francois Bernier in 1684 to Pigliucci and Kaplan in 2003. Next, we will look at the philosophical work that has been done on the nature and reality of race as ordinarily understood in the contemporary United States. We will discuss racial anti-realism, social constructionism about race, and biological racial realism from well-known philosophers of race like Anthony Appiah, Sally Haslanger, and Joshua Glasgow. The second part of the course will focus on the nature of racism and social or political questions related to race or racism. In our discussion of racism, we will cover, at least, intrinsic racism, extrinsic racism, and institutional racism. In our discussion of social or political issues related to race or racism, we will look at whether any US racial groups should be used to diagnose, study, or treat genetic disorders.
Not Offered Every Year
1 Course Unit

PHIL 2511 Racial Justice
This course will focus on contemporary philosophical debates around racial justice. Some of the themes for this course are quite obvious: the nature of racism and discrimination, for example, will recur. But the main focus of the course will be on debates about politically pertinent policy issues, such as racial segregation, reparations, and mass incarceration. A guiding question in the course will be whether in these areas we should think that certain moral duties are owed to racial groups, or only to particular individuals.
Not Offered Every Year
1 Course Unit

PHIL 2540 Philosophical Issues around Love and Sex
This is a course on philosophical topics surrounding love and sex. We will touch on issues in all areas of philosophy including ethics, political philosophy, metaphysics, philosophy of language, and epistemology. You will develop the sorts of skills fundamental to philosophy: understanding and reconstructing arguments, evaluating arguments, and developing your own argumentative abilities. You will also acquire theoretical tools that might be useful for thinking about your own love and sex lives, and the lives of those around you.
Spring, odd numbered years only
1 Course Unit

PHIL 2560 Philosophy of Education
The philosophy of education asks questions about the foundational assumptions of our formal institutions for the reproduction of culture. It ranges therefore, from epistemology and philosophy of mind to ethics and political philosophy. For instance: What is the nature of learning and teaching? How is it possible to come to know something we did not know already—and how can we aid others in doing that? How, if at all, should formal institutions of education be concerned with shaping students’ moral and civic character? What is the proper relation between educational institutions and the state? We also ask questions more specific to our own time and context. For example: how, in a multicultural state, should we educate students of varied social identities, like race, gender, and religion? What is the relationship between education and justice.
Not Offered Every Year
Also Offered As: GSWS 2490
1 Course Unit

PHIL 2620 Introduction to Epistemology and Metaphysics
Two basic assumptions of academic research are that there are truths and we can know them. Epistemology is the study of knowledge, what it is, how it is produced, and how we can have it. Metaphysics, the study of the basic constituents of reality, the study of being as such. In this introduction to metaphysics and epistemology, we will ask hard questions about the nature of reality and knowledge. No philosophy background is required for this course.
Not Offered Every Year
1 Course Unit

PHIL 2640 Introduction to Philosophy of Mind
This course will survey several central topics in philosophy of mind, as well as investigate how philosophy of the mind interacts with scientific study of the mind. Among the questions we’ll be asking are: What is it to have a mind? What is the relationship between the mind and the brain? Can there be a science of the mind? What can can philosophy contribute to a science of the mind? What is consciousness? What is it to think, to perceive, to act? How are perception, thought, and action related to one another?
Fall or Spring
Also Offered As: VLST 2210
1 Course Unit

PHIL 2660 What is Meaning?
We will survey of central topics in philosophy of mind and language, and investigate how these areas of philosophy interact with the scientific study of the mind. Questions addressed may include: What is it to have a mind? What is consciousness? What is it to think, to perceive, to act, to communicate, to feel emotions? What is the relationship between the mind and the brain? Can there be a science of the mind? Of language? What can it tell us? What can philosophy contribute to cognitive science?
We will look for more precise ways of asking these questions, and we will study some canonical answers to them.
Not Offered Every Year
1 Course Unit

PHIL 2680 Introduction to Metaphysics
In this class we reflect on questions like: What is reality? What is causality? What is the nature of the self and mind? Might you be in a computer simulation (e.g., as in In The Matrix)? Is time travel possible? Can your mind survive the death of your brain by uploading? Is time real or is it merely an illusion?
Not Offered Every Year
1 Course Unit

PHIL 2684 Philosophy and Visual Perception
In this course, we'll use the biology, psychology and phenomenology of vision to explore philosophical questions about color, such as these: Color vision helps us get around in our environments, but in what sense is it a window onto reality, if it is? Are colors properties of objects, or are they inherently private, subjective properties of minds? What can non-human forms of color vision teach us about the nature of color, and how should we empirically study color vision? Do we need to see in color to understand it? How do our ordinary ways of talking and thinking about colors relate to the experiences we have in color? How does color vision figure in aesthetic judgment? And to what degree can it be influenced by learning, or by social biases like sexist or racist prejudices?
Also Offered As: VLST 2230
1 Course Unit
PHIL 2851 Philosophy of Economics
In this course, general philosophy of science issues are applied to economics, and some problems specific to economics are tackled. While analytical questions like "What is economics?" or "What is an economic explanation" must be pursued, the ultimate goal is practical: What is good economics? How can economists contribute to a better understanding of society, and a better society? How can we make economics better? Topics to be discussed include the following: specific object and method of economics as a social science; its relation with other disciplines (physics, psychology and evolutionary theory); values in economics (welfare, freedom, equality and neutrality); the role of understanding and possible limits of a quantitative approach to human behavior (purposefulness, freedom, creativity, innovation); prediction, unpredictability and the pretension of prediction; causation in econometrics and in economic theory (equilibrium); selfishness and utility maximization (cognitive and behaviorist interpretations); economic models and unrealistic assumptions (realism and instrumentalism); empirical basis of economics (observation and experiment); microeconomics and macroeconomics (reductionism and autonomy); pluralism in economics (mainstream economics and heterodox schools).
Not Offered Every Year
1 Course Unit

PHIL 2991 Topics in Philosophy
This seminar is open to all undergraduates. Topic will vary by semester.
Not Offered Every Year
1 Course Unit

PHIL 2999 Independent Study
Student arranges with a faculty member to pursue a program of reading and writing on a suitable topic.
Fall or Spring
1 Course Unit

PHIL 3110 Ancient Philosophical Figures
A study of selected topics, texts, and figures from Greek and Roman philosophy in the Classical and Hellenistic periods. Topics will vary from term to term.
Not Offered Every Year
1 Course Unit

PHIL 3170 Modern Philosophical Figures
This seminar for philosophy majors will study selected topics, texts, and figures from 17th and 18th century European philosophy.
Not Offered Every Year
1 Course Unit

PHIL 3330 Topics in Ethics
This seminar for philosophy majors will cover selected topics in ethics. The content will vary from semester to semester.
Not Offered Every Year
1 Course Unit

PHIL 3340 Philosophical Issues Surrounding the Ethics of Social Media
In this course, we will look at some of the key moral issues that are raised by our current social media landscape: topics include moral epistemology and echo chambers, civility and cancel culture, authenticity and self-construction, sex work and OnlyFans, and the effects of Instagram culture on body image.
1 Course Unit

PHIL 3341 Philosophy of Food and Fat
This majors seminar will explore some of the philosophical issues related to obesity and food. We’ll discuss a number of related topics, such as the nature and causes of obesity, how food relates to personal identity, gender, and religion, questions about whether the government or society as a whole should be trying to fix the obesity epidemic, whether corporations are responsible for the problem, and the ethics and possible outcomes of different kinds of food fetishism (such as only eating locally-produced food). Because of the interdisciplinary nature of the topic, the readings will come from philosophy as well as other fields including sociology, public health, and complex systems research. There will be popular pieces as well as full philosophy articles. The class will be structured as a cooperative learning seminar, where everyone in the class is expected to help everyone else learn. The course will push you to understand and communicate clearly about material that is often difficult to understand. Along with introducing you to some topics in philosophy, this course will help students become better skilled in understanding and intelligently questioning sophisticated arguments, which can come in handy in a large number of pursuits.
1 Course Unit

PHIL 3343 Marx’s Moral, Social, and Political Philosophy
A majors seminar in Philosophy. Karl Marx is one of the most politically and intellectually influential philosophers of the modern period. Even today, in the aftermath of Soviet Communism, but also in the aftermath of the Great Recession, his ideas continue to be debated in academic circles, in the financial press, and among pundits, activists, and politicians. This seminar will survey his canonical writings roughly in chronological order. We will focus thematically on: Marx’s views on morality and ideology; his theories of history, the modern capitalist economy, and the modern state; his views on political change and political agency; and on the few but suggestive passages in which he imagined what a post-capitalist society might look like. Readings will span from the Economic and Philosophic Manuscripts of his youth to the Ethnological Notebooks written during the last decade of his life.
Not Offered Every Year
1 Course Unit
PHIL 3510 Topics in Philosophy of Race
In this seminar for Philosophy Majors, we will examine different topics and issues in the philosophy of race. Topics we will address can range from the metaphysics of race (e.g., are racial categories real?) to the moral and political philosophy of race (e.g., is affirmative action justifiable?)
1 Course Unit

PHIL 3600 Topics in Theoretical Philosophy
This seminar for philosophy majors will cover selected topics in metaphysics, epistemology, philosophy of mind, philosophy of science, or philosophy of language. Topics will vary from term to term.
1 Course Unit

PHIL 3620 Topics in Epistemology
A seminar for philosophy majors, on selected topics in contemporary epistemology (theory of knowledge).
Not Offered Every Year
1 Course Unit

PHIL 3623 Philosophy of Perception
A seminar for majors in Philosophy. Taking our perceptual experience as a given, what causes it? In a realistic mood, we accept that objects in the environment, or in the "external world," cause us to have the perceptual experiences that we do (as of a table with food, or as of a garden with flowers in it). Yet on this realistic view, our perception is the result of a causal chain that leads from object to eye to brain to experiences, and we are only given the last element: the experience. So how do we really know how our experiences are caused, and where do we get the idea that they are caused by an external world of physical objects? The seminar will focus on the problem of the external world as examined by David Hume, Thomas Reid, G. E. Moore, and Bertrand Russell, along with recent authors.
Not Offered Every Year
Also Offered As: VLST 2220
1 Course Unit

PHIL 3640 Philosophy of Mind
This seminar for philosophy majors will focus on selected topics in philosophy of mind.
Not Offered Every Year
1 Course Unit

PHIL 3800 Topics in Philosophy of Science
A seminar for philosophy majors on selected topics in the Philosophy of Science.
Fall or Spring
1 Course Unit

PHIL 3991 Topics in Philosophy
This seminar is restricted to philosophy majors (all others require a permit). Topic will vary by semester.
Not Offered Every Year
1 Course Unit

PHIL 4112 Plato’s Selected Dialogues
A graduate-level study of selected dialogues of Plato. All texts will be read in translation. No prior experience in Plato is required, but students should have some background in philosophy. Dialogues studied will vary from term to term.
Not Offered Every Year
1 Course Unit

PHIL 4113 Aristotle
A study of Aristotle’s main writings on language, reality, knowledge, nature and psychology. All texts will be read in English translation. No background in Greek philosophy or knowledge of Greek is required, although previous work in philosophy is strongly recommended.
Not Offered Every Year
1 Course Unit

PHIL 4181 Kant I
The course will concentrate on the Critique of Pure Reason and discuss in detail Kant’s conception of knowledge and experience, his criticism of traditional metaphysics and the resulting project of a system of transcendental philosophy.
Not Offered Every Year
1 Course Unit

PHIL 4182 Kant II
This course is a study of Kant’s moral and political philosophy. Texts may include Kant’s Lectures on Ethics, Groundwork for the Metaphysics of Morals, Critique of Practical Reason, Religion within the Boundaries of Mere Reason, and Metaphysics of Morals.
Not Offered Every Year
1 Course Unit

PHIL 4191 Hegel
A study of Hegel’s philosophy, focusing primarily on his Phenomenology of Spirit, with attention to relevant passages in other works such as Hegel’s Logic and Philosophy of Right. Topics may include: (1) Hegel’s conception of philosophy, (2) the development of his system, (3) the problem of an introduction to his system (Phenomenology of Spirit), (4) Hegel’s criticism of traditional metaphysics, (5) his notion of a ‘concept’ (Begriff), his theory of the Idea. The seminar will focus primarily on some of Hegel’s early Jena writings, his Phenomenology of Spirit, on passages from different versions of Hegel’s Logic and (maybe) on aspects of his Philosophy of Right. Topics that are dealt with include: (1) Hegel’s conception of philosophy, (2) the development of his system, (3) the problem of an introduction to his system (Phenomenology of Spirit), (4) Hegel’s criticism of traditional metaphysics, (5) his notion of a ‘concept’ (Begriff), his theory of the Idea. Other topics might become of interest as well.
Not Offered Every Year
1 Course Unit

PHIL 4330 Metaethics
This course is an investigation of the main questions and problems in metaethics since the turn of the 20th century. We will investigate questions about the metaphysics of morality, the philosophy of language of moral talk, the philosophy of mind of moral thought, the epistemology of morality, and the objectivity of morality.
Not Offered Every Year
1 Course Unit
PHIL 4331 Normative Ethics
Some particular acts are morally right; other acts are morally wrong. The task of normative ethics is to provide a general account of which acts are morally right or wrong and why they are morally right or wrong. The primary goal of this course is to provide an advanced survey of two theories that dominate contemporary ethics: consequentialism and deontology. Consequentialists - such as, most famously, the British utilitarians: Bentham, Mill and Sidgwick - hold that acts are right or wrong because of their good or bad consequences. Consequentialism faces numerous objections: that it is wrong to make trade-offs between benefits and harms to different individuals; that it requires us to violate rights; that it is too demanding; and that it does not respect our special obligations to our friends and family. These objections are used to motivate deontology. We will explore Immanuel Kant’s influential version deontology, and the challenges that it faces in relation to the prohibition on lying, on how we should treat the risk of wrong-doing, and on the moral status of animals. The secondary goal of this course is to develop the philosophical skills that we use to understand, evaluate, and defend moral theories.
Spring
1 Course Unit

PHIL 4360 Sports as Legal Systems: An Investigation into Law and Legal Thinking
Formal organized sports - from the NFL to NASCAR to the LPGA - are either genuine legal systems of a specialized kind or close analogues to legal systems. Like ordinary legal systems, they use general rules, promulgated by rule-making bodies and enforced by impartial adjudicators, to facilitate or incentivize desired behaviors and to prevent or deter undesired behaviors. As such, sports are proper subjects of study by legal scholars and philosophers. A standard course on "sports law" examines the regulation of sports by law. This course, in contrast, examines sports as legal systems in their own right. A small sample of the topics to be addressed includes: (1) What are sports, and what is their relationship to games? (The IOC has determined that bridge and chess are sports. Is this correct? Does it matter?) (2) What form should the rules take? (For example, should sports rules contain "mens rea" terms? Should they be more "rule-like" or more "standard-like"?) (3) How much discretion do and should officials have? (Chief Justice Roberts said that "judges are like umpires." Is this true? In what ways?) (4) Should on-field decisions be appealable and, if so, what should the procedures and standards of appellate review be? (For example, is the "indisputable visual evidence standard" of review in the NFL and NCAA football justified?) (5) What is cheating? (Did the badminton players at the London Olympics who tried to lose "cheat"? Do baseball players cheat when they falsely claim to be hit by a pitch?) (6) What should the rules of eligibility be? (Should women be allowed to compete against men? Should MTF transgender athletes be allowed to compete against cisgender women? Should double amputees like the South African Oscar Pistorius be allowed to compete against non-disabled runners?) In exploring questions like these, the course will, where appropriate, draw upon, and examine possible lessons for, ordinary law. The course is therefore both an in-depth and rigorous investigation into sports and a vehicle for deepening one's understanding of law. It is appropriate for law students and for non-law students seeking an engaging and accessible introduction to legal systems and legal analysis. Mutually Exclusive: LAW 7150
1 Course Unit

PHIL 4430 Modern Political Philosophy
A survey of several significant works in modern political philosophy, including Thomas Hobbes's, Leviathan; John Locke's, Second Treatise on Government and Letter Concerning Toleration; David Hume's 'Of the Original Contract' and 'On Justice'; John Stuart Mill's Utilitarianism, On Liberty, and The Subjection of Women; excerpts from Karl Marx's Capital and other writings; and John Rawls's A Theory of Justice.
Not Offered Every Year
1 Course Unit

PHIL 4470 Norms and Nudges
Social norms are the rules we live by, and we encounter them in any area of our lives. Social norms often guarantee the smooth functioning of a group or organization. Sometimes, however, these norms are inefficient or do not benefit society at large. What can we do to change these harmful collective behaviors? Social psychology, philosophy, sociology, rational-choice, legal theory, and even economics, are investigating and theorizing pro-social behavior, justice motivation, and moral and social norms. In this course, we will examine the latest and best in this emerging multidisciplinary field. Students will be encouraged to apply its findings and methods to their area of interest.
Mutually Exclusive: BDS 5020
Prerequisite: ECON 4100 OR ECON 4101 OR MATH 4320 OR PSCI 5800 OR PSYC 2737 OR PSYC 1440
1 Course Unit

PHIL 4510 Metaphysics of Race
Historically, philosophical questions about race have been about what race is and whether it exists, the nature of racism, and social or political questions related to race or racism. This course focuses squarely on what race is and whether it exists. The first part of the course will focus on race theories and race-related debates by biologists, anthropologists, and philosophers of biology. The second part of the course will focus on race theories from philosophers of race and sociologists about race from an ordinary folk perspective. We will begin by looking at biological race theories from Francois Bernier in 1684 to J.F. Blumenbach in 1795. Next, we will study the epistemological debate about Samuel Morton's craniometry. Finally, we will explore folk race theories from W.E.B. DuBois in 1897 to present-day work from philosophers of race like Sally Haslanger, Michael Hardimon, and Joshua Glasgow. Topics covered will include, but not be limited to, classical biological race theories, experimentation and measurement in race science, biological anti-realism about race, non-biological realism about race, and meta-metaphysical issues about race theory.
Spring, odd numbered years only
1 Course Unit

PHIL 4515 Existence in Black
Racial, colonial, and other political formations have encumbered Black existence since at least the fifteenth-century. Black experiences of and reflections on these matters have been the subject of existential writings and artistic expressions ranging from the blues to reggae, fiction and non-fiction. Reading some of these texts alongside canonical texts in European existential philosophy, this class will examine how issues of freedom self, alienation, finitude, absurdity, race, and gender shape and are shaped by the global Black experience. Since Black aliveness is literally critical to Black existential philosophy, we shall also engage questions of Black flourishing amidst the potential for pessimism and nihilism.
Spring
Also Offered As: AFRC 4406, HIST 0873
1 Course Unit
PHIL 4620 Theory of Knowledge
Selected topics in Epistemology such as: bridging the gap between mainstream and formal epistemology, the familiar tripartite definition of knowledge (knowledge as justified true belief), basic logical and probabilistic models of knowledge (Hintikka, Aumann, and Bayesian) and their multi-agent variants, logical omniscience and other problems (including the epistemic closure principle), attempts at formalizing joint and common knowledge, resource-bounded knowledge, knowledge under limited logical powers, and empirical knowledge obstructed by system complexity.
Not Offered Every Year
1 Course Unit

PHIL 4640 Philosophy of Mind
This course studies particular topics in contemporary philosophy of mind and cognitive science. Examples include: the nature of consciousness, naturalistic accounts of intentionality, the nature scope of scientific explanation in studying the mind, the intersection of philosophy of mind and epistemology, and theories of agency. Typically, readings include both philosophy and empirical work from relevant sciences.
Not Offered Every Year
1 Course Unit

PHIL 4660 Philosophy of Language
This course provides an overview of 20th century analytic philosophy of language. Questions we will ask may include: How do words refer? How do they combine to express thoughts? How do words relate to concepts or to thoughts more generally? What do words and sentences mean? How do we use them to communicate with each other? How does word and sentence meaning depend on the contexts in which they are spoken or heard, or on stable features of environments of linguistic speakers?
Not Offered Every Year
Prerequisite: PHIL 1710 OR PHIL 5710
1 Course Unit

PHIL 4670 Philosophy of Mathematics
An advanced introduction to the central philosophical questions concerning the nature of scientific knowledge and its relation to experience, and the metaphysical assumptions underlying the natural sciences. Topics to be covered include: science versus pseudoscience, laws of nature, causation, determinism and randomness, theories and models in science, scientific explanation, underdetermination of theories by observation and measurement, realism and antirealism, reductionism and intertheory relations, objectivity and value judgments in science, hypothesis testing and confirmation of scientific theories, and classical paradoxes in scientific methodology.
Fall or Spring
1 Course Unit

PHIL 4680 Philosophy of Science.
An advanced introduction to the central philosophical questions concerning the nature of scientific knowledge and its relation to experience, and the metaphysical assumptions underlying the natural sciences. Topics to be covered include: science versus pseudoscience, laws of nature, causation, determinism and randomness, theories and models in science, scientific explanation, underdetermination of theories by observation and measurement, realism and antirealism, reductionism and intertheory relations, objectivity and value judgments in science, hypothesis testing and confirmation of scientific theories, and classical paradoxes in scientific methodology.
Fall or Spring
1 Course Unit

PHIL 4684 Philosophy of Psychology
An examination of major trends of thought in experimental psychology in relation to philosophy and the philosophy of science. What is the subject matter and object of explanation of experimental psychology? What is the relation between psychology and neuroscience? How is scientific psychology related to traditional philosophical investigations of the mental? The course covers the classical systems and schools of psychology (Wundt, James, behaviorism, Gestalt psychology, cognitive and perceptual psychology, and cognitive science) and such contemporary problems as consciousness, philosophical foundations of cognitive science; theories of the extended and embodied mind; and the relation between neuroscience and psychology.
Not Offered Every Year
1 Course Unit

PHIL 4684 Philosophy and Visual Perception
Central issues in the philosophy of perception from the modern period, including: what we perceive, the meaningful content of perception, and its relation to a mind-independent external world. Additional topics may include: (1) color perception and color metaphysics; (2) object perception in its interplay between Gestalt organizational factors and background knowledge; (3) the role of ecological regularities in the formation of our visual system and in the ongoing tuning of the system to the environment; (4) the geometry of visual space and the phenomenology of visual appearances of size and shape; (5) the problem of how visual scenes are experienced by means of images. Readings from authors such as Bertrand Russell, R. W. Sellars, Tim Crane, Evan Thompson, Robert Swartz, Wolfgang Metzger, Nelson Goodman, Richard Wollheim, and William Hopp, among others.
Fall or Spring
1 Course Unit

PHIL 4720 Topics in Mathematical Logic
The course focuses on topics drawn from the central areas of mathematical logic: model theory, proof theory, set theory, and computability theory.
Not Offered Every Year
Also Offered As: LGIC 4960
1 Course Unit

PHIL 4721 Logic and Computability 1
This graduate course focuses on topics drawn from the central areas of mathematical logic: model theory, proof theory, set theory, and computability theory.
Not Offered Every Year
Also Offered As: LGIC 3100
Prerequisite: MATH 3710 OR MATH 5030
1 Course Unit

PHIL 4722 Logic and Computability 2
The course is a continuation of PHIL 4721. Cross-list with MATH5710 and LGIC3200.
Not Offered Every Year
Also Offered As: LGIC 3200
Prerequisite: PHIL 4721 OR PHIL 6721 OR MATH 5700
1 Course Unit

PHIL 4723 Introduction to Mathematical Logic
An introduction to first-order logic including the completeness, compaракtness, and Lоwenheim-Skolem theorems, and Godel's incompleteness theorems.
Spring
1 Course Unit

PHIL 4770 Philosophy of Mathematics
The course will focus on the development of the foundations and philosophy of mathematics from the late nineteenth-century through the present day. Topics may include logicism, formalism, intuitionism, and the foundations of set theory. Ample consideration will be given to some of the fundamental results of mathematical logic, such as the Godel incompleteness theorems and the independence of the Continuum Hypothesis from Zermelo-Fraenkel set theory, that have had a profound impact on contemporary approaches to the philosophy of mathematics.
Not Offered Every Year
1 Course Unit

PHIL 4800 Philosophy of Science.
An advanced introduction to the central philosophical questions concerning the nature of scientific knowledge and its relation to experience, and the metaphysical assumptions underlying the natural sciences. Topics to be covered include: science versus pseudoscience, laws of nature, causation, determinism and randomness, theories and models in science, scientific explanation, underdetermination of theories by observation and measurement, realism and antirealism, reductionism and intertheory relations, objectivity and value judgments in science, hypothesis testing and confirmation of scientific theories, and classical paradoxes in scientific methodology.
Fall or Spring
1 Course Unit

PHIL 4840 Philosophy of Psychology
An examination of major trends of thought in experimental psychology in relation to philosophy and the philosophy of science. What is the subject matter and object of explanation of experimental psychology? What is the relation between psychology and neuroscience? How is scientific psychology related to traditional philosophical investigations of the mental? The course covers the classical systems and schools of psychology (Wundt, James, behaviorism, Gestalt psychology, cognitive and perceptual psychology, and cognitive science) and such contemporary problems as consciousness, philosophical foundations of cognitive science; theories of the extended and embodied mind; and the relation between neuroscience and psychology.
Not Offered Every Year
1 Course Unit

PHIL 4843 Philosophy and Visual Perception
Central issues in the philosophy of perception from the modern period, including: what we perceive, the meaningful content of perception, and its relation to a mind-independent external world. Additional topics may include: (1) color perception and color metaphysics; (2) object perception in its interplay between Gestalt organizational factors and background knowledge; (3) the role of ecological regularities in the formation of our visual system and in the ongoing tuning of the system to the environment; (4) the geometry of visual space and the phenomenology of visual appearances of size and shape; (5) the problem of how visual scenes are experienced by means of images. Readings from authors such as Bertrand Russell, R. W. Sellars, Tim Crane, Evan Thompson, Robert Swartz, Wolfgang Metzger, Nelson Goodman, Richard Wollheim, and William Hopp, among others.
Fall or Spring
1 Course Unit
PHIL 4991 Topics in Philosophy
This advanced undergraduate topics seminar meets with the graduate seminar PHIL 5991. Topic will vary by semester.
Not Offered Every Year
1 Course Unit

PHIL 4998 Directed Honors Research
Open only to senior majors in philosophy. Student arranges with a faculty member to do an honors thesis on a suitable topic.
Fall or Spring
1 Course Unit

PHIL 5113 Aristotle's Ethics
A study of Aristotle's ethical works, with emphasis on the NICOMACHEAN ETHICS. Topics may include moral psychology, practical reasoning, the nature of the good, emotion and reason, responsibility, and friendship.
Not Offered Every Year
1 Course Unit

PHIL 5114 Topics in Aristotle
Graduate seminar focusing on Aristotle. Topic will vary by semester.
1 Course Unit

PHIL 5115 Stoicism
A study of some major texts in Ancient Greek Stoicism, the school founded by Zeno of Citium in the post-Aristotelian period. Topics may include: ethics, natural philosophy, epistemology, and metaphysics. Authors may include: Cicero, Seneca, Epictetus, and Marcus Aurelius. All works will be read in English translation.
Not Offered Every Year
1 Course Unit

PHIL 5116 Topics in Hellenistic Philosophy
Selected topics in the philosophy of the ancient Academicians, Stoics, Epicureans, and their later successors in the Roman world.
Not Offered Every Year
1 Course Unit

PHIL 5150 Topics: Renaissance Culture
Please see department website for a current course description at: http://www.sas.upenn.edu/italians/graduate/courses
Not Offered Every Year
Also Offered As: CLST 7704, COML 5450, ITAL 5400
1 Course Unit

PHIL 5170 Topics in Early Modern Philosophy
This course addresses topics in European philosophy of the 17-18th centuries. Topics may include the natural philosophy in the early modern period, the relation of metaphysics to the 'sciences' (including what is meant by "metaphysics", and what falls under the scope of the various sciences) as well as social, political, and ethical issues, including the role that women played, and the nascent forms of feminist that emerged in the early modern era.
Not Offered Every Year
1 Course Unit

PHIL 5199 Nietzsche's Modernity and the Death of God
"God is dead." This famous, all too famous death sentence, issued by the 19th-century German philosopher Friedrich Nietzsche, also signaled the genesis of a radical challenge to traditional notions of morality, cultural life, and the structure of society as a whole. In this course we will examine both the "modernity" of Nietzsche's thought and the ways in which his ideas have helped to define the very concept of Modernity (and, arguably, Postmodernity) itself. In exploring the origin and evolution of Nietzsche's key concepts, we will trace the ways in which his work has been variously revered or refuted, championed or co-opted, for more than a century. We will survey his broad influence on everything from philosophy and literature to music and art, theater and psychology, history and cultural theory, politics and popular culture. Further, we will ask how his ideas continue to challenge us today, though perhaps in unexpected ways. As we will see, Nietzsche wanted to teach us "how to philosophize with a hammer."
Not Offered Every Year
1 Course Unit

PHIL 5200 Topics in Continental Philosophy
This graduate seminar will examine different traditions and topics in contemporary Continental philosophy, such as phenomenology, structuralism and post-structuralism, hermeneutics, genealogy, and deconstruction. Examples of authors we will read can include Husserl, Heidegger, Merleau-Ponty, Levinas, Gadamer, and Foucault.
1 Course Unit

PHIL 5330 Contemporary Ethics
Selected topics in contemporary ethical theory. Recent topics have included rationality and sources of normativity. Semester-specific description available in course syllabus.
Not Offered Every Year
1 Course Unit

PHIL 5331 Virtue Ethics, Ancient and Modern
This will be a survey of Ancient Greek theories of virtue ethics, as well as an examination of contemporary Neo-Aristotelian developments of the virtue ethical tradition.
1 Course Unit

PHIL 5389 Topics In Aesthetics
Topic title for Spring 2018: Walter Benjamin. Walter Benjamin (1892-1940) is a philosopher whose writings on art, literature, and politics have had tremendous influence on many disciplines in the Humanities and Social Studies. He has been variously described as one of the leading German-Jewish thinkers, and a secular Marxist theorist. With the publication of a four-volume collection of this works in English, many more of his writings have been made accessible to a wider public. Our seminar will undertake a survey of his work that begins with his studies on language and allegory, and continues with his autobiographical work, his writings on art and literature, and on the imaginary urban spaces of the nineteenth-century.
Not Offered Every Year
Also Offered As: ARTH 5871, COML 5800, GRMN 5800, JWST 5800
1 Course Unit

PHIL 5430 Topics in Political Philosophy
This is a topics-based graduate seminar in political philosophy. Examples of topics we can examine in this course include distributive justice, liberty, equality, and global justice. Course readings will be drawn from a combination of classic and more recent works on the selected topics.
Not Offered Every Year
1 Course Unit
PHIL 5431 Contemporary Political Philosophy
A discussion of selected works and topics in contemporary political theory.
Not Offered Every Year
1 Course Unit

PHIL 5439 Hannah Arendt: Literature, Philosophy, Politics
The seminar will focus on Arendt's major work, The Origins of Totalitarianism (and its three parts, Anti-Semitism, Imperialism, Totalitarianism). We will also discuss the reception of this work and consider its relevance today.
Not Offered Every Year
Also Offered As: COML 6120, ENGL 6120, GRMN 6120, JWST 6120
1 Course Unit

PHIL 5450 Philosophy of Law
This seminar will examine leading academic theories of constitutional interpretation, starting with classic texts by (for illustration) Thayer, Wechsler, Ely, Bobbitt, Dworkin, and Scalia, and emphasizing current debates within originalism and between originalists and their critics. While the focus will be on American constitutional interpretation, we will also see how that literature relates to more "philosophical" or "jurisprudential" accounts of the contents of law.
Not Offered Every Year
1 Course Unit

PHIL 5451 Rationality, Morality and Law
This class will be dedicated to investigating topics related to rationality in its many forms. Potential areas of study are metaethics, epistemology, moral psychology, and the philosophies of mind, language, and action.
UNDERGRADUATES NEED PERMISSION.
Not Offered Every Year
1 Course Unit

PHIL 5455 Law and Philosophy
This graduate seminar explores recent work at the forefront of legal philosophy and adjacent fields, particularly moral, social, and political philosophy. In two-week units, seminar participants will discuss a recently published paper (in the first week) and in the second week, participants (along with other faculty) will meet with the paper's author for further discussion in which students will be given priority. The goal is to explore new work in the field in great depth, and in so doing develop students' analytic skills and their knowledge of the present state of the literature.
Fall
1 Course Unit

PHIL 5560 Topics in Philosophy of Education
In this course, we will examine problems in contemporary philosophy of education, including: how much control over a child's education ought to be allocated to parents and how much to the state; what role, if any, ought religion to play in education; how do race and gender impact individuals' educational experiences and how should such issues should be addressed in the classroom; what sort of (if any) civic education ought to be taught in schools (especially in wartime such as in the post 9-11 USA); and how should schools be funded? We will deal with a number of case studies, mostly recent, but some crucial historical cases as well. Our readings will be primarily philosophical texts, supplemented with those from other fields, such as psychology, history and sociology, in order to provide empirical context to the theoretical problems facing education today.
Not Offered Every Year
1 Course Unit

PHIL 5561 Equality, Justice, and Inclusion in Higher Education
Higher education has recently been a topic of intense discussion and attention. While many more people are entering colleges and universities, these institutions have come under scrutiny for perpetuating and entrenching inequality even as students turn to them as sites of social mobility. In this class, we will look at empirical and philosophical work on higher education to consider questions such as: What are the aims of higher education? How should we conceptualize the role of universities in colleges in promoting (or undermining) justice? Who should universities serve (and who have universities typically served)? Are universities sites of upward mobility or do they entrench existing inequalities? Do elite universities have special civic or political obligations? How should we balance academic freedom and inclusivity on college campuses? We will read recent work from Sigal Ben-Porath, Harry Brighouse, Anthony Jack, Amy Gutmann, Sara Goldrick-Rab, Michael Sandel, Gina Schouten, Nicole Stephens, Paul Tough, among others.
1 Course Unit

PHIL 5562 Topics in Epistemology
This seminar will cover topics of interest to contemporary epistemologists. Possible topics may include skepticism, accounts of knowledge and justification, virtue epistemology, formal epistemology, social epistemology, feminist epistemology, meta-epistemology and epistemic normativity.
Not Offered Every Year
1 Course Unit

PHIL 5563 Philosophy of Action
This course will cover debates in contemporary action theory. Some possible topics include intentional action, practical knowledge, freedom of action, long-term planning, commitment, reasons for action, self-governance, practical reasoning, and collective agency.
1 Course Unit

PHIL 5564 Philosophy of Mind
This course explores core issues in philosophy of mind, such as: the nature of mental states and events, the mind-body problem, and the relationship between philosophy of mind and related disciplines, such as cognitive science. Specific topics may include: identity theories, grounding physicalism, functionalism, computationalism, disjunctivism and knowledge-first theories, internalism and externalism, consciousness, self-knowledge, perception, emotion, action, representationalism, mental causation, and intersections with psychology, artificial intelligence, linguistics, and neuroscience.
UNDERGRADUATES NEED PERMISSION.
Not Offered Every Year
1 Course Unit

PHIL 5565 Topics in Philosophy of Language
This course explores core issues in philosophy of language, such as: meaning, reference, truth, communication, speech acts, the norms governing language use, and the relationship between philosophy of language and related disciplines, such as linguistics. Specific topics may include: the nature of propositions, truth, context-sensitive expressions, the relationship between logical structure and linguistic structure, the relationship between mental and linguistic meaning, the mechanisms of communication, the semantic/pragmatic distinction, the norms of assertion, relativism, expressivism, injustice in linguistic communication.
Not Offered Every Year
1 Course Unit
PHIL 5710 Introduction to Logic
This graduate-level course provides an introduction to some of the fundamental ideas of logic. Topics will include truth functional logic, quantificational logic, and logical decision problems.
Fall or Spring
Mutually Exclusive: PHIL 1710
1 Course Unit

PHIL 5800 Topics in the Philosophy of Science
A graduate seminar on selected topics in the philosophy of science. Undergraduates need permission.
Not Offered Every Year
1 Course Unit

PHIL 5840 Philosophy of Psychology
An investigation of issues that arise from scientific psychology and are investigated philosophically or have implications for philosophy. Specific topics vary by semester.
Not Offered Every Year
1 Course Unit

PHIL 5950 MLA Proseminar in Philosophy: World Philosophies
Most philosophy as it is taught in universities in the USA focuses on western philosophy. But people across the globe practice philosophy, often in a wide variety of genres and using a range of methods, and sometimes to grapple with problems and questions that grow out of local lived experience. This course focuses on a range of philosophies from around the world, including texts from Latin America, Indigenous North and South America, Africa and Asia. In addition to gaining a broader understanding of how philosophy has been practiced, and continues to be practiced, around the world, we will spend time interrogating the nature of philosophy itself, and what we can learn about our discipline by expanding our view of its practitioners and the modes in which it is practiced.
1 Course Unit

PHIL 5955 Contemporary Continental Philosophy
This MLA seminar is an introduction to 20th-century continental European philosophy, focusing on the origins and development of phenomenology, existentialism, hermeneutics, and deconstruction. No previous background in philosophy is required. We will begin with an introduction to the phenomenology of Edmund Husserl and the contemporary debate over its proper interpretation. Then we will examine three existentialist critics of Husserl, whose philosophies have influenced much of recent continental thought: Martin Heidegger, Jean-Paul Sartre, and Maurice Merleau-Ponty. Finally, we will examine the important influence of phenomenology and existentialism on contemporary trends in continental philosophy as exhibited in works by Paul Ricoeur, Hans Georg Gadamer, Jacques Derrida, Hannah Arendt, and Emmanuel Levinas. Finally, we will examine the important influence of phenomenology and existentialism on contemporary trends in continental philosophy as exhibited in works by Paul Ricoeur, Hans Georg Gadamer, Jacques Derrida, Hannah Arendt, and Emmanuel Levinas.
1 Course Unit

PHIL 5956 MLA Seminar Philosophy & Psychoanalysis: Freud & the Interpretation of Culture
MLA proseminar. More than a century after Sigmund Freud transformed - for better or worse - our understanding of what it means to be human, Freudian psychoanalysis still exerts a profound influence in our culture. This seminar course is an exploration of the philosophical issues raised by Freudian psychoanalysis as a theory of mind and culture. After a close reading of Freud’s theoretical writings on the nature of the mind and human behavior, we will explore why Freud’s theories - despite more than a century of criticism - remain highly influential as a framework for the interpretation of art, literature, religion, society, politics, and history. Readings from Freud’s “meta-psychological”, cultural, and social writings, Paul Ricoeur’s Freud and Philosophy, and other contemporary authors in philosophy, psychoanalysis, and other fields. No previous knowledge of psychoanalysis, psychology, or philosophy required.
1 Course Unit

PHIL 5960 MLA Seminar in Political Philosophy
This is a topics-based MLA proseminar in political philosophy. Examples of topics we can examine in this course include distributive justice, liberty, equality, and global justice. Course readings will be drawn from a combination of seminal and more recent works on the selected topics.
1 Course Unit

PHIL 5961 MLA Seminar: The Idea of Nationalism
Nationalism has been the most important geo-political phenomenon of the past two hundred years. This MLA proseminar course will explore the ideology of nationalism, what it means, its philosophical foundations, underlying assumptions about the nature of human identity, moral implications, and political consequences. What is a nation? Does every identifiable ethnic or national group have a valid claim to a nation-state of its own? How are claims to national self-determination justified? How do nations differ from states, peoples, groups, communities, and citizenries? How does nationalism relate to notions of “chosenness” or ethnic and cultural superiority? Why do nationalist movements seem to so often engender political extremism and violent ethno-political conflicts? Is national self-determination compatible with our commitments to individualism, rationality, and universal human rights?
1 Course Unit
PHIL 5962 Ethnicity, Identity and Nationhood
This MLA seminar will deepen our understanding of the role that political and cultural ideologies -- such as liberalism, conservatism, nationalism, totalitarianism, fundamentalism, etc. -- play in contemporary public discourse and the psychology of ideological thinking that makes political conflicts so difficult to resolve. Drawing on a series of case studies in contemporary political, social and cultural conflict such as recent political campaigns and nationalist movements around the globe, we will identify and examine the ideologies driving such conflicts, and from these we will draw out the common philosophical characteristics and psychological features of ideological thinking. We will begin by considering a series of case studies in contemporary political, social and cultural conflict, drawn from contemporary events such as the 2012 political campaigns, the 2011 debt ceiling debate in Congress, nationalist movements around the globe, etc. We will identify and examine the ideologies driving such conflicts, and from these we will draw out the common philosophical characteristics and psychological features of ideological thinking. Throughout, we will seek to understand the deep attraction of ideological commitments and why they tend to push public discourse and behavior to extremes and even violence. Finally, we will consider efforts to reduce or resolve ideological conflicts through strategies of political compromise, dialogue, tolerance, and democratic deliberation.
1 Course Unit

PHIL 5966 MLA Seminar in Philosophy of Education
In this MLA proseminar course, we will examine some of the most pressing problems in contemporary philosophy of education. These problems include: how much control over a child's education ought to be allocated to parents and how much to the state; what role, if any, ought religion to play in education; how do race and gender impact individuals' educational experiences and how should such issues should be addressed in the classroom; what sort of (if any) civic education ought to be taught in schools (especially in wartime such as in the post 9-11 USA); and how should schools be funded? We will deal with a number of case studies, mostly recent, but some crucial historical cases as well. Our readings will be primarily philosophical texts, supplemented with those from other fields, such as psychology, history and sociology, in order to provide empirical context to the theoretical problems facing education today. As a seminar, the instructor welcomes student participation, including students bringing their own interests in educational theory to the classroom. At the same time, the instructor will lecture to the extent necessary to make classroom discussion especially rich.
1 Course Unit

PHIL 5970 Philosophy of Science
An MLA seminar. For the last four centuries, scientific research has provided our most reliable understanding of the world. Although the scientific revolution started modestly with attempts to understand stellar movement, we now know the age and constitution of the universe, the basis of heredity, and we can make and break chemical bonds at will. By all appearances, science seems to have made substantial progress from the scientific revolution to the global scientific enterprise of the 21st century. This course is about how science has generated this knowledge, and whether it has been as progressive and reliable as it seems. We will consider methodological issues such as the sources of scientific knowledge, objectivity, the growing importance of computation in the natural sciences, and the nature of modeling. We will examine products of scientific research: explanations, models, theories, and laws of nature. And we will discuss questions about science and values, including whether non-scientific values can and should enter scientific research, the relationship between science and religion, and the role of the public in guiding the scientific enterprise.
1 Course Unit

PHIL 5991 Topics in Philosophy
This topics seminar is restricted to philosophy graduate students (undergraduates require permission from the department). Topic will vary by semester.
Not Offered Every Year
1 Course Unit

PHIL 6000 Proseminar
An intensive seminar for first-year doctoral students, with readings drawn from recent and contemporary epistemology and metaphysics, broadly construed. Students will develop their abilities to present and discuss philosophical texts, and to write and revise their own papers.
Fall
1 Course Unit

PHIL 6112 Plato's Selected Dialogues
A study of selected dialogues of Plato. All texts will be read in translation. No prior experience in Plato is required, but students should have some background in philosophy. Dialogues studied will vary from term to term.
Not Offered Every Year
1 Course Unit

PHIL 6113 Aristotle
Graduate seminar focusing on the study of Aristotle's main writings on language, reality, knowledge, nature and psychology. All texts will be read in English translation. No background in Greek philosophy or knowledge of Greek is required, although previous work in philosophy is strongly recommended.
Not Offered Every Year
1 Course Unit

PHIL 6181 Kant I
The graduate course will concentrate on the Critique of Pure Reason and discuss in detail Kant's conception of knowledge and experience, his criticism of traditional metaphysics and the resulting project of a system of transcendental philosophy.
Not Offered Every Year
Also Offered As: GRMN 5510
1 Course Unit
PHIL 6182 Kant II
This graduate course is a study of Kant’s moral and political philosophy. Texts may include Kant’s Lectures on Ethics, Groundwork for the Metaphysics of Morals, Critique of Practical Reason, Religion within the Boundaries of Mere Reason, and Metaphysics of Morals.
Not Offered Every Year
Also Offered As: GRMN 5520
1 Course Unit

PHIL 6191 Hegel
A graduate seminar on Hegel’s philosophy, focusing primarily on his Phenomenology of Spirit, with attention to relevant passages in other works such as Hegel’s Logic and Philosophy of Right. Topics may include: (1) Hegel’s conception of philosophy, (2) the development of his system, (3) the problem of an introduction to his system (Phenomenology of Spirit), (4) Hegel’s criticism of traditional metaphysics, (5) his notion of a ‘concept’ (Begriff), his theory of the Idea. The seminar will focus primarily on some of Hegel’s early Jena writings, his Phenomenology of Spirit, on passages from different versions of Hegel’s Logic and (maybe) on aspects of his Philosophy of Right. Topics that are dealt with include: (1) Hegel’s conception of philosophy, (2) the development of his system, (3) the problem of an introduction to his system (Phenomenology of Spirit), (4) Hegel’s criticism of traditional metaphysics, (5) his notion of a ‘concept’ (Begriff), his theory of the Idea. Other topics might become of interest as well.
Not Offered Every Year
Also Offered As: GRMN 5520
1 Course Unit

PHIL 6330 Metaethics
This graduate course is an investigation of the main questions and problems in metaethics since the turn of the 20th century. We will investigate questions about the metaphysics of morality, the philosophy of language of moral talk, the philosophy of mind of moral thought, the epistemology of morality, and the objectivity of morality.
Not Offered Every Year
1 Course Unit

PHIL 6331 Normative Ethics
A discussion of contemporary debates in normative ethical theory.
Spring
1 Course Unit

PHIL 6430 Modern Political Philosophy
A graduate-level survey of several works in modern political philosophy, including Thomas Hobbes’s, Leviathan; John Locke’s, Second Treatise on Government and Letter Concerning Toleration; David Hume’s ‘Of the Original Contract’ and ‘On Justice’; John Stuart Mill’s Utilitarianism, On Liberty, and The Subjection of Women; excerpts from Karl Marx’s Capital and other writings; and John Rawls’s A Theory of Justice.
Not Offered Every Year
1 Course Unit

PHIL 6510 Metaphysics of Race
Historically, philosophical questions about race have been about what race is and whether it exists, the nature of racism, and social or political questions related to race or racism. This course focuses squarely on what race is and whether it exists. The first part of the course will focus on race theories and race-related debates by biologists, anthropologists, and philosophers of biology. The second part of the course will focus on race theories from philosophers of race and sociologists about race from an ordinary folk perspective. We will begin by looking at biological race theories from Francois Bernier in 1684 to J.F. Blumenbach in 1795. Next, we will study the epistemological debate about Samuel Morton’s craniometry. Finally, we will explore folk race theories from W.E.B. DuBois in 1897 to present-day work from philosophers of race like Sally Haslanger, Michael Hardimon, and Joshua Glasgow. Topics covered will include, but not be limited to, classical biological race theories, experimentation and measurement in race science, biological anti-realism about race, biological realism about race, non-biological realism about race, and meta-metaphysical issues about race theory.
Spring, odd numbered years only
1 Course Unit

PHIL 6515 Existence in Black
Racial, colonial, and other political formations have encumbered Black existence since at least the fifteenth-century. Black experiences of and reflections on these matters have been the subject of existential writings and artistic expressions ranging from the blues to reggae, fiction and non-fiction. Reading some of these texts alongside canonical texts in European existential philosophy, this class will examine how issues of freedom, self, alienation, finitude, absurdity, race, and gender shape and are shaped by the global Black experience. Since Black aliveness is literally critical to Black existential philosophy, we shall also engage questions of Black flourishing amidst the potential for pessimism and nihilism.
Spring
1 Course Unit

PHIL 6620 Theory of Knowledge
Graduate seminar focusing on elected topics in Epistemology such as: bridging the gap between mainstream and formal epistemology, the familiar tripartite definition of knowledge (knowledge as justified true belief), basic logical and probabilistic models of knowledge (Hintikka, Aumann, and Bayesian) and their multi-agent variants, logical omniscience and other problems (including the epistemic closure principle), attempts at formalizing joint and common knowledge, resource-bounded knowledge, knowledge under limited logical powers, and empirical knowledge obstructed by system complexity.
Not Offered Every Year
1 Course Unit

PHIL 6640 Philosophy of Mind
This graduate course studies particular topics in contemporary philosophy of mind and cognitive science. Examples include: the nature of consciousness, naturalistic accounts of intentionality, the nature scope of scientific explanation in studying the mind, the intersection of philosophy of mind and epistemology, and theories of agency. Typically, readings include both philosophy and empirical work from relevant sciences.
Not Offered Every Year
1 Course Unit
PHIL 6660 Philosophy of Language
This graduate-level course provides an overview of 20th century analytic philosophy of language. Questions we will ask may include: How do words refer? How do they combine to express thoughts? How do words relate to concepts or to thoughts more generally? What do words and sentences mean? How do we use them to communicate with each other? How does word and sentence meaning depend on the contexts in which they are spoken or heard, or on stable features of environments of linguistic speakers?
Not Offered Every Year
1 Course Unit

PHIL 6720 Topics in Logic
This graduate course focuses on topics drawn from the central areas of mathematical logic: model theory, proof theory, set theory, and computability theory.
Not Offered Every Year
Also Offered As: MATH 6770
1 Course Unit

PHIL 6721 Logic and Computability 1
The course focuses on topics drawn from the central areas of mathematical logic: model theory, proof theory, set theory, and computability theory.
Not Offered Every Year
Also Offered As: MATH 5700
1 Course Unit

PHIL 6722 Logic and Computability 2
A continuation of PHIL 6721.
Not Offered Every Year
Also Offered As: MATH 5710
1 Course Unit

PHIL 6723 Introduction to Mathematical Logic
A graduate-level introduction to first-order logic including the completeness, compactness, and Lowenheim-Skolem theorems, and Godel's incompleteness theorems.
Spring
1 Course Unit

PHIL 6770 Philosophy of Mathematics
This graduate course will focus on the development of the foundations and philosophy of mathematics from the late nineteenth-century through the present day. Topics may include logicism, formalism, intuitionism, and the foundations of set theory. Ample consideration will be given to some of the fundamental results of mathematical logic, such as the Godel incompleteness theorems and the independence of the Continuum Hypothesis from Zermelo-Fraenkel set theory, that have had a profound impact on contemporary approaches to the philosophy of mathematics.
Not Offered Every Year
1 Course Unit

PHIL 6800 Philosophy of Science.
This graduate seminar is an advanced introduction to the central philosophical questions concerning the nature of scientific knowledge and its relation to experience, and the metaphysical assumptions underlying the natural sciences. Topics to be covered include: science versus pseudoscience, laws of nature, causation, determinism and randomness, theories and models in science, scientific explanation, underdetermination of theories by observation and measurement, realism and antirealism, reductionism and intertheory relations, objectivity and value judgments in science, hypothesis testing and confirmation of scientific theories, and classical paradoxes in scientific methodology.
Fall or Spring
1 Course Unit

PHIL 6843 Philosophy and Visual Perception
Graduate seminar exploring central issues in the philosophy of perception from the modern period, including: what we perceive, the meaningful content of perception, and its relation to a mind-independent external world. Additional topics may include: (1) color perception and color metaphysics; (2) object perception in its interplay between Gestalt organizational factors and background knowledge; (3) the role of ecological regularities in the formation of our visual system and in the ongoing tuning of the system to the environment; (4) the geometry of visual space and the phenomenology of visual appearances of size and shape; (5) the problem of how visual scenes are experienced by means of images. Readings from authors such as Bertrand Russell, R. W. Sellars, Tim Crane, Evan Thompson, Robert Swartz, Wolfgang Metzger, Nelson Goodman, Richard Wollheim, and William Hopp, among others.
Fall or Spring
1 Course Unit

PHIL 6991 Consortium Course
For graduate students taking courses at other institutions belonging to the Philadelphia area Philosophical Consortium.
Fall or Spring
1 Course Unit

PHIL 6999 Independent Study
Directed readings in consultation with individual faculty members.
Fall or Spring
1-3 Course Units

PHIL 7000 Dissertation Workshop
Registration required for all third-year doctoral students. Third-year students and beyond attend and present their dissertation work or their preliminary exam prospectus. From time to time, topics pertaining to professional development and dissertation writing will be discussed.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

PHIL 9900 Masters Thesis
Coursework at the masters thesis level.
Fall or Spring
0 Course Units

PHIL 9990 Masters Thesis
Ph.D. candidates, who have completed all course requirements and have an approved dissertation proposal, work on their dissertation under the guidance of their dissertation supervisor and other members of their dissertation committee.
Fall or Spring
0 Course Units
**PHIL 9998 Teaching Practicum (Independent Study)**
Supervised teaching experience. Four semesters are required of all Doctoral students in philosophy.
Fall or Spring
1 Course Unit

**PHIL 9999 Independent Study**
Directed readings in consultation with individual faculty members.
Fall or Spring
1-3 Course Units

---

**Philosophy, Politics, Economics (PPE)**

**PPE 0999 Transfer Credit**
Transfer credit for course that we do not have a direct equivalent in our published curriculum but which meets the spirit of the major. For the PPE major.
1 Course Unit

**PPE 1001 Introduction to PPE: Ethics and Economics of Wealth Creation**
This interdisciplinary course provides an overview of how markets work, and under what conditions they create wealth and prosperity. We will also consider when markets fail to create wealth or function well. Along the way, we will think about the role of political institutions in structuring market exchange and allocating resources. (For Penn PPE majors, this class will satisfy the philosophy foundation, or a thematic concentration class for Choice and Behavior or Distributive Justice).
Not Offered Every Year
1 Course Unit

**PPE 2355 Introduction to Political Psychology**
This course will explore psychological approaches to understanding political beliefs, attitudes, and actions at the levels of both individual citizens and national leaders. It will also explore the possibility that psychological science itself is not immune to the political debates swirling around it. Specific topics will include: the workings of belief systems (and their power to shape what we "see"), cognitive biases (and their power to cause miscalculations), sacred values and their role in stabilizing belief systems and social interaction, personality and ideology (the linkages between the personal and the political), and clashing conceptions of morality and distributive and corrective justice (striking variations among people in what they consider to be fair). We shall also explore some topics that have sparked controversy in the psychological research literature and that tend to polarize opinion along political lines, including work on intelligence and unconscious bias.
Fall or Spring
Also Offered As: PSYC 2355
Prerequisite: PSYC 0001 OR COGS 1001
1 Course Unit

**PPE 3001 Strategic Reasoning**
This course is about strategically interdependent decisions. In such situations, the outcome of your actions depends also on the actions of others. When making your choice, you have to think what the others will choose, who in turn are thinking what you will be choosing, and so on. Game Theory offers several concepts and insights for understanding such situations, and for making better strategic choices. This course will introduce and develop some basic ideas from game theory, using illustrations, applications, and cases drawn from business, economics, politics, sports, and even fiction and movies. Some interactive games will be played in class. There will be little formal theory, and the only pre-requisites are some high-school algebra and having taken Econ 1. However, general numeracy (facility interpreting and doing numerical graphs, tables, and arithmetic calculations) is very important. This course will also be accepted by the Economics department as an Econ course, to be counted toward the minor in Economics (or as an Econ elective).
Fall
Also Offered As: ECON 0120
Prerequisite: ECON 0100
1 Course Unit

**PPE 3002 Public Policy Process**
This course introduces students to the theories and practice of the policy-making process. There are four primary learning objectives. First, understanding how the structure of political institutions matter for the policies that they produce. Second, recognizing the constraints that policy makers face when making decisions on behalf of the public. Third, identifying the strategies that can be used to overcome these constraints. Fourth, knowing the toolbox that is available to participants in the policy-making process to help get their preferred strategies implemented. While our focus will primarily be on American political institutions, many of the ideas and topics discussed in the class apply broadly to other democratic systems of government.
Spring
Also Offered As: PSCI 1200
1 Course Unit

**PPE 3003 Behavioral Economics and Psychology**
Our understanding of markets, governments, and societies rests on our understanding of choice behavior, and the psychological forces that govern it. This course will introduce you to the study of choice, and will examine in detail what we know about how people make choices, and how we can influence these choices. It will utilize insights from psychology and economics, and will apply these insights to domains including risky decision making, intertemporal decision making, and social decision making.
Fall
Also Offered As: PSYC 2750
1 Course Unit
PPE 3950 Center for Social Norms & Behavioral Dynamics Research Seminar
This “research seminar” takes its model from the Penn Independent Study and pairs interested students with researchers at the Center for Social Norms & Behavioral Dynamics sited here at Penn. SNOBED fellows work with organizations across the world to identify, measure, and influence norms and behaviors at scale. PPE majors will be paired with SNOBED-affiliated researchers and faculty and work as junior research fellows, learning fundamental approaches and the basics of research methods in the day-to-day environment of an active research center with mentors working on cutting edge research. Examples of current projects include: research on poverty in the US funded by the Templeton Foundation; on toilet use and sanitation in India funded by the Gates Foundation; and on corruption in Nigeria and Colombia funded by Chatham House and USAID.
Fall or Spring
1 Course Unit

PPE 3999 Independent Study
Student arranges with a faculty member to pursue a research project on a suitable topic. For more information about research and setting up independent studies, visit: https://ppe.sas.upenn.edu/study/curriculum/independent-studies
Fall or Spring
1 Course Unit

PPE 4000 Research in Philosophy, Politics & Economics
Led by fellows in the Philosophy, Politics and Economics program, this course teaches students how to conduct research in PPE with an emphasis on creating a well-formed research question, determining what kinds of data or scholarly research bears on that question, and how to carry out an interdisciplinary, research-driven project on that question.
Fall or Spring
1 Course Unit

PPE 4001 Experiments in Behavioral Ethics
In reality, our understanding of different mechanisms and (economic) relationships is hampered by the lack of data. More often than not, either the observation itself is difficult or the data is not reliable. Over the last decades, economic experiments have become a vital part of the scientific discourse, facilitating our understanding of the world we live in (much like in Biology, Chemistry, Physics or the like). Economic experiments allow exploring economic behavior under controlled conditions by generating observations under different experimental designs and controlled conditions. Pioneering this field of research, Daniel Kahneman and Vernon Smith were awarded the Nobel memorial prize in recognition of their work on behavioral and experimental economics. In this course, we provide you with the methodology of how to develop a research idea and a proper experimental design that allows to explore this idea. Essentially, you will learn how to think about ideas, generate predictions, and how to use economic experiments to test them.
1 Course Unit

PPE 4500 PPE Capstone: Philosophy
A PPE Capstone seminar offered by faculty in Philosophy. As a PPE Capstone, this is an integrative senior seminar (open to others by departmental permission). For a detailed course description visit: https://ppe.sas.upenn.edu/study/curriculum/advanced-interdisciplinary-courses
Not Offered Every Year
1 Course Unit

PPE 4600 PPE Capstone: Political Science
A PPE capstone offered by faculty in Political Science. As a PPE Capstone, this is an integrative senior seminar (open to others by departmental permission). For a detailed course description visit: https://ppe.sas.upenn.edu/study/curriculum/advanced-interdisciplinary-courses
Not Offered Every Year
1 Course Unit

PPE 4601 PPE Capstone: Social Policy
Social policy is the study of human wellbeing and is concerned with the effects in areas of health care, criminal justice, inequality, and education, among others. As a PPE Capstone, this is an integrative senior seminar (open to others by departmental permission). For a detailed course description visit: https://ppe.sas.upenn.edu/study/curriculum/advanced-interdisciplinary-courses
Not Offered Every Year
1 Course Unit

PPE 4700 PPE Capstone: Economics
A PPE Capstone seminar offered by faculty in Economics. As a PPE Capstone, this is an integrative senior seminar (open to others by departmental permission). For a detailed course description visit: https://ppe.sas.upenn.edu/study/curriculum/advanced-interdisciplinary-courses
Not Offered Every Year
1 Course Unit

PPE 4701 PPE Capstone: Political Economy
Political Economy studies the relationships between individuals and society and between markets and the state. As a PPE Capstone, this is an integrative senior seminar (open to others by departmental permission). For a detailed course description visit: https://ppe.sas.upenn.edu/study/curriculum/advanced-interdisciplinary-courses
Not Offered Every Year
1 Course Unit

PPE 4800 PPE Capstone: Psychology
A PPE Capstone offered by faculty in Psychology. As a PPE Capstone, this is an integrative senior seminar (open to others by departmental permission). For a detailed course description visit: https://ppe.sas.upenn.edu/study/curriculum/advanced-interdisciplinary-courses
Not Offered Every Year
1 Course Unit

PPE 4801 PPE Capstone: Judgment and Decision Making
The interdisciplinary study of individual’s and groups’ judgments and decisions, including normative, descriptive, and prescriptive theories. As a PPE Capstone, this is an integrative senior seminar (open to others by departmental permission). For a detailed course description visit: https://ppe.sas.upenn.edu/study/curriculum/advanced-interdisciplinary-courses
Not Offered Every Year
1 Course Unit
PPE 4802 PPE Capstone: Obedience
Though almost half a century old, Milgram's 1961-1962 studies of "destructive obedience" continue to puzzle, fascinate, and alarm. The main reason for their continued grip on the field's attention (other than the boldness of the idea and elegance of execution) may be simply that they leave us with a portrait of human character that is radically different from the one that we personally wish to endorse or that the wider culture teaches us to accept. In this seminar, we will take an in-depth look at these famous studies (along with the more recent replications) and explore their various psychological, political and philosophical ramifications.
Not Offered Every Year
Also Offered As: PSYC 3780, PSYC 4780
1 Course Unit

PPE 4999 Advanced Research
This course may be taken by a PPE student for advanced research. Enrollment by permit only.
Not Offered Every Year
1 Course Unit

Physical and Life Sciences (PHYL)

PHYL 1200 Foundations of Life Sciences
Foundations of Life Sciences is a required course for students in the physical and life sciences concentration that also fulfills the Scientific Process foundational course requirement for those in other concentrations who are seeking a BAAS degree. This course will serve as an introduction to the life sciences and is concerned with the relationship of structure to function, the mechanisms underlying energy capture and retrieval, information storage and flow, and the regulation and coordination of these core activities in living systems with an eye to their evolutionary origins. In this course, students will gain exposure to topics such as metabolism, membrane transport, genetics, physiology and ecology. Each of the topics covered will involve an interactive lecture component, a discussion board prompt, a problem set, an activity centered on the scientific method, and a reading comprehension quiz. Note that this course is designed for students with a range of quantitative reasoning skills and those who have had no prior exposure to college-level science. Anyone who is interested in knowing more about the study of living things and in delving into how they do what they do is encouraged to take this course!
1 Course Unit

PHYL 1600 Foundations of Physical & Chemical Sciences
How do the microscopic particles and invisible forces interact to form the world we experience daily? This course serves as a college-level introduction to the physical and chemical sciences and uses an algebra-based approach to solving word problems in these disciplines. PHYL1600 will introduce students to how microscopic particles and their properties, motions and behaviors manifest in macroscopic realities. In this course, students gain exposure to topics in physics such as motion, force, energy, heat and electromagnetism. Students will also be introduced to the topics in chemistry of the periodic table, properties of molecules, chemical reactions and phases of matter. The rules that govern energy and matter transformations will be explored. Students will discover examples of how the physical laws of the universe apply to everyday realities like cooking, energy consumption in homes, materials used in daily life, exercise, and star gazing. Note that algebra proficiency is a pre-requisite for this course and is not taught in the course directly.
PREREQUISITES: This course requires algebraic manipulations, graphical analysis, and unit conversions. Students should purchase a scientific calculator like Ti-30Xa before the course. Either MTHS2000 or MTHS1000 or another equivalent Foundational Requirement in Quantitative Reasoning is required as a pre-requisite to registering for PHYL1600.
Foundations of Physical and Chemical Sciences is a required course for students pursuing a BAAS degree with a concentration in Physical and Life Sciences. The course also fulfills the Scientific Process foundational course requirement for students in the BAAS program who are pursuing other concentrations.
1 Course Unit
PHYL 2100 Fundamental Chemical Principles
This course covers general and organic chemistry topics to build a strong foundation for more advanced chemistry or biology courses. Students will become familiar with oxidation-reduction, equilibria, reaction rates, acid-base reactions, and nuclear chemistry. The structures and reactions of alkyl halides, ketones, aldehydes, carboxylic acids, and carboxylic acid derivatives will also be introduced. Emphasis will be placed on the curved arrow mechanisms for each reaction. This course requires algebraic manipulations, graphical interpretation, and chemical problem solving and as such PHYL 1200/1600, PHYL 2100 and a Quantitative Reasoning course are all required pre-requisites.
1 Course Unit

PHYL 2200 Biochemistry – Chemical Principles of Living Systems
This course builds on the principles of general and organic chemistry discussed in PHYL 2100 to build an understanding of the molecules and chemical reactions of living organisms specifically. Students will become familiar with the structures and functions of nucleic acid, proteins, polysaccharides, triglycerides and phospholipids. The processes and pathways that synthesize, catabolize, and transfer the information in these biomolecules will be discussed in detail. Particular emphasis is placed on the enzymatic mechanisms that allow for rapid production of molecules needed for life at just the right moment. This course requires algebraic manipulations, graphical interpretation, and chemical problem solving and as such PHYL 1200/1600, PHYL 2100 and a Quantitative Reasoning course are all required pre-requisites.
1 Course Unit

PHYL 2300 Physics with Python Applications: Mechanics
An introductory, algebra-based physics course with emphasis on applications. Topics include kinematics in 1D and 2D, Newton’s Laws, uniform circular motion, energy, momentum, rotation, and simple harmonic motion. Concurrently, students will be introduced to the basics of programming in Python and will be expected to apply their programming skills to the physics applications discussed. Pre-requisite: Requires basic knowledge of algebra, geometry, and trigonometry (functions and their graphs, linear and quadratic equations, exponents and logarithms, areas of planar shapes, Pythagorean theorem, right angle trigonometry, basic trigonometric functions), scientific notation, and unit conversions. Course Objectives • Define fundamental laws and principles which govern and give meaning to our physical world. • Describe and explain physical phenomenon using discipline specific vocabulary. • Apply basic physical principles to solve problems and demonstrate the procedural knowledge necessary to arrive at a solution for some desired “to finds” from the “givens”. • Develop basic programming skills and techniques necessary to model or simulate a physical situation, analyze results, and make predictions. Pre-requisite: PHYL 1600 AND PHYL 2300
1 Course Unit

PHYL 2400 Physics with Python Applications - Electromagnetism
An introductory, algebra-based physics course with emphasis on applications. Topics include electrostatics, current electricity, magnetism, electromagnetic induction, quantum mechanics, and nuclear physics. Concurrently, students will be introduced to the basics of programming in Python and will be expected to apply their programming skills to the physics applications discussed. Pre-requisite: This course requires basic knowledge of algebra, geometry, and trigonometry (functions and their graphs, linear and quadratic equations, exponents and logarithms, areas of planar shapes, Pythagorean theorem, right angle trigonometry, basic trigonometric functions), scientific notation, and unit conversions. Students must complete PHYL 2300 and any of its prerequisites (at least one Quantitative Reasoning course) before taking PHYL 2400. PHYL 1600 is strongly recommended Course Objectives • Define fundamental laws and principles which govern and give meaning to our physical world. • Describe and explain physical phenomenon using discipline specific vocabulary. • Apply basic physical principles to solve problems and demonstrate the procedural knowledge necessary to arrive at a solution for some desired ‘to finds’ from the ‘givens’. • Develop basic programming skills and techniques necessary to model or simulate a physical situation, analyze results, and make predictions. Pre-requisite: PHYL 1600 AND PHYL 2300
1 Course Unit

Physics (PHYS)

PHYS 0008 Physics for Architects I
An introduction to the classical laws of mechanics, including static equilibrium, elasticity, and oscillations, with emphasis on topics most relevant to students in architecture. Credit is awarded for only one of the following courses: PHYS 0008, PHYS 0101, PHYS 0151, or PHYS 0171. Students with AP or Transfer Credit for PHYS 091 or 093 who complete PHYS 0008 will thereby surrender the AP or Transfer Credit.
Fall, odd numbered years only
1 Course Unit

PHYS 0009 Physics for Architects II
Briefly reviews Newton’s laws, then introduces waves, sound, light, fluids, heat, electricity, magnetism, and circuits, with emphasis on topics most relevant to students in architecture. Illustrates physics principles using examples drawn from architecture. Students with a strong high-school physics background may take PHYS 0008 and PHYS 0009 in either order. Credit is awarded for only one of the following courses: PHYS 0009, PHYS 0102, PHYS 0151, or PHYS 0171. Students with AP or Transfer Credit for PHYS 092 or 094 who complete PHYS 0009 will thereby surrender the AP or Transfer Credit.
Fall, even numbered years only
1 Course Unit

PHYS 0016 Energy, Oil, and Global Warming
The developed world’s dependence on fossil fuels for energy production has extremely undesirable economic, environmental, and political consequences, and is likely to be mankind’s greatest challenge in the 21st century. We describe the physical principles of energy, its production and consumption, and environmental consequences, including the greenhouse effect. We will examine a number of alternative modes of energy generation - fossil fuels, biomass, wind, solar, hydro, and nuclear - and study the physical and technological aspects of each, and their societal, environmental and economic impacts over the construction and operational lifetimes. No previous study of physics is assumed.
Fall or Spring
1 Course Unit
PHYS 0050 Physics Laboratory I
Experiments in classical mechanics.
Fall or Spring
0.5 Course Units

PHYS 0051 Physics Laboratory II
Experiments in electromagnetism and optics.
Fall or Spring
0.5 Course Units

PHYS 0080 Physics and Consciousness
We will explore the basic classical and quantum physics concepts, and link them to newly observed physical phenomena and technologies, as well as to brain research, in the context of tools that physicists helped bring about like the seminal magnetic resonance imaging. The course content is mostly physics, although we link it to cognitive sciences, but the main focus is on motivating and explaining the basic physical laws behind new phenomena and related technologies. Examples include wave-particle duality and its relevance for technological applications, behavior of spin particles in a magnetic field to explain magnetic resonance imaging, ion flow through ion channels and ohm's law to explain electrical signal flow in our body, and other examples within the core of physics and bridging to interdisciplinary areas of material science and devices, biology and neuroscience. As we learn about particle spins, we will talk about brain imaging studies enabled by Nobel winning physics research. We will then discuss consciousness and free will, and read original texts by Schrodinger, Einstein and other physicists, and our course discussion will be uniquely motivated by related physical phenomena and experiments, including quantum entanglement and relativity of space and time. I will explain the basic ideas behind quantum computing and information processing, and we will learn about basic quantum logic gates and Dirac's matrix formalism in quantum mechanics. Fall
1 Course Unit

PHYS 0101 General Physics: Mechanics, Heat and Sound
An introduction to the classical laws of motion, including kinematics, forces in nature, Newton's laws of motion, conservation of energy and momentum, fluid statics and dynamics, oscillations, and waves. Suggested for students in a pre-health program. Credit is awarded for only one of the following courses: PHYS 0008, PHYS 0101, PHYS 0150, or PHYS 0170. Students with AP or Transfer Credit for PHYS 0101, or PHYS 0150 who complete PHYS 0101 will thereby surrender the AP or Transfer Credit. Fall, Spring, and Summer Terms
1.5 Course Unit

PHYS 0102 General Physics: Electromagnetism, Optics, and Modern Physics
A continuation of PHYS 0101 emphasizing an introduction to classical electricity and magnetism, light and optics, special relativity, the quantum theory of matter, and nuclear physics. Suggested for students in a pre-health program. Credit is awarded for only one of the following courses: PHYS 0009, 0102, 0151, 0171. Students with AP or Transfer Credit for PHYS who complete PHYS 0102 will thereby surrender the AP or Transfer Credit. Fall, Spring, and Summer Terms
Prerequisite: PHYS 0101 OR PHYS 0150 OR PHYS 0170
1.5 Course Unit

PHYS 0137 Community Physics Initiative
This is an Academically Based Community Service Course (ABCS). The central purpose is to work in partnership with a local high school to improve physics education outcomes for their students. An immersive classroom experience will be enriched through instructional design work and grounded in a study of science education scholarship. Fall
1 Course Unit

PHYS 0140 Principles of Physics I (without laboratory)
The topics of this calculus-based course are: Classical laws of motions; interactions between particles; conservation laws and symmetry principles; particle and rigid body motion; gravitation, harmonic motion, and applications of mechanics to real-world problems. Engineering students only. Fall or Spring
Prerequisite: MATH 1400
Corequisite: MATH 1400
1 Course Unit

PHYS 0141 Principles of Physics II (without laboratory)
The topics of this calculus-based course are electric and magnetic fields; Coulomb's, Gauss's, Ampere's, and Faraday's laws; DC and AC circuits; Maxwell's equations and electromagnetic radiation. Engineering students only. Fall, Spring, and Summer Terms
Prerequisite: PHYS 0140 AND MATH 1410
Corequisite: MATH 1410
1 Course Unit

PHYS 0150 Principles of Physics I: Mechanics and Wave Motion
This calculus-based course is recommended for science majors and engineering students. Classical laws of motion; interactions between particles; conservation laws and symmetry principles; particle and rigid body motion; gravitation, harmonic motion, and applications of mechanics to real-world problems. Credit is awarded for only one of the following courses: PHYS 0008, PHYS 0101, 0150, 0170. Students with AP or Transfer Credit for PHYS 0101, or PHYS 0150 who complete PHYS 0150 will thereby surrender the AP or Transfer Credit. Prerequisite: Students in PHYS 0150 should already have taken MATH 1400 or the equivalent, or be taking it simultaneously with PHYS 0150. Fall or Spring
1.5 Course Unit

PHYS 0151 Principles of Physics II: Electromagnetism and Radiation
The topics of this calculus-based course are electric and magnetic fields; Coulomb's, Gauss's, Ampere's, and Faraday's laws; DC and AC circuits; Maxwell's equations and electromagnetic radiation. Credit is awarded for only one of the following courses. PHYS 0009, PHYS 0102, PHYS 0151, PHYS 0171. Students with AP or Transfer Credit for PHYS 0102 or PHYS 0151 who complete PHYS 0151 will thereby surrender the AP or Transfer Credit. Prerequisite: Students in PHYS 0151 should already have taken MATH 1410 or the equivalent, or be taking it simultaneously with PHYS 0151. Fall, Spring, and Summer Terms
Prerequisite: PHYS 0150
1.5 Course Unit
PHYS 0170 Honors Physics I: Mechanics and Wave Motion
This course parallels and extends the content of PHYS 0150, at a significantly higher mathematical level. Recommended for well-prepared students in engineering and the physical sciences, and particularly for those planning to major in physics. Classical laws of motion: interaction between particles; conservation laws and symmetry principles; rigid body motion; non-inertial reference frames; oscillations. Prerequisite: Benjamin Franklin Seminar. Credit is awarded for only one of the following courses: PHYS 0008, PHYS 0101, PHYS 0150, PHYS 0170. Students with AP or Transfer Credit for PHYS 0101 or PHYS 0150 who complete PHYS 0170 will thereby surrender the AP or Transfer Credit.
Fall
Prerequisite: MATH 1400 AND (MATH 1410 OR MATH 1610)
1.5 Course Unit

PHYS 0171 Honors Physics II: Electromagnetism and Radiation
This course parallels and extends the content of PHYS 0151, at a somewhat higher mathematical level. Recommended for well-prepared students in engineering and the physical sciences, and particularly for those planning to major in physics. Electric and magnetic fields; Coulomb's, Ampere's, and Faraday's laws; special relativity; Maxwell's equations, electromagnetic radiation. Credit is awarded for only one of the following courses: PHYS 0009, PHYS 0102, PHYS 0151, or PHYS 0171. Students with AP or Transfer Credit for PHYS 0102 or PHYS 0151 who complete PHYS 0171 will thereby surrender the AP or Transfer Credit.
Spring
Prerequisite: (MATH 1410 OR MATH 1610) AND (PHYS 0150 OR PHYS 0170) AND (MATH 2400 OR MATH 2600)
1.5 Course Unit

PHYS 1100 Foundations of Data Science
This is a gateway course in programming, data analysis, and data science in Python appropriate for all College students. The course will cover a range of topics from basic programming, data manipulation, data visualization, randomness, probability, statistics, predictions, interpreting results, and data ethics. Some advanced topics including time-series and image analysis will also be covered. No prior exposure to programming is assumed. Registration for a separate coding lab section is required.
Spring
Mutually Exclusive: CIS 1050, ENGL 1670, PHYS 2260, STAT 4770
Prerequisite: MATH 1300
1.5 Course Unit

PHYS 1230 Principles of Physics III: Thermal Physics and Waves
Laws of thermodynamics, gas laws and heat engines. Waves on a string, electromagnetic waves including optical phenomena such as refraction, interference and diffraction. Introduction to special relativity including time dilation, length contraction, simultaneity, Lorentz transforms and relativistic energy and momentum. Students are encouraged but not required to take Math 2400 concurrently or in advance.
Fall
Prerequisite: (PHYS 0150 OR PHYS 0151 OR PHYS 0170 OR PHYS 0171) AND (MATH 1400 OR MATH 1410 OR MATH 1610)
Corequisite: MATH 2400
1 Course Unit

PHYS 1240 Principles of Physics IV: Modern Physics
An introduction to the experimental basis for and principles of quantum mechanics, properties of electrons, protons, neutrons, and the elements of atomic structure and nuclear structure. Electromagnetic radiation and photons; interaction of photons with electrons, atoms, and nuclei. Students are encouraged but not required to take MATH 2410 concurrently or in advance.
Spring
Prerequisite: (PHYS 0150 OR PHYS 0151 OR PHYS 0170 OR PHYS 0171) AND MATH 2400
1 Course Unit

PHYS 1250 Principles of Physics IV: Modern Physics (without laboratory)
An introduction to the experimental basis for and principles of quantum mechanics, properties of electrons, protons, neutrons, and the elements of atomic structure and nuclear structure. Electromagnetic radiation and photons; interaction of photons with electrons, atoms, and nuclei. Students are encouraged but not required to take MATH 2410 concurrently or in advance.
Spring
Prerequisite: (PHYS 0150 OR PHYS 0151 OR PHYS 0170 OR PHYS 0171) AND MATH 2400
1.5 Course Unit

PHYS 2260 Introduction to Computational Physics
This course will familiarize students with computational tools that are utilized to solve common problems that arise in physics. The programming language that will be used in this class is Python. No prior programming knowledge is assumed and the semester will begin with learning basic programming skills. This course will introduce computational methods for graphing and visualization of data, solving integrals, derivatives, systems of linear equations and differential equations.
Spring
Mutually Exclusive: PHYS 1100
Prerequisite: PHYS 0150 OR PHYS 0151 OR MATH 1410
1 Course Unit

PHYS 2280 Physical Models of Biological Systems
Classic case studies of successful reductionistic models of complex phenomena, emphasizing the key steps of making estimates, using them to figure out which physical variables and phenomena will be most relevant to a given system, finding analogies to purely physical systems whose behavior is already known, and embodying those in a mathematical model, which is often implemented in computer code. Topics may include bacterial genetics, genetic switches and oscillators; systems that sense or utilize light; superresolution and other newmicroscopy methods; and vision and other modes of sensory transduction.
Fall
Also Offered As: BCHE 2280
Prerequisite: (PHYS 0101 OR PHYS 0151) AND MATH 1400 AND (MATH 1410 OR MATH 1610)
1 Course Unit

PHYS 2999 Independent Study
Special projects and independent study under the direction of faculty member.
Fall or Spring
1 Course Unit
**PHYS 3314 Ocean-Atmosphere Dynamics and Implications for Future Climate Change**

This course covers the fundamentals of atmosphere and ocean dynamics, and aims to put these in the context of climate change in the 21st century. Large-scale atmospheric and oceanic circulation, the global energy balance, and the global energy balance, and the global hydrological cycle. We will introduce concepts of fluid dynamics and we will apply these to the vertical and horizontal motions in the atmosphere and ocean. Concepts covered include: hydrostatic law, buoyancy and convection, basic equations of fluid motions, Hadley and Ferrel cells in the atmosphere, thermohaline circulation, Sverdrup ocean flow, modes of climate variability (El-Nino, North Atlantic Oscillation, Southern Annular Mode). The course will incorporate student led discussions based on readings of the 2007 Intergovernmental Panel on Climate Change (IPCC) report and recent literature on climate change. Aimed at undergraduate or graduate students who have no prior knowledge of meteorology or oceanography or training in fluid mechanics. Previous background in calculus and/or introductory physics is helpful. This is a general course which spans many subdisciplines (fluid mechanics, atmospheric science, oceanography, hydrology).

- **Prerequisite:** MATH 1410
- **1 Course Unit**

**PHYS 3314 Ocean-Atmosphere Dynamics and Implications for Future Climate Change**

This course covers the fundamentals of atmosphere and ocean dynamics, and aims to put these in the context of climate change in the 21st century. Large-scale atmospheric and oceanic circulation, the global energy balance, and the global energy balance, and the global hydrological cycle. We will introduce concepts of fluid dynamics and we will apply these to the vertical and horizontal motions in the atmosphere and ocean. Concepts covered include: hydrostatic law, buoyancy and convection, basic equations of fluid motions, Hadley and Ferrel cells in the atmosphere, thermohaline circulation, Sverdrup ocean flow, modes of climate variability (El-Nino, North Atlantic Oscillation, Southern Annular Mode). The course will incorporate student led discussions based on readings of the 2007 Intergovernmental Panel on Climate Change (IPCC) report and recent literature on climate change. Aimed at undergraduate or graduate students who have no prior knowledge of meteorology or oceanography or training in fluid mechanics. Previous background in calculus and/or introductory physics is helpful. This is a general course which spans many subdisciplines (fluid mechanics, atmospheric science, oceanography, hydrology).

- **Prerequisite:** MATH 1410
- **1 Course Unit**

**PHYS 3359 Data Analysis for the Natural Sciences II: Machine Learning**

This is a course on data analysis and statistical inference for the natural sciences focused on machine learning techniques. The main topics are: Review of modern statistics, including probability distribution functions and their moments, conditional distributions and Bayes' theorem, parameter estimation, Markov chains; Fundamentals of machine learning, including training/validation samples, cross-validation, supervised vs. unsupervised learning, regularization and resampling methods, tree-based methods, support vector machines, neural networks, deep learning and image analysis with convolutional neural networks. Students will obtain both the theoretical background in data analysis and get hands-on experience analyzing real scientific data. This course forms a two-course sequence with PHYS 3358. Students must also have prior programming experience in python.

- **Spring**
- **1 Course Unit**

**PHYS 3361 Electromagnetism I: Electricity and Potential Theory**

First term course in intermediate electromagnetism. Topics include electrostatics, static potential theory, multipole expansions, Laplace equation, image solutions, fields in polarized matter.

- **Fall**
- **Prerequisite:** (PHYS 0151 OR PHYS 0171) AND MATH 2410
- **1 Course Unit**

**PHYS 3362 Electromagnetism II: Magnetism, Maxwell's Equations, and Electromagnetic Waves**

Second term course in intermediate electromagnetism. Topics include magnetostatic forces and fields, magnetized media, Maxwell's equations, Poynting and stress theorems, free field solutions to Maxwell's equations, and radiation from separable and nonseparable time dependent charge and current distributions.

- **Spring**
- **Prerequisite:** PHYS 3361
- **1 Course Unit**

**PHYS 3364 Laboratory Electronics**

A laboratory-intensive survey of analog and digital electronics, intended to teach students of physics or related fields enough electronics to be effective in experimental research and to be comfortable learning additional topics from reference textbooks. Analog topics include voltage dividers, impedance, filters, operational amplifier circuits, and transistor circuits. Digital topics may include logic gates, finite-state machines, programmable logic devices, digital-to-analog and analog-to-digital conversion, and microcomputer concepts. Recommended for students planning to do experimental work in physical science.

- **Fall or Spring**
- **1 Course Unit**

**PHYS 3370 Order of magnitude Physics: the art of approximation**

This course focuses on the art of estimating physical quantities. Problem solving techniques such as dimensional analysis, symmetry principles and scaling relations will be covered and applied to a range of topics including fluid mechanics, waves and sound, material properties, astrophysics, design principles of living organisms, and how to handle complexity. The course will teach tools for discarding less important aspects of a problem and for selecting the essential ones. The course is intended for undergraduate students with background in advanced first-year physics: mechanics, electromagnetism, waves and optics.

- **1 Course Unit**
PHYS 4401 Thermodynamics and the Introduction to Statistical Mechanics and Kinetic Theory
Entropy, temperature, and introduction to ensemble theory, distribution functions, and phase transitions.
Fall
Prerequisite: PHYS 1240 OR PHYS 1250
1 Course Unit

PHYS 4411 Introduction to Quantum Mechanics I
An introduction to the principles of quantum mechanics designed for physics majors and graduate students in physics-related disciplines. The Schrodinger equation operator formalism, central field problem, angular momentum, and spin. Application to one-dimensional and central field problems.
Fall
Prerequisite: (PHYS 0150 OR PHYS 0170) AND (PHYS 1240 OR PHYS 1250) AND (MATH 2400 OR MATH 2600)
1 Course Unit

PHYS 4412 Introduction to Quantum Mechanics II
Perturbation theory, variational principle, application of the quantum theory to atomic, molecular, and nuclear systems, and their interaction with radiation.
Spring
Prerequisite: PHYS 4411
1 Course Unit

PHYS 4414 Laboratory in Modern Physics
In this course you will have the opportunity to do a variety of experiments, ranging from "classic experiments" such as measuring G with a torsion balance, determining the relativistic mass of the electron, and muon lifetime, to experiments studying atomic spectroscopy, NMR, Optical pumping, Mossbauer effect, nuclear energy levels, interaction of gamma rays with matter, single photon interference, and magnetic susceptibility. There are also experiments using a High-Tc superconducting tunnel junction and a PET scanner. You will learn basic statistics, become proficient in analysis using Python, acquire an understanding of systematic errors, and learn how to write a professional report. Many of the laboratories provide excellent opportunities to exercise, and expand upon, the knowledge you have gained in your physics courses.
Spring
Prerequisite: PHYS 1250 OR PHYS 4411
1 Course Unit

PHYS 4421 Modern Optics
Not Offered Every Year
Prerequisite: (PHYS 1240 OR PHYS 1250) AND PHYS 3362
1 Course Unit

PHYS 4498 Senior Honor Thesis
Experimental and theoretical research projects in various areas of physics planned by student in consultation with a member of faculty. A journal-style written thesis is required.
Fall or Spring
Prerequisite: PHYS 4412 AND PHYS 4414
1 Course Unit

PHYS 4499 Senior Honor Thesis
Journal-style written thesis is required.
Fall or Spring

PHYS 5500 Mathematical Methods of Physics
A discussion of those concepts and techniques of classical analysis employed in physical theories. Topics include complex analysis, Fourier series and transforms, ordinary and partial equations, Hilbert spaces, among others.
Fall
Also Offered As: MATH 5940
1 Course Unit

PHYS 5501 Introduction to Research
Introduction to research in particle, nuclear, condensed matter and astrophysics. Selected current topics from journals.
Fall or Spring
0 Course Units

PHYS 5503 General Relativity
This is a graduate level, introductory course in general relativity. The basics of general relativity will be covered with a view to understanding the mathematical background, the construction of the theory, and applications to the solar system, black holes, gravitational waves and cosmology. The latter part of the course will cover some of the basic modern topics in modern cosmology, including the current cosmological model, the accelerating universe, and open questions driving current research.
Fall or Spring
1 Course Unit

PHYS 5505 Introduction to Cosmology
Introduction to physical cosmology emphasizing recent ideas on the very early evolution of the universe. The course will introduce standard big bang cosmology, new theories of the very early universe, and the key observations that have tested and will be testing these ideas. No prior knowledge of astrophysics, cosmology, general relativity, or particle physics will be assumed, although aspects of each will be introduced as part of the course. The course is intended for graduate students and advanced undergraduates.
Spring, even numbered years only
1 Course Unit

PHYS 5516 Electromagnetic Phenomena
Survey of electrodynamics, focusing on applications to research done in the Department. Topics include mathematical structure and relativistic invariance properties of Maxwell equations, tensor methods, and the generation and scattering of radiation, in vacuum and in materials. Applications vary from year to year but include optical manipulation, astrophysical phenomena, and the generalizations from Maxwell's theory to those of other fundamental interactions (strong, electroweak, and gravitational forces).
Spring
1 Course Unit

PHYS 5517 Particle Cosmology
This introduction to cosmology will cover standard big bang cosmology, formation of large-scale structure, theories of the early universe and their observational predictions, and models of dark energy. It is intended for graduate students or advanced undergraduates. No prior knowledge of general relativity or field theory will be assumed, although aspects of each will be introduced as part of the course.
Fall or Spring
1 Course Unit
PHYS 5518 Introduction to Condensed Matter Physics
An introduction to condensed matter physics designed primarily for advanced undergraduate and graduate students desiring a compact survey of the field. Band theory of solids, phonons, electrical magnetic and optical properties of matter, and superconductivity.
Spring
1 Course Unit

PHYS 5521 Advanced Laboratory
In this course you will have the opportunity to do a variety of experiments, ranging from "classic experiments" such as measuring G with a torsion balance, determining the relativistic mass of the electron, and muon lifetime, to experiments studying atomic spectroscopy, NMR, Optical pumping, Mossbauer effect, nuclear energy levels, interaction of gamma rays with matter, single photon interference, and magnetic susceptibility. There are also experiments using a High-Tc superconducting tunnel junction and a PET scanner. You will learn basic statistics, become proficient in analysis using Python, acquire an understanding of systematic errors, and learn how to write a professional report. Many of the laboratories provide excellent opportunities to exercise, and expand upon, the knowledge you have gained in your physics courses.
Spring
Prerequisite: PHYS 1250 OR PHYS 4411
1 Course Unit

PHYS 5522 Introduction to Elementary Particle Physics
An introduction to elementary particles (photons, leptons, hadrons, quarks), their interactions, and the unification of the fundamental forces.
Not Offered Every Year
1 Course Unit

PHYS 5526 Astrophysical Radiation
This is a course on the theory of the interaction of light and matter designed primarily for graduate and advanced undergraduate students to build the basic tools required to do research in astrophysics. Topics to be discussed include structure of single- and multi-electron atoms, radiative and collisional processes, spectral line formation, opacity, radiation transfer, analytical and numerical methods, and a selection of applications in astrophysics based on student research interest.
Fall, even numbered years only
1 Course Unit

PHYS 5528 Introduction to Liquid Crystals
Overview of liquid crystalline phases, their elasticity, topology, and dynamics.
Fall or Spring
1 Course Unit

PHYS 5529 Modern Optics
Spring, odd numbered years only
Prerequisite: (PHYS 1240 OR 1250) AND PHYS 3362
1 Course Unit

PHYS 5530 Modern Optical Physics and Spectroscopy
Introduction to contemporary optics. Topics include propagation and guiding of light waves, interaction of electromagnetic radiation with matter, lasers, non-linear optics, coherent transient phenomena, photon correlation spectroscopies and photon diffusion.
Not Offered Every Year
1 Course Unit

PHYS 5531 Quantum Mechanics I
Graduate-level introduction to quantum theory. Topics covered include the postulates of quantum mechanics, unitary operators, time evolution and Schrodinger's equation, theory of angular momentum, density matrices, and Bell's inequalities. Other topics may include semi-classical (WKB) approximation, bound state techniques, periodic potentials and resonance phenomena.
Fall
1 Course Unit

PHYS 5532 Quantum Mechanics II
Continuation of PHYS 5531. Topics covered include the path integral formulation, symmetries in quantum mechanics, scattering theory, and decoherence. Other topics may include time independent and time dependent perturbation theory, and atomic and molecular systems.
Spring
Prerequisite: PHYS 5531
1 Course Unit

PHYS 5533 Topics in Cosmology
This course aims to survey three or four topics of current research interest in cosmology, mostly at the level of review articles. The topics will be covered in greater depth and with more connections to ongoing research than an introductory cosmology course. The course will be largely accessible to first and second year graduate students. Some exposure to cosmology and general relativity will be helpful but the first two weeks will attempt to bridge that gap. The topic selection will be done in part with input from the students.
Not Offered Every Year
1 Course Unit

PHYS 5561 Electromagnetism I
First term course in intermediate electromagnetism. Topics include electrostatics, static potential theory, multipole expansions, Laplace equation, image solutions, fields in polarized matter.
Fall
Prerequisite: (PHYS 0151 OR PHYS 171) AND MATH 2410
1 Course Unit

PHYS 5562 Electromagnetism II: Magnetism, Maxwell's Equations, and Electromagnetic Waves
Second term course in intermediate electromagnetism. Topics include magnetostatic forces and fields, magnetized media, Maxwell's equations, Poynting and stress theorems, free field solutions to Maxwell's equations, and radiation from separable and nonseparable time dependent charge and current distributions.
Spring
Prerequisite: PHYS 3361
1 Course Unit

PHYS 5564 Laboratory Electronics
A laboratory-intensive survey of analog and digital electronics, intended to teach students of physics or related fields enough electronics to be comfortable learning additional topics on their own from a reference such as Horowitz and Hill. Specific topics will vary from year to year from the selection of topics listed below. Analog topics may include voltage dividers, impedance, filters, operational amplifier circuits, and transistor circuits. Digital topics may include logic gates, finite-state machines, programmable logic devices, digital-to-analog and analog-to-digital conversion, and microcomputer concepts. Recommended for students planning to do experimental work in physical science. Prerequisite: Familiarity with electricity and magnetism at the level of PHYS 0102, PHYS 0141, PHYS 0151, and PHYS 0171.
Fall or Spring
1 Course Unit
PHYS 5566 Machine Learning Methods in Natural Science Modeling
This is a course for PhD students in natural sciences with interests in applying latest machine learning and AI approaches to their problem domains. The course will consist of directed readings and covering available tutorials with weekly discussions. The goal is to motivate mutual self-learning through guided discussions. Weekly participation and completion of readings or other assigned materials is essential and lack of attendance will be graded. Topics to be covered will be decided after the first meeting. Prerequisites: multivariate calculus, linear algebra, statistics, and probability.
Not Offered Every Year
Also Offered As: BIOL 5566
1 Course Unit

PHYS 5570 Physical networks: living matter to data science
Physics, engineering, and biology are rife with examples of physical, or material, networks, such as mechanical networks, resistor networks, and flow networks. In these structures, the networks are geometrically embedded, and the physical limitation of space, the position of the nodes, is an important consideration. This course provides an introduction to such systems. The course will cover the basic mathematical tools for network theory, graph theory, and the physics of flow and mechanical networks. Specific systems of great relevance to physics, engineering, and biology, such as mechanical (spring) networks, force chains in jammed packings, the cytoskeleton and other intercellular structural networks, (biological) flow networks, resistor networks, and truss systems will be discussed, as well as dynamics and optimization as applied to these structures. Since these networks are typically complex, the second part of the course will cover a broad array of data analytic techniques to characterize and quantify these structures, such as topological data analysis (TDA) and machine learning.
Spring, odd numbered years only
1 Course Unit

PHYS 5580 Biological Physics
The course will explore the basic physical principles behind the structure and function of life across many length and time scales (molecule, cell, organism, population). Emphasis will be given on overarching physical themes such as entropy and biological noise, and how they affect the organization of living matter and its emergent properties. Topics may include biopolymers and single molecule biophysics, molecular motors, gene and transcription networks, pattern formation in biological systems, phyllotaxis, neural computing and evolution.
Not Offered Every Year
Prerequisite: MATH 2400 AND MATH 2410 AND PHYS 4401
1 Course Unit

PHYS 5581 Thermodynamics
Entropy, temperature, and introduction to ensemble theory, distribution functions, and phase transitions.
Fall
Prerequisite: PHYS 1240 OR PHYS 1250
1 Course Unit

PHYS 5585 Theoretical and Computational Neuroscience
This course will develop theoretical and computational approaches to structural and functional organization in the brain. The course will cover: (i) the basic biophysics of neural responses, (ii) neural coding and decoding with an emphasis on sensory systems, (iii) approaches to the study of networks of neurons, (iv) models of adaptation, learning and memory, (v) models of decision making, and (vi) ideas that address why the brain is organized the way that it is. The course will be appropriate for advanced undergraduates and beginning graduate students. A knowledge of multi-variable calculus, linear algebra and differential equations is required (except by permission of the instructor). Prior exposure to neuroscience and/or Matlab programming will be helpful.
Spring
Also Offered As: BE 5300, NGG 5940, NRSC 5585, PSYC 5390
1 Course Unit

PHYS 5598 Senior Honors Thesis for Submatriculants
Experimental and theoretical research projects in various areas of physics planned by student in consultation with a member of faculty. A journal-style written thesis is required. This course is the graduate-level version of PHYS4498 for students who are submatriculating in Physics and counting this course towards that requirement.
1 Course Unit

PHYS 6601 Introduction to Field Theory
Elementary relativistic quantum field theory of scalar, fermion, and Abelian gauge fields. Feynman Diagrams.
Fall
1 Course Unit

PHYS 6611 Statistical Mechanics
Fall
Prerequisite: PHYS 4401 AND PHYS 5531
1 Course Unit

PHYS 6612 Advanced Statistical Mechanics
In depth study of classical and quantum lattice spin models, perturbation techniques, and the renormalization group.
Not Offered Every Year
Prerequisite: PHYS 6611
1 Course Unit

PHYS 6622 Introduction to Elementary Particle Physics
Introduction to the phenomenology of elementary particles, strong and weak interactions, symmetries.
Not Offered Every Year
Prerequisite: PHYS 6601
1 Course Unit

PHYS 6632 Relativistic Quantum Field Theory
Advanced topics in field theory, including renormalization theory.
Not Offered Every Year
Prerequisite: PHYS 6601
1 Course Unit

PHYS 6633 Relativistic Quantum Field Theory
A continuation of PHYS 6632, dealing with non-Abelian gauge theories.
Not Offered Every Year
Prerequisite: PHYS 6632
1 Course Unit
PHYS 6661 Solid State Theory I
This course is intended to be an introductory graduate course on the physics of solids, crystals and liquid crystals. There will be a strong emphasis on the use and application of broken and unbroken symmetries in condensed matter physics. Topics covered include superconductivity and superfluidity.
Not Offered Every Year
1 Course Unit

PHYS 6662 Solid State Theory II
A continuation of PHYS 6661.
Not Offered Every Year
1 Course Unit

PHYS 6696 Advanced Topics in Theoretical Physics
This course aims to survey three or four topics of current research interest in Theoretical Physics. The topics will be covered in greater depth and with more connections to ongoing research.
Not Offered Every Year
1 Course Unit

PHYS 9900 Masters Thesis
Masters Thesis
Fall or Spring
0 Course Units

PHYS 9950 Dissertation
Dissertation
Fall or Spring
0 Course Units

PHYS 9999 Independent Study
Independent Study
Fall or Spring
1-3 Course Units

Polish (PLSH)

PLSH 0100 Polish I
This course is the first in a series of first-year courses, intended for students with no previous background in Polish. The course develops competence in speaking, reading, writing, and understanding contemporary Polish. It will also introduce you to Polish culture through exciting authentic materials, Polish films, history and contemporary affairs. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Polish. By the end of the course, you will be able to engage in simple conversations in Polish on topics concerning your daily life. You will also be able to write short personalized messages in Polish.
Two Term Class, Student may enter either term; credit given for either
1 Course Unit

PLSH 0200 Polish II
This course is the second in a series of first-year courses, continuation of Polish I. The course continues to develop competence in speaking, reading, writing, and understanding contemporary Polish. We will continue the exploration of Polish culture through exciting authentic materials, including Polish films, history and contemporary affairs. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Polish. By the end of the course, you will be able to engage in simple conversations in Polish on many topics in informal and some formal contexts concerning your daily life. You will also be able to write longer personalized messages in Polish.
Two Term Class, Student may enter either term; credit given for either
Prerequisite: PLSH 0100
1 Course Unit

PLSH 0201 Polish for Heritage Speakers I
This is the first in the series of literacy courses for students who have spoken Polish at home and seek to improve literacy skills and language competence. The course aims to enhance linguistic accuracy in spelling, grammar, word choice and pronunciation, as well as fluency and narrative structure in both speaking and writing. We will also focus on developing effective reading and listening strategies and expanding students’ active and passive vocabulary through interpretation and analysis of various literary genres and a broad variety of cultural themes.
Not Offered Every Year
1 Course Unit

PLSH 0300 Polish III
This course is the first in a series of second-year courses, continuation of Polish II. The course will strengthen students’ competence in speaking, reading, writing, and understanding contemporary Polish and will expand students’ active and passive vocabulary on a variety of topics. We will continue the exploration of Polish culture through exciting authentic materials, including Polish films, history and contemporary affairs. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Polish. By the end of the course, you will be able to engage in increasingly complex conversations in Polish on many topics in informal and formal contexts concerning your daily life, significant personal and cultural events and situations, important cultural figures. You will be able to write longer messages in a variety of informal and formal contexts.
Two Term Class, Student may enter either term; credit given for either
Prerequisite: PLSH 0200
1 Course Unit
PLSH 0400 Polish IV
This course is the second in a series of second-year courses, continuation of Polish III. The course will continue strengthening and expanding students’ competence in speaking, reading, writing, and understanding contemporary Polish and increasing active and passive vocabulary on a variety of topics. We will continue the exploration of Polish culture through exciting authentic materials, including Polish films, history and contemporary affairs. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Polish. By the end of the course, you will be able to engage in increasingly complex conversations in Polish on many topics in informal and formal contexts concerning your daily life, significant personal and cultural events, attitudes and perspectives. You will be able to write longer messages in a variety of informal and formal contexts. Satisfies Penn Language Requirement.
Two Term Class, Student may enter either term; credit given for either Prerequisite: PLSH 0300
1 Course Unit

PLSH 0401 Polish for Heritage Speakers II
This course is the second in the series of literacy courses for students who have spoken Polish at home and seek to improve literacy skills and language competence, continuation of PLSH0201. The course continues to focus on enhancing linguistic accuracy in spelling, grammar, word choice and pronunciation, as well as fluency and narrative structure in both speaking and writing. We will continue developing effective reading and listening strategies and expanding students’ active and passive vocabulary through interpretation and analysis of various literary genres and a broad variety of cultural themes. Satisfies Penn Language Requirement.
Not Offered Every Year
Prerequisite: PLSH 0201
1 Course Unit

Political Science (PSCI)

PSCI 0010 First-Year Seminar
The primary goal of the first-year seminar program is to provide every first-year student with the opportunity for a direct personal encounter with a faculty member in a small class setting devoted to a significant intellectual endeavor. First-year seminars also fulfill College General Education Requirements.
Fall or Spring
1 Course Unit

PSCI 0011 First-Year Seminar: Politics of Reproduction
The idea that the "personal" is "political" finds no greater example than in the politics of reproduction. From
Fall or Spring
1 Course Unit

PSCI 0012 First-Year Seminar: War on Drugs in Latin America
The United States government has spent tens of billions of dollars on policies aimed at reducing the flow of
Fall or Spring
Also Offered As: LALS 0012
1 Course Unit

PSCI 0013 First-Year Seminar: Race, Class & Punishment
This first-year seminar analyzes the politics of "crime in the streets" and "crime in the suites." Key topics
Fall or Spring
Also Offered As: AFRC 0013
1 Course Unit

PSCI 0014 First-Year Seminar: The Contemporary American City
This course explores the economic and social challenges facing large US cities since roughly 1965 as well as the cities' political and policy responses. Its major topics include the changing relations between racial and ethnic groups, the political impact of suburbanization, and the political effects of deindustrialization and economic transformation. The course readings are drawn from recent urban political history, economics, and sociology as well as political science. The course pays special attention to the changing distribution of political and economic power in US metropolitan areas, and considers regional coordination and other potential policy responses.
Fall or Spring
1 Course Unit

PSCI 0015 First-Year Seminar: The Rise of Authoritarianism
Recent political developments in Turkey, Hungary, and even the United States have provoked debate about the rise of authoritarian leaders in western democracies. In this seminar, we will examine the politics of non-democracies to help us understand the new and growing global wave of authoritarianism. How do dictatorships work? When do democracies break down and when do autocracies collapse? How do non-competitive elections affect authoritarian rule? Do competitive elections strengthen civil liberties? Are democracies more or less susceptible to corruption, property expropriation, nationalism, or xenophobia? Do non-democracies produce higher economic growth? Throughout the course, we will also build empirical knowledge about the politics of particular authoritarian regimes.
Fall or Spring
1 Course Unit

PSCI 0016 First-Year Seminar: Globalization
This course addresses the political economy of globalization. We will discuss what the term globalization means and why many observers argue that the current era is marked by globalization. We will also examine the factors that have contributed to the emergence of globalization. We will consider its political and economic implications, both the benefits of globalization and the challenges that it poses for contemporary society. Finally, we will analyze the sources of resistance to globalization and the extent to which it can be reformed.
Fall or Spring
1 Course Unit

PSCI 0100 Introduction to Comparative Politics
This course is designed to introduce students to comparative political analysis. How can the political behavior, circumstances, institutions, and dynamic patterns of change that people experience in very different societies be analyzed using the same set of concepts and theories? Key themes include nationalism, political culture, democratization, authoritarianism, and the nature of protracted conflict.
Fall or Spring
1 Course Unit
PSCI 0101 Comparative Politics of Developing Areas
This is a comparative politics course that examines political and socio-economic change in the so-called "Third World," defined here as post-colonial developing areas in Asia, Africa and Latin America. The course is not as concerned with keeping up with current events as with analyzing the relationships between colonial legacies, the initial challenges of post-colonial political and socioeconomic development, and how these interact with contemporary problems and global trends. Although chiefly concerned with "political change" within countries, it will also devote substantial attention to economic, socio-cultural and international factors. The course is divided into three parts. The first examines the common and distinctive features of colonial rule in different regions as well as the varying challenges of political and economic development in diverse post-colonial settings. The second part focuses on elaborating on the themes developed in the first by looking more closely at the developmental experiences of Brazil, India, Algeria, Iran, Nigeria, and South Korea (with passing references to other countries as comparative referents). The third part focuses on trends and challenges that have emerged over the last two decades - including market reforms, democratization, and problems related to gender and the environment.
Fall, odd numbered years only
1 Course Unit

PSCI 0102 Communism
The rise and fall of Communism dominated the history of the short twentieth century from the Russian revolution of 1917 to the collapse of the Soviet Union in 1991. As a system of government, Communism is more or less dead, but its utopian ideals of liberation from exploitation and want live on. Communism remains the one political-economic system that presented, for a time, an alternative to global capitalism. In this course, students will gain an introduction to socialist and Communist political thought and explore Communist political and economic regimes their successes and failures, critics and dissidents, efforts at reform, and causes of collapse. We will learn about the remnants of Communism in China, North Korea, and Cuba and efforts of contemporary theorists to imagine a future for Communism.
Not Offered Every Year
Also Offered As: REES 1530
1 Course Unit

PSCI 0200 Introduction to American Politics
This course is intended to introduce students to the national institutions and political processes of American government. What are the historical and philosophical foundations of the American Republic? How does American public policy get made, who makes it, and who benefits? Is a constitutional fabric woven in 1787 good enough for today? How, if at all, should American government be changed, and why? What is politics and why bother to study it? If these sorts of questions interest you, then this course will be a congenial home. It is designed to explore such questions while teaching students the basics of American politics and government.
Fall or Spring
1 Course Unit

PSCI 0400 Introduction to International Relations
This course is an introduction to the major theories and issues in international politics. The goals of the course are to give students a broad familiarity with the field of international relations, and to help them develop the analytical skills necessary to think critically about international politics. The course is divided into four parts: 1) Concepts and Theories of International Relations; 2) War and Security; 3) The Global Economy; and 4) Emerging Issues in International Relations.
Fall or Spring
1 Course Unit

PSCI 0401 Russia and Eastern Europe in International Affairs
Russia and the European Union (EU) are engaged in a battle for influence in Eastern Europe. EU foreign policy towards its Eastern neighbors is based on economic integration and the carrot of membership. With the application of this powerful incentive, Central and Southeastern European countries such as Poland, Hungary, the Czech Republic, and Croatia have progressed rapidly towards integration with the EU (and NATO). Yet, given Russia's opposition to the further enlargement, membership is off the table for the large semi-Western powers such as Russia itself and Turkey and the smaller countries inhabiting an emerging buffer zone between Russia and the EU, such as Georgia, Ukraine, Azerbaijan, Moldova, and Belarus. These in-between countries find themselves subject to intense competition for influence between Eastern and Western powers. In this context, EU countries must balance their energy dependence on Russia and need for new markets and geopolitical stability with concern for human rights, democratic governance, and self-determination. What are the trade-offs implicit in the foreign policies of Russia, EU member states, and Eastern Europe? What are the best policy approaches? What are the main opportunities and obstacles?
Fall
Also Offered As: REES 1570
Mutually Exclusive: REES 5570
1 Course Unit

PSCI 0600 Ancient Political Thought
Through reading texts of Plato (Socrates), Aristotle, Augustine and Aquinas, the student encounters a range of political ideas deeply challenging to--and possibly corrosive of--today's dominant democratic liberalisms. Can classical and medieval thinking offer insight into modern impasses in political morality? Is such ancient thinking plausible, useful, or dangerous?
Not Offered Every Year
Also Offered As: CLST 1503
1 Course Unit

PSCI 0601 Modern Political Thought
This course will provide an overview of major figures and themes of modern political thought. We will focus on themes and questions pertinent to political theory in the modern era, particularly focusing on the relationship of the individual to community, society, and state. Although the emergence of the individual as a central moral, political, and conceptual category arguably began in earlier eras, it is in the seventeenth century that it takes firm hold in defining the state, political institutions, moral thinking, and social relations. The centrality of "the individual" has created difficulties, even paradoxes, for community and social relations, and political theorists have struggled to reconcile those throughout the modern era. We will consider the political forms that emerged out of those struggles, as well as the changed and distinctly "modern" conceptualizations of political theory such as freedom, responsibility, justice, rights and obligations, as central categories for organizing moral and political life.
Not Offered Every Year
1 Course Unit
PSCI 0602 American Political Thought
Whether America begins with the Puritans and the Mayflower Compact, or with the Declaration of Independence and the Revolution, it is founded in resistance to empire. In the generations between, Americans have desired, dreaded and debated empire. This course will focus on empire and imperialism in American political thought. We will read primary texts addressing empire: from the departure and dissent of the Puritans, and Burke’s Speech on Conciliation with the Colonies, to twentieth and twenty-first century debates over America’s role in the world. These texts will include political pamphlets and speeches, poetry, novels, policy papers and film.
Not Offered Every Year
1 Course Unit

PSCI 0680 Feminist Political Thought
This course is designed to provide an overview of the variety of ideas, approaches, and subfields within feminist political thought. Readings and divided into three sections: contemporary theorizing about the meaning of “feminism”; women in the history of Western political thought; and feminist theoretical approaches to practical political problems and issues, such as abortion and sexual assault.
Not Offered Every Year
Also Offered As: GSWS 0680
1 Course Unit

PSCI 1100 Ethnic Conflict
This course explains ethnic conflict, focusing on its most violent form, civil war. There have been more than 170 civil wars and many more episodes of lower-level armed conflict around the world since 1945. Most of these conflicts have been fought along ethnic lines. Antipathies and competition between ethnic groups are a constant feature of human history. Across societies, there is evidence of in-group bias and out-group prejudice in human behavior. Some theorists argue that people are hard-wired to dislike, and even fight against, members of ethnic out-groups. But large-scale ethnic violence is relatively rare. Under what conditions does ethnic conflict become violent and when does that violence rise to the level of civil war? What interventions are effective in ending these wars and returning countries to peace? Is ethnic conflict rooted in economic factors, such as poverty, growth decline, commodity price shocks, or dependence on mineral wealth? Or is it due to political reasons, such as repression, authoritarianism, or political exclusion of minority groups? This course addresses these questions from an interdisciplinary perspective, drawing on quantitative political science, history, social psychology, and behavioral economics. By the end of the course, students should be able to discuss these questions with reference to ongoing cases of civil war in Iraq, Afghanistan, and Syria as well as historical cases such as Bosnia and Rwanda.
Spring
1 Course Unit

PSCI 1101 The Politics of Slow Moving Crises
Slow-moving policy crises like climate change, population growth/ change (aging, immigration, pensions), and water availability involve policy areas with a seemingly high probability of negative consequences, where the need for policy coordination seems clear but the pressures for coordination are often somewhat removed, since the consequences of policy action or inaction may be felt only years down the road. The questions underlying these cases are: how does a democratic political system, which operates on the short time horizon of elections, complicate policy decisions regarding social and natural processes with much longer time horizons (say decades rather than years), and for which the policy consequences may be quite serious, not to say catastrophic, but far removed from the political timeframe. How do politicians and policy makers evaluate the appropriate response to the problems posed by these processes? If the usual policy making framework is inadequate to responding to these kinds of processes and the problems they pose, then how can the institutions and processes of policy-making be amended to allow for improvement? What lessons can be drawn from other fields (psychology, economics, political science, sociology, etc.) and other decision-making arenas? On one level the goal of this course is to introduce students to key concepts of rational choice, externalities, risk assessment, time horizons, event probabilities, path dependency and unintended consequences through readings in political science, economics and sociology; and on another level to give students the tools to evaluate failures (and successes) of policy responses in areas in which policy consequences are often far removed, temporally and otherwise, from those making decisions.
Spring, even numbered years only
1 Course Unit

PSCI 1102 Political Economy of Development
Why are some countries rich and some poor? Why are some households rich and some poor? This course introduces students to the intellectual tools for understanding why development varies across the globe and the practical tools for designing and evaluating policies aimed at alleviating poverty. To that end, the course is organized into three parts. The first part focuses on the big picture: the macroeconomic and political foundations for sustained economic growth, including historical legacies, technological innovation and political institutions. The second part focuses on the micro-picture: the household-level dynamics of poverty and development, including access to food and credit, the role of health and education, the transition from village to city life, and day-to-day governance. The third part of the course introduces students to the practicalities of designing and evaluating the efficacy of governance and poverty relief interventions and policies. The focus will be on the use of field experiments to study interventions to promote better governance and household wellbeing.
Spring
1 Course Unit
PSCI 1103 Dilemmas of Immigration
Beneath the daily headlines about refugees blocked entry, and undocumented migrants deported there is a set of hard questions which deserve closer attention: Should countries have borders? If countries have borders, how should they decide who is kept out and who is allowed in? How many immigrants is ‘enough’? Are immigrants equally desirable? What kinds of obligations do immigrants have to their receiving society? What kinds of obligations do host societies have to immigrants? Should there be ‘pathways’ to citizenship? Can citizenship be earned? Should citizenship be automatic? This course explores these and other dilemmas raised by immigration.
Spring, odd numbered years only
Also Offered As: LALS 1103
1 Course Unit

PSCI 1104 Socialism
Socialism has become a hot topic in US politics. Some advocate it as an ideology that supports economic equality; others decry it as a path towards excessive state control. But what does the word socialism really mean? Why does it seem to mean different things to different people? What is the historical background of socialism? Are there meaningful differences between different forms of socialism or are they more or less the same thing? Which societies are socialist in practice, both past and present? What about the US? What are the different proposals US and other Socialists make today? What is their logic? How socialist are they? Are their policy ideas or bad? What effects would they have? This course will introduce students to socialism in theory and practice, with an emphasis on different models of Western social democracy and how they are impacting political discourse right now.
Fall or Spring
Also Offered As: REES 1531
1 Course Unit

PSCI 1120 Latin American Politics
This course examines the dynamics of political and economic change in twentieth century Latin America, with the goal of achieving an understanding of contemporary politics in the region. We will analyze topics such as the incorporation of the region to the international economy and the consolidation of oligarchic states (1880s to 1930s), corporatism, populism, and elict pacts (1930s and 1940s), social revolution, democratic breakdown, and military rule (1960s and 1970s), transitions to democracy and human rights advocacy (1980s), makret-oriented reforms (1990s), and the turn to the left of current governments (2000s). The course will draw primarily from the experiences of Argentina, Brazil, Colombia, Chile and Mexico. No prior knowledge of the region is required.
Fall or Spring
Also Offered As: LALS 1120
1 Course Unit

PSCI 1121 U.S. Intervention in Latin America
Why has the United States government participated in regime change in Latin America? How have these interventions affected Latin American political and economic outcomes? What have they helped or hurt U.S. interests in the region? This lecture course provides an introduction to the history and politics of U.S. participation in regime change in Latin America since 1949. For each event, the course will help students understand (1) the goals of the U.S. government; (2) the historical and political context of the intervention; and (3) the outcomes and consequences, both in Latin America and for the United States. One set of short writing assignments will train students to identify the main argument of a reading and assess the quality of the evidence presented in support of that argument; a second set of short writing assignments will train students to make and defend their own argument (see draft syllabus for details).
Spring, odd numbered years only
Also Offered As: LALS 1121
1 Course Unit

PSCI 1130 Contemporary African Politics
This class provides an introduction to contemporary African politics. The core questions that motivate the course are (i) to what extent are political outcomes in contemporary Africa a consequence of its history, culture and geography? (ii.) Why are state structures and institutions weaker in Africa than elsewhere? (iii.) What accounts for Africa's relatively slow economic growth? (iv.) Why have some African countries been plagued by high levels of political violence while others have not? (v.) What explains the behavior of key African actors: parties or politicians?
Fall or Spring
Also Offered As: AFRC 1130
1 Course Unit

PSCI 1140 Politics in the Contemporary Middle East
This course is an introduction to the most prominent historical, cultural, institutional, and ideological features of Middle Eastern politics. Typical of the questions we shall address are why processes of modernization and economic change have not produced liberal democracies, why Islamic movements have gained enormous strength in some countries and not others, why conflicts in the region–between Israel and the Arabs, Iran and Iraq, or inside of Lebanon–have been so bitter and protracted; why the era of military coups was brought to an end but transitions to democracy have been difficult to achieve; why Arab unity has been so elusive and yet so persistent a theme; and why oil wealth in the Gulf, in the Arabian Peninsula, and in North Africa, has not produced industrialized or self-sustaining economic growth.
Fall or Spring
1 Course Unit

PSCI 1141 The Making of Modern Israel and Palestine
This course analyzes the making of a modern Jewish state in the land of Israel/Palestine and the role of Zionism, Palestinian nationalism, and global politics in that process. Beginning in 19th-century Europe and the Middle East, we will study the ideas, movements, and people that shaped what has come to be known as the Arab-Israeli conflict. Students will explore the impact of international factors on the struggles that resulted from the Zionist project in Israel/Palestine and Arab reactions to it across three periods: imperialism and world wars (1860s-1940s), cold war (late 1940s-1990), and multi-polarity (1990s-present).
Also Offered As: HIST 1362, JWST 1362
1 Course Unit
PSCI 1150 Contemporary Chinese Politics
This lecture course introduces students to the politics of the People's Republic of China. Complementing offerings in other departments, this course emphasizes events in the period since the Chinese Communist Party established its regime in 1949. In addition to surveying the political history of contemporary China, we will assess the meaning of these events by drawing upon theories about the nature and significance of ideology and organization in communist regimes, factionalism and its relationship to policy formulation and implementation, and general issues of political and economic development. Although the principal focus is on the domestic politics of the People's Republic of China, the course includes several lectures examining China's international relations.
Fall or Spring
1 Course Unit

PSCI 1160 Democracy and Development in India
This course introduces students to the complex issues surrounding questions of political and economic development in India, the world's largest democracy, and home to a large chunk of the globe's low-income population. Not surprisingly, the successes and failures of India are tremendously important to the study of democracy and development. The experiences of countries in this region have given rise to influential theories of development. The policy prescriptions these theories have produced have in turn been applied back onto India, with spectacular results—both positive and negative. Over the course of the semester, we will use the concrete experiences from the past seven decades in India to ask and answer fundamental questions about development, including: Does democratic politics help or hurt prospects for economic development? Why are some poor countries like India able to maintain democracies, while equally poor countries in the region, such as Pakistan, are not? How did British colonialism shape the nature of post-colonial development? Should the state or the market play a dominant role in the economies of newly independent nations? How can we best measure poverty, and what have been the challenges to reducing it in the developing world? What are the challenges and opportunities produced by rapid international migration to rich countries? The course is divided into four thematic units, which build upon one another. Within each theme, we draw from a wide array of source materials, reading scholarship in political science, economics, sociology, and anthropology, journalistic non-fiction, and even film. While empirically focusing on India, we will also read about the experiences of other countries in South Asia, and also from East Asia, Latin America, and sub-Saharan Africa in specific weeks. This will help students place the experiences of South Asian countries in a broader comparative perspective.
Also Offered As: SAST 1160
1 Course Unit

PSCI 1170 Politics of Post War Western Europe
This course examines political institutions, processes and events in postwar Western Europe. The focus will be a comparative analysis of such topics as political parties and systems, electoral behavior, as well as social and economic policy. We will also examine the way in which domestic processes and policies interact with membership in the European Union.
Not Offered Every Year
1 Course Unit

PSCI 1171 The European Union
This lecture course, after introductory sessions which outline the EU's core institutions, is built on an exposition of the works of major thinkers who have reflected on the European Union's origins, outcomes and significance. It critically reviews their arguments, especially their relevance to major recent crises, notably: the failure of the European Constitution, the current crisis of credibility facing the Euro. Whether the European Union is a confederation, a federation, an empire, or a novel political formation shall be examined. Whether its recent major widening signals an end to its institutional deepening will be discussed. Whether the Union has "a democratic deficit" is examined, as is the claim that in external relations it represents a novel form of soft power.
Not Offered Every Year
1 Course Unit

PSCI 1172 Russian Politics
This course will present an in-depth examination of political, economic and social change in post-Soviet Russia within a historical context. After a brief discussion of contemporary problems in Russia, the first half of the course will delve into the rise of communism in 1917, the evolution of the Soviet regime, and the tensions between ideology and practice over the seventy years of communist rule up until 1985. The second part of the course will begin with an examination of the Gorbachev period and the competing interpretations of how the events between 1985 and 1991 may have contributed to the collapse of the Soviet Union. We will then proceed to make sense of the continuities and changes in politics, economics and society in contemporary Russia. Important topics will include the confrontations accompanying the adoption of a new constitution, the emergence of competing ideologies and parties, the struggle over economic privatization, the question of federalism and nationalism, social and political implications of economic reform, and prospects for Russia's future in the Putin and post-Putin era.
Spring
Also Offered As: REES 1535
1 Course Unit

PSCI 1173 Comparative Health Politics
This course examines the relationship between politics and the health of populations in the world's rich democracies, including the Unites States. The key questions the course addresses are how and why countries differ in their health care policies, public health policies, and policies that affect the social determinants of health. There are no prerequisites, but prior coursework in comparative politics at the 100 or 200 level will be helpful.
Not Offered Every Year
1 Course Unit
PSCI 1180 Sex and Power
Gender has been a primary way of organizing power relations throughout history. This class asks how transformations in the global economy, technological change, new patterns of household formation, and social movements, have influenced women's access to economic and political positions over the past two centuries. We will examine how women's mobilization contributed to the abolition of slavery, reform of property and franchise laws, and to the formation of the welfare state. Next, we turn to thinking about how women's increasing labor force participation was hindered by institutions like marriage bars and union policy. Third, we look at cross-national patterns of women's political participation and descriptive representation including whether and how the adoption of electoral quotas influences gender equality more generally. Finally we study how institutional norms and gender stereotypes affect political representation. This class will draw on examples from around the world, and will look at experiences of women from all economic, social, and aspirative backgrounds.
Not Offered Every Year
1 Course Unit

PSCI 1181 Gender and Elections in America and Beyond
This course tackles four theoretical and empirical challenges related to gender and political equality: the extension of citizenship rights and voting rights to women; the problem of women's persistent under-representation in politics; the nature of the gender gap in preferences across time and space; and the possibilities for substantive representation. We will focus about half the class on the US (contrasting the experiences of white and black women and men in politics) and the other half on other countries, detailing how different party systems, variation in electoral rules (like proportional representation), and institutional innovations such as gender quotas, enable or constrain gender equality in politics.
Fall or Spring
Also Offered As: GSWS 1181
1 Course Unit

PSCI 1200 Public Policy Process
This course introduces students to the theories and practice of the policy-making process. There are four primary learning objectives. First, understanding how the structure of political institutions matter for the policies that they produce. Second, recognizing the constraints that policy makers face when making decisions on behalf of the public. Third, identifying the strategies that can be used to overcome these constraints. Fourth, knowing the toolbox that is available to participants in the policy-making process to help get their preferred strategies implemented. While our focus will primarily be on American political institutions, many of the ideas and topics discussed in the class apply broadly to other democratic systems of government.
Spring
Also Offered As: PPE 3002
1 Course Unit

PSCI 1201 Public Opinion and American Democracy
This course examines public opinion in the American political system. We will discuss how to measure public opinion, how citizens formulate opinions, and the role of public opinion in campaigns, elections, and policymaking. We will also consider normative questions, including the role opinion should play in American democracy. Additionally, over the course of the semester we will track public opinion polls related to ongoing elections as well as develop analytical skills to answer questions using public opinion.
Not Offered Every Year
1 Course Unit

PSCI 1202 Changing American Electorate
In 1960, a Democratic candidate won a very narrow Presidential victory with just 100,000 votes; in 2000, the Democratic candidate lost but received 500,000 more votes than his opponent. Still, contemporary scholars and journalists have made a variety of arguments about just how much the American political landscape changed in the intervening 40 years, often calling recent decades a transformation. This course explores and critically evaluates those arguments. Key questions include: how, if at all, have Americans political attitudes and ideologies changed? How have their connections to politics changed? What has this meant for the fortunes and strategies of the two parties? How have the parties base voters and swing voters changed? What changes in American society have advantaged some political messages and parties at the expense of others? Focusing primarily on mass-level politics, we consider a wide range of potential causes, including the role of race in American politics, suburbanization, economic transformations, the evolving constellation and structure of interest groups, declining social capital, the changing role of religion, immigration, and the actions of parties and political elites. For three weeks in the semester, we will take a break from considering broader trends to look at specific elections in some depth.
Not Offered Every Year
1 Course Unit

PSCI 1203 The American Presidency
This course surveys the institutional development of the American presidency from the Constitutional convention through the current administration. It examines the politics of presidential leadership, and how the executive branch functions. An underlying theme of the course is the tension between the presidency, leadership, and democracy.
Fall
1 Course Unit

PSCI 1205 Constitutional Law
This class introduces students to the United States Constitution, specifically Articles I, II, III, the Tenth Amendment, Equal Protection Clause, and the First Amendment. The format for each class will consist of a 45-minute lecture followed by small group discussions on assigned issues and questions.
Fall or Spring
Also Offered As: AFRC 1205
1 Course Unit

PSCI 1206 American Constitutional Law II
This course examines American constitutional development from the eve of WWI through the second Obama administration. Topics include the growth of the New Deal and a Great Society regulatory and redistributive state, struggles for equal rights for racial and ethnic minorities, women and GLBT Americans, contests over freedoms of religion and expression, criminal justice issues, the Reagan Revolution and the revival of federalism and property rights, and issues of national security powers after September 11, 2001.
Also Offered As: AFRC 1206
1 Course Unit
PSCI 1207 Who Gets Elected and Why? The Science of Politics
What does it take to get elected to office? What are the key elements of a successful political campaign? What are the crucial issues guiding campaigns and elections in the U.S. at the beginning of the 21st century? This class will address the process and results of electoral politics at the local, state, and federal levels. Course participants will study the stages and strategies of running for public office and will discuss the various influences on getting elected, including: Campaign finance and fundraising, demographics, polling, the media, staffing, economics, and party organization. Each week we will be joined by guest speakers who are nationally recognized professionals, with expertise in different areas of the campaign and election process. Students will also analyze campaign case studies and the career of the instructor himself. Edward G. Rendell is the former Mayor of Philadelphia, former Chair of the Democratic National Committee, and former Governor of Pennsylvania.
Fall
Also Offered As: URBS 3200
1 Course Unit

PSCI 1208 The Politics of Food and Agriculture
Students will use course readings and their community service to analyze the institutions, ideas, interests, social movements, and leadership that shape the "politics of food" in different arenas. Service opportunities include work with the Urban Nutrition Initiative, Community School Student Partnerships, and the possibility of other placements as approved by the professors.
Not Offered Every Year
1 Course Unit

PSCI 1209 American Campaigns and Elections
This lecture course will teach students about American campaigns and elections, from the local level to the presidential level. We will cover as many topics as possible including: the nominating process, the general campaign, campaign strategy, turnout, campaign finance, the role of issues, the importance of the economy, the power of party identification, and the role of data analysis used by campaign professionals. We will also consider how these factors matter in terms of who wins the election. In addition to the literature on campaigns and election, this lecture will put minor focus on the most recent 2016 presidential election relative to what the literature would have predicted. After the first part of the course about presidential elections, the second part will focus on Congressional elections (and a bit about state and local elections). Lastly, the third part of the course will examine how data analytics that originated in political science are now being used by campaign practitioners to win elections.
Not Offered Every Year
1 Course Unit

PSCI 1210 Introduction to Political Communication
This course is an introduction to the field of political communication and conceptual approaches to analyzing communication in various forms, including advertising, speech making, campaign debates, and candidates' and office-holders' uses of social media and efforts to frame news. The focus of this course is on the interplay in the U.S. between media and politics. The course includes a history of campaign practices from the 1952 presidential contest through the election of 2020.
Fall
Also Offered As: COMM 2260
1 Course Unit

PSCI 1290 Race and Ethnic Politics
This course examines the role of race and ethnicity in the political discourse through a comparative survey of recent literature on the historical and contemporary political experiences of the four major minority groups (Blacks or African Americans, American Indians, Latinos or Hispanic Americans, and Asian Americans). A few of the key topics will include assimilation and acculturation seen in the Asian American community, understanding the political direction of Black America in a pre and post Civil Rights era, and assessing the emergence of Hispanics as the largest minority group and the political impact of this demographic change. Throughout the semester, the course will introduce students to significant minority legislation, political behavior, social movements, litigation/court rulings, media, and various forms of public opinion that have shaped the history of racial and ethnic minority relations in this country. Readings are drawn from books and articles written by contemporary political scientists.
Not Offered Every Year
Also Offered As: LALS 1290
1 Course Unit

PSCI 1401 International Security
This lecture course introduces students to the subfield of international security or strategic studies. In order to grasp the usefulness of the theoretical ideas presented in readings and lectures, abstract concepts are linked with a study of the national security policies states have adopted in the decades following World War II. Topics include current debates about nuclear proliferation, terrorism, the Iraq war, Europe's changing international role, the rise of China, Asian "flashpoints" (Korea, the Taiwan Strait), and US security policy for the 21st century - considering some of the main strategic alternatives to the US as well as their implications for the types of forces deployed (the impact of the "revolution in military affairs," the future of missile defense, and the economic burden to be shouldered).
Fall or Spring
1 Course Unit

PSCI 1402 International Political Economy
This course examines the politics of international economic relations. The course will analyze the interplay between politics and economics in three broad areas: international trade, international finance, and economic development. In each section, we will first discuss economic theories that explain the causes and consequences of international commerce, capital flows, and economic growth. We will then explore how political interests, institutions, and ideas alter these predictions, examining both historical examples and current policy debates.
Not Offered Every Year
1 Course Unit
PSCI 1403 International Law & Institutions
This lecture course examines the role that international law and institutions play in international relations. The course begins by exploring broad theoretical questions - questions about why states create international law and international institutions; how states design institutions; the impact that institutional design may have on the effectiveness of international institutions; and the conditions under which states are likely to comply with the rules set out by international institutions and the dictates of international law. Specific topics include collective security institutions such as the League of Nations, the United Nations, and NATO; human rights law; the laws of war; international intervention and peacekeeping; international justice and the International Criminal Court; environmental law; international trade law and the World Trade Organization; economic development and the World Bank; and international finance and the role of the International Monetary Fund.
Fall or Spring
1 Course Unit

PSCI 1404 American Foreign Policy
This course analyzes the formation and conduct of foreign policy in the United States. The course combines three elements: a study of the history of American foreign relations; an analysis of the causes of American foreign policy such as the international system, public opinion, and the media; and a discussion of the major policy issues in contemporary U.S. foreign policy, including terrorism, civil wars, and economic policy.
Fall or Spring
1 Course Unit

PSCI 1406 International Human Rights
What exactly should be considered a fundamental "human right"? What is the basis for something is a fundamental human right? This course will examine not only broad conceptual debates, but will also focus on specific issue areas (e.g., civil rights, economic rights, women's rights), as well as the question of how new rights norms emerge in international relations.
Fall or Spring
1 Course Unit

PSCI 1407 Ethics and International Relations
This course offers an introduction to ethical issues in international relations. In it, we ask whether morality, as opposed to interests, should play any role in international affairs – and if so, which morality and what rules should apply, and what we should do in response to the challenges of war, violence, poverty, and environmental destruction. The course is organized in four parts. The first part provides a general introduction to ethical theory, followed by an examination of the major schools of thought regarding the possibility or impossibility of ethical conduct in international relations. The second part of the course focuses on ethical issues concerning the use of force, and examines the ethical problems of military force in places such as Bosnia, Rwanda, Iraq, Libya, Syria, and Myanmar, as well as at the questions of international terrorism and humanitarian intervention. The third part looks at issues of human rights, global distributive justice, and the global environment. A fourth section, to be fleshed out during the term, will examine "contemporary challenges" of international ethics in the Trump era. Taken as a whole, the aim of the course is to explore and debate the great moral dilemmas of our time, allowing each student to make her or his own informed, deliberate moral choices.
Not Offered Every Year
1 Course Unit

PSCI 1408 War, Strategy and Politics
This class examines the strategy and politics of warfare, focusing on the way actors plan military campaigns and the factors that are likely to lead to victory and defeat. The course readings center in particular on the factors driving changes in warfare and civil-military relations. The course will cover a wide range of topics from theories of war-fighting to historical military campaigns to insurgency warfare, terrorism, and the future of war.
Fall or Spring
1 Course Unit

PSCI 1440 International Politics of the Middle East
This course will focus primarily on episodes of external intervention by Great Powers in the politics of Middle Eastern states. We shall begin by examining the emergence of the Middle Eastern state system after the disappearance of the Ottoman Empire in the early part of the 20th century. This discussion will provide opportunities to develop key concepts in the study of international politics and will serve as crucial historical background. We shall then turn our attention to the primary concern of the course - a systematic consideration of the motives, operational results, and long-term implications of a number of important examples of intervention by Great Powers in the Middle East. Among the episodes to be considered will be British policies toward the end of World War I, in Palestine in the 1930s, and, along with the French, in Suez in 1956. Soviet intervention in the first Arab-Israeli war, in 1948, will be analyzed along with Soviet policies toward Egypt in the early 1970s. American intervention in Iran in 1953 and in the Gulf War in 1991 will also be examined.
Spring
1 Course Unit

PSCI 1441 Arab Israeli Relations
In this course the Arab-Israeli dispute from 1948 to the present will serve as a vehicle for understanding how domestic and global political processes interact to shape, contain, or aggravate Middle Eastern wars between states and non-state actors. Particular stress will be placed on understanding how wars affect international politics in states and political organizations and how ideological and structural features of states and organizations find expression in wars and complicate or enable the search for peace. In addition, the key features of the conflict will be interpreted as both a clash between the political interests of national and/or religious groups and as a reflection of global political power struggles. Attention will be given toward the end of the course to alternative ideas about possible resolution of the conflict as well as to the increasingly prominent argument that, in this case, there is no solution.
Fall or Spring
1 Course Unit

PSCI 1600 Contemporary Political Thought
This course is intended as a general introduction to political theory since 1900. The theme for the Spring 2023 will be: Power and Politics, and the theorists examined will include Hannah Arendt, bell hooks, Michel Foucault, Bertrand de Jouvenel, and James C. Scott. Questions include: What is political power? How has it been exercised and by whom? Who should have power? Are power and violence inescapably intertwined? Do those without conventional political power understand and exercise power differently from those who traditionally wield it? How have technologies of surveillance and control by medical, psychiatric, computer and security experts altered where power is and how it operates?
Fall
1 Course Unit
PSCI 1602 Political Action and Dissent
An introduction to the study of political theory, and specifically to the problems of political action. Exploration of questions about civil disobedience, legitimate authority, ethics and politics, and the challenge of creating a just order in a world characterized by multiple beliefs and identities. Discussion of the social contract, liberalism, democracy, decolonization, violence, revolution, globalization, universalism, and cultural relativism, and differences of race, class, and gender. Authors include Sophocles, Plato, Martin Luther King, Jr., John Locke, Niccolo Machiavelli, Max Weber, Malcolm X, Mohandas Gandhi and Frantz Fanon. Not Offered Every Year
1 Course Unit

PSCI 1606 Freedom, Power, and Equality
The concepts of freedom, power and equality are what have been called “essentially contested concepts.” These three concepts take a particular significance in the 20th and 21st centuries due to the proliferation of war, industrialization, technology, as well as the growth of democracy and the accompanying shifts in social relations these have all brought about. We think that we have a pretty clear and straightforward understanding of what they mean—freedom means doing what I want, power is domination, equality is sameness. But when we look at how these ideals are lived in real life, we can see that they are in fact a lot more complicated than that. For instance, does poverty reduce freedom and wealth enhance it, or is really only a matter of inequality and people’s choices as many maintain? How do categories like race, gender, and sexuality affect the ways that freedom, power, and equality are experienced? Can power be exercised in relations of equality or does it always suggest inequality? How do we know when power is a hindrance to freedom, or when it is an enhancement of it? How do these three concepts intersect and intertwine to alter their meanings in different settings and in response to different sorts of events?
Fall
1 Course Unit

PSCI 1640 Islamist Political Theory: from al-Banna to bin Laden
This course focuses on one of the most important but least understood strands of Muslim political theory: Islamist political thought. We begin by defining such politically-laden terms as Islam, Islamicism, the West, terrorism, jihadism, etc. We then systematically analyze the arguments of a range of Islamist thinkers and organizations, including al-Banna, Qutb, Mawdudi, al-Ghazali, Khomeini, al-Qaradawi, bin Laden, Hamas and ISIS. Among the questions central to the course are: what is the relationship, if any, between Islamism and democracy? How do Islamists seek to remake the modern state? What explicit claims about women, and implicit assumptions about gender, characterize the work of many Islamist thinkers, and why does this matter? What does jihad mean, and does it necessarily legitimate violence? Relatedly, is violence ever justifiable, and under what conditions? What are the arguments for globalizing jihad? And importantly: why ask these questions rather than others; what assumptions are built into them; and what kinds of political dangers do they court?
1 Course Unit

PSCI 1800 Introduction to Data Science
Understanding and interpreting large datasets is increasingly central in political and social science. From polling, to policing, to economic inequality, to international trade, knowing how to work with data will allow you to shed light on a wide variety of substantive topics. This is a first course in a 4-course sequence that teaches students how to work with and analyze data. This class focuses on data acquisition, management, and visualization, the core skills needed to do data science. Leaving this course, students will be able to acquire, input, format, analyze, and visualize various types of political and social science data using the statistical programming language R. While no background in statistics or political science is required, students are expected to be generally familiar with contemporary computing environments (e.g. know how to use a computer) and have a willingness to learn a variety of data science tools. Leaving this class, students will be prepared to deepen their R skills in PSCI 3800, and then use their R skills to learn statistics in PSCI 1801 and 3801. They will also be ready to use their R skills in courses in other disciplines as well.
Not Offered Every Year
1 Course Unit

PSCI 1801 Statistical Methods PSCI
This course is designed as a follow-up to PSCI 1800. In that class students learn a great deal about how to work with individual data sets in R: cleaning, tidying, merging, describing and visualizing data. PSCI 1801 shifts focus to the ultimate goal of data science: making inferences about the world based on the small sample of data that we have. Using a methodology that emphasizes intuition and simulation over mathematics, this course will cover the key statistical concepts of probability, sampling, distributions, hypothesis testing, and covariance. The ultimate goal of the class is for students to have the knowledge and ability to perform, customize, and explain bivariate and multivariate regression. Students who have not taken PSCI-1800 should have basic familiarity with R, including working with vectors and matrices, basic summary statistics, visualizations, and for() loops.
Not Offered Every Year
1 Course Unit

PSCI 1802 PSCI transfer credit
This is a placeholder course to give students PSCI credit who transfer to UPENN from another institution.
1 Course Unit

PSCI 1991 Selected Topics in Political Science
Consult department for detailed descriptions. More than one course may be taken in a given semester. Recent titles have included: The Analysis of Presidential Elections, Conservative Political Economy, and Political Geography.
Fall or Spring
1 Course Unit

PSCI 1992 PSCI transfer credit
This is a placeholder course to give students PSCI credit who transfer to UPENN from another institution.
1 Course Unit

PSCI 1994 Selected Topics in Political Science (International Relations)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than International Relations. More than one course may be taken in a given semester.
1 Course Unit

PSCI 1995 Selected Topics in Political Science (Comparative Politics)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than Comparative Politics. More than one course may be taken in a given semester.
1 Course Unit
PSCI 1996 Selected Topics in Political Science (Political Theory)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than Political Theory. More than one course may be taken in a given semester.
1 Course Unit

PSCI 2103 Information Communication Technologies for Development
The seminar will focus on the role that innovations in Information Communication Technologies can play in improving development outcomes in low-income countries. The seminar will focus especially on the promises and perils for utilizing mobile technologies and GIS for better governance: to improve citizen voice and government accountability. This is an exciting area of research that brings together tech gurus, policy makers, Non-government organizations and researchers. The seminar will be of interest to undergraduates from diverse backgrounds, such as political science, engineering, communication, sociology and business administration. The idea will be to highlight not only the promise of ICT4D but also the challenges (e.g., that it widen participation, since it tends to exclude marginalized populations). The course will survey innovative applications in agriculture, financial services, health services, but also governance. The trip to Uganda during spring semester will allow students to meet with NGOs and local governments that are experimenting with new products and applications; hear their challenges and participate in meetings to brainstorm new apps. Spring
1 Course Unit

PSCI 2120 Democracy in Latin America
Since the inception of the twenty first century, Latin America has undergone major economic, social, and political transformations. Many of the neoliberal policies of the last quarter of the twentieth century were reversed or revisited, economic inequality decreased significantly across the region, and anumber of governments turned to the left of the political spectrum, often instituting major public policy and constitutional reforms. How have those changes affected citizenship and democracy in the region? In particular, have citizens' channels for representation and participation changed in the recent past? What has happened to local participatory institutions since the return to the right in some countries of the region? The course will explore these and related questions. Students will develop their own research projects throughout the semester. While not a requirement, the ability to read Spanish or Portuguese will significantly enhance students’ learning experience.
Fall or Spring
Also Offered As: LALS 2120
1 Course Unit

PSCI 2121 People of the Land: Indigeneity and Politics in Argentina and Chile
This undergraduate seminar compares the evolution of relations between settler colonial nation-states and indigenous peoples and movements throughout the Americas, with a particular focus on the Mapuche people of the Patagonia region, in the south of nowadays Argentina and Chile. The main goal of the course is to comparatively study the organization of indigenous communities and analyze their political demands regarding plurinationality, self-determination, territory, prior consultation, living well, and intercultural education and health care, as well as the different ways in which settler colonial nation-states accommodate or respond to such demands. The course is organized in three parts. The first part of the course studies indigenous rights in international law and in global affairs, particularly in the United Nations, the Organization of American States, and the International Labor Organization. The second part of the course studies indigenous organization, movements, parties, and political representation, in Latin America since the 1990s, when indigenous demands acquired national and international notoriety throughout Latin America. The third part of the course zooms in a comparative analysis of the relationship between the Mapuche (Mapu: land; -che: people) and the formation and evolution of the settler colonial nation-states in Argentina and Chile. Once international travel resumes, the course will have an eight-day travel component. Students will travel to the south of Argentina to visit indigenous Mapuche communities to experience and learn first-hand about their culture, intercultural education and health, recuperation of identity and language practices, different models of economic sustainability, and of territorial claims and arrangements - including co-management between indigenous communities and the National Parks system.
Spring, even numbered years only
Also Offered As: LALS 2121
1 Course Unit

PSCI 2160 Modern India
This course attempts to examine the experience of representative democracy in India and the country's development record in a historical framework. It will ask questions such as: How did representative democracy emerge in India and what explains its persistence? What are the sources of its vulnerability? What kind of a sense of nationhood does this democratic experience rest upon? What are the exclusions built into this conception of nationhood? What is the relationship between India's development experience and its democratic experiment? How have India's "traditional" institutions adapted or failed to adapt to modern circumstances? Why has India performed well in certain economic sectors such as IT even while its record in providing basic social services has been poor? How has India's self-perception about its place in the world changed in recent years and what are its implications?
Not Offered Every Year
1 Course Unit

PSCI 2200 Preparing for Policy Work in Washington
Designed to complement a policy internship, this two credit course will focus on content and skills that are likely to be useful in typical Washington offices. Students will develop literacy on the most pressing domestic policy topics and will work on writing and presentation skills. All students will participate in a public policy internship for at least ten hours a week.
Fall or Spring
2 Course Units
PSCI 2201 Polarization
Are ordinary Americans polarized? What about political elites? Is there any connection between mass and elite polarization? What do we even mean when we say some group is "polarized"? This class will explore these questions in some detail, and try to sort out all of the discussions about polarizations, red states and blue states, and the like.
Not Offered Every Year
1 Course Unit

PSCI 2203 Healthy Schools
This Fox Leadership and academically based community service seminar will use course readings and students' own observations and interviews in their service learning projects in West Philadelphia schools to analyze the causes and impact of school health and educational inequalities and efforts to address them. Course readings will include works by Jonathan Kozol, studies of health inequalities and their causes, and studies of No Child Left Behind, the CDC's School Health Index, recess, school meal, and nutrition education programs. Course speakers will help us examine the history, theories, politics and leadership behind different strategies for addressing school-based inequalities and their outcomes. Service options will focus especially on the West Philadelphia Recess Initiative. Other service options will include work with Community School Student Partnerships and the Urban Nutrition Initiative.
Not Offered Every Year
Also Offered As: HSOC 2312
1 Course Unit

PSCI 2204 Congress, Elections and American Democracy
Contact department for details.
1 Course Unit

PSCI 2206 Race, Ethnicity and Constitutional Law
What are "race" and "ethnicity"? How have American constitutional politics been shaped by issues of racial and ethnic statuses? How have American racial and ethnic identities and statuses been shaped by American constitutional politics? Have the nation's basic conflicts been at bottom economic, sometimes expressed via racial and ethnic antagonisms, or do racial and ethnic identities and conflicts have "a life of their own"? Has an "American Creed" of democratic liberalism dominated American culture, with racial hierarchies a frustrating exception? Or have ideologies of racial and ethnic identity and struggles over racial and ethnic statuses instead been central to American constitutional development? This seminar explores these questions by examining the role of race and ethnicity in many constitutional controversies, carried out in courts, legislatures, and popular debates. Secondary historical, legal, political and economic analyses will also be considered.
Not Offered Every Year
1 Course Unit

PSCI 2210 Balance of Power in American Politics (PIW)
How do the Constitution's checks and balances work in practice? And where are they not working? This course examines the fault lines between Washington's two most powerful institutions - Congress and the President - how they clash, and where they work together. Students learn how Congress and the President share and compete for power in lawmaking, spending, investigations, nominations, foreign policy, and impeachment. The course is designed to foster skills in formulating strategies for conducting policy in an environment of institutions competing for power.
Fall or Spring
1 Course Unit

PSCI 2211 The Mechanics of American Foreign Policy (PIW)
The Trump Presidency has profoundly shifted America's role in the world and the way in which key institutions of foreign policy making are staffed and positioned to advance America's interests. The ascent of extreme nationalists and nationalism in other power centers in the world along with growing distrust in government and public institutions may have marked the close of the two-decade post 9/11 era. Indeed, the global COVID-19 pandemic and the ways in which actors across the international spectrum have responded (or failed to respond) has led many to question the assumptions inherent in the post-9/11 international order and has marked the beginning of a new era of competition, a return to great-power politics, and the diminishing power of traditional actors, systems, and ideals on the global stage. This course will provide students with an in-depth, practical analysis of foreign policy and foreign policy making, with a view from Washington. It will also provide a baseline global literacy, through the lens of emerging ideas, institutions, interests, and actors, and focus on a framework for understanding shifts already underway in how Washington views the world. We will utilize less traditional resources, and instead focus on practical and "real-world" course material as well as less traditional instruction methods - utilizing and analyzing the sources and resources that policy makers in Washington rely upon. These include long-form journalism, official government documents, hearings and Congressional debate, think tank products, and news sources. Students will have the opportunity to engage with a variety of guest-speakers, all of whom have held senior official and non-governmental roles in American foreign policy making and influencing. Guest speakers will provide unique insight into their own experiences at the highest levels of foreign policy making and advocacy, and offer guidance as to how to pursue careers in foreign policy, national security, and international development. In the past, guest speakers have included: Former Deputy Secretaries of State William Burns and Heather Higginbottom; Executive Director of the ONE Campaign; Former Director of Policy Planning at the State Department; Former Ambassadors, Senior Professional Staff from the House Committee on Foreign Affairs and Senate Foreign Relations Committee, former Assistant Secretary of Population, Refugees, and Migration, among others.
Fall or Spring
1 Course Unit

PSCI 2401 Emerging Technologies and the Future of the World
Technological change is always occurring, but the rate of change seems to be accelerating. Advances in robotics, artificial intelligence, cyber, biotechnology, and other arenas generate promise as well as peril for humanity. Will these emerging technologies unleash the innovative capacity of the world, generating new opportunities that help people live meaningful lives? Alternatively, are automation and other technologies chipping away at the labor market in a way that could create severe generational dislocation at best, and national and international turmoil at worst? These questions are important, and have consequences for how we live our lives, how nations interact, and the future of the world writ large. Emerging technologies could shape public policy at the local, national, and international level, and raise questions of fairness, ethics, and transparency. This course takes a unique approach, combining insights from engineering, political science, and law in an interdisciplinary way that will expose students both to the key technologies that could shape the future and ways to think about their potential politics, and society.
Fall or Spring
Also Offered As: EAS 2610, INTG 2610
1 Course Unit
PSCI 2420 Diplomacy in the Americas - The Penn Model OAS Program
“Diplomacy in the Americas” an academically based community service course in which students work with Philadelphia and Norristown public school students to explore solutions to critical problems facing the Americas. Entrenched political, economic, and social inequality, combined with environmental degradation, weak institutions, pervasive health epidemics, weapon proliferation, and other issues pose formidable hurdles for strengthening democratic ideals and institutions. The Organization of the American States (OAS), the world’s oldest regional organization, is uniquely poised to confront these challenges. “Diplomacy in the Americas” guides students through the process of writing policy resolutions as though the students were Organization of the American States (OAS) diplomats, basing their research and proposals on democracy, development, security, and human rights - the four pillars of the OAS. Students will also read literature about what it means to educate for a democracy and global citizenry, and they will have the opportunity to turn theory into practice by creating and executing curriculum to teach and mentor the high school students through interactive and experiential pedagogies.

Fall
Also Offered As: LALS 3020
1 Course Unit

PSCI 2421 International Organizations in Latin America
International Organizations play a powerful role in mitigating conflict at the global level. What role do they play in solving problems related to global politics, economic development, corruption, inequality and civil society in Latin America? How much power, influence and control do they possess in the region? This course examines the role and impact international organizations have had on Latin America since the mid-20th century. After a review of theoretical and methodological perspectives on the significance of IOs in international relations, students will examine the workings, issues and often controversies surrounding IOs in Latin America, including the IMF, World Bank, UN, OAS and ICC as well as regional organizations such as the Inter-American Court of Human Rights and area trade blocs and agreements of Mercosur, NAFTA and others. Students will also explore the regional impact of transnational civil society organizations, such as human rights organizations and the International Olympic Committee. Students will be invited to participate in the Washington Model OAS from April 10-17.

Spring
Also Offered As: LALS 2020
1 Course Unit

PSCI 2490 Topics in Race and International Relations
This seminar focuses on issues of race in international relations. The specific focus of the course will vary by semester.
Not Offered Every Year
1 Course Unit

PSCI 2991 Selected Topics in Political Science
Consult department for detailed descriptions. More than one course may be taken in a given semester. Recent titles have included: Leadership & Democracy; Conservative Regimes.
Fall or Spring
1 Course Unit

PSCI 2993 Selected Topics in Political Science (American Politics)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than American Politics. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 2994 Selected Topics in Political Science (International Relations)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than International Relations. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 2995 Selected Topics in Political Science (Comparative Politics)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than Comparative Politics. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 2996 Selected Topics in Political Science (Political Theory)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than Political Theory. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 3150 China's Political Economy
This is an advanced course on the main issues of contemporary China's political economy. There is a strong focus on the reform period (post 1978). We will spend considerable time and energy on understanding the major themes and challenges of China's reforms, including the political system, the legal system, the inequality, foreign direct investment, village elections, lawmaking, environmental degradation, social opposition, corruption, and religion. We also investigate the many political and social consequences of reform and changing landscape of Chinese politics.
Not Offered Every Year
1 Course Unit

PSCI 3151 Politics, Geopolitics, and China's Role in the World's Renewable Energy Revolution
This class looks at one of the most important issues facing the world today: China's climate policy and energy transition, and its impact on global climate change. The course aims to expose students to the driving forces behind China's position and policy related to climate change, with a strong emphasis on political economy. The course will also examine barriers and challenges related to meeting China's ambitious climate commitments. An important part of the course will be guest speakers representing the U.S. and Chinese government officials; multilateral institution officials; researchers; journalists; and civil society.
1 Course Unit
PSCI 3170 Comparative Politics of the Welfare State in Rich Democracies
This seminar provides an overview of the structure and functions of welfare states in the rich, industrialized democracies, and covers key arguments and debates about the emergence and contemporary fate of these welfare states. The approach is broadly comparative, but throughout the course discussions will often emphasize drawing ideas from the experiences of other countries to inform policy solutions to problems we confront in the US. The course covers the varieties and tasks of modern welfare states; classic theories about the relationship between markets, classes, and social protection; competing explanations for why modern welfare states emerge and why they differ from one another; how welfare states are shaped by social forces such as organized labor and the self-employed, political institutions, and societal views of appropriate gender relationships; challenges to the welfare state that emerge from changing labor market, demographic, and social conditions in the highly industrialized nations; and the political dynamics of reforms to the welfare state. Students will participate actively in seminar discussions and complete a major research paper. Graduate students will complete additional readings as noted and will write an article-length paper. Fall, even numbered years only
1 Course Unit

PSCI 3200 Global Development: Intermediate Topics in Politics, Policy, and Data
New sources of data (big data, small data and everything in between) raise the exciting possibility that such data could benefit the world’s poor. This course provides students with an intermediate-level review of recent research that deploys new data for insights on development and hands-on analysis of different kinds of datasets. Students will investigate key themes in development – citizen tech for accountability, corruption, household economics, climate change resilience and press freedom. As we explore these topics, students will develop data analytical skills that are useful across a wide range of research and real-world applications. As such, students will come face-to-face with the opportunities and challenges for data-intensive approaches to international development. Students should have taken PSCI 1800 or an equivalent course and be ready to both discuss course readings and engage with data assignments in the programming language R (students more comfortable in Python are welcome). This class is also designed as a follow-up to PSCI 1102, and students are encouraged (but not required) to take that course before this one. Spring
Prerequisite: PSCI 1800
1 Course Unit

PSCI 3400 The Causes of War & Peace
The existence and endurance of war provides one of the most important puzzles of politics: why is it that people keep making use of such a destructive and painful way of resolving their disputes? This course addresses this question and the related question of what factors contribute to peace, focusing on both academic and popular explanations for conflict, including among others anarchy, over-optimism, shifting power, diversionary war, the malevolent influence of war profiteers, and a variety of explanations grounded in culture, religion and other ideational variables. In this discussion, we will focus on both interstate and civil wars, and on both the onset and the eventual termination of war. At various points in the course we will discuss a wide range of historical and contemporary cases, including the World Wars, Vietnam, the Gulf War, the Iraq War, the various Arab-Israeli wars, the India-Pakistan rivalry, and a number of recent civil conflicts such as the wars in Yugoslavia, Congo, and Sudan. The course concludes with a discussion of strategies for managing ongoing conflicts and for securing peace in post war settings. Fall or Spring
1 Course Unit

PSCI 3401 International Law
Do legal rules really affect international politics? This course explores why international law has the form and content it does, and its role in shaping how states and other actors behave. It combines law and social science to examine important issues of the day, including security policies, human rights, and economic relationships. Fall
1 Course Unit

PSCI 3600 Democracy and Disagreement (SNF Paideia Program Course)
When and how can we justify using the power of the government to force our fellow citizens to follow rules with which they disagree? In attempting to answer this question, we will pay special attention to (1) the various different types and sources of political disagreement and (2) the role of deliberation and reason-giving in a democracy. Through reading and debating works of contemporary political theory and philosophy, this course should help you to reflect on some fundamental but easily neglected questions about your own civic attitudes and behavior. What beliefs underpin your political commitments, why do you hold those beliefs, and why do other people see things differently? What makes you so sure that you’re right and they’re wrong? How, if at all, should you try to change their minds? When, if ever, should you refrain from supporting legal prohibition of actions that you feel sure are morally wrong? The course will be taught in a hybrid lecture/discussion format. Students will be expected to take a short quiz at the start of many class sessions and to write at least three short papers. Fall
1 Course Unit

PSCI 3800 Applied Data Science
Jobs in data science are quickly proliferating throughout nearly every industry in the American economy. The purpose of this class is to build the statistics, programming, and qualitative skills that are required to excel in data science. The substantive focus of the class will largely be on topics related to politics and elections, although the technical skills can be applied to any subject matter.
Not Offered Every Year
Prerequisite: PSCI 1800 OR PSCI 1801
1 Course Unit
PSCI 3801 Survey Research and Design
Survey research is a small but rich academic field and discipline, drawing on theory and practice from many diverse fields including political science, communication, sociology, psychology, and statistics. Surveys are perhaps the most ubiquitous tool of measurement in the social sciences today. Successful practitioners develop expertise in the art and science of survey methodology, including sampling theory and practice, questionnaire instrument development and operationalization, and the analysis and reporting of survey data. Survey researchers are scientists of the method itself, testing various practices by which surveys can be improved upon, as well as developing a keen understanding of the nature of error in surveys and how to control it.
Spring
Prerequisite: PSCI 1800
1 Course Unit

PSCI 3802 Political Polling
Political polls are a central feature of elections and are ubiquitously employed to understand and explain voter intentions and public opinion. This course will examine political polling by focusing on four main areas of consideration. First, what is the role of political polls in a functioning democracy? This area will explore the theoretical justifications for polling as a representation of public opinion. Second, the course will explore the business and use of political polling, including media coverage of polls, use by politicians for political strategy and messaging, and the impact polls have on elections specifically and politics more broadly. The third area will focus on the nuts and bolts of election and political polls, specifically with regard to exploring traditional questions and scales used for political measurement; the construction and considerations of likely voter models; measurement of the horserace; and samples and modes used for election polls. The course will additionally cover a fourth area of special topics, which will include exit polling, prediction markets, polling aggregation, and other topics. It is not necessary for students to have any specialized mathematical or statistical background for this course.
Fall
Prerequisite: PSCI 1800
1 Course Unit

PSCI 3991 Selected Topics in Political Science
Consult department for detailed descriptions. More than one course may be taken in a given semester. Recent titles have included: Sustainable Environmental Policy & Global Politics; Shakespeare and Political Theory.
Fall or Spring
1 Course Unit

PSCI 3992 Selected Topics in Political Science (SNF Paideia Program Course)
Consult the political science department or Paideia program for detailed descriptions. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 3993 Selected Topics in Political Science (American Politics)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than American Politics. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 3994 Selected Topics in Political Science (International Relations)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than International Relations. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 3995 Selected Topics in Political Science (Comparative Politics)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than Comparative Politics. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 3996 Selected Topics in Political Science (Political Theory)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than Political Theory. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 4100 Power Sharing in Deeply Divided Places - BFS
This course examines conceptual, explanatory and normative debates over power-sharing systems. We explore the circumstances in which federal, consociational and other power-sharing institutions and practices are proposed and implemented to regulate deep national, ethnic, religious or linguistic divisions. We evaluate these systems, seeking to explain why they are formed or attempted, and why they may endure or fail, paying special attention to bi- and multi-national, multi-ethnic, multi-religious and multi-lingual environments.
1 Course Unit

PSCI 4102 Global Development: Intermediate Issues in Politics, Policy and Data
New sources of data (big data, small data and everything in between) raise the exciting possibility that such data could benefit the world's poor. This course is designed to provide students with an intermediate-level review of recent research that deploys new data for insights on development and hands-on analysis of different kinds of datasets. Students will investigate 3 key themes in development: corruption and accountability, migration, and Authoritarian Backsliding. As we explore these topics, students will develop data analytical skills that are useful across a wide range of research and real-world applications. Students will learn how to implement four of the most common research designs in the social sciences: observational studies, randomized experiments (in particular, survey experiments), regression discontinuity designs, and difference-in-difference designs. Students will have the opportunity to work with a wide variety of data types, from survey and government-produced administrative data to text as data. As such, students will come face-to-face with the opportunities and challenges for data-intensive approaches to international development.
Spring
Prerequisite: PSCI 1800 AND PSCI 1102
1 Course Unit
PSCI 4130 Oil to Diamonds: The Political Economy of Natural Resources in Africa
This course examines the ways in which the processes of the extraction, refining, sale and use of natural resources — including oil and diamond — in Africa produce complex regional and global dynamics. We explore how values are placed on resources, how such values, the regimes of valuation, commodification and the social formations that are (re)produced by these regimes lead to cooperation and conflict in the contemporary African state, including in the relationships of resource-rich African countries with global powers. Specific cases will be examined against the backdrop of theoretical insights to encourage comparative analyses beyond Africa. Some audio-visual materials will be used to enhance the understanding of the political economy and sociality of natural resources.
Fall
Also Offered As: AFRC 4500, ANTH 3045, SOCI 2904
Mutually Exclusive: AFRC 5700
1 Course Unit

PSCI 4170 Comparative Politics of the Welfare State
This class explores the origins, development, and possible futures of social policy regimes in the industrialized countries, in the context of broader political and historical trends. Topics include pensions, health care, and poverty alleviation; “families” of welfare states; the relationship between labor markets and social policy; feminist and Marxist critiques of welfare states and welfare state studies. Open to graduate students and qualified undergraduates with permission of the instructor.
1 Course Unit

PSCI 4180 Issues Comp Pol/Gender
Struggles over gender roles and rights have been prominent in the Middle East and North Africa since the 19th century and continue to mark contemporary political and social discourses. Since the colonial period, gender categories and sexualities have been critiqued and negotiated on behalf of empire, the nation, modernity, personal freedom; today debates and struggles over global rights, islamic law, and modernity continue to mark politics. Despite the particularity of ideas and events in the region, a comparative framework helps to overcome exoticization of the region and develop a more acute understanding. The topics of the course include engagement with the discourse of the Exotic Other, the effects of modernity, the role of nationalism and the state, state-society negotiation, islamic formulations, and continuously, the question: where does change come from? Issues of the veil and islamic dress the expansion of anti-gay laws, the disciplining of bodies in state and social settings - these issues of gender and sexuality extend the realm of the political into intimate spaces. Assignments include a midterm and a short paper that develops research and analytical skills. The course is 200 level. While background in the study of the Middle East or gender is not necessary, an introductory political science or social science course is required.
Not Offered Every Year
1 Course Unit

PSCI 4190 Race and Racism in the Contemporary World
This undergraduate seminar is for advanced undergraduates seeking to make sense of the upsurge in racist activism, combined with authoritarian populism and neo-fascist mobilization in many parts of the world. Contemporary manifestations of the phenomena noted above will be examined in a comparative and historical perspective to identify patterns and anomalies across various multiple nation-states. France, The United States, Britain, and Italy will be the countries examined.
Not Offered Every Year
Also Offered As: AFRC 4650, LALS 4650
1 Course Unit

PSCI 4200 Political Psychology
How do campaign advertisements influence voters’ perceptions and behavior? What roles do emotions play in politics? Do we all harbor some measure of racism, sexism, or homophobia, and what role do these stereotypes play in political behavior? How and why do ideologies form, and how does partisanship influence the way that voters understand the political world? How do people perceive threat, and what are the psychological consequences of terrorism? These questions, and many others, are the province of political psychology, an interdisciplinary field that uses experimental methods and theoretical ideas from psychology as tools to examine the world of politics. In this course, we will explore the role of human thought, emotion, and behavior in politics and examine the psychological origins of citizens’ political beliefs and actions from a variety of perspectives. Most of the readings emphasize politics in the United States, though the field itself speaks to every aspect of political science.
1 Course Unit

PSCI 4201 Political Empathy & Deliberative Democracy in the US
This course seeks to understand contemporary political divisions in the United States. Guiding our analysis will be scholarship from the discipline of political science, with particular attention given to political culture, American political development and federalism while incorporating scholarship from several other disciplines. As we study political culture at the national level, we will unpack our own individual attitudes towards politics. There will be an emphasis throughout the course on personal wellness during dialogue with assignments ranging from written reflections on experiences to textual analysis to their combination.
Spring
1 Course Unit

PSCI 4203 The Future of Conservatism and the GOP: Radicalization, Renewal or Replacement (SNF Paideia Course)
In this on campus course, students will explore both the roots and the evolution of conservative thought by engaging with readings and directly with the prominent leaders on the right. Co-faculty Miles Taylor, co-creator of the Forward Party and author of A Warning and Blowback will join us via Zoom, along with a range of some of the most important thought leaders on conservatism in America. Course is open to all students and is offered on campus.
Fall
1 Course Unit
PSCI 4205 American Conservatism From Taft to Trump
The early 1950s may have been the nadir for modern American conservatism. Conservative hero Robert Taft had lost the Republican nomination for President to a more moderate candidate for the third time, many in the Republican Party had moved to accept some of the most popular New Deal programs, and a moderate, internationalist consensus had taken hold in the country. Yet, from these ashes, conservatism rose to become a potent political force — maybe the driving force — in the United States over the last half century. This seminar explores the contours of that rise, beginning with infrastructure laid and coalitions forged in the 1950s and early 1960s. We will see how conservatives built upon this infrastructure to overcome Barry Goldwater’s crushing 1964 defeat to elect one of their own, Ronald Reagan, president in 1980. Reagan’s presidency transformed the public philosophy and helped shape subsequent American political development. Our study of conservatism will also include the struggles that conservatives confronted in trying to enact their ideas into public policy, and the repercussions of those struggles. We will explore conservatism’s triumphs and failures politically, as well as the cultural changes that have helped, hindered, and shaped its rise. In many ways, this class is a study in the transformation of American politics and in American culture over the last sixty-five years. Its focus is on the hows and the whys of the rise of conservatism from the low point of the early 50s to the rise of Trumpism in the 2010s. In many places, we will discover a surprisingly complex story. This complexity means that we must grapple with clashing interpretations as to why and how conservatism developed, why conservatism appealed to many Americans at various points in time, and even whether there was an agreed upon conservative vision unifying the forces pushing America rightward. The seminar will be oriented chronologically to the degree that it is possible, spending several weeks on each decade between the 1960s and the 2010s, Yet, we will also focus on several themes and relationships throughout the class. These include the role played by certain pivotal political figures, the ideas that propelled conservatism and bound the conservative movement together, the relationship between conservatives and the Republican Party, the tensions within the diverse Reagan coalition (which have spilled over with increasing regularity, especially during the 2010s) and the impact of the courts and the conservative legal movement in seeding conservatism over the last 30 years. We will ask critical and often difficult questions involving topics such as the role of racism and bigotry in the rise of conservatism. We will also consider the big picture—is the United States really any more conservative in 2023 than it was in 1950? If not, why do many consider conservatism to have risen politically? At the end of the semester we will ponder whether some of the current conservative divisions are new, or continuations of fissures that have long existed and we will consider the big picture in American politics: are our divisions too big to foster functional governance?
Spring, even numbered years only
1 Course Unit

PSCI 4206 How Divided Is America? Polarization in the United States
This class explores whether or not America, and its politics, are divided. Is the American public polarized? What about political elites? Is there any connection between mass and elite polarization? What do we even mean when we say some group is “polarized”? This class will explore these questions in some detail. We will begin at the elite level and ask whether or the political class is now more divided than it was a half century ago. The answer will be a fairly unambiguous “yes.” We’ll then explore several different explanations for why elites have become more divided since mid-century. After that, we’ll turn our attention to the mass public. The situation there will be considerably more complicated, with evidence both for and against polarization. We’ll explore this evidence in some detail and try to document the ways in which the American public has—and has not—become more polarization over time, paying attention to differences based on issues as well as affect/sentiment toward the other party. Finally, we’ll conclude by exploring the effects of polarization on the legislative process and the mass electorate, and ask what (if anything) can or should be done about polarization.
Fall, odd numbered years only
1 Course Unit

PSCI 4208 Media and Politics
Media and Politics will examine multiple issues specific to the past and present political media environment in the United States. Focus will be primarily, though not exclusively, on the contemporary news media. Topics covered will include political primaries, how elections have been influenced by the rise of partisan media, selective exposure, freedom of political speech as it relates to elections, the theoretical purpose of elections, money and media, political targeting, etc. We will also explore the quantitative and qualitative methods underlying what is and is not known about how elections work. Under the supervision of the professor, students will write an original research paper examining a specific topic in greater depth.
Not Offered Every Year
Also Offered As: COMM 4040, PSCI 2208
1 Course Unit

PSCI 4209 Media, Public Opinion, and Globalization
This seminar will examine American attitudes toward globalization and the role of the media in shaping public opinion toward events and people beyond our borders. Students will participate in original research on attitudes toward issues tied to globalization such as immigration, international trade, support for international organizations, isolationism, and so forth. Students will also spend time systematically studying the implications of American media coverage of these issues.
Not Offered Every Year
Also Offered As: COMM 4050
1 Course Unit

PSCI 4290 Race & Criminal Justice
Why are African Americans and some other minority groups disproportionately incarcerated and subjected to penal sanctions? What are the political, social and economic consequences for individuals, communities, and the wider society of mass incarceration in the United States? What types of reforms of the criminal justice system are desirable and possible? This advanced seminar analyzes the connection between race, crime, punishment, and politics in the United States. The primary focus is on the role of race in explaining why the country’s prison population increased six-fold since the early 1970s and why the United States today has the highest incarceration rate in the world. The class will likely take field trips to a maximum-security jail in Philadelphia and to a state prison in the Philadelphia suburbs.
1 Course Unit
PSCI 4291 Social Movements
Social movements and political protest have become some of the most effective tools for citizens and non-citizens to influence the political system. This course is designed to introduce students to the theoretical and methodological approaches taken in understanding these behaviors. Analyzing social movements that range from civil discontent to contentious political protest, the course will address a variety of questions: What is the origin of movement behavior and why do individuals turn to these actions in lieu of simply engaging in institutional modes of political action such as voting? What were the strategies of these movements? What are the political conditions that allow social movements to resonate with the American public? In addition to addressing these topics, this course surveys the policy successes of major social and political movements. From the Civil Rights and Women's Right Movement to the recent Tea Party movement and Hong Kong demonstrations over democracy, this course explores the various public policies that have resulted from citizens’ protest actions. While state level and local level government responsiveness will be addressed, special attention will be given to how political protest influences public policy in all three branches of the federal government.
1 Course Unit

PSCI 4292 Modern Presidency & Race
This course will examine the role of race in shaping presidential actions and public policy from Dwight Eisenhower to the current era. A few of the major topics that the course will address are Eisenhower and school integration, Kennedy/Johnson and civil rights’ voices, Nixon and the Chicano movement, Reagan and immigration, and Obama and descriptive representation in the executive. This course will offer a broad understanding of race by examining how various presidents have addressed concerns in the African-American, Asian-American, and Latino communities. Readings are drawn from the Federal Register and volumes of the Public Papers of the President series as well as from books and articles written by contemporary political scientists.
1 Course Unit

PSCI 4450 Chinese Foreign Policy
This seminar examines the influences on and patterns of China’s international relations. Topics to be covered include the following: theoretical approaches to analyzing foreign policy; the historical legacy and evolution of China’s foreign policy; contemporary China’s foreign policy on traditional national security concerns as well as economic, environmental, and humanitarian issues; China’s military modernization; China’s foreign policy in Asia, Africa, Europe, and Latin America; China’s rise and its implications for relations with the United States. The class is a seminar in which student preparation and participation will essential. Students planning to enroll in the course must have taken PSCI 1150 (or, with the instructor’s permission, its equivalent). You are expected to complete all required readings each week and come to seminar meetings prepared to discuss them.
Not Offered Every Year
Prerequisite: PSCI 1150
1 Course Unit

PSCI 4400 Security & Anxiety at International Borders: Turkey & USA in Global Perspective
Borders are increasingly contested in global order, yet function as distinct markers of statehood and sovereignty. How states control their borders physically is an important manifestation of their sovereign rights. In this course, we explore the meaning attached to international borders for two allies in very different regions of the world, Turkey and the United States. We inquire into the role that national territorial and international borders shave come to play in their national identities. We will place these two countries in the context of their “neighborhoods” to understand the threats and opportunities seem to attend border spaces. With their extensive coastlines and land boundaries, these states are subject in different ways to external influences. Both have extensive trade relations with the rest of the world, as well as extensive illicit economies along their borders. The United States is "a nation of immigrants" currently questioning the value of immigration. Turkey is host to the largest number of refugees in the world. Each state faces its own version of an ontological crisis, as they decide how to engage, filter or deflect extraterritorial flows and influences. These developments raise intense issues of identities and boundaries - in particular the question of how different societies engage in border protection. This seminar focuses on the comparative experiences of Turkey and the USA in their methods of maintaining borders and dealing with anxiety about uncontrolled transnational flows of products and people across their borders. The seminar explores how security and insecurity are understood, produced, and implemented in the form of border security policies. The comparative study of American and Turkish border control will uncover both similarities in the framing of border policies, but also distinct differences on how these two countries deal with border security. The international focus will enable students to appreciate the global aspect of border security issues, and research multiple questions on the extent to which what is facing the USA in terms of border security is not unique on its own. This course will be co-taught with a professor and students at Sabanci University. We will overlap with their classroom for roughly half of out three hour seminar meeting, and the professors will co-teach the course. Common readings will be discussed each week, but each Professor will assign additional readings of her choice to complement the common discussions. In the Penn seminar, we will aim to produce a research paper, so in addition to discussing the substantive readings, we will concentrate on formulating interesting research questions, think carefully about how to bring data to bear on specific questions or hypotheses, become familiar with data sources, and discuss research design.
1 Course Unit
PSCI 4600 Meaning of Democracy
This course provides a broad, humanistic survey to some of the most important ideas, debates, and problems connected to the study of democracy. The course is divided into three segments: the democratic citizen (in which we explore ethical issues pertaining to the experience of democracy as a way of life); the democratic People (in which we investigate some of the best and most recent attempts to come to grips with the difficult, yet fundamental, notion of the People); and the democratic world (in which we examine issues pertaining to democratization and development, including the tension between democracy and individual liberty and the relationship between democracy and global capitalism).
1 Course Unit

PSCI 4601 Key Questions in Political Theory
This course is a basic introduction to certain fundamental topics in political theory. It aims to provide students with concepts and ideas by which to more clearly make sense of political reality. In general, the course proceeds by elucidating major distinctions, such as: ancient vs. modern; deontology vs. consequentialism; “Athens” vs. “Jerusalem” (or: reason vs. revelation); thinking vs. knowing; liberalism vs. democracy; sovereign power vs. disciplinary power; being secular vs. being a secularist; politics as subset of morality vs. political responsibility as requiring the transgression of morality; the grounds of legitimate authority (tradition vs. legal-rational vs. charisma); etc. Overall, the course has three goals: (i) to introduce students to alternate approaches to the practice of political theory; (ii) to introduce students to numerous relatively self-contained debates important to contemporary political theorists; and (iii) to address major figures from the history of political thought, with an eye toward explaining what makes them vital to political theorists today.
Spring
1 Course Unit

PSCI 4800 Evidence Based Policies of Economic and Political Development
This class provides a "hands-on" introduction to the promises and limitations of using Randomized Control Trials (RCTs) to inform policy makers, practitioners, and academics of the conditions under which policies likely would have a positive effect on economic and political outcomes, in the context of international development. This course has three parts: the first is devoted to understanding the "nuts and bolts" of running field experiments / RCTs in developing countries. In part, we will be reading Glennester and Takavarasha’s Running Randomized Evaluations: A Practical Guide. In addition, we will discuss core behavioral concepts from both behavioral economics and social psychology (prospect theory). The second part of the course will be devoted to demonstrating how schools have used RCTs to inform core policy debates (e.g. What are some effective ways to reduce corruption? How can we improve the performance of frontline service providers? How can politicians be more responsive to their constituents?) In the third part, students will be presenting their own research proposals, explicitly designed to address either a core policy question in the developing world or—for those interested—in the USA. Here students will have an opportunity to partner with the Social and Behavioral Sciences Team (https://sbst.gov), which is under the National Science and Technology Council.
Fall or Spring
1 Course Unit

PSCI 4897 Andrea Mitchell Center Undergraduate Research Seminar
The course is intended for Andrea Mitchell Centre Undergraduate Fellows to present their research ideas, share with the class progress on their ongoing projects, and receive constructive feedback from fellow students and the course instructor.
Not Offered Every Year
0.5 Course Units

PSCI 4991 Selected Topics in Political Science
Consult department for detailed descriptions. Recent topics include: Globalization; Race & Criminal Justice; Democracy & Markets in Postcommunist Europe.
Fall or Spring
1 Course Unit

PSCI 4992 Selected Topics in Political Science (SNF Paideia Program Course)
Consult the political science department or Paideia program for detailed descriptions. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 4993 Selected Topics in Political Science (American Politics)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than American Politics. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 4994 Selected Topics in Political Science (International Relations)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than International Relations. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 4995 Selected Topics in Political Science (Comparative Politics)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than Comparative Politics. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 4996 Selected Topics in Political Science (Political Theory)
Consult the department for detailed descriptions or if you think the course could count toward a subfield other than Political Theory. More than one course may be taken in a given semester.
Fall or Spring
1 Course Unit

PSCI 4997 Political Science Honors
This is a mandatory seminar for all students planning to submit an honors thesis for the purpose of possibly earning distinction in Political Science upon graduation. The course is aimed at helping students identify a useful and feasible research question, become familiar with the relevant literatures and debates pertaining to that question, develop a basic understanding of what might constitute “good” and “original” research in different subfields, and set up a plan for conducting and presenting the research. The course is also aimed at building a community of like-minded student researchers, which can complement and enrich the honor student's individual experience of working one-on-one with a dedicated faculty thesis advisor. Students apply in the spring of their junior year for admissions to the honors program and enrollment in PSCI497.
Fall or Spring
1 Course Unit
PSCI 4999 Honors Thesis Independent Study
This is the honors independent study portion of the PSCI honors program. Students may apply for the program in the spring of their junior year.
Fall or Spring
1 Course Unit

PSCI 5120 Latin American Politics
This graduate level course will be embedded in course PSCI/LALS 213. In other words, graduate students taking this course will have to attend lectures twice a week, but instead of discussing materials in recitations will meet with the professor either weekly (one hour) or biweekly (two hours), to discuss the main topics of the course and research questions and proposals related to the course.
Fall
Also Offered As: LALS 5120
1 Course Unit

PSCI 5160 Society and Politics in India
This course examines the experience of representative democracy in India and the country's development record in a historical framework. It will ask questions such as: How did representative democracy emerge in India, and what explains its persistence? What are the sources of its vulnerability? What kind of a sense of nationhood does this democratic experience rest upon? What are the exclusions built into this conception of nationhood? What is the relationship between India's development experience and its democratic experiment? How have India's "traditional" institutions adapted or failed to adapt to modern circumstances? Why has India performed well in certain economic sectors even while its record in providing basic social services has been dismal? How have the Indian State and its public institutions managed and coped with these changes? And how has India's self-perception about its place in the world changed in recent years, and what are its implications?
Not Offered Every Year
1 Course Unit

PSCI 5172 Russian Politics in Comparative-Historical Perspective
Course examines Russian politics, with an eye to how political, economic and social changes have been engineered, experienced, and perceived by Russians. For those with graduate standing or advanced background in Russian studies, graduate credit is available for additional readings and research to be discussed with the professor. For either version, the goal is to gain an in-depth understanding of contemporary Russia, its regime, its economy, its society, and its foreign policy (the latter being especially critical against the backdrop of the war in Ukraine). This process begins with a consideration of the historical inheritance bequeathed by the Soviet era. Thus, the first part of the course examines the origins and evolution of the Soviet regime from Lenin to Gorbachev. The point is not to master historical details but to grasp the continuities and changes in political dynamics, social conditions, and planned economic development, since some of these would shape aspects of the post-Soviet transition. The second part delves into the evolution of Russia's politics, economics, society and foreign policy, first during the early years of transition under Boris Yeltsin (1992-99), and then primarily under Vladimir Putin (2000- ). In this section, we cover Russia's state and political system, the fluctuations in economic growth, changing social conditions over time, as well as foreign policy. In the process, we will also consider the origins and role of oligarchs, patterns of political protest, social/demographic trends and the management of Russia's energy resources. We will also seek to better understand the shifts in Russia's foreign policy over time and the sources of the sharp decline in US-Russia relations, with a focus on the conditions leading up to the Ukraine war and the increasing alienation of Russia from the West. In all these domains, we will consider what the empirical evidence suggests about Russia relative to conventional images as presented in the West and also in comparison to the trajectories of other non-Western countries (e.g. China, Turkey, India).
Spring
1 Course Unit

PSCI 5180 The Political Economy of Gender
Over the past two hundred years, with the rise industrial production, growing educational attainment, and availability of contraception, women have entered the formal labor market in vast numbers. Yet despite advances, there are still important disparities between the sexes, often exacerbated by class and racial politics. This course unpacks the elements of the transition in the political economy of gender and examines its limits. We set out to understand women's labor in emerging industrial and post-industrial economies; the causes and consequences of women's political inclusion; gendered opportunities in the labor force including the persistence of pay gaps; and the formation of economic and political preferences across the genders. Theoretically, we will engage with Marxian political economy, and new institutionalist approaches to understand how political and economic institutions reproduce or remedy contemporary problems including the gender gap in wages, in political representation, and in women's economic opportunities. Throughout the course we will pay special attention to challenges faced by minority groups and by women in developing countries.
Fall
1 Course Unit
PSCI 5200 Public Opinion & Elections
This course is designed to give advanced undergraduates and graduate students exposure to the literature on political behavior in American politics (the course is part of the departments 3-course graduate sequence in American politics). The course will cover both the classics of public opinion and political behavior from the Columbia, Michigan, and Rochester schools, as well as more current topics and debates in the literature. Topics include (but are not limited to) the early voting studies, the role of partisanship, the nature and origins of ideology, mass-elite interactions, heuristics and low information rationality, the nature of the survey response, campaign and media effects, framing effects, and the role of institutions in structuring behavior. Undergraduates are welcome in the class, but they should know that the class assumes familiarity with quantitative approaches to studying politics.
Fall or Spring
1 Course Unit

PSCI 5290 Inequality & Race Policy
There is little question that inequality along the lines of race and ethnicity remain a constant problem in American society. And over time, the federal government has implemented several policy initiatives to address these inequities. However, less well understood is the success of these federal policies or the process in which they emerge from government as a viable solution. This course will provide an overview of the link between federal government action and changes in minority inequality. We will analyze several issue spaces that cover health, crime and incarceration, social policy and equal rights, education, welfare, and economics. We will take a multi-method approach to exploring the success of federal policies by conducting historical assessments and statistical analysis. Advanced undergraduates are welcome to take the course with permission.
Not Offered Every Year
Also Offered As: AFRC 5240
1 Course Unit

PSCI 5400 Borders & Boundaries in IR
This research seminar is designed for graduate students and advanced undergraduates. It explores the meaning and consequences of borders and boundaries in international relations. How do borders, border regions, and border activities speak to national encounters with neighbors and the rest of the world? How do international borders influence war and peace between states? How do they affect international trade and development? When and how are international borders “securitized,” and how does this affect the flow of goods, people, and illicit activities around and across the border? How do states cooperate across international borders? While this course is designed primarily as a seminar in international relations, we will examine the meaning and function of boundary-making between states from multiple perspectives. Borders, border regions and border crossings have multiple significance as designations of state authority, security buffers, expressions of social meaning and opportunities for economic integration. As a seminar designed primarily to stimulate research ideas, this course will be concerned with historical and current problems relating to international borders around the world. We will concentrate on formulating interesting research questions, bringing data to bear on specific hypotheses, becoming familiar with data sources, and designing our own research. All assignments are related to developing research skills; there are no in-class exams.
Not Offered Every Year
1 Course Unit

PSCI 5401 Human Rights
This course will examine the theoretical, historical and political foundations of contemporary human rights debates. The course will cover not only broad conceptual issues, but also specific issue areas (e.g., civil rights, economic rights, women’s rights, business and human rights), as well as the question of how new rights norms emerge and diffuse in the international arena. Undergraduates are not permitted.
1 Course Unit

PSCI 5450 Politics and Education
How is education a form of political action? In this course we look at the governance of schools, the trust in them and their relations to socioeconomic conditions in society, among other topics, using research in education, political science, and political theory.
Fall
Also Offered As: EDUC 5451
1 Course Unit

PSCI 5680 Gender, Power & Feminist Theory
This seminar will examine the theme of power as it engages questions of sex and gender. Subsidiary themes that will be developed over the course of the semester include: the modernism/postmodernism debate as it particularly relates to feminism, the intersectionality of race, gender, sexuality and class and how feminists can and do talk about "women"; the relevance of feminist theory to policy issues, and which theoretical approaches are the most appropriate or have the most potential. The readings will start with “foundational” texts in feminist theory--texts that anyone who wants to work in or teach feminist theory needs to have in their repertoire, they set out the background and history of contemporary feminist theory, and they operate from a variety of disciplinary frameworks. We then will move onto some newer scholarship and some more specific political issues and topics, depending on what students in the course are interested in studying. This course is open to undergraduates who have had some prior course work in feminist theory, gender and sexuality studies, and/or political theory, in consultation with the professor.
Not Offered Every Year
Also Offered As: GSWS 5680
1 Course Unit

PSCI 5681 Sex, Gender, History in Political Theory
This course will examine the treatment and meaning of sex and gender in selected canonical works in the history of political thought from Plato to the 20th century, as well as works by women not generally included in “the canon”. Themes to be considered include the role of women and men in the family and the state, the meanings of femininity and masculinity that emerge as a result, the role of sex in defining the family and gender, and the implications of these meanings for the different theorizations of politics and power that have developed over time.
Not Offered Every Year
1 Course Unit
PSCI 5800 Game Theory
This course provides an introduction to non-cooperative game theory and its applications to political science. The goal of the course is to provide students with the background and understanding necessary to read published game-theoretic work in political science journals. To that end, the course covers the basic concepts of game theory, including Nash equilibrium and its main refinements, simultaneous and sequential games, repeated games, evolutionary game theory, and games of incomplete and private information. In addition, we will cover some of the central models used in political science, notably models of public choice (such as the median voter theorem) and models of bargaining.
Not Offered Every Year
1 Course Unit

PSCI 5991 Selected Topics
Consult department for detailed descriptions. More than one course may be taken in a given semester. Recent titles have included: Race Development and American International Relations, Hegel and Marx, and Logic of the West.
Fall or Spring
1 Course Unit

PSCI 6100 Comparative Political Analysis
This seminar is aimed primarily at graduate students planning to take doctoral exams in comparative politics. It provides a critical survey of the field of comparative politics, tracing the intellectual history of the field, examining shifts in conceptual frameworks and research traditions, and comparing alternative methodological approaches. The first half of the course generally examines how processes of political, economic, and social change have been theorized in the social sciences from the mid-19th century to the present. In this process, particular attention is paid to the bifurcation between theories that emphasize the "universal" (e.g. the homogenizing effects of specific processes or variables) and the "particular" (e.g. the persistence of distinctive historical legacies and trajectories). Since this bifurcation is reinforced by distinct styles and methods of research, the seminar also probes the recent battles between rational-choice, cultural, and structuralist scholars, while considering the trade-offs between varieties of formal, quantitative, and qualitative methods. In the second half, the focus shifts to the range of substantive problems investigated by scholars in the field of comparative politics. These topics cover the complex relations among nations, states and societies; the origins, consolidation, and patterns of democratic governance; political economy in relation to development processes and social policies; the intersection of international/global economy and domestic politics; the dynamics of revolutions and social movements; and alternative problematiques constructed from the point of view of real actors such as workers, women, and local communities. In all cases, As a whole, the course is designed to provide an introduction to important issues and debates that comparativists have regularly engaged in; to help you understand the assumptions behind, and differences between, particular approaches, methods, and styles of research; to examine whether current debates are spurring new or better research in a given field in light of past approaches; and to gauge whether there has been progress, fragmentation, or stagnation in the field of comparative politics as a whole.
Not Offered Every Year
1 Course Unit

PSCI 6101 Great Books in Comparative Politics
This seminar has two central purposes. One is to learn from books that have shaped fundamental conversations in the field of comparative politics about the domains, concepts, and theories analyzed and presented in the texts. The other is to gain a deep and detailed appreciation of authorial strategies by examining the relationship between the organization and presentation of arguments and the motivation and claims of the authors. The fact that a book is assigned in this course does not make it "Great" in every respect. Nor does its inclusion reflect a judgment by the instructor that it represents the truth, or even a treatment of its topic that is more effective than anything else available. It does represent a judgment that it is a text whose study can help provide, refine, and/or greatly improve the cognitive maps that graduate students specializing in comparative politics are each trying to construct. The books we read will be studied under three categories: How we got here? How Things Work? and How Do We Know Things?
1 Course Unit

PSCI 6103 Identity Politics
This course is a graduate seminar intended to introduce Ph.D. students to the study of identity politics within political science. The course is primarily divided into two sections. The first section focuses on identity as a dependent variable. Each week, we read a distinct theoretical approach to the study of when, when, and how certain identities become politically salient. The second section focuses politicized identities as an independent variable. Readings in this section assess how such identities affect a range of outcomes, including policy preferences, intergroup cooperation, patronage, and violence.
Not Offered Every Year
1 Course Unit

PSCI 6104 Political Economy of Development
This course examines the debate in development studies arising from recognition that economic models, theories, methods, and strategies abstracted from the specific experience of western societies and cultures do not have general applicability. A broader social science approach is adopted, one which emphasizes the need to understand the social structures and cultures of the developing countries, the capabilities of weak versus strong states, and the links with the international system that influence transformative processes to which industrializing economies are subjected. The readings offer an overview of the most influential theories of development and underdevelopment that structured debate from the 1960's through the 1990's, and focus on the elements of these approaches that advance understanding of development and stagnation in several key countries, including Brazil, Mexico, India and selected countries in East and Southeast Asia.
Not Offered Every Year
1 Course Unit
PSCI 6105 Hegemonic Analysis: Theories and Applications
An important strain within contemporary political science has been the attempt to explain how power is exercised through the manipulation or exploitation of consciousness, habits, and cultural predispositions. One of the key concepts in the study of these issues is that of “hegemony” -- the establishment of particular beliefs as commonsensical presumptions of political life. In this course that notion will be systematically explored. Of particular interest will be how authors who conduct hegemonic analysis cope with the problem of analyzing the effect of what the objects of their analysis, by definition, do not and, in some sense, cannot think about. Illustrations of hegemonic phenomena and attempts to analyze them will be drawn from a variety of fields, such as political theory, historiography, comparative politics, American politics, rational choice theory, agent based modeling, and epistemology.
Not Offered Every Year
1 Course Unit

PSCI 6106 Democracy in Comparative Perspective
This graduate seminar focuses on issues of political regime change and democratization, as studied in the comparative politics literature. The course is structured in three parts. In the first part, we scrutinize conceptualizations and measurements of democracy that are used in comparative politics. In the second part, we study political economy and comparative historical theories about the causes of democratization. We assess the relative strength of theories that focus on economic development, inequality (whether of income, land, or labor), social class actors, insurgency, institutions, and/or strategic choices and interactions. In the final part of the course, political regimes in action, we study different aspects of democratization as they relate to current and salient issues of comparative politics.
Not Offered Every Year
1 Course Unit

PSCI 6120 Politics and Social Movements in Contemporary Afro-Latin America
Over the past two decades there has been an explosion of research into Afro-Latin American populations in South America and the Caribbean. During this period a generation of scholars who were largely unsatisfied with the research methods and normative agendas of many scholars, activists and politicians of prior eras began to pose distinct research questions and methodological approaches to various subject matter. Afro-Latin identification and identity (as both separate from and entangled with national identity) is a major theme in the new literature. Race, racism and inequality, Afro-Latin involvement in social movements, political parties and other forms of political articulation have also been prominent themes. In previous eras, scholars largely emphasized various iterations of purportedly racial and ostensibly cultural mixture such as Mestizaje and Democracia Racial to explain why race and racism did not play a prominent role in social and political mobilization. Contemporary sociologists and anthropologists, however, have found ways to identify attitudes, behaviors, demographic and socio-economic indicators that belie imagery and ideologies of social and political equality achieved through miscegenation (cultural and physical) in Latin America.
Fall
Also Offered As: AFRC 6560, LALS 6560
1 Course Unit

PSCI 6200 Survey of American Institutions
This course is designed to introduce students to the scholarly study of American political institutions. The course is intended for students who intend to specialize in American politics as well as those who want a basic overview of this work. It is a part of the sequence in the political science department at Penn that serves as the basic preparation for the American politics field exam and more broadly for expertise in the academic study of American politics.
Not Offered Every Year
1 Course Unit

PSCI 6201 American Political Development
Analyzes important patterns of continuity and change in American politics by examining the development of the American State from a comparative and historical perspective. Covers issues and debates central to not only the subfield of American politics, but also the discipline of political science more broadly. These include the role of the state, political culture, interests, ideas, and institutions in political development, and the role of history in political analysis. Open to advanced undergraduates with the permission of the instructor.
Fall or Spring
1 Course Unit

PSCI 6350 Experimental Design and Issues in Causality
The main goal of this course is to familiarize students with experiments, quasi-experiments, survey experiments and field experiments as they are widely used in the social sciences. Some introductory level statistics background will be assumed, though this is a research design course, not a statistics course. By the end of the course, students will be expected to develop their own original experimental design that makes some original contribution to knowledge. Throughout the course of the semester, we will also consider how to deal with the issue of causality as it occurs in observational studies, and draw parallels to experimental research.
Fall or Spring
1 Course Unit

PSCI 6400 International Relations Theory
This purpose of this course is two-fold. First, the survey course is designed to introduce students to a wide range of theories of international politics. During the course of the semester we will examine neo-realism, power transition theory, hegemonic stability theory, the modern world system, international regimes and inter dependence, the democratic peace, bureaucratic politics, organizational theory, constructivism, and decision making theory. Second, the course will sharpen students’ research design skills. The written assignments require students to take the often abstract theories presented in the readings and develop practical research designs for testing hypotheses derived from the theories. The papers will not include data collection or the execution of actual tests. Rather, they will focus on the conceptual problems of designing tests which eliminate competing hypotheses, operationalizing variables, and identifying potential sources of data. Student’s grades will be based on five short research designs and discussion leadership.
Not Offered Every Year
1 Course Unit
PSCI 6401 Strategic Studies Seminar
This seminar offers graduate students an introduction to the subfield of international relations labeled strategic studies (or security studies). In addition to exploring key theoretical issues, we consider their usefulness for understanding relevant events in international politics since World War II. Although the course emphasizes the distinctive features of great power strategy in the nuclear age, we also look at the continuing role of conventional forces, the strategic choices of lesser powers, and selected security problems in the post-Cold War world (e.g., proliferation, terrorism).
Not Offered Every Year
1 Course Unit

PSCI 6402 International Political Economy
Examination of the relationship between the international, political, and economic systems from a variety of theoretical perspectives that have emerged in the postwar period, including liberalism, transnationalism, statism, Marxism, and dependency.
Not Offered Every Year
1 Course Unit

PSCI 6800 Advanced Statistical Analysis
The objective of this course is to provide Political Science Ph.D. students with statistical tools useful for making inferences about politics. We will cover fundamentals of probability theory, estimation, and hypothesis testing, emphasizing application to research questions in American Politics, positive Political Theory, Comparative Politics, and International Relations.
Not Offered Every Year
1 Course Unit

PSCI 6802 Qualitative Methods
This seminar is an introduction to principles of research design and to the collection and analysis of qualitative data in the social sciences. It is worth noting that many of the methods traditionally considered to be qualitative actually employ quantitative data, and vice versa; and that many of the principles underlying research design, case selection, and the process of data collection are common across empirically-oriented research methods, whether qualitative, quantitative, or formal. Hence, the course should be useful to students planning to utilize a variety of different kinds of research tools. Readings encompass theory, how-to, and examples drawn from political science and cognate social science disciplines. There are no prerequisites for the course, but some background in statistics and/or an idea of the substantive research questions you would like to pursue will be helpful.
Not Offered Every Year
1 Course Unit

PSCI 7150 Political Communication
This course examines the role of political communication in influencing political attitudes and behaviors. Because of the broad nature of the topic, course readings and lectures will be interdisciplinary, drawing on research in sociology, history, psychology, political science and communication research. There are two primary goals for the course. One goal is to acquaint graduate students with the wide-ranging literature on political communication. A second major goal is to stimulate ideas for original research in the field of political communication. Toward this end, by the end of the semester students will be expected to be sufficiently familiar with the field to propose original studies on topics of their choosing. The formulation of an original research question and research design will be an important component of the final examination.
Not Offered Every Year
Also Offered As: COMM 7150
1 Course Unit

PSCI 7290 Political Economy and Social History of Africa and the African Diaspora
This course provides the opportunity for students to investigate the relationship between the emergence of African peoples as historical subjects and their location within specific geopolitical and economic circumstances. Topics vary.
Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: AFRC 7100
1 Course Unit

PSCI 7991 Selected Topics in Political Science
Consult department for detailed descriptions. More than one section may be given in a semester. Recent titles have included: Interpreting the Canon; State, Self, & Society; U.S. Policy in Europe; and Dissertation Writing.
Fall or Spring
1 Course Unit

PSCI 8050 Analysis of Election Data
This course is intended to serve as a workshop for students interested in the empirical analysis of elections, public opinion and political communication more generally. The centerpiece of the course will be an original research paper produced by each student on a topic of his or her own choosing. The requirements for these papers are fairly open, but demanding: the research papers must a) involve empirical analysis of a major election data set, b) be oriented toward answering an original research question selected with the guidance of the instructor, and c) aim to be of publishable quality. There are no formal prerequisites for the course. However, if you have less than two semesters of statistical training, and/or no formal background in the study of elections, public opinion or political communication, then this is probably not the right course for you. In order to be able to formulate an original research question, you need some background in the literature, which is provided by other courses, but is not a formal part of this course.
Fall or Spring
Also Offered As: COMM 7060
1 Course Unit

Politics & Policy (PPOL)
The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).

PPOL 1500 The Changing American Electorate
This course traces American presidential elections from 1960 to the present.
Fall or Spring
1 Course Unit

Portuguese (PRTG)

PRTG 0090 Clarice Lispector
This seminar focuses on the work of Clarice Lispector, the Ukrainian-born Brazilian novelist and short story writer (1920-1977). See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 2390, ENGL 2390, GSWS 2390, LALS 2390
1 Course Unit
PRTG 0100 Elementary Portuguese I
Portuguese 0100 is a first-semester introductory language course for students who have not studied Portuguese before, or who have had little exposure to the language. The course will emphasize the development of foundational reading, writing, listening and speaking abilities within a cultural context. Students will participate in paired and group activities designed to elicit meaningful and accurate exchanges of information. The course will introduce students to Portuguese and Lusophone culture through a variety of authentic materials, including texts, songs, films and other audio and video material. Classes will be conducted in Portuguese.
Fall
1 Course Unit

PRTG 0104 Portuguese for Spanish Speakers I
This course is designed for students who have studied Spanish. The course begins with exposure to basic vocabulary and structures, advancing at an accelerated pace. Classroom activities will emphasize pronunciation, spoken production as well as language structures and vocabulary. Students will participate in pairs, small groups and whole-class activities that focus on the meaningful and accurate exchange of information. The class will be conducted in Portuguese.
Fall or Spring
1 Course Unit

PRTG 0200 Elementary Portuguese II
This class continues the development of a basic proficiency that will help reinforce the student’s abilities and confidence. A broad range of lively, high-interest readings such as newspaper and magazine articles in current events on Brazilian culture will allow the student to gain a genuine sense of current usage. A Brazilian movie is presented and discussed in groups. Daily homework assignments involve writing exercises, short compositions and group projects.
Spring
Prerequisite: PRTG 0100
1 Course Unit

PRTG 0300 Intermediate Portuguese I
This is a third-semester intermediate course, in a four-course strand, designed for students who have taken at least two semesters of Portuguese. Classroom activities will emphasize pronunciation, spoken production, language structures and vocabulary, as students explore movies, music and other authentic media to further develop their ability to communicate in Portuguese. The course will be conducted in Portuguese.
Fall
Prerequisite: PRTG 0200
1 Course Unit

PRTG 0340 Portuguese for Spanish Speakers II
Portuguese 0340 is an accelerated intermediate course designed for students who have taken Portuguese for Spanish Speakers I, or its equivalent. Classroom activities will emphasize the development of pronunciation and spoken production, the use of language structures and vocabulary at the intermediate level. In addition, students will explore movies, music, short stories, and other media as they further develop reading, speaking and interpretive skills in Portuguese. The course will be conducted in Portuguese.
Fall or Spring
Prerequisite: PRTG 0104
1 Course Unit

PRTG 0400 Intermediate Portuguese II
This is a forth-semester intermediate course, in a four-course strand, designed for students who have taken at least three semesters of Portuguese. Classroom activities will emphasize pronunciation, spoken production, grammar and language structures, and vocabulary at the advanced intermediate level. Students will explore movies, readings, news, music and other media as they further develop speaking, writing, reading and interpretive skills in Portuguese. The course will be conducted in Portuguese.
Spring
Prerequisite: PRTG 0300
1 Course Unit

PRTG 1000 Advanced Portuguese
This course is designed for students who have already taken basic and intermediate levels of Portuguese. It complements students’ knowledge of Portuguese by emphasizing the use of advanced grammatical structures and vocabulary. Classes will focus on practicing such advanced language structures by reading a diverse range of texts, including short stories by different authors of the Lusophone countries, and one novel; speaking and writing about a variety of contemporary texts; watching movies and documentaries; and listening to news, songs and other authentic audio material. The emphasis will be on language usage and culture. This course will be conducted in Portuguese.
Fall or Spring
Prerequisite: PRTG 0340 OR PRTG 0400
1 Course Unit

PRTG 1320 Portuguese for the Professions
Portuguese for the Professions is designed for advanced-level students to develop their ability to use a wide technical vocabulary. The course will cover an array of topics in the areas of Economy, Politics, Science, Technology, Law and others as they pertain to the societies and cultures of the Lusophone countries, with particular emphasis placed on Brazil. Through readings, movies, discussions, essays and presentations, students will enhance their ability to write about and discuss these topics while employing the appropriate technical vocabulary.
Fall or Spring
Also Offered As: LALS 1320
Prerequisite: PRTG 1000
1 Course Unit

PRTG 1340 Portuguese for the Professions II
Portuguese for the Professions II is a second-semester course designed to provide advanced-level students with exposure to, and practice in, a wide variety of technical vocabulary, and to develop their communicative skills on topics related to Brazil’s economic, social and historical context. Classroom activities will be based on the readings and discussions of articles, papers, the viewing of documentaries and other visual media, covering an array of topics within the proposed themes. The course will be conducted in Portuguese.
Fall
Also Offered As: LALS 1340
Prerequisite: PRTG 1000
1 Course Unit
PRTG 1800 Perspectives in Brazilian Culture
This course is designed to provide advanced-level students with additional exposure to Portuguese language and culture, as they broaden their knowledge of the Lusophone world and its identity. Classes will focus on discussions and students presentations based on articles, literary texts, and movies or documentaries from, and about, the different regions of the world where Portuguese is spoken. We will start with Portugal and Brazil, and end with Angola and Mozambique, and their cultural expressions. A series of important themes related to the Lusophone world, its history, the dialogues among its different countries, and contemporary challenges will be incorporated in this course as a way to familiarize students with key themes. At the end of this course, students should 1) have developed their oral and written expressions in Portuguese, at the advanced-level, and 2) be able to recognize and discuss important themes, historical figures, and cultural characteristics of the Lusophone world.
Not Offered Every Year
Also Offered As: LALS 1800
Prerequisite: PRTG 1000
1 Course Unit

PRTG 1900 Topics in Portuguese, African and Brazilian Cultures
This course explores aspects of Luso-Brazilian culture and film in light of its social context and reception. For current course content, please see department’s webpage: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc.
Fall or Spring
Also Offered As: CIMS 1901, LALS 1900
1 Course Unit

Professional Writing (PROW)

The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).

PROW 1000 Fundamentals of Professional Writing
Using an immersive, scenario-based teaching style, this course is an introduction to critically analyzing any writing situation and making your writing a purposeful act of communication. You engage in a series of authentic writing scenarios and a range of activities that provide hands-on practice and instructor coaching and feedback. Coursework includes targeted exercises for improving grammar, mechanics, clarity, precision, and persuasiveness. This collaborative, problem-based learning approach provides you with the strategies and flexibility you need to adapt to an ever-changing multimedia communication environment. Fundamentals of Professional Writing serves as the foundation course for the Certificate in Professional Writing. It introduces the basic concepts and vocabulary that students will draw upon in all future writing tasks and build upon throughout the remainder of the certificate. You do have the option to enroll in this individual course without committing to the entire Certificate in Professional Writing.
1 Course Unit

PROW 1010 Fundamentals of Academic Reading and Writing
This course focuses on the fundamentals of academic writing and is designed to accommodate differing levels of expertise, from undergraduates who are new to academic writing, to those who are returning to college to complete their degrees and need a refresher, and to those who work with academic writers or are engaged in professional academic writing and seek individualized guidance and feedback. The course will introduce participants to the key knowledge domains in academic writing, including a review of academic genres. We will explore planning, reading, and research writing strategies, modes of academic reasoning and rhetoric; writing in the disciplines; context-specific writing processes; collaborative writing, and giving, receiving, and revising in response to professional-style peer review. All students will receive individualized feedback from the instructor as well as peer reviews from colleagues as a means of applying and accelerating skills by working with diverse readers and writers. Assignments will include readings drawn from different genres across the disciplines; writing assignments will be a mix of short, targeted pieces along with some source-based work.
1 Course Unit

PROW 1020 The Elements of Style
This course is for anyone who has been charmed by a novel, article, or tweet and wanted to have similar power as a writer. What makes a sentence pop? What makes a piece of writing seem effortless? Effective writers use words purposefully and grab their reader’s attention by fulfilling—and sometimes disrupting—expectations. Grammar is not a set of rules so much as it is a set of tools that enable us to make meaning; it allows us to appeal to the senses by creating rhythm and helping readers to “feel” and “see” our ideas. In this course, we fill our collective toolbox through sentence-level choices such as arrangement of words, concrete versus abstract language, and sentence length. We provide customized exercises for those who wish to work on their grammar and mechanics alongside developing other strategies for powerful, effective writing. You have the option to enroll in the individual course without committing to the entire Certificate in Professional Writing, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests.
1 Course Unit

PROW 1030 Introduction to Academic Reading, Writing, & Research
This course is designed to prepare students for the kinds of assignments they will encounter in college. The goal of the course is to expand your skills and build your self-confidence as academic readers, researchers, and writers. The course will provide a series of short written exercises that cover the fundamentals: how to read scholarly texts; how to read for and write with a focus on logical validity and coherence as an academic writer; how to plan and organize a well-structured argument or explanation; how to find, synthesize, and cite sources; and how to edit, polish, and proofread your final draft to ensure readability. The final project will be a letter of reflection and a 3-5 pp research-based paper. Note: Experienced academic writers (e.g., post-bacs, graduate students, those with advanced degrees should take PROW 3030, Advanced Academic Writing)
1 Course Unit

PROW 1990 Independent Study in Professional Writing
Independent Study in Professional Writing
Fall or Spring
1 Course Unit
PROW 2000 Writing with Data
The rise of data-driven communication has placed increasing emphasis on data literacy—namely, the ability to produce and analyze a wide range of data visualizations, from illustrations and technical diagrams to complex graphs and tables. Many academic disciplines and professions rely on data as the basis for acquiring, building, and disseminating knowledge in their fields. Institutions and corporations, in turn, now collect data about individuals for everything from supporting students’ learning to developing ever more targeted marketing campaigns. Others use open-access data for advocacy work, using data-based graphics to advance social and political causes. This course is designed to help you think critically and ethically about data and gain practical data literacy skills. Students learn how to use online data visualization tools to make data more understandable and develop rhetorical skills to make data more meaningful, by identifying and presenting the story they tell.
1 Course Unit

PROW 2010 Designing Effective Presentations
This class focuses on how to build powerful, persuasive presentations as well as to provide advanced insight and practice in the fundamentals of professional writing. We study the genre of presentations to familiarize you with major applications—PowerPoint, Keynote, and Google Slides—as well as basic presentation formats, including live group delivery; pre-recorded narration (for asynchronous presentations); and the recent trend of slides used on corporate and other websites to provide more detailed information about the organization or its products. We also explore different presentation subgenres, such as the Ted Talk, lightning talks, and Pecha Kucha (20 slides, 20 seconds each, auto-advance).
Throughout, we focus on tailoring your presentation to target audiences and purposes as we explore and practice the design elements of building presentation: space, grids, choice of fonts, images, and animation.
Finally and most importantly, we work on building a powerful message, teaching you how to develop ideas and translate content into a deck that exemplifies your understanding of information hierarchies and human cognition with the goal of engaging, informing, and persuading your audiences.
1 Course Unit

PROW 2020 Strategic Communication Skills for Fundraisers
Developing a targeted strategy for every prospect and/or donor is critical, but communicating it effectively is what gets you over the finish line. In this course, we will explore how strategic communications approaches were applied successfully to real-life scenarios. You will learn about and practice the full spectrum of donor-centric communication vehicles, from writing the email that gets past a gatekeeper, developing an executive briefing, and drafting a proposal, to preparing a press release, writing a formal thank you and stewarding a donor after the gift has closed. This course will be taught by seasoned development professionals. They will walk you through actual case studies, share some tricks of the trade, focus on specific challenges identified by class members, and provide feedback on assignments from their unique perspectives. Expect to be enlightened, entertained and pushed to think hard about how you communicate to build the productive relationships that result in impactful philanthropy.
Fall or Spring
1 Course Unit

PROW 2030 Writing to Diverse Audiences: Global English
Course designed for students to develop skills to communicate effectively to diverse audiences across the globe.
Fall or Spring
1 Course Unit

PROW 2040 Promotional Writing
Includes emails, brochures, advertisements, and customer service.
Fall or Spring
1 Course Unit

PROW 2050 The Elements of Style
This course is for anyone who has been charmed by a novel, article, or tweet and wanted to have similar power as a writer. What makes a sentence pop? What makes a piece of writing seem effortless? Effective writers use words purposefully and grab their reader’s attention by fulfilling—and sometimes disrupting—expectations. Grammar is not a set of rules so much as it is a set of tools that enable us to make meaning; it allows us to appeal to the senses by creating rhythm and helping readers to “feel” and “see” our ideas. In this course, we fill our collective toolbox through sentence-level choices such as arrangement of words, concrete versus abstract language, and sentence length. We provide customized exercises for those who wish to work on their grammar and mechanics alongside developing other strategies for powerful, effective writing. You have the option to enroll in the individual course without committing to the entire Certificate in Professional Writing, enjoying the flexibility and expertise offered by Penn LPS Online to suit your schedule and interests.
Fall
1 Course Unit

PROW 3000 Academic Writing
TBD
Fall or Spring
1 Course Unit

PROW 3010 The Power of Storytelling
From business and science to medicine and nonprofit organizations, storytelling is increasingly recognized as one of the strongest tools of communication and persuasion. This course introduces students to the use and art of storytelling, also known as narrative studies. Students review storytelling in academic and professional communities as both a research tool for gathering information about particular communities or types of individuals, and as an effective rhetorical strategy for generating emotional appeal and action, and brand identity. They also explore storytelling as a compelling means of conveying complex and memorable information. This course explores how storytelling may be variously used for inquiry, evidence gathering and persuasion. Lessons are reinforced through the examination of business anecdotes, case studies, narrative medicine, biographical notes, personal statements, and cover letters.
1 Course Unit

PROW 3020 Strategic Writing for Fundraising
Developing a targeted strategy for individual prospects and/or donors is critical, but communicating it effectively is what gets you over the finish line. In this course, we will explore how to successfully apply strategic communications approaches to real-life scenarios. You will learn about the continuous cycle of fundraising and practice writing the full spectrum of donor-centric communication vehicles relevant to each cycle. This course will be taught by two seasoned development professionals from the University of Pennsylvania who have collaborated on communicating with the University’s highest-level prospects and donors to raise millions of dollars across multiple schools and centers. They will walk you through case studies, share some tricks of the trade, focus on specific challenges, and provide feedback on assignments from their unique perspectives. Expect to be enlightened, entertained, and pushed to think hard about how you communicate to build the productive relationships that result in impactful philanthropy.
1 Course Unit
PROW 3030 Advanced Academic Reading and Writing
This course is intended for advanced academic writers, from undergraduates in the advanced year of their major to graduate students who wish to write an effective paper, to practitioners and others with terminal degrees who wish to write an effective manuscript for publication. The ability to translate your readings, research, and findings into meaningful academic content is a challenging, skill-intensive process that pivots upon learning good time management and mindfulness strategies, as well as grasping the nuances of academic genres and styles of writing and documentation. Our course will focus on these concerns, along with providing some strategies for efficient reading of densely written academic texts. (For students seeking an introduction to college writing, please see PROW 1030: Introduction to Academic Reading, Writing, and Research).
1 Course Unit

PROW 4000 Writing for Social Media
This course explores the use of social media campaigns for building organizational or brand identities for audiences including customers, interest groups and followers on Facebook, Twitter, and Instagram. We look at how to use social media to create coherent messaging, build a reputation and cultivate reader loyalty. We also explore how readers and designers approach multimedia texts as complex entities that bring together language, image, sound, and gesture to produce a coherent message. With its multiple modalities—visual, aural, and somatic—social media makes different types of demands of its creators and its audiences than those imposed by conventional top-down, left-to-right texts that one encounters in books, essays or letters, requiring an expanded understanding of rhetorical strategies and contexts. By the end of the course, students will have multiplatform portfolio of social content to show employers, colleagues, or clients.
1 Course Unit

PROW 4010 Composing a Professional Identity
This course is intended for those who would like to focus on building their individual professional identity for job searches as well as professional recognition and advancement. The course will examine how professional identities are constructed and networked across different media within professional communities of practice. Our particular focus will be on the primary discourse communities, genres, and media involved in professional identity construction, including cover letters, resumes, LinkedIn profiles, and web-portfolios; we will also touch upon the role of other social media in creating a professional identity. The course will support students in developing rhetorical fluency with regard to job searches and career advancement, including identifying and researching potential employers, networking, and cultivating mentors. This writing-intensive course will be a combination of theory, acquired through a series of readings and analysis, and practice, implemented through hands-on guided writing exercises, peer and professor feedback, and reflection. By the end of the course, students will have developed a professional profile, including a foundational cover letter and resume, a LinkedIn profile, and a web-portfolio (whether published or not will be up to the individual student).
1 Course Unit

PROW 4040 Advanced Academic Writing
Advanced Academic Writing
Fall or Spring
1 Course Unit

PSYC 0400 Grit Lab: Fostering Passion and Perseverance in Ourselves and Others (SNF Paideia Program Course)
At the heart of this course are cutting-edge scientific discoveries about passion and perseverance for long-term goals. As in any other undergraduate course, you will learn things you didn’t know before. But unlike most courses, Grit Lab requires you to apply what you’ve learned in your daily life, to reflect, and then to teach what you’ve learned to younger students. The ultimate aim of Grit Lab is to empower you to achieve your personal, long-term goals—so that you can help other people achieve the goals that are meaningful to them. LEARN -> EXPERIMENT -> REFLECT -> TEACH. The first half of this course is about passion. During this eight-week period, you’ll identify a project that piques your interest and resonates with your values. This can be a new project or, just as likely, a sport, hobby, musical instrument, or academic field you’re already pursuing. The second half of this course is about perseverance. During this eight-week period, your aim is to develop resilience, a challenge-seeking orientation, and the habits of practice that improve skill in any domain. By the end of Grit Lab, you will understand and apply, both for your benefit and the benefit of younger students, key findings in the emerging science on grit.
Fall
Also Offered As: OIDD 0050, OIDD 2000
1 Course Unit

PSYC 0986 Study abroad College elective
Non-major elective in the College study abroad
Fall or Spring
1 Course Unit

PSYC 0996 Transfer College elective
Non-major elective in the College transfer
Fall or Spring
1 Course Unit
PSYC 1210 Introduction to Brain and Behavior
Introduction to the structure and function of the vertebrate nervous system. We begin with the cellular basis of neuronal activities, then discuss the physiological bases of motor control, sensory systems, motivated behaviors, and higher mental processes. This course is intended for students interested in the neurobiology of behavior, ranging from animal behaviors to clinical disorders.
Fall or Spring
Also Offered As: BIOL 1110, NRSC 1110
1 Course Unit

PSYC 1212 Physiology of Motivated Behavior
This course focuses on evaluating the experiments that have sought to establish links between brain structure (the activity of specific brain circuits) and behavioral function (the control of particular motivated and emotional behaviors). Students are exposed to concepts from regulatory physiology, systems neuroscience, pharmacology, and endocrinology and read textbook as well as original source materials. The course focuses on the following behaviors: feeding, sex, fear, anxiety, the appetite for salt, and food aversion. The course also considers the neurochemical control of responses with an eye towards evaluating the development of drug treatments for: obesity, anorexia/cachexia, vomiting, sexual dysfunction, anxiety disorders, and depression.
Fall or Spring
Also Offered As: NRSC 2227
Prerequisite: PSYC 0001
1 Course Unit

PSYC 1230 Cognitive Neuroscience
The study of the neural systems that underlie human perception, memory and language; and of the pathological syndromes that result from damage to these systems.
Fall or Spring
Also Offered As: NRSC 2249
Prerequisite: PSYC 0001 OR COGS 1001
1 Course Unit

PSYC 1310 Language and Thought
This course describes current theorizing on how the human mind achieves high-level cognitive processes such as using language, thinking, and reasoning. The course discusses issues such as whether the language ability is unique to humans, whether there is a critical period to the acquisition of a language, the nature of conceptual knowledge, how people perform deductive reasoning and induction, and how linguistic and conceptual knowledge interact.
Fall or Spring
Also Offered As: LING 0750
Prerequisite: PSYC 0001 OR COGS 1001
1 Course Unit

PSYC 1333 Introduction to Cognitive Science
How do minds work? This course surveys a wide range of answers to this question from disciplines ranging from philosophy to neuroscience. The course devotes special attention to the use of simple computational and mathematical models. Topics include perception, learning, memory, decision making, emotion and consciousness. The course shows how the different views from the parent disciplines interact and identifies some common themes among the theories that have been proposed. The course pays particular attention to the distinctive role of computation in such theories and provides an introduction to some of the main directions of current research in the field. It is a requirement for the BA in Cognitive Science, the BAS in Computer and Cognitive Science, and the minor in Cognitive Science, and it is recommended for students taking the dual degree in Computer and Cognitive Science.
Fall
Also Offered As: CIS 1400, COGS 1001, LING 1005, PHIL 1840
1 Course Unit

PSYC 1340 Perception
How the individual acquires and is guided by knowledge about objects and events in their environment.
Fall
Also Offered As: VLST 2110
Prerequisite: PSYC 0001 OR COGS 1001
1 Course Unit

PSYC 1440 Social Psychology
An overview of theories and research across the range of social behavior from intra-individual to the group level including the effects of culture, social environment, and groups on social interaction.
Fall or Spring
Prerequisite: PSYC 0001
1 Course Unit

PSYC 1450 Personality and Individual Differences
This course provides an introduction to the psychology of personality and individual differences. Many psychology courses focus on the mind or brain; in contrast to those approaches of studying people in general, the focus in this course is on the question "How are people different from each other?" It will highlight research that take a multidimensional approach to individual differences and attempts to integrate across the biological, cognitive-experimental, and social-cultural influences on personality.
Fall or Spring
Prerequisite: PSYC 0001
1 Course Unit

PSYC 1462 Abnormal Psychology
The concepts of normality, abnormality, and psychopathology; symptom syndromes; theory and research in psychopathology and psychotherapy.
Fall or Spring
Prerequisite: PSYC 0001
1 Course Unit

PSYC 1530 Memory
This course presents an integrative treatment of the cognitive and neural processes involved in learning and memory, primarily in humans. We will survey the major findings and theories on how the brain gives rise to different kinds of memory, considering evidence from behavioral experiments, neuroscientific experiments, and computational models.
Also Offered As: NRSC 1159
1 Course Unit
PSYC 1777 Introduction to Developmental Psychology
The goal of this course is to introduce both Psychology majors and non-majors majors to the field of Developmental Psychology. Developmental Psychology is a diverse field that studies the changes that occur with age and experience and how we can explain these changes. The field encompasses changes in physical growth, perceptual systems, cognitive systems, social interactions and much more. We will study the development of perception, cognition, language, academic achievement, emotion regulation, personality, moral reasoning, and attachment. We will review theories of development and ask how these theories explain experimental findings. While the focus is on human development, when relevant, research with animals will be used as a basis for comparison.
Fall or Spring
Prerequisite: PSYC 0001
1 Course Unit

PSYC 2220 Evolution of Behavior: Animal Behavior
The evolution of behavior in animals will be explored using basic genetic and evolutionary principles. Lectures will highlight behavioral principles using a wide range of animal species, both vertebrate and invertebrate. Examples of behavior include the complex economic decisions related to foraging, migratory birds using geomagnetic fields to find breeding grounds, and the decision individuals make to live in groups. Group living has led to the evolution of social behavior and much of the course will focus on group formation, cooperation among kin, mating systems, territoriality, and communication.
Fall
Also Offered As: BIOL 2140, NRSC 2140
Prerequisite: BIOL 1102 OR BIOL 1121 OR PSYC 0001
1 Course Unit

PSYC 2240 Visual Neuroscience
An introduction to the scientific study of vision, with an emphasis on the biological substrate and its relation to behavior. Topics will typically include physiological optics, transduction of light, visual thresholds, color vision, anatomy and physiology of the visual pathways, and the cognitive neuroscience of vision.
Spring
Also Offered As: NRSC 2217, VLST 2170
Prerequisite: NRSC 1110
1 Course Unit

PSYC 2250 Drugs, Brain and Mind
The course will begin with a review of basic concepts in pharmacology including: routes of drug administration, drug metabolism, the dose response curve, tolerance, and sensitization. Following a brief overview of cellular foundations of neuropsycharmacology (neuronal biology, synaptic and receptor function), the course will focus on several neurotransmitter systems and the molecular and behavioral mechanisms mediating the mind-altering, addictive and neuropsychiatric disorders, including depression, schizophrenia, and anxiety with an emphasis on their underlying neurobiological causes, as well as the pharmacological approaches for treatment.
Fall
Also Offered As: NRSC 2270
Prerequisite: NRSC 1110
1 Course Unit

PSYC 2260 Neuroendocrinology
This course is designed to examine the various roles played by the nervous and endocrine systems in controlling both physiological processes and behavior. First, the course will build a foundation in the concepts of neural and endocrine system function. Then, we will discuss how these mechanisms form the biological underpinnings of various behaviors and their relevant physiological correlates. We will focus on sexual and parental behaviors, stress, metabolism, neuroendocrine-immune interactions, and mental health.
Fall or Spring
Also Offered As: NRSC 2260
Prerequisite: NRSC 1110
1 Course Unit

PSYC 2288 Neuroscience and Society
Cognitive, social, and affective neuroscience have made tremendous progress in the last two decades. As this progress continues, neuroscience is becoming increasingly relevant to all of the real-world endeavors that require understanding, predicting and changing human behavior. In this course we will examine the ways in which neuroscience is being applied in law, criminal justice, national defense, education, economics, business, and other sectors of society. For each application area we will briefly review those aspects of neuroscience that are most relevant, and then study the application in more detail.
Fall or Spring
Prerequisite: NRSC 1110 OR PSYC 1230
1 Course Unit

PSYC 2310 Psychology of Language
This course describes the nature of human language, how it is used to speak and comprehend, and how it is learned. The course raises and discusses issues such as whether language ability is innate and unique to humans, whether there is a critical period for the acquisition of a language, and how linguistic and conceptual knowledge interact.
Fall or Spring
Also Offered As: LING 1750
Prerequisite: PSYC 1310 OR LING 0001
1 Course Unit

PSYC 2314 Data Science for Studying Language and the Mind
Data Science for studying Language and the Mind is an entry-level course designed to teach basic principles of data science to students with little or no background in statistics or computer science. Students will learn to identify patterns in data using visualizations and descriptive statistics; make predictions from data using machine learning and optimization; and quantify the certainty of their predictions using statistical models. This course aims to help students build a foundation of critical thinking and computational skills that will allow them to work with data in all fields related to the study of the mind (e.g., linguistics, psychology, philosophy, cognitive science).
Fall
Also Offered As: LING 0700
1 Course Unit
PSYC 2355 Introduction to Political Psychology
This course will explore psychological approaches to understanding political beliefs, attitudes, and actions at the levels of both individual citizens and national leaders. It will also explore the possibility that psychological science itself is not immune to the political debates swirling around it. Specific topics will include: the workings of belief systems (and their power to shape what we “see”), cognitive biases (and their power to cause miscalculations), sacred values and their role in stabilizing belief systems and social interaction, personality and ideology (the linkages between the personal and the political), and clashing conceptions of morality and distributive and corrective justice (striking variations among people in what they consider to be fair). We shall also explore some topics that have sparked controversy in the psychological research literature and that tend to polarize opinion along political lines, including work on intelligence and unconscious bias.
Fall or Spring
Also Offered As: PPE 2355
Prerequisite: PSYC 0001 OR COGS 1001
1 Course Unit

PSYC 2377 Cognitive Development
What infants and young children come to know about the world, and how they learn it. Topics will include changes in children’s thinking, perceptual development, language acquisition, and current theories of cognitive development.
Not Offered Every Year
Prerequisite: PSYC 0001 OR COGS 1001
1 Course Unit

PSYC 2400 Introduction to Positive Psychology (SNF Paideia Program Course)
An introduction to the study of positive emotions, positive character traits, and positive institutions. The positive emotions consist of emotions about the past (e.g., serenity, satisfaction, pride), about the future (e.g., hope, optimism, faith), and emotions about the present (pleasure and gratification). The distinction among the pleasant life, the good life, and the meaningful life is drawn. The positive traits include wisdom, courage, humanity, justice, temperance, and spirituality, and the classification of these virtues is explored. The positive institutions are exemplified by extended families, free press, humane leadership, and representative government.
Spring
Prerequisite: PSYC 0001
1 Course Unit

PSYC 2477 Social and Emotional Development
This course will cover theory and research related to the development of attachment, emotional regulation, peer and intimate relationships, personality, moral reasoning, and emotional and behavioral disorders. The course will emphasize the degree to which family, peer, and community contexts influence development from infancy into adulthood. Efforts will be made to integrate biological and environmental accounts of development across the lifespan.
Not Offered Every Year
Prerequisite: PSYC 0001
1 Course Unit

PSYC 2555 Neuroeconomics
This course will introduce students to neuroeconomics, a field of research that combines economic, psychological, and neuroscientific approaches to study decision-making. The course will focus on our current understanding of how our brains give rise to decisions, and how this knowledge might be used to constrain or advance economic and psychological theories of decision-making. Topics covered will include how individuals make decisions under conditions of uncertainty, how groups of individuals decide to cooperate or compete, and how decisions are shaped by social context, memories, and past experience.
Also Offered As: NRSC 2273
1 Course Unit

PSYC 2737 Judgment and Decisions
Thinking, judgment, and personal and societal decision making, with emphasis on fallacies and biases.
Fall or Spring
1 Course Unit

PSYC 2750 Behavioral Economics and Psychology
Our understanding of markets, governments, and societies rests on our understanding of choice behavior, and the psychological forces that govern it. This course will introduce you to the study of choice, and will examine in detail what we know about how people make choices, and how we can influence these choices. It will utilize insights from psychology and economics, and will apply these insights to domains including risky decision making, intertemporal decision making, and social decision making.
Fall
Also Offered As: PPE 3003
1 Course Unit

PSYC 2760 How We Change: Social-Psychological and Communication Dynamics (SNF Paideia Program Course)
Have you wondered why people undergo religious conversion, change their political affiliation, suddenly endorse conspiracy theories, alter their taste in music, or seek hypnosis to quit smoking? What is common to these processes of change, and how does resistance to change play out across these seemingly different contexts? In “Why We Change,” we will ask unique questions such as how religious change might highlight methods of transforming public health communications or how the study of attitude change might yield new theories about the impact of life experiences on personality. Broadly speaking, the class will provide an opportunity for students to learn theories of belief formation, attitudes and persuasion, normative influence, and behavioral change. For example, we will work to understand how specific beliefs, such as group stereotypes, or specific attitudes, such as trust and values, change in response to variations in the environment and communication with other people. We will cover culturally based and professional approaches to change, from fear appeals to motivational interviewing, to hypnosis. Students will read empirical studies and conduct observational projects about potential sources of social, cultural, or psychological change and resistance to change in Philadelphia.
Also Offered As: COMM 2760, NURS 2760
1 Course Unit

PSYC 2770 Introduction to Positive Psychology (SNF Paideia Program Course)
PSYC 2900 Evolutionary Psychology
This course introduces the field of evolutionary psychology, which is an approach to the study of human behavior. We will consider the theoretical underpinnings of the field, including evolutionary theory, development, kinship, and adaptations for social life, and will sample some of the recent empirical contributions to this growing area.
Fall or Spring
Prerequisite: PSYC 0001
1 Course Unit

PSYC 3100 Being Human: The Biology of Human Behavior, Cognition, and Culture
This course will examine the biological basis of human behavior and culture as an emergent product of the brain and its interactions with the physical and social environment. As we explore this topic, we will emphasize human brain function at the level of neural systems and the neural networks they supply, how these systems may have evolved, how they change depending on experience, and what dysfunction of these circuits as occurs in neuropsychiatric and neurodevelopment disorders reveals about human thought and behavior. We will focus on key features of human nature, including language, mathematics, creativity and innovation, empathy, strategic thinking, cooperation, deception, economic behavior, and technology, amongst others.
Prerequisite: PSYC 0001
1 Course Unit

PSYC 3220 Neural Systems and Behavior
This course will investigate neural processing at the systems level. Principles of how brains encode information will be explored in both sensory (e.g. visual, auditory, olfactory, etc.) and motor systems. Neural encoding strategies will be discussed in relation to the specific behavioral needs of the animal. Examples will be drawn from a variety of different model systems.
Spring
Also Offered As: BIOL 4110, NRSC 4110
Prerequisite: BIOL 2110
1 Course Unit

PSYC 3230 Neuroscience for Policymakers: Cognitive Neuroscience Seminar
Topics vary each semester.
Prerequisite: PSYC 1230
1 Course Unit

PSYC 3231 Consciousness Seminar in Cognitive Neuroscience
Consciousness is our subjective experience of the world, including both perceptions and felt internal states. In this seminar, we will explore the burgeoning scientific literature on the neural basis of consciousness. We will focus in particular on three topics: What are the neural systems underlying visual awareness? What are the mechanisms that control the progression of conscious contents to create our stream of thought? What is the relationship between consciousness and behavior?
1 Course Unit

PSYC 3232 The Social Brain Seminar
This seminar examines the cognitive and neural mechanisms that enable humans to predict and understand people's behavior. We will be propelled throughout the course by fundamental questions about the human social brain. For example, why are humans so social? Does the human brain have specialized processes for social thought? Consideration of these questions will involve advanced treatment of a range of topics.
1 Course Unit

PSYC 3233 Seminar in Cognitive Neuroscience: Brain Development
This discussion-based seminar will focus on the neural bases of cognitive development. Each week the class will discuss a selection of papers that consider the roles of genes and environment on topics including the development of perceptual abilities, language, and cognition. The course will cover several aspects of pre- and postnatal brain and behavioral development with particular emphasis on animal models. This course is intended for students interested in neurobiology, cognitive psychology, evolutionary psychology and development.
Fall
Also Offered As: NRSC 4233
Prerequisite: PSYC 1230
1 Course Unit

PSYC 3260 Neuroendocrinology Seminar
This course is an upper-level seminar, designed to examine the various roles played by the nervous and endocrine systems in controlling both physiological processes and behavior. We will focus on sexual and parental behaviors, stress, metabolism, neuroendocrine-immune interactions, and mental health. The format will be a mixture of lectures and journal club discussions based on recent primary literature in the field of neuroendocrinology. Students will also write several short papers based on the clinical neuroendocrinology.
Fall or Spring
Also Offered As: NRSC 4460
Prerequisite: NRSC 1110
1 Course Unit

PSYC 3280 Neurological Insights into Cognition and Behavior Seminar
Our modern understanding of the brain began with very humble foundations. Long before transgenic mice, MRI scans, and neuronal recordings, most knowledge about brain function was based on clinical observations of human patients with neurological lesions. This advanced seminar will focus on the cognitive neuroscience of perception, emotion, language, and behavior – through the unique perspective of real-life patients – to illustrate fundamental concepts of brain function. Tuesday classes will explore different cognitive neuroscience topics through student presentations and discussion. Thursday classes will involve observing medical history taking and examination of a patient with cognitive deficits pertinent to the Tuesday topic, with opportunity for students to interact with the patient. Pre-requisites: Instructor permission required and PSYC 109 OR PSYC 149 OR PSYC 159
Spring
Prerequisite: NRSC 1110
1 Course Unit

PSYC 3281 Computational Neuroscience Lab
This course will focus on computational neuroscience from the combined perspective of data collection, data analysis, and computational modeling. These issues will be explored through lectures as well as Matlab-based tutorials and exercises. The course requires no prior knowledge of computer programming and a limited math background, but familiarity with some basic statistical concepts will be assumed. The course is an ideal preparation for students interested in participating in a more independent research experience in one of the labs on campus.
Spring
Also Offered As: NRSC 3334
Prerequisite: NRSC 1110
1 Course Unit
PSYC 3300 Seminar in Sleep and Memory
Why do we sleep? This question has puzzled scientists for centuries, but one reason emerging from research in the area is that sleep is critical for forming, retaining, and transforming our memories. This seminar explores human and animal research in psychology and neuroscience that has shed light on how sleep carries out these functions. Topics will include the different stages of sleep and their roles in memory consolidation, its neural systems involved in representing memory at different timescales, and the role of dreams in processing memories.
Fall
Also Offered As: PSYC 4429
Prerequisite: CIS 1210
1 Course Unit

PSYC 3301 Neurobiology of Learning and Memory
This course focuses on the current state of our knowledge about the neurobiological basis of learning and memory. A combination of lectures and student seminars will explore the molecular and cellular basis of learning in invertebrates and vertebrates from a behavioral and neural perspective.
Fall
Also Offered As: BIOL 4142, NRSC 4442
Prerequisite: BIOL 2110
1 Course Unit

PSYC 3310 Psycholinguistics Seminar
This course examines how people use language. We will focus on Herb H. Clark's book "Using Language" (1996). In this book, Clark proposes that language use is a form of joint action, and extensively develop what this claim entails and how it accounts for people's linguistic behavior. The course will consist of a detailed examination of Clark's thesis.
Also Offered As: LING 3750
Prerequisite: PSYC 1310 OR PSYC 2310 OR LING 0001
1 Course Unit

PSYC 3400 Positive Psychology Seminar: Positive Education
This intensive, discussion-based seminar will equip you with useful insight and critical analysis about Positive Psychology by emphasizing scientific literacy. The workload for this seminar requires intensive reading. To excel in this seminar, students must be willing to enthusiastically read, dissect, and critique ideas within Positive Psychology. This requires students to articulate various ideas in verbal and written form.
Fall
Prerequisite: PSYC 0001
1 Course Unit

PSYC 3440 Friendship and Attraction Seminar
This seminar primarily focuses on heterosexual friendship between men and women, and the methodological issues of investigating such relationships. The scope for sexuality and romance in heterosexual opposite-sex friendship will be explored, as well as the possibility that men and women perceive opposite-sex friendship differently from each other. The ramifications of sex, romance, and incongruent perspectives in these relationships will be discussed, as will intimacy, competition, homosexual friendship, and same-sex friendship.
Fall or Spring
Prerequisite: PSYC 1440
1 Course Unit

PSYC 3441 Psychology and Religion Seminar
The purpose of the seminar is to introduce the relationship between psychology and religion in a balanced fashion. I do not assume that either of these two powerful forces in the world has the last word on the other. Not do I assume that they can hide behind their typical assumptions without offering good reasons for them. So the seminar offers the opportunities for a disciplined personal engagement with the material. Almost everyone brings personal background and emotion as well as intellectual curiosity to religion and its relationship to human nature; this is the relationship that we will take seriously, pondering the emotional and immediately experiential as well as the cognitive and distanced aspects of the topics we study.
Fall or Spring
1 Course Unit

PSYC 3442 Moral Psychology Seminar
This seminar will cover a range of topics within contemporary moral psychology, including: the nature of morality, the extent to which moral beliefs are based on reasoning as opposed to more intuitive or affective processes, the extent to which moral values can be traded off, the role of justice and blame in moral thinking, moral self-identity, the causes of immoral behavior, and the cultural, political, and personal significance of people's moral beliefs. Students will be expected to read and actively discuss selected papers, and will be asked to present readings at various points. There will be mid-term and final paper assignments.
Fall or Spring
1 Course Unit

PSYC 3443 Psychology and Law Seminar
During the past several years, this seminar has emphasized criminal law, procedure, and social justice issues. The emphasis in each year's course varies somewhat with what is going on "in the real world" outside of the classroom.
Fall or Spring
1 Course Unit

PSYC 3444 Evolutionary Perspectives in Social Psychology
This discussion-based seminar uses evolutionary (Darwinian) perspectives to examine selected topics central to social psychology. Topics will include: Fundamental theories of evolutionary psychology; the self; prosocial behavior and altruism; aggression and violence; love, attraction, and mating; human sex differences in social behavior; religion and morality; and group behavior.
Not Offered Every Year
1 Course Unit

PSYC 3461 Survey of Mood Disorders Seminar
Mood disorders are common, sometimes debilitating, mental health conditions with considerable societal costs. These disorders include depression, bipolar disorder, and several variants of these disorders. In industrialized nations, depression alone ranks among the leading causes of disability. Bipolar disorder, while less common, is associated with even more marked impairments. In this course, we will examine mood disorders in depth, covering historical, cross-cultural, diagnostic, developmental, neuroscientific, etiological, and therapeutic issues. Throughout the course, I hope to encourage students to appreciate what we know about problems of mood, how we have acquired this knowledge, and how much we still do not understand.
Prerequisite: PSYC 1462
1 Course Unit
PSYC 3462 Gender and Psychopathology Seminar
This course will explore contemporary theory and research on the role of gender in vulnerability to and expression of psychopathology. In the beginning of the course, we will explore and critique definitions of sex and gender and methodological approaches to the study of gender differences. This will include considering strong challenges to our conceptions of identity categories such as sex and gender. For instance, we will examine the evolution and controversies surrounding the diagnosis of Gender Dysphoria. Next, we will explore literature on gender differences in emotional expression, coping, and several forms of psychopathology, including mood disorders, eating disorders, disorders related to anxiety and trauma exposure, substance-related disorders and aggressive disorders. Finally, we will consider the role of gender in help-seeking behavior.
1 Course Unit

PSYC 3463 Seminar in Abnormal Psychology: Developmental Psychopathology
Developmental psychopathology has been defined as "the study of the origins and course of individual patterns of behavioral maladaptation, whatever the age of onset, whatever the causes, whatever the transformations in behavioral manifestation, and however complex the course of the developmental pattern may be." (Sroufe & Rutter, 1984, p. 18). We will read and discuss seminal papers in the field of developmental psychopathology, case studies, memoirs, and sociological writings with the goal that students will acquire a deep understanding of the historical and theoretical origins of the field, key concepts, popular methodological approaches, and well-replicated findings.
Fall, even numbered years only
Prerequisite: PSYC 1462
1 Course Unit

PSYC 3464 Seminar in Clinical Psychology: Theories of Psychotherapy
This seminar provides an introduction to several major theoretical approaches to psychotherapy, such as psychodynamic/psychoanalytic, behavioral and cognitive-behavioral, humanistic, and interpersonal/group therapy models. Students will learn how these theoretical frameworks differentially influence assessment, case conceptualization, treatment planning, style of the therapeutic relationship, intervention techniques, and methods of evaluating therapy process and outcomes. Using case vignettes, film demonstrations, classroom role playing, and other experiential exercises, students will learn how these models are applied in real world settings and begin to develop an awareness of their own therapeutic philosophy. Critical analysis of the models will be advanced through ethical considerations and the application of multicultural and feminist perspectives.
Fall
Prerequisite: PSYC 1462
1 Course Unit

PSYC 3730 Three Perspectives on Judgment and Decision Making: Seminar
This course is designed to help you become a better decision maker. By the end of the semester, you should have the skills to approach decision making from a broader perspective with new tools and a new awareness of many common errors and biases. You will learn about normative decisions (how people should make choices if they want to use principles of rationality, logic and probability), descriptive decisions (how people really do make decisions) and prescriptive decisions (how people can make better decisions given normative principles and what we know about human behavior). We'll discuss the theoretical foundations of the field, some of the key empirical insights. We'll discuss what it means to have good judgment and how experts and novices differ. We look at decision making in such as public policy, medicine, the law, business, and intelligence analysis. Decision making is something we do every day, many times a day. It is so natural that some people don't even realize they are doing it. Many of the insights from this field have real-world implications.
Fall or Spring
Prerequisite: PSYC 2737 OR PPE 3003
1 Course Unit

PSYC 3766 Inside the Criminal Mind
This seminar explores the development of antisocial behavior including psychopathy, aggression, and violence. At its core, this course examines what increases the risk that children will develop behavior problems and go onto more chronic and extreme forms of violence and psychopathic personality that results in harm to others. We will examine psychiatric diagnoses associated with these antisocial behaviors in both childhood and adulthood and how they link to other relevant forms of psychopathology (e.g., substance use, ADHD). We will explore research elucidating the neural correlates of these behaviors, potential genetic mechanisms underlying these behaviors, and the environments that increase risk for these behaviors. Thus, there will be a focus on neurobiology and genetics approaches to psychiatric outcomes, as well as a social science approach to understanding these harmful behaviors, all while considering development across time. We will also consider ethical and moral implications of this research.
Prerequisite: PSYC 1462 AND PSYC 1777
1 Course Unit

PSYC 3770 Educational Neuroscience Seminar
The field of educational neuroscience is an emerging field with the goal of joining knowledge gained from the disciplines of neuroscience, cognitive science, developmental psychology, and education. This interdisciplinary course will focus on how scientific exploration of the mind and brain can inform educational practices. PSYC 480-302 (Connolly): This advanced discussion-based seminar will focus on approaches to success in domains of modern life such as social living and academia. The first portion of this seminar will be a psychology book club where we read various books written by psychology researchers. This will contribute to an ongoing discussion about scientific communication, and the presentation of psychological research to various audiences. From there, students will focus on a specific area of interest, and write a literature review based on contemporary empirical research critiquing their given topic. Students must understand the workload for this seminar requires intensive reading culminating in a large written assignment.
Prerequisite: PSYC 0001
1 Course Unit
PSYC 3771 Psychology of Modern Life: Success and Achievement
This intensive, discussion-based seminar focuses on the utility of Psychology in modern life. We will take a top-down approach to a range of contemporary ideas that could be described as practical: useful and applicable. Broadly, we will investigate the concepts of success and achievement to this end. This includes topics such as intelligence, grit, self-control, growth mindset, expertise, flow, and creativity. This will equip you with useful insight and critical analysis about various iterations of success, and how the field of Psychology conceptualizes how to achieve success. This seminar emphasizes scientific literacy.
1 Course Unit

PSYC 3780 PPE Capstone: Obedience
Though almost half a century old, Milgram's 1961-1962 studies of "destructive obedience" continue to puzzle, fascinate, and alarm. The main reason for their current grip on the field's attention (other than the boldness of the idea and elegance of execution) may be simply that they leave us with a portrait of human character that is radically different from the one that we personally wish to endorse or that the wider culture teaches us to accept. In this seminar, we will take an in-depth look at these famous studies (along with the more recent replications) and explore their various psychological, political and philosophical ramifications.
Not Offered Every Year
Also Offered As: PPE 4802, PSYC 4780
1 Course Unit

PSYC 3790 Neuroeconomics Seminar
This seminar will review recent research that combines psychological, economic, and neuroscientific approaches to study human and animal decision-making. The course will focus on our current state of knowledge regarding the neuroscience of decision-making, and how evidence concerning the neural processes associated with choices might be used to constrain or advance economic and psychological theories of decision-making. Topics covered will include decisions involving risk and uncertainty, decisions that involve learning from experience, decisions in strategic interactions and games, and social preferences. Prerequisite: Psychology 149, 153, or 165, or permission of the instructor.
Fall or Spring
Also Offered As: NRSC 4473
Prerequisite: PSYC 1230 OR PSYC 2737 OR PPE 3003
1 Course Unit

PSYC 3900 Behavioral Biology of Women Seminar
A course that explores female behavior focusing on evolutionary, physiological, and biosocial aspects of women's lives from puberty, through reproductive processes such as pregnancy, birth, lactation to menopause and old age. Examples are drawn from traditional and modern societies and data from nonhuman primates are also considered.
Fall or Spring
Prerequisite: PSYC 2900 OR BIOL 1102 OR ANTH 1040 OR ANTH 1430
1 Course Unit

PSYC 3990 Sleep and Sleep Disorders
This class will provide an introduction to sleep and sleep disorders, focusing on current research in the field. Students will learn about the neurobiology of sleep/wake regulation, the relationship between sleep and memory and how sleep is related to physical and mental health. Sleep disorders, including sleep apnea, insomnia, and narcolepsy will be covered in terms of pathophysiology, assessment and treatment.
Summer Term
Prerequisite: PSYC 0001
1 Course Unit

PSYC 4290 Big Data, Memory and the Human Brain
This course fulfills the research experience requirement in the psychology major. Advances in brain recording methods over the last decade have generated vastly more brain data than had been collected by neuroscientists during the previous century. To understand the human brain, scientists must now use computational methods that exploit the power of these huge data sets. This course will introduce you to the use of big data analytics in the study of human memory. Through hands-on Python-based programming projects, we will analyze large data sets both to replicate existing phenomena and to make new discoveries. Programming experience in python is required for this course.
Fall, even numbered years only
Also Offered As: COGS 4290
1 Course Unit

PSYC 4310 Research Experience in Cognitive Psychology
Students will work in small groups to develop, empirically test, and report on a research question in the field of cognitive psychology. Through this process, students will learn how to conduct and report a psychological study, including the appropriate statistical tests. Class discussions will help students craft their projects, and in-class presentations will provide the opportunity to develop and refine presentation skills. Psychology majors only. Class size is limited to 16 students.
Fall or Spring
1 Course Unit

PSYC 4340 Research Experience in Perception
In this research course, students will begin by first replicating earlier experiments to measure human visual memory capacity. After several class discussions to discuss ideas, each student will design and conduct their own experiment to further investigate visual and/or familiarity memory.
Fall or Spring
Also Offered As: VLST 2120
1 Course Unit

PSYC 4440 Sexuality and Attraction Research Experience Course
The overarching goal of this course is to offer a practicum (hands-on experience) in designing, conducting, and reporting a piece of psychological research. This objective will be met principally through participation in a group research project, class discussions related to the project and various exercises focusing on individual components of the research process. There are additional goals as well. One is to enable you to think critically (though not disparagingly) about other people's research, all with the hope of eventually applying the self-same critical acumen to some future work of your own. This objective will be met primarily through class lectures and discussions of the assigned readings. I also hope that our interactions throughout the course will be conducive to developing (and exchanging) creative ideas of your own. Lastly, the course aims to offer an informal introduction to research design and research ethics. This objective will be met primarily through class discussions, group project, exercises, and some additional readings.
1 Course Unit

PSYC 4442 Research Experience in Abnormal Psychology
This is a two-semester course starting in the Fall. Class size limited to 8-10 students.
1 Course Unit
PSYC 4463 Research Experience Course in Clinical Psychological Data Analysis
This is a semester-long research experience course on the analysis of data from clinical trials and epidemiological studies to better understand topics relevant to clinical psychology and mental health. The class will primarily focus on practical application of data analytic skills to understand psychological phenomenon, including analysis of existing clinical datasets using statistical analysis tools such as R
Not Offered Every Year
1 Course Unit

PSYC 4900 The Science of Behavior Change
The objective of this 14-week discussion-based seminar for advanced undergraduates is to expose students to cutting-edge research from psychology and economics on the most effective strategies for changing behavior sustainably and for the better (e.g., promoting healthier eating and exercise, encouraging better study habits, and increasing savings rates). The weekly readings cover classic and current research in this area. The target audience for this course is advanced undergraduate students interested in behavioral science research and particularly those hoping to learn about using social science to change behavior for good. Although there are no pre-requisites for this class, it is well-suited to students who have taken (and enjoyed) courses like OIDD 2900: Decision Processes, PPE 2030/PSYC 2650: Behavioral Economics and Psychology, and MKTG 2660: Marketing for Social Impact and are interested in taking a deeper dive into the academic research related to promoting behavior change for good. Instructor permission is required to enroll in this course. Please complete the application if interested in registering for this seminar: http://bit.ly/bcfg-class-2020. The application deadline is July 31, 2020. Prerequisite: Permission of instructor required.
Fall or Spring
Also Offered As: OIDD 4900
1 Course Unit

PSYC 4997 Senior Honors Seminar in Psychology
Open to senior honors candidates in psychology. A two-semester sequence supporting the preparation of an honors thesis in psychology. Students will present their work in progress and develop skills in written and oral communication of scientific ideas. Prerequisite: Acceptance into the Honors Program in Psychology.
0.5 Course Units

PSYC 4998 Mentored Research
Mentored research involving data collection. Students do independent empirical work under the supervision of a faculty member, leading to a written paper. Normally taken in the junior or senior year.
Fall or Spring
1-2 Course Units

PSYC 4999 Honors Thesis Empirical Research
The Honors Program has been developed to recognize excellence in psychology among Penn undergraduates and to enhance skills related to psychological research. The 4998 credit signifies an Honors Independent Study, completed as part of the Honors Program. The honors program involves: (a) completing a year-long empirical research project in your senior year under the supervision of a faculty member (for a letter grade). This earns 2 cu’s. (b) completing a second term of statistics (for a letter grade) before graduation. (c) participating in the year-long Senior Honors seminar (for a letter grade). This seminar is designed especially for Psychology Honors majors; this receives a total of 1 cu. (d) participating in the Undergraduate Psychology Research Fair in the Spring semester, at which honors students present a poster and give a 15-minute talk about their research. (e) a total of 15 cu’s in psychology is required. Students will be selected to be part of the Honors Program in the Spring of their junior year (see application process online)
Fall or Spring
1-2 Course Units

PSYC 5110 Probabilistic Models of Perception
How does vision work? What computations should be performed on images to support visual tasks? What computations do biological and engineered vision systems actually use? This course will provide an in-depth treatment of several topics in vision with implications for both biological and human-engineered systems. We will develop an understanding of select visual abilities in humans and in other creatures from around the animal kingdom (praying mantises, cuttlefish, etc.) and we will show how computational solutions that emerge from the study of biological systems can improve performance in engineered systems like smartphone cameras. The course will provide an introduction to useful tools like signal detection theory, dimensionality reduction, and optimal estimation theory and show how these tools are applied to the covered topics. Some programming experience is desirable.
1 Course Unit

PSYC 5210 Judgment & Decisions
Thinking, judgment, and personal and societal decision making, with emphasis on fallacies and biases.
1 Course Unit

PSYC 5250 Controversies in Psychology and Neuroscience
In this seminar, we will discuss several recent controversies in psychology and neuroscience, for example: “p-hacking” replicability, methodological terrorists, neural activity in dead salmon and failures to control the false positive rate in neuroimaging, “voodoo correlations” and double dipping, whether Tic-Tacs can improve self-control and whether reading “old” makes you walk slower. Our goal is not just to engender ennui and/or schadenfreude, but also to ask what we can learn from these discussions about how to do science in the most rigorous, reproducible manner possible.
1 Course Unit
PSYC 5390 Theoretical and Computational Neuroscience
This course will develop theoretical and computational approaches to structural and functional organization in the brain. The course will cover: (i) the basic biophysics of neural responses, (ii) neural coding and decoding with an emphasis on sensory systems, (iii) approaches to the study of networks of neurons, (iv) models of adaptation, learning and memory, (v) models of decision making, and (vi) ideas that address why the brain is organized the way that it is. The course will be appropriate for advanced undergraduates and beginning graduate students. A knowledge of multi-variable calculus, linear algebra and differential equations is required (except by permission of the instructor). Prior exposure to neuroscience and/or Matlab programming will be helpful.

Spring
Also Offered As: BE 5300, NGG 5940, NRSC 5585, PHYS 5585
1 Course Unit

PSYC 5410 Sleep and Memory
Why do we sleep? This question has puzzled scientists for centuries, but one reason emerging from research in the area is that sleep is critical for forming, retaining, and transforming our memories over time. This seminar explores human and animal research in psychology and neuroscience that has shed light on how sleep carries out these functions. Topics will include the different stages of sleep and their roles in memory consolidation, the neural systems involved in representing memory at different timescales, and the role of dreams in processing memories.

1 Course Unit

PSYC 5470 Foundations of Social, Cognitive, and Affective Neuroscience
This course is designed to introduce students to the interdisciplinary field of social, cognitive and affective neuroscience. We begin with the basics of neurons, synapses and neurotransmission and the functional anatomy of the human brain. We then move on to neuroscience methods including cellular recordings, EEG/ERP, lesion methods, structural and functional neuroimaging and brain stimulation. The remainder of the course covers the neural systems involved in emotion, social cognition, executive function, learning and memory, perception and development. We focus on how our understanding of these systems has emerged from the use of the methods studied earlier.

1 Course Unit

PSYC 5490 A Neuroscience Perspective of Artificial Intelligence
This seminar course asks what would be required to achieve Strong Artificial Intelligence, also referred to as Artificial General Intelligence (AGI), in light of what we know about the emergence of life and mind in the universe. Specifically, we will consider the question whether it is possible for machines to become self-aware by asking what Natural Intelligence is, and considering what it implies about whether and how AGI can be achieved. To grapple with this question, in Part I of the course we will examine what is known about the emergence of Natural Intelligence in the universe. This study includes the phenomena of: (1a) Abiogenesis, (1b) The Universal Role of Entropy and Information in Evolution, (1c) Signal Transduction, intracellular signaling, and Mechanism of Stimulus-Response Coupling in Unicellular Organisms; (2a) The Evolution of the Metazoa during the Cambrian Explosion, (2b) The Consequences of Motility and Prey - Prey Dynamics in the Metazoa for the Evolution of Complex Nervous Systems and Behaviors; (3a) The Implications of Invertebrate Navigation by Dead Reckoning for Understanding Insect Behavior, (3b) Insect Behavior in Relation to Robotics; (4a) Origin of the Vertebrates and the Evolution of the Vertebrate Nervous System, (4b) The Mammalian Neocortex; (5) Molecular Mechanisms of Synaptic Plasticity; (6) The Evolution of the Hominins and the Hominin Brain; (7) Higher-Order Thinking and Epistemology; (8a) Meta-awareness as the Foundation of Human Consciousness, (8b) The Fluidity of Mind Embodiment, (8c) Theories and Philosophy of Human Consciousness. (9a) Other Minds: The Atypical Intelligence in the universe. This study includes the phenomena of:

1 Course Unit

PSYC 5510 Eye Movements in Perception, Language and Cognition
In this course, we examine how the recording of eye movements can provide a moment-by-moment record of perceptual, cognitive and linguistic processes. Four areas of research will be discussed: (1) task-based scene perception; (2) language processing (in both reading and spoken language); (3) category learning, and (4) decision making. In all of these domains, eyetracking research has led to a greater understanding of how attention and information selection supports real-time cognitive processes. Students will have access to eyetracking systems, giving them hands-on experience in designing, running, and analyzing eyetracking experiments. By the end of the semester, students will have collected pilot eyetracking data. Projects will be done individually or within small research teams. Requirements: Weekly readings; class presentations and discussion; and a paper.

Fall
1 Course Unit

PSYC 5570 Neuroscience, Ethics & Law
How does the neuroscience of human decision-making and emotion impact our understanding of ethics and law? What can neuroscience tell us about why people find actions moral or immoral, worthy of praise or punishment? What, if anything, can it tell us normatively about morality, agency and responsibility? And what other insights might neuroscience offer regarding other morally and legally relevant phenomena such as stereotyping and bias, the causes of antisocial behavior and the detection of deception?

1 Course Unit
PSYC 5620 Anxiety Disorders, OCD, and PTSD: Theory, Diagnosis, and Evidence
Schizophrenia is the same as “split personality”... or is it? People with mental illness are frequently violent... or are they? “Shock” therapy is barbaric...or is it? The “answers” to these questions as portrayed by the media often reinforce common myths and stereotypes about psychopathology, its treatments, and its treatment providers. These myths can have a tremendous impact on individuals and society. This course was designed to help students develop awareness of popular myths and stereotypes depicted in the media about psychopathology, and its relationship to stigma. By the end of the course, students should be able to identify the many forms of media in which psychopathology is depicted; recognize common myths; critique the common and specific ways in which particular mental disorders are inaccurately or stereotypically portrayed in the media; evaluate the potential impact of psychopathology depictions on individuals and society; and describe current efforts to assess and reduce the stigmatization of mental health through the media.
1 Course Unit

PSYC 5730 Seminar in Neuroeconomics
This seminar will review recent research that combines economic, psychological, and neuroscientific approaches to study decision-making. The course will focus on our current state of knowledge regarding the neuroscience of decision-making, and how evidence concerning the neural processes associated with choices might be used to constrain or advance economic and psychological theories of decision-making. Topics covered will include decisions involving risk and uncertainty, decisions that involve learning from experience, decisions in strategic interactions and games, and social preferences.
Not Offered Every Year
1 Course Unit

PSYC 5790 Experimental Methods of Perception
The course will be lab based, and designed to introduce students to the major experimental
1 Course Unit

PSYC 6000 Proseminar in General Psychology
Choice of half or full course units each sem. covering a range of subjects and approaches in academic psychology.
Fall or Spring
0.5-1 Course Unit

PSYC 6090 Systems Neuroscience
This course provides an introduction to what is known about how neuronal circuits solve problems for the organism and to current research approaches to this question. Topics include: vision, audition, olfaction, motor systems, plasticity, and oscillations. In addition, the course aims to provide an overview of the structure of the central nervous system. A number of fundamental concepts are also discussed across topics, such as: lateral inhibition, integration, filtering, frames of reference, error signals, adaptation. The course format consists of lectures, discussions, readings of primary literature, supplemented by textbook chapters and review articles.
Spring
Also Offered As: NGG 5730
1 Course Unit

PSYC 6100 Applied Regression and Analysis of Variance
An applied graduate level course in multiple regression and analysis of variance for students who have completed an undergraduate course in basic statistical methods. Emphasis is on practical methods of data analysis and their interpretation. Covers model building, general linear hypothesis, residual analysis, leverage and influence, one-way anova, two-way anova, factorial anova. Primarily for doctoral students in the managerial, behavioral, social and health sciences. Permission of instructor required to enroll.
Fall
Also Offered As: BSTA 5500, STAT 5000
1 Course Unit

PSYC 6120 Introduction to Nonparametric Methods and Log-linear Models
An applied graduate level course for students who have completed an undergraduate course in basic statistical methods. Covers two unrelated topics: loglinear and logit models for discrete data and nonparametric methods for nonnormal data. Emphasis is on practical methods of data analysis and their interpretation. Primarily for doctoral students in the managerial, behavioral, social and health sciences. Permission of instructor required to enroll.
Spring
Also Offered As: STAT 5010
1 Course Unit

PSYC 6980 Laboratory Rotation
Lab rotation for psychology grad students.
Fall or Spring
0.5-3 Course Units

PSYC 6999 Individual Research for First-Year Graduate Students
Individual Research for First-Year Graduate Students
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5-4 Course Units

PSYC 7030 Special Topics in Psychology
Special Topics in Psychology.
Fall or Spring
1 Course Unit

PSYC 7040 Research Methods and Statistical Procedures for Social and Clinical Sciences
This course has three primary objectives: 1) developing criteria and strategies for strong inference of causal relationships in social and clinical psychology research; 2) examining the array of research designs employed in the social/clinical sciences together with the threats to internal and external validity associated with each; 3) learning and applying statistical analytical methods appropriate for questions in the social/clinical sciences. The course will employ a seminar format and a project-oriented approach to learning. Students will be encouraged to utilize examples from their own research programs in applying the design and analysis concepts covered in the course.
Fall or Spring
1 Course Unit
PSYC 7050 Neuroethics
Neuroscience is increasingly affecting all aspects of human life, from the relatively familiar medical applications in neurology and psychiatry, to new applications in education, business, law, and the military. Today’s neuroscience graduate students will be among the scientists, citizens, and policymakers who will lead society through the maze of decisions regarding the appropriate use of neuroscience. This course provides a survey of the key ethical, legal, and social issues at the intersection of neuroscience and society. It will include a combination of traditional classroom lectures, discussion, and debates, as well as an online component coordinated with a course at Wisconsin’s Neuroscience and Public Policy graduate program.
Fall or Spring
1 Course Unit

PSYC 7090 Special Topics in Clinical Psychology
A developmental approach to the study of psychopathology focuses on how psychological processes form normal to abnormal developmental trajectories. In this seminar, we will cover theory, methods, and key constructs in the study of developmental psychopathology. Readings will include seminal empirical papers and chapters.
Fall or Spring
1 Course Unit

PSYC 7110 Regression & ANOVA
A graduate-level course on the theory and application of multiple regression and analysis of variance.
Fall or Spring
1 Course Unit

PSYC 7120 Regression & ANOVA II
An advanced graduate-level course on the theory and application of multiple regression and analysis of variance.
Fall or Spring
1 Course Unit

PSYC 7440 Brain Development & Society
In this seminar, we will explore a series of topics in developmental neuroscience, focusing on recent scientific progress and its social relevance. Two major topics will be covered: Autism and other forms of “neurodiversity”, including gender-nonconformity, and socioeconomic status. For both of these topics we will examine the state of the fast-developing science, the implications of the science for policy, and the relations between the developmental neuroscience and society more broadly (issues such as identity, stigma, and politics).
1 Course Unit

PSYC 7450 Special Topics in Cognitive Neuroscience
Special Topics in Cognitive Neuroscience
Fall or Spring
1 Course Unit

PSYC 7470 Contemporary Research Issues in Social, Cognitive and Affective Neuroscience
This course is intended to take you from a textbook-level acquaintance with psychology and neuroscience to critical engagement with the primary literature, through lectures, discussion, and short written assignments. You will learn to extract, from the dense and detail-laden pages of a journal article, its contribution to the “big picture” of human neuroscience. You will also learn to recognize problematic research practices when they arise, and to analyze and communicate about the strengths and weaknesses of research articles.
Spring
Also Offered As: BIOE 7470
1 Course Unit

PSYC 8100 Psychodiagnostic Testing
This course provides a basic introduction to the theories and tools of psychological assessment. Students learn how to administer and interpret a number of standard cognitive, neuropsychological and personality tests including the WAIS-III, WMS-III, WJAT-II, Wisconsin Card Sort, Minnesota Multiphasic Personality Inventory (MMPI) and the Millon Index of Personality Styles. Attention is given to serving as a consultant, differential diagnosis, case conceptualization, and integrating test results into formal but accessible reports.
Fall
1 Course Unit

PSYC 8110 Psychodiagnostic Interviewing
This course, usually taken simultaneously with Psychology 810, provides a basic introduction to psychodiagnostic interviewing and differential diagnosis. Students learn to take clinical histories and to administer a number of standardized diagnostic interviews, including the mental status exam, the SCID I and II for DSM-IV, the ADIS, and various clinician rating scales such as the Hamilton Depression Inventory and the Symptom Checklist-90-Revised as well as to computerized diagnostic tools.
Fall
1 Course Unit

PSYC 8150 Introductory Practicum
Students typically complete 8-10 full assessment batteries on complex patients referred from a number of different sources in the community. This practicum offers intensive supervision, with live (in the room) supervision of every trainee’s first case, and live peer-supervision of their second case. Throughout their time in the practicum they receive close supervision of every case, including checking the scoring of tests and measures, and close reading and editing of every report. Students do a final feedback session with every patient which the supervisor co-leads at the beginning of the year, and observes in the room throughout the rest of the year, thus ensuring direct observation of every trainee throughout the year.
Spring
1 Course Unit

PSYC 8200 Advanced Practicum
Intensive studies of single individuals including interviews, tests, and experiments; also clinical experience at appropriate community agencies.
Fall or Spring
1 Course Unit

PSYC 9999 Individual Study and Research
Individual Study and Research
Fall or Spring
0.5-4 Course Units

Psychology, Behavior & Decision Sciences (PBDS)

The courses listed on this page are exclusive to the LPS BAAS degree (https://lposonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lposonline.sas.upenn.edu/academics/certificates/).
PBDS 1010 Introduction to Psychology and Behavioral Sciences
This course will provide students with a foundation in the history of the development of the psychological and behavioral sciences, with attention to the evolution of theories and approaches to research design.
Fall or Spring
1 Course Unit

PBDS 1500 Social Psychology
Study of the theories and research methodologies of the field of social psychology.
Fall or Spring
1 Course Unit

PBDS 1600 Developmental Psychology
A study of the theories and methods of the field of developmental psychology, including attention to development over the lifespan from Infancy to adolescence to adulthood to aging.
Fall or Spring
1 Course Unit

PBDS 2000 Personality Psychology
In this course, students will learn about theories and methods in the psychological study of personality, which focuses on individual differences in characteristic patterns of thinking, feeling and behaving.
In addition to studying foundational theories and recent developments in the field, students will also learn about the application of instruments to test personality in the workplace and other organizations.
Fall or Spring
1 Course Unit

PBDS 2100 Group Processes
In this course, students will learn the theories and methods applied by behavioral scientists to the behavior of small groups in settings such as workplaces. Topics may include patterns of communication, group hierarchies and influence, metrics of group effectiveness, and approaches to handling conflict.
Fall or Spring
1 Course Unit

PBDS 2200 Industrial and Organizational Psychology
This course will introduce students to primary research theories, methods, and findings in the fields of industrial and organizational psychology, which focus on the behavior of employees in the workplace. Topics may include factors influencing employee performance, communication, professional satisfaction and safety.
Fall or Spring
1 Course Unit

PBDS 2500 Topics in Psychological, Behavioral, and Decision Sciences
Topics in Psychological, Behavioral, and Decision Sciences
Fall or Spring
1 Course Unit

PBDS 3600 Psychology of Social Difference and Diversity
This course will explore theories and methods used by behavioral scientists to understand the psychology of social difference, with attention to how theories and research in the behavioral sciences provide strategies to address issues of diversity, equity, and inclusion.
Fall or Spring
1 Course Unit

PBDS 4500 Advanced Topics in Psychological, Behavioral, and Decision Sciences
Advanced Topics in Psychological, Behavioral, and Decision Sciences.
Fall or Spring
1 Course Unit

Public Health Studies (PUBH)

PUBH 5010 Introduction to Biostatistics
This course is designed to provide a broad overview of biostatistics and its applications to public health research and practice. Topics covered will include techniques for describing and summarizing observations, for assessing associations among variables, and for determining the extent to which chance may be explaining and/or influencing the observed results. An emphasis will be placed on the practical application of biostatistics to address public health issues, rather than the underlying theoretical and mathematical concepts. Students will learn how to choose, apply, and interpret commonly used statistical tests. In addition, students will gain experience using STATA, a statistical software package, to analyze data. Upon completion of this course, students will be able to explain the (1) role of quantitative methods and sciences in describing and assessing a population’s health and (2) the critical importance of evidence in advancing public health knowledge.
Not Offered Every Year
1 Course Unit

PUBH 5020 Introduction to the Principles and Methods of Epidemiology
This course is designed to introduce students in all branches of public health to the principles and methods of epidemiology and its approaches and applications. The course introduces the basic epidemiological study designs, including randomized trials and observational studies (cohort, case-control, cross-sectional, ecological), and presents the foundations to understand risk, disease surveillance, and modeling. At the completion of this course, the student will be able to: (1) identify key data sources for epidemiology; (2) understand the principles of public health screening and surveillance programs; (3) describe public health problems in terms of magnitude, people, time, and place; (4) explain the importance of epidemiology for informing scientific, ethical, economic, and political discussions on health issues. Homework and in-class assignments focus on building skills in locating, interpreting, assessing, synthesizing, and communicating evidence from the epidemiologic literature, with an emphasis on critical thinking, causal inference, and understanding bias and confounding.
Not Offered Every Year
1 Course Unit

PUBH 5040 Public Health Theories & Frameworks
This introductory course is intended to provide students with a foundation in behavioral and social science theory in the context of public health research, policy, and practice. The content of this course will provide exposure to a broad range of theories and frameworks commonly employed in the field of public health for understanding health behaviors. These theories will be discussed using examples of their applications to numerous public health problems including, but not limited to: tobacco use, exercise, obesity, HIV/AIDS, violence, cancer, cardiovascular disease, diabetes, environmental hazards, COVID-19, and global health. Importantly, in order to consider the value and application of the theories and frameworks to these various health behaviors, this class also encourages students to critically consider the role of larger structural influences such as racism and other forms of discrimination on health behaviors.
Fall, Spring, and Summer Terms
1 Course Unit
PUBH 5050 Public Health Policy & Administration
This course is an introduction to health policy and management. It examines both the historical and current state of health policy in America and integrates these concepts within the context of public health practice. We will examine key concepts in understanding US health care organization, financing and delivery, the Patient Protection and Affordable Care Act (PPACA) examining the role and management issues of public health departments, and case studies in public health policy and management. At the completion of this course, the student will be able to: (1) understand the policymaking process—both legislative and administrative; (2) understand the major national health and health insurance programs: Medicare and Medicaid, PPACA and private insurance; (3) explain current concepts of health policy around costs, quality and access to care; (4) describe the current problems in public health at clinical and system levels and discuss future needs; (5) introduce management skills in evidence-based health policy, budgeting, and legislative and administrative policymaking and advocacy.
Fall, Spring, and Summer Terms
1 Course Unit

PUBH 5060 Methods for Public Health Practice
This course provides students with a foundation in public health practice methods with a focus on program planning. The course leads the student through the key phases of program planning from the identification of the public health problem, to assessing community needs, designing an intervention, and planning for implementation and evaluation. Public health practice methods employed throughout the course include: locating evidence through a variety of search mechanisms; collecting and assessing community data via qualitative research methods, surveys, and geo-spatial mapping; and planning and pitching intervention ideas via logic models, project narratives, and elevator speeches. This course is intended to provide an overview of the methods employed in public health and does not go into detail about one method verse the other. Students will have the opportunity to explore methods of their own through the design and presentation of a unique intervention targeting a health problem of their choice. Group work and case studies are used to compliment material. Course assignments are designed to add practical examples to the student’s public health career portfolio.
Fall, Spring, and Summer Terms
1 Course Unit

PUBH 5070 Public Health Law & Ethics
Law has played an indispensable role in the promotion of population health over the last hundred years. Legal interventions represent some of the most popular tools for increasing the quality and length of life. Law also plays an important role in structuring the delivery of health services including but not limited to the financing and regulation of health professionals working within hospitals and out in the community. This course introduces legal, ethical, and political concepts essential to the use of law and legal reform in promoting public health. Using current examples, the course introduces the authority of government to act, the limits on government action, and the legal and ethical implications when that authority and those limits collide. While exploring the tension between individual liberty and community health, it introduces the distinction between government action and inaction, the distribution of power and responsibility between levels and branches of government, and principles like consent. The course combines lecture, interactive class exercises, and group discussion.
Fall, Spring, and Summer Terms
1 Course Unit

PUBH 5170 Geography & Public Health
Geography can have a profound effect on health. Through this class, students will gain conceptual and technical understandings of: (1) how geography and health are related; and (2) how the public health toolbox, including geographic information systems (GIS) and spatial epidemiology, can be used to understand the places people live, work, and play and how these places either add to or detract from health. This class combines GIS laboratories and select lectures demonstrating how geographic methods can be used to address public health issues, hands-on computer and small group activities, and in-class training in ArcGIS software. Students will learn through an overt multidisciplinary approach that connects public health, geography, epidemiology, planning, medicine, and the social sciences.
Spring
Also Offered As: EPID 5180
1 Course Unit

PUBH 5190 Foundations of Global Health
This course provides an introductory overview of global health, with the primary aim to engage and inspire students about the opportunities and challenges of global health. Using an interdisciplinary approach to global health with an emphasis on addressing both global and local health disparities, learning formats include case-based analysis, small group discussion, faculty presentations, panels, and debates. Using the lens of health equity, this course provides an overview of many current issues in global public health and frameworks to address them, including: measures of disease burden; frameworks for health equity and rights; determinants of health; environmental health and safe water; control of infectious diseases; non-communicable disease programs, nutritional challenges; harm reduction and behavioral modifications; women’s reproductive rights; health economics and cost-effective interventions; health manpower and capacity development; globalization challenges and potentials. At the completion of this course, the student will be able to: (1) understand that global health involves multiple academic disciplines, and identify many of these; (2) understand that global health theory involves many, sometimes conflicting, belief systems, and identify some of these; (3) understand that global health can be conceived as a complex ecosystem, which involves issues that are much broader than the traditional health disciplines; (4) cite examples of specific issues and case studies in global health; (5) understand some of the potential interventions that can be used to ameliorate problems in global health, particularly in low-income countries.
Fall
1 Course Unit
PUBH 5230 Epidemics, Emergencies, and Environmental Threats
This course will examine the fundamental challenges of public health, focusing on outbreaks, emergencies, and environmental threats, as well as the actions required to remedy those threats. Using a case-based framework, the class will study historical and recent epidemics, methods used to identify the sources of those epidemics, actions taken to protect the public, and the social and economic ramifications of each epidemic. The course will center on the actions and policies that are central to public health. Course readings and cases are designed to illustrate a major challenge of public health: that policy decisions often must be made in the setting of sparse or inadequate data. How do researchers, practitioners, and policymakers weigh the information available, secure necessary resources, build political will, and confront vested interests in order to protect or promote population health? Students who participate in this class will become proficient in applied epidemiological reasoning. The emphasis will be on evaluating the empirical base for public health decision-making. What data are available? Can we trust the quality of those data? What additional information would be desirable/essential? Research methods training will be embedded as the students learn to critique the quality of evidence used to support public actions. Students will develop (1) an understanding of basic epidemiological concepts, (2) familiarity with major historical and recent epidemics and the social forces that shaped those epidemics, (3) an ability to evaluate data critically and present data clearly, and (4) a capacity to apply a range of data sources to inform appropriate public health action.

Not Offered Every Year
1 Course Unit

PUBH 5250 Health & Human Rights
This course will explore the interplay between health and human rights, enabling students to critically apply human rights to public health practice, particularly in the global health domain. We will explore the development of health as a human right and how public health research and policy can affect human rights. Students will learn about core human rights principles and mechanisms and the international development agenda. The class will examine topics at the intersection of global health and human rights including HIV/AIDS, harm reduction, migration, sexual and reproductive health, and climate change. Class material will primarily focus on public health challenges internationally; however, we will also discuss health and human rights issues faced by vulnerable populations in the United States.

Fall
1 Course Unit

PUBH 5310 Public Health Nutrition
The course is designed to introduce students to the core concepts, policies, and practice of public health nutrition using an explicitly antiracist, non-diet framework. Drawing upon real world examples, the lived experience of course participants, and guest speakers, we will interrogate the current and historic events, forces, and policy changes that have shaped the traditional diet-culture paradigm used throughout the field and the inequalities and injustices this paradigm has perpetuated. In addition to an introduction to nutrition science, students will be offered a foundational understanding of federal, state, and local agriculture, nutrition, and emergency food related legislation and policy—including, but not limited to—the Farm Bill, Child Nutrition Reauthorization, the Pennsylvania Fresh Food Financing Fund, the State Food Purchase Program, and Philadelphia’s citywide sugar sweetened beverage tax. Together, we will examine and critically analyze the intention, implementation, and impacts of these policies and their resulting programs. Throughout the course we explore topics and issues including hunger and food insecurity, diet and wellness culture, disordered eating and eating disorders, the “obesity epidemic,” as well as alternative frameworks, approaches, and movements such as Health at Every Size, Intuitive Eating, and the food justice and sovereignty movements.

Summer Term
1 Course Unit

PUBH 5350 Race & Public Health
This seminar course will provide a broad overview of the social conditions that engender racial health disparities in the United States. Using the concept of racial capitalism and the fundamental cause of disease theory as starting points, we will explore the ways in which racism and capitalism have shaped the social conditions we swim in; how those social conditions have produced what Ruth Wilson Gilmore calls “group-differentiated vulnerability to premature death”; and how collective action and policy have, both historically and in the present moment, aimed to address racialized health inequities. We will draw from writings in public health, economics, history, sociology, feminist studies, and critical geography studies; grey literature from community organizations, government agencies, and non-profit organizations; and various media, including news, books, music, and film. Students will engage in active student participation and leadership, self-reflection, and intensive reading that emphasizes foundational texts. Ultimately, this course aims to give students the competency to use racial capitalism as a lens to identify, make sense of, and address racial health disparities in their areas of public health interest.

Fall
1 Course Unit
PUBH 5420 Parallel Plagues: Infectious Diseases and their Control in Peru and The United States

Infectious agents continue to emerge, killing and harming humans and animals with unrelenting regularity. The emergence and control of these agents are, in some ways, remarkably different in different geographies. In other ways the patterns and consequences of infectious agents are very similar. The course will be structured around a series of pairings of infectious disease problems that affect Peru and the United States. Some pairings will be in terms of the agents themselves; others will be more thematic. In each case we will trace two lines of inquiry, one in each country, but always with an eye to the harmonics—where these lines resonate—even if they do not interact. The primary goal of the course is to investigate the historical, political and economic forces driving infectious disease in Peru and the US. A co-primary goal is to bring students and faculty from Penn and our partner institutions in Peru, Universidad Peruana Cayetano Heredia, to work their way through topics in infectious disease control, which are inherently challenging. The course will be taught in English but a workable knowledge of Spanish will be helpful.

Fall
Also Offered As: LALS 5420
1 Course Unit

PUBH 5510 Global Health Policy & Delivery

This participatory, interdisciplinary seminar course examines contemporary issues in global health policy and delivery. Students will develop skills in policy analysis, development of evidence-based policy, and effective delivery of global health interventions. The class will explore the health delivery and policy process using a variety of contemporary global health case studies, which focus on content areas such as maternal health, HIV policy, global child health, family planning and medication access. At the completion of this course, the student will be able to: (1) critically examine key issues in global health policy and delivery; (2) understand how epidemiology and various factors influence the design of evidence-based policy and interventions; (3) analyze frameworks for effective health intervention delivery in low-resource and middle-income countries; (4) develop skills to assess policy and program impact for continuous improvement and best practice dissemination.

Spring
Also Offered As: NURS 6400, SWRK 7930
1 Course Unit

PUBH 5530 Science & Politics of Food

This course explores the many complex forces that shape what we eat and why. We will examine the relationships between individual-level influences like our biology and psychological make-up and broader, societal influences like culture, policy and politics, economics, and structural racism and bias. We will discuss and critically evaluate scientific research on food policies and interventions designed to prevent nutrition-related chronic diseases. This course has a strong focus on understanding how we can create a more just and equitable food system. In addition, course assignments, activities, and lectures are designed to help students develop skills related to critiquing research and communicating evidence-based opinions in a clear and compelling manner.

Not Offered Every Year
1 Course Unit

PUBH 5550 A Public Health Approach to Behavioral Health

This course is designed to focus on the public health issue of behavioral health, with a focus on mental health and its relation to substance use. The course will apply public health approaches beyond individual clinical treatment to take a population level approach to behavioral health. In addition to learning the prevalence and impact of behavioral health conditions, this course will also look at: the historical impact of mental health policy, including the Community Mental Health Services Act of 1963, on behavioral health services and public health issues like homelessness; strategies to address behavioral health taking a public health approach, e.g., widespread universal screening, community activation, community level interventions, and health promotion in addition to prevention; and local examples of community level interventions to address behavioral health including Mural Arts’ Porch Light Program, a partnership with the City of Philadelphia Department of Behavioral Health.

Fall
1 Course Unit

PUBH 5550 Philanthropy & Public Health Justice

There has been a long history of systemic racism that has marginalized Black and Brown communities from accessing capital and philanthropic resources to support their communities, institutions, and organizations. The internal structures, processes, and approach of philanthropy can work to break down these barriers or they can work to perpetuate these harms and injustices. The philanthropic sector has been actively reflecting and working on how best to breakdown these barriers and identify avenues to leverage their resources to support justice and equity. This course will aim to understand how the history of philanthropy has a direct impact on our current non-profit and public health landscape and infrastructure. The course will lift up contemporary discussions regarding the role of philanthropy in public health justice and power building. This course will also explore the role of philanthropy in changing systems as complex as early childhood education, food justice, and health care. Some of the questions this course will explore include: How do funders understand and define racial equity, racial justice, and power building? How do funders hold themselves accountable to transformative racial justice goals? What do public health justice activists want funders to know and change to increase effective and sustainable support for their work? How do funders center power-building in grantmaking? How are funders dismantling inequities in grantmaking processes and decision making? What is trust-based philanthropy? The role of intersectionality, race, and power in philanthropy? What is the difference between private, public, and corporate philanthropy? How can we leverage grantmaking tools and approaches, like communications, research, and evaluation, to center the voice and experience of those directly impacted? How do we transition from charity to justice? Guest lectures will include philanthropic experts working locally, nationally, and globally. In addition the course will highlight the voice of grassroot activists and organizers leveraging philanthropic investments to bring about social change. This course will be of interest to students wanting to learn more about philanthropy, non-profits, social justice, and power building.

Not Offered Every Year
1 Course Unit
PUBH 5700 Evidence-Based Strategies to Improve Adolescent and Young Adult Health

This course examines the health and well-being of young people between 10 and 26 years of age in the United States and the influence of evidence-based practice, programs, and policy within a life-course and socio-ecological framework. In this class we will underscore the importance of public health professionals’ role in seeking solutions to improve health outcomes for disadvantaged adolescents and develop and advocate for structures and processes that support health equity. Using intersectionality as a lens, we will examine how racism and systemic discrimination combine with multiple aspects of identity, such as gender, sexual orientation, socio-economic status, and ability, resulting in health disparities among adolescents. The focus on health equity requires evidence-based solutions to health differences that are a result of social-ecological factors. We will examine the influence of systems (family, school, community, health care systems) and policy on key adolescents and young adults (AYA) health issues. Specific seminars will be dedicated to examining the impact of positive youth development and trauma-informed care, AYA and their families and advocacy and policy related to topics such as reproductive health, substance use, suicide and depression and motor vehicle accidents. Didactic topical presentations will be followed by student discussions and guided small group conversations.

Spring
1 Course Unit

PUBH 5730 Substance Use as a Public Health Issue

Over 70,000 people died from drug overdoses in the US in 2017 alone, exceeding the number of US soldiers who died in the Vietnam War. This course will provide an overview of the contemporary challenges in addressing substance use as a public health problem. Students will learn about the personal and environmental factors that often contribute to substance use, as well as the downstream consequences, including HIV and hepatitis C. Students will also learn public health strategies to address substance use, including primary prevention and ahrm reduction. Finally, issues around drug policy at the local, state, and federal level will be discussed. While this course will use opioids and the crisis in Philadelphia as the primary case study, other drugs will be touched upon as well. The course combines lecture, interactive class exercise, and group discussion.

Not Offered Every Year
1 Course Unit

PUBH 5750 Intimate Partner Violence

Intimate partner violence (IPV), defined as physical, sexual or psychological harm imposed by a current or former intimate partner, is a public health problem leading to increased morbidity and mortality worldwide. The purpose of this course is to familiarize students with the definition, theories, dynamics, scope, consequences of, and interventions to prevent and address, violence among intimate partners. Through this course, students will gain insight into the epidemiology of IPV across the life course, including risk and protective factors and examine unique considerations for vulnerable populations. The course will highlight current measurement issues in the field of IPV assessment and address IPV-related policies to address screening, prevention, and response to IPV. Using a social-ecological framework, we will examine the issue of IPV prevention and intervention from the individual, relationship, community, and societal perspectives, and explore approaches to and need for screening, as well as universal, selected, and indicated prevention efforts.

Spring
Also Offered As: SWRK 7750
1 Course Unit

PUBH 5780 Advanced Leadership Skills in Community Health

Grounded in a social justice perspective, this course aims to provide the student with a foundational overview of the field of community health and leadership skills in public health advocacy. The course encourages critical thinking about health outcomes framed by the broad context of the political and social environment. This course analyzes the range of roles and functions carried out by leaders in healthcare advocacy for marginalized communities; integrates knowledge of health policy and the key influence of government and financing on health outcomes; explores community-based participatory research and interventions as tools for change; and discusses ways to develop respectful partnerships with community organizations. An assets-based approach that draws upon the strengths of communities and their leaders provides a foundation for community-engagement skill building. The course emphasizes the development of skills and techniques to lead effective, collaborative, health-focused interventions for disenfranchised groups, including residents of urban neighborhoods. Prerequisite: Undergraduates with permission of the instructor

Spring
Also Offered As: HPR 5880, NURS 5870
1 Course Unit

PUBH 5890 The Public Health Challenges of Alzheimer’s Disease and Cognitive Aging

Once upon a time, Alzheimer’s disease was a rare disease, and then it became common, but soon thereafter, it turned into a crisis. What happened, and what do we need to do? This course will lead students to find the answers to this question, answers that are at the intersections of medicine, ethics, public policy, culture and health care. Topics covered include the histories of Alzheimer’s disease and cognitive aging and their changing definitions, the concepts of cognition and function and how they are assessed, the contested science and practice of measuring the disease’s prevalence and mortality, autonomy and capacity, risk and preventative factors for cognitive decline, the demography and economics of caregiving, and the creative public health initiatives and models of care that could reduce stigma, enhance cognition and maintain independence. Students will apply biostatistical and epidemiological methods to critique papers, close textual analysis to understand concepts and their shifting meanings, and writing to clearly and succinctly frame a problem, its costs and solutions. The course will include lectures, readings from the literature, group discussions and in-class exercises, and interviews with guest experts. Evaluation will be based on participation, presentations, written assignments, and exam results.

1 Course Unit

PUBH 5950 Special Topics in Public Health

This course is a place holder for unique public health courses, created in collaboration with the program and instructor/s, that will run for one semester only. Topics can range from community engagement to education to global health to policing and carceral spaces to policy and advocacy. If offered in a given semester, students should refer to the specific section of a Special Topics course on Path@Penn for more information.

1 Course Unit
PUBH 6040 Qualitative Research Methods in Public Health
This elective course explores the theories, methods, ethics, and practical applications of qualitative research. It builds upon the foundational research methodology taught in the MPH core curriculum with the central goal of preparing students to lead their own qualitative projects, including capstones, theses, or future research. Qualitative analysis is utilized broadly throughout various fields, such as anthropology, sociology, psychology, communications, business, medicine, and public health. Through readings from diverse disciplines, students will explore how qualitative approaches have been applied in different settings to address diverse research questions. The course begins by clarifying the knowledge generated by qualitative methods and demystifying the role of theory, emphasizing its importance in project quality. It then covers key aspects of preparing a qualitative study; identifying suitable sites and samples, effectively communicating with stakeholders, and ensuring a reflexive mindset attuned to the ethical issues. Students will learn various methods for collecting qualitative data, such as observation, interviews, virtual ethnography, document analysis, and photo-elicitation. The course also includes instruction on analyzing the data using an iterative coding process facilitated by software. Finally, students will work on developing explanatory theory from this analysis in order to engage meaningfully with the research community about a given topic.
Spring
Prerequisite: PUBH 5060
1 Course Unit

PUBH 6050 Epidemiology & Control of Infectious Diseases
This course will focus on the application of epidemiological methods to the discovery, detection, and evaluation of infectious disease threats together with an evidence based assessment of the value of public health interventions intended to reduce prevalence and severity of disease in people. In-class assignments are intended to build skills in location, interpreting, assessing, and synthesizing evidence from the epidemiologic literature, with an emphasis on critical thinking, causal inference, and understanding bias and confounding.
Prerequisite: PUBH 5020
1 Course Unit

PUBH 6060 Interpreting Epidemiologic Literature to Inform & Influence
This course is designed for students interested in further exploration of epidemiologic methods and the challenge of establishing a causal relationship between exposure and outcome using an observational science. We will utilize case studies to address the application of epidemiologic data to specific issues of relevance to public health. The nature of observational data will be explored through these case studies and specific methodological challenges will be highlighted and examined.
Also Offered As: NURS 6160
Prerequisite: PUBH 5020
1 Course Unit

PUBH 6070 Advanced Local Policymaking
This course is designed to simulate the local public health policymaking process, providing the foundational context and practical skills necessary to effectively advocate for evidence-based policy change in furtherance of public health objectives. The class will be interactive in nature and will require participation in public health advocacy exercises in order to hone advocacy skills. There will also be a focus on persuasive communication, both oral and written. We will explore the entire advocacy process from the identification of a problem and evaluation of possible policy solutions to utilizing the full range of advocacy tools to promote policy change. We will be using real-time examples of public health challenges affecting the health, safety and well-being of children and families here in Philadelphia and in communities across the country. The goal of the course is to prepare students to participate meaningfully in policymaking during their public health careers, regardless of whether or not they plan to work directly in policy or law.
Summer Term
Prerequisite: PUBH 5050 AND PUBH 5070
1 Course Unit

PUBH 6080 Behavioral Economics & Health
Among the many determinants of health outcomes around the world, human behavior plays a central role. Examples abound in many different areas of health: smoking and exercise can have an impact on the burden of chronic diseases globally; utilization of vaccination services can affect the spread of infectious diseases; decisions made by providers can affect the health outcomes of patients. Understanding human behavior – specifically how people make health-related decisions – is therefore essential for learning how we might develop interventions and policies that have the potential to improve health outcomes. This understanding can be advanced and enriched using behavioral economics. Behavioral economics, a field at the intersection of psychology and economics, suggests that humans rarely behave rationally when making health-related decisions. Instead, a collection of fundamental psychological forces – including cognitive biases, mental shortcuts, and inconsistent time preferences – lead us to act against our best interest (and sometimes the interests of our patients, family members, or communities that we care for.) The course will take a very pragmatic, hands-on orientation to behavioral economics and health research and practice. Examples of public health related questions that this course will address include: How can we convince smokers to quit smoking permanently? What’s the best way to get employees to show up to a flu vaccine clinic? How can we encourage patients to take their medications regularly? How can we increase the utilization of health products like bednets in low-income countries? How can we reduce health care costs through increased prescription of generic medications?
Fall
Also Offered As: NURS 6130
Prerequisite: PUBH 5060 OR PUBH 5040
1 Course Unit
PUBH 6100 Mathematical Modeling of Infectious Diseases
As infectious diseases are transmitted from one host to another, the dynamics of transmission in the population of hosts follow certain basic rules. If one knows and understands these rules, one can plan rational strategies to prevent or control infections. One of the principal tools of those interested in public health interventions to control or ameliorate infectious diseases is the mathematical model. A model is just a means of representing and manipulating something that would not otherwise be accessible. This course provides students with the opportunity to construct models of the transmission of infectious diseases and to use these models to plan or control disease control strategies. The course is predicated upon the notion that the act of building a mathematical model of disease transmission is often the best way of understanding what is going on. This understanding will be further refined by the examination of more complicated and sophisticated model structures as they appear in the recent published literature. A disproportionate number of emerging infectious diseases and recent disease outbreaks in the United States and elsewhere have shared a common characteristic; they affect veterinary as well as human populations. Many are also vector-borne, passing between different species of hosts through insects and other invertebrates. In some cases, humans are only “spillover hosts” whose infection is incidental to the transmission cycle. Interdisciplinary approaches are especially important to control such diseases. As a particular focus of the course, students will learn the tools needed for successful collaborations to address the growing problem of zoonotic and vector-borne diseases.
Fall, odd numbered years only
Also Offered As: EPID 5160
Prerequisite: PUBH 5020
1 Course Unit

PUBH 6150 Principles of Injury & Violence Prevention
This course will introduce students to the principles of injury and violence prevention broadly with a focus on the various study designs used in injury and violence research, and important concepts used in designing, analyzing, and interpreting these studies. The course will analyze analyze injury/violence as a preventable public health issue by synthesizing information on historical, cultural, systemic, structural, and other deterministic causes including implicit bias and structural racism. Students will be taught how to access interpret public-access injury and violence data, and as identify the magnitude of the problem to the degree that it is known, based on peer-reviewed literature and other resources. In addition, they will learn how to identify and prioritize injury/ violence problems based on specific sub-populations, and also how to assess the consequences of injury & violence to individuals, families, and communities by integrating information from peer-reviewed literature. The course will also critique strategies to prevent injury and violence. Finally, students will have the opportunity to focus on one specific injury/violence topic and delve into its problem, causes, and public health intervention/prevention best practices.
Fall
Prerequisite: PUBH 5020
1 Course Unit

PUBH 6210 Program Evaluation in Public Health
There are many public health programs developed to promote change. The question most funders, participants, and organizations have for public health programs is: Did it work? And how do we know? This course is designed to review the principles of identifying short-term, mid-term, and long-term outcomes and methods of measurement, with a focus on equity in evaluation. Students learn about the application of data collection skills to all phases of developing a public health program or service innovation, from stakeholder engagement to analysis of findings to implementation of changes based on results. Students learn to appreciate how these skills can be used as practical tools for identifying public health problems, program development, program implementation, including taking a reflective practice approach, ensuring equity and fairness in program delivery (i.e. combating disparities), and generally promoting public health through effective and efficient programmatic efforts. Students will participate in a field exercise by developing an evaluation plan for a local nonprofit program.
Spring
Prerequisite: PUBH 5060
1 Course Unit

PUBH 6250 Public Health, Cities, & the Climate Crisis
Climate change has been called the most pressing public health crisis of the 21st century. The impact of climate change can be seen directly, through elevated temperatures that exacerbate chronic disease to an increase in severe storms that dramatically increase the risk of injury. But there are also indirect effects, from the increase in vector-borne diseases to the disruption of food production. These health impacts are not felt equally, with a greater brunt on disadvantaged, vulnerable, and/or marginalized populations. Given the current state, we need to think about climate mitigation and climate adaptation, with an eye towards strategies that address health impacts. We must consider how to reduce further climate change while recognizing that some change is already irreversible and in doing so, improve our ability to protect the health, safety, and welfare of the public. The breadth of this issue will require collaboration from diverse sets of professionals who understand design, engineering, policy, and health. This course will tackle the intersectional issues that climate change requires us to consider for public health and the design of cities. As such, the course will be offered jointly between the MPH program and the School of Design. The course will be purposefully interdisciplinary, recognizing that initial group projects must include developing a shared vocabulary between the different students. Key to our success is a more holistic integration of climate change thinking into professional student training and a common ground on which to collaborate both to raise climate change risk awareness across disciplines and to identify strategies (policies, programs, projects) to ameliorate or adapt to those risks with health outcomes used as the benchmark for success. In this way, the course touches on both Climate Action and Societal Resilience. The geographic focus of the course will be the Urban environment, with a strong focus on Philadelphia through projects related to the Hazard Mitigation Plan from the Office of Emergency Preparedness.
Spring
Prerequisite: PUBH 5060
1 Course Unit
PUBH 6320 Using Public Health Innovation to Achieve Equity & Impact
This course is an introduction to innovation across public health and the delivery of health and social services in the US system. It examines ideas of what innovation can be and explores methods for how to achieve them. The lessons in this seminar course seek to broaden the student's understanding of the macro-level role of the public and private sectors in health care innovation, and determine ways of evaluating “impact” and “equity.” As a seminar, students will participate in robust discussions about various topics in public health innovation, including with guest speakers who represent their respective domains. They will also learn how to craft an innovation proposal and mock pitch it by the end of the semester.
Summer Term
Prerequisite: PUBH 5050
1 Course Unit

PUBH 6370 Advocacy & Public Health: Turning Knowledge into Action
This course is designed to provide the foundational context and practical skills necessary to effectively identify public health problems, craft evidence-based solutions and advocate for those solutions in furtherance of public health objectives. The class will be interactive in nature and will require participation in public health advocacy exercises in order to hone advocacy skills. There will also be a focus on persuasive communication, both oral and written. We will explore the entire advocacy process from the identification of a problem and evaluation of possible public health policy solutions to utilizing the full range of advocacy tools to promote policy change. We will be using real-time examples of public health challenges affecting the health, safety and well-being of children and families here in Philadelphia and in communities across the country. Students will apply advocacy skills during an Injury & Violence Prevention Hill Day in Washington, D.C. with national partners.
Not Offered Every Year
Also Offered As: HPR 6370, NURS 5650
Prerequisite: PUBH 5050 OR PUBH 5070
1 Course Unit

PUBH 6450 Law as an Instrument of Behavior Change
Law has long been one of the most important tools for promoting public health. Deployed effectively, laws can make environments healthier and instigate healthier behavior. But law doesn’t work automatically let alone universally. Few laws are enforceable at scale. Instead, people often must choose to comply with legal prescriptions, and that is far from certain. Driver use of phones, for example, remains widespread despite bans. The effect of laws depends in important ways on social context and on other factors, explaining why the same law can simultaneously benefit some while harming others. A law requiring bicycle helmets can reduce head trauma while increasing racialized policing. Successful implementation of laws relies on societal trust and on credibility, which are finite, meaning that overuse of law can undermine its efficacy both for a particular purpose but also more broadly. This class explores the use of law as an interventional tool. Assigned reading and discussion will be organized around different mechanisms through which law is thought to change behavior (e.g., deterrence, signaling) and around different subjects of legal intervention (e.g., reduction of road fatalities, pandemic response). There are two overarching goals for the semester. The first is to development a practical skillset to determine whether legal intervention is appropriate to address a particular problem and, if so, how to define and evaluate its implementation. The second is to develop a deeper understanding of the role of law in the public health toolset and in a healthy society more broadly. Class meetings will include interactive discussion of assigned reading followed by recitation exercises.
Not Offered Every Year
Prerequisite: PUBH 5070
1 Course Unit

PUBH 6950 Advanced Special Topics in Public Health
This course is a placeholder for unique public health courses, created in collaboration with the program and instructor/s, that will run for one semester only. Topics can range from community engagement to education to global health to policing and carceral spaces to policy and advocacy. As an Advanced-level Special Topics class, there will be prerequisite coursework specified at the section level. If offered in a given semester, students should refer to the specific section of a Special Topics course on Path@Penn for more information.
1 Course Unit

PUBH 7080 Capstone Seminar I
The Capstone Project is the culminating experience for the Master of Public Health degree in which MPH students apply the knowledge and skills learned throughout the curriculum to public health problems in a chosen area of interest or skillset. To support this process, students are required to take two semester-long Capstone courses, Capstone I and Capstone II. During Capstone I, students will identify, design, and plan their project under the guidance of their Capstone Instructor. Students will also identify a Capstone Mentor/s, a public health professional with expertise in the field who will oversee the design and development of the project. Each student is required to conduct a comprehensive review of the relevant literature to ensure they understand the social, cultural, and environmental context of their public health problem of interest. Additionally, students are asked to pay particular attention to the relevant policy environment, the concept of evidence-based practice, and to the needs of vulnerable populations. The nature and scope of the project is determined jointly by the student, Capstone Mentor, and Capstone Instructor. By the end of Capstone I, students should have a solid idea of what their Capstone Project is and how to complete it.
Fall, Spring, and Summer Terms
1 Course Unit
PUBH 7090 Capstone Seminar II
Upon completion of Capstone I, students in Capstone II will finally carry out their planned Capstone Project. Throughout the course, students will engage their peers in scholarly discussion to workshop overcoming project hurdles. At the end of the course, students will deliver a professional presentation to public health practitioners and submit a written paper on their Capstone Project.
Fall, Spring, and Summer Terms
1 Course Unit

Punjabi (PUNJ)

PUNJ 0100 Beginning Punjabi Part I
This course emphasizes speaking and reading skills in Punjabi.
Upon completion of this course, students should be able to interact meaningfully and in a socially acceptable manner in a variety of simple situations involving everyday conversational topics. Further, students should be able to read and understand the main idea and most details of simple connected texts. This course will utilize authentic printed, audio, and video materials and will provide opportunities for natural communication both within and outside the classroom.
Fall
1 Course Unit

PUNJ 0200 Beginning Punjabi Part II
This course emphasizes speaking and reading skills in Punjabi.
Upon completion of this course, students should be able to interact meaningfully and in a socially acceptable manner in a variety of simple situations involving everyday conversational topics. Further, students should be able to read and understand the main idea and most details of simple connected texts. This course will utilize authentic printed, audio, and video materials and will provide opportunities for natural communication both within and outside the classroom.
Spring
Prerequisite: PUNJ 0100 OR PUNJ 5100
1 Course Unit

PUNJ 0300 Intermediate Punjabi Part I
This course is designed as a continuation of Beginning Punjabi, but can also be taken by anyone who can demonstrate a similar level in proficiency of the language. The course objectives are to expand the mastery of sentence patterns and augment vocabulary and its usage through intensive grammar review and comprehension exercises. A special emphasis will also be placed on greater cultural awareness. Upon completion of this course students should be able to interact socially with added confidence and greater expressiveness. Students should also experience a great improvement in their comprehension of the spoken and written language.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

PUNJ 0400 Intermediate Punjabi Part II
This course is designed as a continuation of Beginning Punjabi, but can also be taken by anyone who can demonstrate a similar level in proficiency of the language. The course objectives are to expand the mastery of sentence patterns and augment vocabulary and its usage through intensive grammar review and comprehension exercises. A special emphasis will also be placed on greater cultural awareness. Upon completion of this course students should be able to interact socially with added confidence and greater expressiveness. Students should also experience a great improvement in their comprehension of the spoken and written language.
Spring
Prerequisite: PUNJ 0300 OR PUNJ 5300
1 Course Unit

PUNJ 1500 Advanced Punjabi
The objective of the course is to improve proficiency in speaking, listening, reading and writing. Fall semester: Readings in Punjabi Literature - This course addresses the individual needs of learners. This is a one semester course. The focus of the course will be to study the interpretation of written and oral materials on social, political and contemporary cultural topics from modern literature, literary criticism, poetry and drama. Weekly written compositions and oral presentations will be assigned. Grading will be based on this. Spring semester. Punjabi Popular Culture- This course focuses on different aspects of popular Punjabi culture as they are represented in media - television, internet, magazines, newspapers, film, and music. This course aims at making the best use of class participation to improve all four language skills. This is also a one semester course.
Fall
1 Course Unit

PUNJ 5100 Beginning Punjabi Part I
This course emphasizes speaking and reading skills in Punjabi.
Upon completion of this course, students should be able to interact meaningfully and in a socially acceptable manner in a variety of simple situations involving everyday conversational topics. Further, students should be able to read and understand the main idea and most details of simple connected texts. This course will utilize authentic printed, audio, and video materials and will provide opportunities for natural communication both within and outside the classroom.
Fall
1 Course Unit

PUNJ 5200 Beginning Punjabi Part II
This course emphasizes speaking and reading skills in Punjabi.
Upon completion of this course, students should be able to interact meaningfully and in a socially acceptable manner in a variety of simple situations involving everyday conversational topics. Further, students should be able to read and understand the main idea and most details of simple connected texts. This course will utilize authentic printed, audio, and video materials and will provide opportunities for natural communication both within and outside the classroom.
Spring
1 Course Unit
PUNJ 5300 Intermediate Punjabi Part I
This course is designed as a continuation of Beginning Punjabi, but can also be taken by anyone who can demonstrate a similar level in proficiency of the language. The course objectives are to expand the mastery of sentence patterns and augment vocabulary and its usage through intensive grammar review and comprehension exercises. A special emphasis will also be placed on greater cultural awareness. Upon completion of this course students should be able to interact socially with added confidence and greater expressiveness. Students should also experience a great improvement in their comprehension of the spoken and written language.

Spring
1 Course Unit

PUNJ 5400 Intermediate Punjabi Part II
This course is designed as a continuation of Beginning Punjabi, but can also be taken by anyone who can demonstrate a similar level in proficiency of the language. The course objectives are to expand the mastery of sentence patterns and augment vocabulary and its usage through intensive grammar review and comprehension exercises. A special emphasis will also be placed on greater cultural awareness. Upon completion of this course students should be able to interact socially with added confidence and greater expressiveness. Students should also experience a great improvement in their comprehension of the spoken and written language.

Spring
1 Course Unit

PUNJ 5500 Advanced Punjabi
The objective of the course is to improve proficiency in speaking, listening, reading and writing. Fall semester: Readings in Punjabi Literature - This course addresses the individual needs of learners. This is a one semester course. The focus of the course will be to study the interpretation of written and oral materials on social, political and contemporary cultural topics from modern literature, literary criticism, poetry and drama. Weekly written compositions and oral presentations will be assigned. Grading will be based on this. Spring semester: Punjabi Popular Culture - This course focuses on different aspects of popular Punjabi culture as they are represented in media - television, internet, magazines, newspapers, film, and music. This course aims at making the best use of class participation to improve all four language skills. This is also a one semester course.

Fall
1 Course Unit

Quechua (QUEC)

QUEC 0100 Elementary Quechua I
Quechua, the language of the Inca Empire and still spoken by approximately 6 million people throughout the Andes, is the most popular indigenous language of South America. The program focuses on the development of written and oral communicative abilities in Quechua through an interactive activity-based approach. Course includes an introduction to Quechua and Andean culture. Students will participate in pair, small-group and whole-class activities. Assessment is based on both students ability to use the language in written and oral tasks and understanding the language and culture. This beginning level Quechua course is designed for students who have little or no previous knowledge of the language. Lectures will be delivered in English and Quechua.

Fall or Spring
1 Course Unit

QUEC 0200 Elementary Quechua II
Quechua, the language of the Inca Empire and still spoken by approximately 6 million people throughout the Andes, is the most popular indigenous language of South America. The program focuses on the development of written and oral communicative abilities in Quechua through an interactive activity-based approach. Course includes an introduction to Quechua and Andean culture. Students will participate in pair, small-group and whole-class activities. Assessment is based on both students ability to use the language in written and oral tasks and understanding the language and culture. This beginning level Quechua course is designed for students who have little or no previous knowledge of the language. Lectures will be delivered in English and Quechua.

Fall or Spring
1 Course Unit

QUEC 0300 Intermediate Quechua I
Quechua, the language of the Inca Empire and still spoken by approximately 8 million people throughout the Andes, is the most spoken indigenous language in the Americas. The program focuses on the development of written and oral communicative abilities in Quechua through an interactive activity-based approach. This intermediate-level course emphasizes students' acquisition of new vocabulary and linguistic structures in a cultural and communicative context. Assessment is based on the students' ability to use the language while understanding Andean culture, and building on their previous written and oral skills. Lectures will be delivered in English and Quechua.

Fall
1 Course Unit

Real Estate (REAL)

REAL 2040 Real Estate Law
This course examines the fundamentals of real estate finance and development from a legal and managerial perspective. The course serves as a foundation course for real estate majors and provides an introduction to real estate for other students. It attempts to develop skills in using legal concepts in a real estate transactional setting. The course will be of interest to students contemplating careers in accounting, real estate development, real estate finance, city planning, or banking. The main topics covered may include the following: land acquisition, finance; choice of entity; tax aspects; management (leasing, environmental); disposition of real property (sale of mortgaged property, foreclosures, wraparound mortgages, sale-leasebacks); and recent legal developments. Lectures and class discussion required.

Fall or Spring
Also Offered As: LGST 2040
1 Course Unit
REAL 2050 Global Real Estate: Risk, Politics and Culture
This is an introductory course to global real estate markets, with a focus on income-producing real estate assets. Globally, estimates suggest the value of investable real estate assets in the world exceeds $60 trillion. We will discuss the basics of valuation and risk management, emphasizing concepts that are salient in the global context, including political risk, currency risk, property rights and culture. The course will cover markets outside the United States, except for one special topic on international investors in the United States. We will focus more on the qualitative aspects of real estate investment analysis and less on quantitative aspects. As firms expand their ventures across borders, there is a growing emphasis on the ability to assess and manage risk in a global business environment. Many of these decisions have implications on real estate assets. In this class, we will discuss the real estate business decisions of global firms, such as Blackstone, Hilton, AirBNB, WeWork, Prologis, Walmart and Amazon. This is a full semester course, open to undergraduates and MBA’s. Lecture with discussion required.
Fall
Mutually Exclusive: REAL 7050
1 Course Unit

REAL 2080 Housing Markets
This course is designed for students interested in the economics and operations of housing markets. It is primarily a U.S. focused course, but does include a limited amount of international material for comparative purposes. The class is divided into four sections: (1) supply and demand for housing, including the operations of homebuilders and rental landlords; (2) house prices, including cycles and price dynamics; (3) international comparisons; and (4) public policy analysis applied to a current housing markets-related issue. This course presumes knowledge of intermediate economics, as we will apply that knowledge throughout the semester. For Wharton students, this means you must have passed BEPP 2500 (undergrads) or MGEC 6100 and 6120 for MBA’s. Non-Wharton students should have taken the equivalent course in the College. Lecture with discussion required.
Spring
Also Offered As: BEPP 2080
Prerequisite: BEPP 2500
1 Course Unit

REAL 2090 Real Estate Investment: Analysis and Financing
This course provides an introduction to real estate with a focus on investment and financing issues. Project evaluation, financing strategies, investment decision making and real estate capital markets are covered. No prior knowledge of the industry is required, but students are expected to rapidly acquire a working knowledge of real estate markets. Classes are conducted in a standard lecture format with discussion required. The course contains cases that help students evaluate the impact of more complex financing and capital markets tools used in real estate. There are case studies and two midterms, (depending on instructor).
Fall or Spring
Also Offered As: FNCE 2090
Prerequisite: FNCE 1000
1 Course Unit

REAL 2150 Urban Real Estate Economics
Urban Real Estate Economics uses economic concepts to analyze real estate markets, values, and trends. The course focuses on market dynamics in the U.S. and internationally, with an emphasis on how urban growth and local and federal government policies impact urban development and real estate pricing. A group development project gives hands on experience, and invited guest speakers bring industry knowledge. Besides the group project and presentation, problem sets are required along with a midterm and optional second exam. Lecture with discussion required.
Fall or Spring
1 Course Unit

REAL 2300 Urban Fiscal Policy
This course will examine the provision of public services for firms and people through cities. Why cities exist, when fiscal policy fails, investments in infrastructure, realities of local governments such as inequality, crime, corruption, high cost of living, congestion, and unfunded pensions and debt, will be covered. We will pay special attention to recent topics, such as partnerships with the private sector, enterprise zones, the role of technology, environmental challenges, and real estate policies that promote housing affordability, such as rent control and inclusionary zoning.
Spring
Also Offered As: BEPP 2300, FNCE 2300
1 Course Unit

REAL 2360 International Housing Comparisons
This course analyzes housing finance systems and housing market outcomes across the globe. In the US, the course focuses on the development of securitization markets and addresses the current challenges of housing finance reform, including the future of Fannie Mae and Freddie Mac. Internationally, the course covers issues of access to housing and housing informality in developing countries, financial crises arising out of the housing sector, and market-oriented and public policy solutions. The course features a wide array of speakers in finance, government and academia who contribute their perspectives to pressing issues of mortgage market design.
Spring
Also Offered As: BEPP 2360
1 Course Unit

REAL 2400 Advanced Real Estate Investment and Analysis
This course is designed for majors in Real Estate, but is also open to finance-oriented students who wish a deeper analysis of real estate investment and investment analysis issues than that offered in REAL 209. The class will contain a mixture of lectures, guest speakers and case discussions. Academic research is paired with recent industry analysis of key issues in order to marry sound theory and empirical results with current events and practices. Several classes will include lectures outlining what economics and finance tell us about a number of topics. Generally, these will be followed by guest lectures from industry professionals who will focus on a specific application of the principles introduced in the lectures.
Spring
Mutually Exclusive: REAL 8400
Prerequisite: REAL 2090 OR FNCE 2090
1 Course Unit
REAL 3210 Real Estate Development
This course evaluates "ground-up" development as well as re-hab, re-development, and acquisition investments. We examine raw and developed land and the similarities and differences of traditional real estate product types including office, R & D, retail, warehouses, single family and multi-family residential, mixed use, and land as well as "specialty" uses like golf courses, assisted living, and fractional share ownership. Emphasis is on concise analysis and decision making. We discuss the development process with topics including market analysis, site acquisition, due diligence, zoning, entitlements, approvals, site planning, building design, construction, financing, leasing, and ongoing management and disposition. Special topics like workouts and running a development company are also discussed. Course lessons apply to all markets but the class discusses U.S. markets only. Throughout the course, we focus on risk management and leadership issues. Numerous guest lecturers who are leaders in the real estate industry participate in the learning process. Format: predominately case analysis and discussion, some lectures, project visits.
Prerequisite: REAL 2090 OR FNCE 2090
1 Course Unit

REAL 3750 Real Estate Disruptions
Real Estate is changing dramatically for the first time in perhaps one hundred years. This class will examine how technology is changing in many facets (all) of the industry. This course will address how technology has already changed the demand for real estate, how it will likely change in the future the way real estate is used, designed, developed, constructed, managed, leased, maintained and financed. Among many questions to be considered: Can you crowd fund real estate development? Will the office business become a part of hospitality? Can we build new buildings like we assemble legos? How will autonomous vehicles affect the demand for space and property values? What is the future of new data analytics services? This is a team taught mini, half-credit course that will bring together a recognized industry leader and Wharton faculty. Includes a broad set of guest lecturers (Start-up entrepreneurs, incumbents, non-RE technology specialists, etc). We believe there is no one single approach to gain insight into disruptions and change under uncertainty so we will propose a mix of approaches including, in-depth case-studies, interactions with guest lecturers who handle those issues daily, learning from economic history and other industries, and drawing from core economic concepts.
Fall
Mutually Exclusive: REAL 8750
Prerequisite: REAL 2090 OR FNCE 2090
1 Course Unit

REAL 3900 International Real Estate Comparisons
As a truly non-U.S. focused course, we explore the world of cross-border real estate development, with a focus on fast growing emerging market economies. Topics will emphasize the importance of strategy and implementation in cross-border real estate investment and include: the rationale, opportunities and risks of international real estate investing; the macro factors that influence the performance of real estate markets across countries; market specific factors that impact RE investment performance (property rights, taxes, transparency, planning procedures); the qualitative aspects of identifying and achieving successful projects; and the growing market for international RE securities and strategies for portfolio management. Classes will combine a lecture on specific aspects of global cross-border RE in the first half of the class and international case presentations in the second half. Cases will be presented by leading executives in charge of major international RE projects or funds. Cases have been selected to cover different types of RE development-residential, office, retail, hospitality and logistics-important emerging market countries/continents (East/South Asia, Latin America, Sub-Saharan Africa, the Middle East) and different development and investment strategies. This class is offered in the second half of the semester.
Fall
Mutually Exclusive: REAL 8900
Prerequisite: REAL 2090 OR FNCE 2090
0.5 Course Units

REAL 3960 Real Estate Entrepreneurship
This half-semester course will focus on entrepreneurial aspects of the real estate investment business. The course structure is designed to track the life cycle of real estate investing with different units focusing on discrete stages of the deal process from sourcing and capital raising through asset management and property disposition. At each juncture, granular attention will be paid to real-life deal making skills, all from the perspective of an entrepreneur operating with limited resources in different economic environments. As part of the class, you will analyze deals, models and investment documentation that, once assembled, will arm you with a "deal tool kit" that you can reference as you engage in real estate transactions throughout your career. At the end of the course, time will be allocated to discuss the trajectory of entrepreneurship and how it corresponds to careers in the real estate business.
Fall or Spring
Mutually Exclusive: REAL 8910
Prerequisite: FNCE 1000
0.5 Course Units

REAL 3990 Independent Study
All independent studies must be arranged and approved by a Real Estate department faculty member.
Fall or Spring
0.5-1 Course Unit
REAL 7050 Global Real Estate: Risk, Politics and Culture
This is an introductory course to global real estate markets, with a focus on income-producing real estate assets. Globally, estimates suggest the value of investable real estate assets in the world exceeds $60 trillion. We will discuss the basics of valuation and risk management, emphasizing concepts that are salient in the global context, including political risk, currency risk, property rights, and culture. The course will cover markets outside the United States, except for one special topic on international investors in the United States. We will focus more on the qualitative aspects of real estate investment analysis and less on the quantitative aspects. As firms expand their ventures across borders, there is a growing emphasis on the ability to assess and manage risk in a global business environment. Many of these decisions have implications on real estate assets. In this class, we will discuss the real estate business decisions of global firms, such as Blackstone, Hilton, Airbnb, WeWork, Prologis, Walmart and Amazon. This is a full semester course, open to undergraduates and MBA’s. Lecture with discussion required.
Fall
Mutually Exclusive: REAL 2050
1 Course Unit

REAL 7080 Housing Markets
This course is designed for students interested in the economics and operations of housing markets. It is primarily a U.S. focused course, but does include a limited amount of international material for comparative purposes. The class is divided into four sections: (1) supply and demand for housing, including the operations of homebuilders and rental landlords; (2) house prices, including cycles and price dynamics; (3) international comparisons; and (4) public policy analysis applied to a current housing markets-related issue. This course presumes knowledge of intermediate economics, as we will apply that knowledge throughout the semester. For Wharton students, this means you must have passed BEPP 2500 (undergrads) or MGEC 6110 for MBA’s. Non-Wharton students should have taken the equivalent course in the College. Lecture with discussion required.
Spring
Also Offered As: BEPP 7080
Prerequisite: MGEC 6110
1 Course Unit

REAL 7210 Real Estate Investment: Analysis and Financing
This course provides an introduction to real estate with a focus on investment and financing issues. Project evaluation, financing strategies, investment decision making and capital markets are covered. No prior knowledge of the industry is required, but students are expected to rapidly acquire a working knowledge of real estate markets. Classes are conducted in a standard lecture format with discussion required. The course contains cases that help students evaluate the impact of more complex financing and capital markets tools used in real estate. Lecture with discussion required.
Fall or Spring
Also Offered As: FNCE 7210
Prerequisite: FNCE 6110
0.5-1 Course Unit

REAL 7230 Introduction to Real Estate
The goal of this class is to help students become informed consumers of real estate advice. The class material breaks down into four major sections: 1) The financial risk and return of property level real estate investments. Be able to interpret, understand and evaluate a real estate property investment pro forma. 2) The legal landscape for investing in real estate and using legal structures to manage risk. 3) The economics of commercial real estate markets. Understanding the forces that will determine the value and income-producing potential of a real estate investment. 4) Important real estate issues of the day.
Fall or Spring
0.5 Course Units

REAL 7240 Urban Real Estate Economics
Urban Real Estate Economics uses economic concepts to analyze real estate markets, values, and trends. The course focuses on market dynamics in the U.S. and internationally, with an emphasis on how urban growth and local and federal government policies impact urban development and real estate pricing. A group development project gives hands on experience, and invited guest speakers bring industry knowledge. Besides the group project and presentation, problem sets are required along with a midterm and optional second exam. Lecture with discussion required.
Fall or Spring
Also Offered As: REAL 9450
Prerequisite: MGEC 6110 AND MGEC 6120
1 Course Unit

REAL 7300 Urban Fiscal Policy
This course will examine the provision of public services for firms and people through cities. Why cities exist, when fiscal policy fails, investments in infrastructure, realities of local governments such as inequality, crime, corruption, high cost of living, congestion, and unfunded pensions and debt, will be covered. We will pay special attention to recent topics, such as partnerships with the private sector, enterprise zones, the role of technology, environmental challenges, and real estate policies that promote housing affordability, such as rent control and inclusionary zoning.
Fall
Also Offered As: BEPP 7730, FNCE 7300
1 Course Unit

REAL 8040 Real Estate Law
This course examines the fundamentals of real estate finance and development from a legal and managerial perspective. The course serves as a foundation course for real estate majors and provides an introduction to real estate for other students. It attempts to develop skills in using legal concepts in a real estate transactional setting. The course will be of interest to students contemplating careers in accounting, real estate development, real estate finance, city planning, or banking. The main topics covered may include the following: land acquisition, finance, choice of entity; tax aspects; management (leasing, environmental); disposition of real property (sale of mortgaged property, foreclosures, wraparounds mortgage, sale-leasebacks); and recent legal developments. Lectures and class discussion required.
Fall or Spring
Also Offered As: LGST 8040
1 Course Unit
REAL 8210 Real Estate Development
This course evaluates "ground-up" development as well as re-hab, re-development, and acquisition investments. We examine raw and developed land and the similarities and differences of traditional real estate product types including office, R & D, retail, warehouses, single family and multi-family residential, mixed use, and land as well as "specialty" uses like golf courses, assisted living, and fractional share ownership. Emphasis is on concise analysis and decision making. We discuss the development process with topics including market analysis, site acquisition, due diligence, zoning, entitlements, approvals, site planning, building design, construction, financing, leasing, and ongoing management and disposition. Special topics like workouts and running a development company are also discussed. Course lessons apply to all markets but the class discusses U.S. markets only. Throughout the course, we focus on risk management and leadership issues. Numerous guest lecturers who are leaders in the real estate industry participate in the learning process. Format: predominate case analysis and discussion, some lectures, project visits.
Also Offered As: ARCH 7680
Prerequisite: REAL 7210 OR FNCE 7210
1 Course Unit

REAL 8360 International Housing Comparisons
This course analyzes housing finance systems and housing market outcomes across the globe. In the US, the course focuses on the development of securitization markets and addresses the current challenges of housing finance reform, including the future of Fannie Mae and Freddie Mac. Internationally, the course covers issues of access to housing and housing informality in developing countries, financial crises arising out of the housing sector, and market-oriented and public policy solutions. The course features a wide array of speakers in finance, government and academia who contribute their perspectives to pressing issues of mortgage market design.
Spring
Also Offered As: BEPP 8360
Prerequisite: FNCE 6130
1 Course Unit

REAL 8400 Advanced Real Estate Investment and Analysis
This course, is designed for majors in Real Estate, but is also open to finance-oriented students who wish a deeper analysis of real estate investment and investment analysis issues than that offered in REAL/FNCE 721. The class will contain a mixture of lectures, guest speakers and case discussions. Academic research is paired with recent industry analysis of key issues in order to marry sound theory and empirical results with current events and practices. Several classes will integrate lectures outlining what economics and finance tell us about a number of topics. Generally, these will be followed by guest lectures from industry professionals who will focus on a specific application of the principles introduced in the lectures. Format: Lecture, industry speakers.
Spring
Mutually Exclusive: REAL 2400
Prerequisite: REAL 7210 OR FNCE 7210
1 Course Unit

REAL 8750 Real Estate Disruptions
Real Estate is changing dramatically for the first time in perhaps one hundred years. This class will examine how technology is changing in many facets (all) of the industry. This course will address how technology has already changed the demand for real estate, how it will likely change in the future the way real estate is used, designed, developed, constructed, managed, leased, maintained and financed. Among many questions to be considered: Can you crowd fund real estate development? Will the office business become a part of hospitality? Can we build new buildings like we assemble legos? How will autonomous vehicles affect the demand for space and property values? What is the future of new data analytics services? This is a team taught course that will bring together a recognized industry leader and Wharton faculty. Included will be a broad set of guest lecturers (Start-up entrepreneurs, incumbents, VC's, non RE technology specialists, etc). We believe there is no one single approach to gain insight into disruptions and change under uncertainty so we will propose a mix of approaches including, in-depth case-studies, interactions with guest lecturers who handle those issues daily, learning from economic history and other industries, and drawing from core economic concepts.
Fall
Mutually Exclusive: REAL 3750
Prerequisite: REAL 7210 OR FNCE 7210
1 Course Unit

REAL 8900 International Real Estate Comparisons
As a truly non-U.S. focused course, we explore the world of cross-border real estate development, with a focus on fast growing emerging market economies. Topics will emphasize the importance of strategy and implementation in cross-border real estate investment and include: the rationale, opportunities and risks of international real estate investing; the macro factors that influence the performance of real estate markets across countries; market specific factors that impact RE investment performance (property rights, taxes, transparency, planning procedures); the qualitative aspects of identifying and achieving successful projects; and the growing market for international RE securities and strategies for portfolio management. Classes will combine a lecture on specific aspects of global cross-border RE in the first half of the class and international case presentations in the second half. Cases will be presented by leading executives in charge of major international RE projects or funds. Cases have been selected to cover different types of RE development-residential, office, retail, hospitality and logistics- important emerging market countries/continents (East/South Asia, Latin America, Sub-Saharan Africa, the Middle East) and different development and investment strategies. Prerequisite: This class is offered in the second half of the semester.
Fall
Mutually Exclusive: REAL 3900
Prerequisite: REAL 7210 OR FNCE 7210
0.5 Course Units
REAL 8910 Real Estate Entrepreneurship
This half-semester course will focus on entrepreneurial aspects of the real estate investment business. The course structure is designed to track the life cycle of real estate investing with different units focusing on discrete stages of the deal process from sourcing and capital raising through asset management and property disposition. At each juncture, granular attention will be paid to real-life deal making skills, all from the perspective of an entrepreneur operating with limited resources in different economic environments. As part of the class, you will analyze deals, models and investment documentation that, once assembled, will arm you with a “deal tool kit” that you can reference as you engage in real estate transactions throughout your career. At the end of the course, time will be allocated to discuss the trajectory of entrepreneurship and how it corresponds to careers in the real estate business.
Fall
Mutually Exclusive: REAL 3960
Prerequisite: FNCE 6110
0.5 Course Units

REAL 8990 Independent Study
All independent studies must be arranged and approved by a Real Estate Department faculty member.
Fall or Spring
0.5-1 Course Unit

REAL 9450 Urban Real Estate Economics
Urban Real Estate Economics uses economic concepts to analyze real estate markets, values, and trends. The course focuses on market dynamics in the U.S. and internationally, with an emphasis on how urban growth and local and federal government policies impact urban development and real estate pricing. A group development project gives hands on experience, and invited guest speakers bring industry knowledge. Besides the group project and presentation, problem sets are required along with a midterm and optional second exam. Lecture with discussion required.
Fall or Spring
Also Offered As: REAL 7240
Prerequisite: MGEC 6110 AND MGEC 6120
1 Course Unit

REAL 9460 Advanced Topics in Urban Economics
This course addresses advanced topics in urban and real estate economics. The course will mix theory and empirics and will cover a broad range of topics including the modeling and estimation of agglomeration economies, land use and urban costs, transportation in cities, urban growth, migration between cities etc. The classes will mix formal presentations made by the instructor and student-led discussions of recent academic papers. In addition to presentations, students will be expected to complete a series of assignments including a short original research paper. PhD students will be expected to complete a research paper in addition to the successful completion of the course examination requirements. Prerequisites: The course assumes that students have familiarity with standard first year econometrics and microeconomics.
Fall or Spring
0.5-1 Course Unit

REAL 9460 Advanced Real Estate and Urban Economics
This course covers fundamental topics in the broad fields of urban economics and real estate. We will focus on the application of econometric methods and economic modelling to analyze important issues, such as household sorting and valuation of local amenities, racial segregation, and the provision of local public goods.
Not Offered Every Year
0.5-1 Course Unit

REAL 9480 Household Real Estate Decision-Making
In this course we will study theory and evidence of how households make decisions surrounding real estate, how they interact with the financial sector, and how housing and mortgage choices influence urban markets and household balance sheets. We will examine real estate decisions from both supply and demand perspectives. There will be a special focus on the tools of modern empirical research, emphasizing the many challenges to causal identification and popular methodologies to overcome and address these challenges. The course will cover topics in mortgage choice, refinancing, renegotiation, default and foreclosure, discrimination, housing search, and market segmentation. Prerequisites: The course assumes that students have familiarity with standard first year econometrics and microeconomics.
Spring
0.5 Course Units

REAL 9620 Applied Economics Seminar
The goal of this course is to help doctoral students develop critical thinking skills through both seminar participation and writing of referee reports. To this end students will attend the Wharton Applied Economics seminar each Wednesday at noon seminar when it meets; prepare two written referee reports on WAE papers per semester, due before the seminar is presented. After attending the seminar and the ensuing discussion of the paper, students will prepare follow-up evaluations of their referee report, due one week after the seminar.
Two Term Class, Student may enter either term; credit given after both terms are complete
Also Offered As: BEPP 9620
0.5-1 Course Unit

REAL 9950 Dissertation
Dissertation
Fall or Spring
0 Course Units

REAL 9990 Independent Study
Fall or Spring
1 Course Unit

Regulatory (REG)

REG 5100 Introduction to Clinical and Translational Research
This introductory course lays the foundation for understanding practical aspects of conducting clinical research in an academic environment. The course is divided into two modules: Module 1: Research Methods & Protocol Development and Module 2: Regulatory Environment for Clinical Trials. The first module introduces clinical research, clinical protocols, study designs and biostatistics that underlie such studies. The second module covers ethical considerations in clinical research, study execution and oversight, and the regulatory environment for clinical research. Upon completion, students should have a strong foundation in the fundamentals of clinical research and should be able to apply contemporary research tools to clinically relevant areas of investigation.
Fall
Also Offered As: MTR 5100
1 Course Unit
REG 5900 Molecular Toxicology: Chemical and Biological Mechanisms
Course Goals: Exposures to foreign compounds (drugs, carcinogens, and pollutants) can disrupt normal cellular processes leading to toxicity. This course will focus on the molecular mechanisms by which environmental exposures lead to end-organ injury and to diseases of environmental etiology (neurodegenerative and lung diseases, reproduction disruption and cardiovascular injury). Students will learn the difficulties in modeling response to low-dose chronic exposures, how these exposures are influenced by metabolism and disposition, and how reactive intermediates alter the function of biomolecules. Mechanisms responsible for cellular damage, aberrant repair, and end-organ injury will be discussed. Students will learn about modern predictive molecular toxicology to classify toxicants, predict individual susceptibility and response to environmental triggers, and how to develop and validate biomarkers for diseases of environmental etiology. Students are expected to write a term paper on risk assessment on an environmental exposure using available TOXNET information. Pre-requisites: Must have taken or will take Fundamentals of Pharmacology concurrently. Undergraduate course work in biochemistry and chemistry essential. Exceptions allowed based on past course work. Please consult with students with required prerequisites; residents in in Environmental and Occupational Health, and professional masters students (MPH and MTR).
Spring
Also Offered As: PHRM 5900
1 Course Unit

REG 6000 Introduction to Biostatistics
The goal of this course is to develop translational scientists who are able to apply the necessary statistical methods to their thesis project, critically assess the application of statistical methods in the literature, and collaborate with biostatisticians. The course will be designed to include weekly seminars to teach introductory biostatistics concepts and group assignments applying the principles through critically assessing the literature.
Fall
Also Offered As: MTR 6000
1 Course Unit

REG 6010 Practical Scientific Writing
Students should expect this process to be iterative. Students will learn, and practice in class, multiple techniques that they can apply in the future to improve their scientific writing. These include how to: (a) define the scope of a scientific document; (b) save time organizing, navigating, and formatting scientific documents; (c) read scientific articles efficiently; (d) establish a workflow for reading large volumes of scientific material; (e) efficiently find the most relevant articles in biomedical databases include PubMed, Embase, Scopus, Web of Science; (f) use large language models like Chat GPT as tools; (g) improve writing mechanics to craft clear and compelling scientific discourse. Note: point (g) encompasses ~15 different writing mechanical techniques taught and practiced over multiple class sessions. This is a hands-on course during which students will develop a solid draft of the introduction to their master’s thesis; sometimes this introduction is referred to as a ‘literature review’ (~3-6 pages double-spaced, >100 references).
Summer Term
Also Offered As: MTR 6010
1 Course Unit

REG 6020 Proposal Development and Study Design
This course has two primary areas of focus: (i) proposal development and enhancement; and (ii) a focus on research and study design. (i) Proposal Development and Enhancement: Students apply foundational concepts by revising and refining their written proposal and presenting their research project throughout the course. Students receive an overview of approaches to developing an effective proposal; and guidance on how to write and present their hypothesis, specific aims, research strategy, significance, innovation, and approach using the general NIH application format. (ii) Research and Study Design: Students receive an overview of translational research principals and clinical study design approaches relevant to thesis projects designed to probe mechanisms of disease and translate results in basic research into investigations in humans. Topics include clinical and translational research methods, and study design and execution. Students are introduced to these topics through asynchronous and synchronous learning environments. At the end of the course, each student submits and presents their written proposal to their peers and a panel of reviewers for critique and feedback. Members of the panel include the students’ research mentor(s), program mentor, and thesis committee. The panel provides feedback on the proposal which the student will then incorporate into the written proposal. Students submit their final revised proposal to be reviewed and graded by their program mentor.
Fall
Also Offered As: MTR 6020
1 Course Unit

REG 6040 Scientific & Ethical Conduct
In this course, students will learn the foundational principles of scientific, operational and ethical conduct of research, complete directed experience in evaluating ethical principles through IRB membership and ultimately be able to apply all principles to their own work. By the end of the foundational class sessions, students will understand scientific conduct, ethical considerations of human subject’s research, good clinical practices (GCP), good laboratory practices (GLP), conflict of interest, and budgetary concepts. The directed experience will include becoming a member of an Institutional Review Board (IRB) (Penn or CHOP) and participating as an active member in 6 meetings.
Spring
Also Offered As: MTR 6040
1 Course Unit

REG 6100 Fundamentals of FDA Regulation
This introductory course provides an overview of Regulatory Affairs in relation to three key areas of development: Drugs, Biologics, and Medical Devices. The course will look at the rules governing prescription and over-the-counter drugs as well as the changes introduced by the influence of genetic engineering and biological product development. Throughout the course, practical issues facing regulatory specialists as they work with the FDA and other international regulatory bodies to secure and keep product approval will be addressed.
Summer Term
1 Course Unit
REG 6110 Clinical Trial Management
This course will focus on the practical aspects of executing clinical trials in an academic environment in a GCP compliant fashion. Upon course completion students will be able to effectively implement and manage both investigator-initiated and industry-sponsored clinical research studies. This course is divided into three segments. In the first segment, students will be guided through the operational aspects and regulatory processes of clinical trial management across the clinical trial life style from pre-study activities through study start-up and implementation, and ongoing compliance through study close out. Students will learn strategies for navigating the complex regulatory/operational clinical research environment and for successful protocol development and approval, subject recruitment, data management and IRB/FDA interactions. In the second segment of the course, students will learn about specific trial management challenges that may arise based on study type and will learn skills for navigating these challenges for investigator-initiated studies, federally-funded and commercially-sponsored research and research with unique trial management concerns such as conflicts of interest and the use of new technologies. Finally students will have the opportunity to apply the skills they have learned through a final course project which includes identification of a trial management challenge and a proposal for solutions to address that challenge. Protection of human research subjects and adherence to good clinical practices guiding research in humans is a critical concept that will be integrated throughout each of the lectures and course assignments.
1 Course Unit

REG 6120 Introduction to Drug Development
This introductory course lays the foundation for conducting pharmaceutical research in many ways. It begins with a brief review of the history of drug development and explains the phases of drug development in detail. The decision making process, drug development milestones and compound progression metrics are defined and explained with examples. At the conclusion of this course, students should have a working knowledge of the drug development process, understand the regulatory basis by which new chemical entities are evaluated and ultimately approved, and appreciate the time and expense of drug development. Undergraduates and graduate students from other departments are welcome.
Fall or Spring
1 Course Unit

REG 6150 Post-Approval Maintenance of Drugs, Biologics, and Devices
Drug development is complex, time consuming, and resource intense across multiple disciplines that require subject matter expertise. The goal is to obtain FDA-approval of a marketing application, which, once achieved, is a major accomplishment. However, marketing approval brings significant Sponsor responsibilities as the FDA continues to enforce strict regulatory requirements to ensure marketed products maintain their favorable benefit/risk profiles and therefore continue to offer safe and effective options for patients. This course is designed to provide students with an in depth understanding of the multiple regulatory requirements and marketing activities that take place following FDA approval, throughout the lifecycle of a marketed product. Topics include: • Post-marketing requirements • Pharmacovigilance/safety surveillance • Manufacturing throughout product lifecycle • Device regulations • Labeling considerations • Sales, marketing, advertising, and promotional activities • FDA inspections • General lifecycle management, label expansion, patent and exclusivity considerations
Spring
1 Course Unit

REG 6160 Quality Assurance
Quality assurance (QA) plays a critical role in the reliability and reproducibility of product development and, manufacturing. As a component of the Quality Management System, quality assurance includes all activities performed by an organization for the prevention of errors and defects. This course intends to focus on QA principles, standards and requirements, with regard to the FDA-regulated product development lifecycle. Further, the course aims to offer examples of QA and quality control measures through auditing and risk management. Application of quality assurance and the interfaces between GLP, GTP/GMP-and Pharmacovigilance regulatory regulated activities during product development and manufacturing will also be addressed.
Fall
1 Course Unit

REG 6180 Introduction to Vaccine Development
Vaccine development is the process by which new vaccines are discovered, studied in laboratory and preclinical models and investigated clinically in patients to determine if they are safe and efficacious. Assuming the vaccine under investigation passes systemically defined milestones, submission of all documentation to regulatory authorities (e.g., US FDA and equivalent global regulatory authorities) can ensue and, pending a favorable review, market access can be granted. The process is highly regulated and there is significant cost involved for pharmaceutical sponsors to research and develop vaccines with the entire process averaging around 12 years once a product is discovered. This introductory course lays the foundation for conducting vaccine research in many ways. It begins with a brief review of the history of vaccine discovery and development and explains the phases of vaccine development in detail. Global Health history and impact of vaccines is described as well as the various stakeholders (e.g., WHO and World Bank) involved which distinguish vaccine from drug development. The decision-making process, vaccine development milestones and compound progression metrics are defined and explained with examples. At the conclusion of this course, students should have a working knowledge of the vaccine development process, understand the regulatory basis by which new vaccines are evaluated, ultimately approved and distributed around the world.
1 Course Unit

REG 6190 Research Ethics in Regulatory Affairs
This course will focus on the connection between research ethics and aspects of regulatory affairs. Students will review core methodological aspects of research, trace the history of research ethics, and describe systematic approaches to designing ethical research. Students will cultivate competency in the development, implementation, and limitation of US human subjects regulation. This course will prepare students to critically evaluate the ethics of specific research designs and apply ethics-informed decision-making in the regulatory affairs domain. The course also includes analysis of regulatory bodies governing biomedical and behavioral research. Additional topics may include (but are not limited to) conflicts of interest, ethics codes and regulation, IRBs, informed consent, working with vulnerable populations, privacy/confidentiality. The course will implement asynchronous videos and readings and interactive synchronous sessions; assignments include quizzes, discussions (in-class and online), and a generative final project.
1 Course Unit
REG 6210 Cell and Gene Therapy
This course will provide students with a general overview of translational research in the area of gene and cell therapy. This includes technical considerations, translating preclinical investigation into therapeutics, the execution of gene and cell therapies clinical trials, and key regulatory issues. Entrepreneurial considerations will be discussed as well. By the end of this course, students will understand the basic technologies employed for gene and cell therapy along with approaches and pitfalls to translating these therapies into clinical applications including regulatory and commercial aspects of this emerging area. Prerequisite: For graduate students, at least one prior course in immunology. An undergraduate-level or medical school immunology course is sufficient to meet the prerequisite.
Spring
Also Offered As: CAMB 7070, MTR 6210
1 Course Unit

REG 6220 New Trends in Medicine and Vaccine Discovery
Modern drug discovery has evolved to include human genetic diagnosis and various biological approaches which has enabled progress in a variety of fields, including rare diseases, immuno-oncology, precision medicine, and biomarkers. The goal of this course is for students to understand newer treatment modalities and approaches beyond one size fits all small molecule drugs, as well as the technologies that empower them. Students will learn regulatory processes that govern medicine discovery and development and also consider business and societal aspects of medical progress. Students will be able to apply concepts directly to work in the healthcare industry. Students will be taught by experts in the field internal and external to Penn.
Fall
Also Offered As: MTR 6220
1 Course Unit

REG 6230 Fundamentals of Pharmacology
This course is designed to introduce students to basic pharmacological concepts with special emphasis on the molecular actions of drugs. Subject matter includes use of microcomputers to analyze pharmacological data. Prerequisite: Permission of course director
Fall
Also Offered As: PHRM 6230
1 Course Unit

REG 6240 Applied Regulatory Processes of Vaccines and Biologics
Drug development is at a turning point in human medicine. Over the past three decades, the development of biotherapeutics has revolutionized innovation in medicines. Efficiency and Quality Compliance are critical to achieving innovation and affordability. This course will provide an overview of the multi-dimensional nature of drug development, which involves regulatory, new technologies, statistical, and quality considerations. This 6-week course will introduce the concepts of drug development, which include pharmacology, toxicology, product development, clinical trials. All of these topics will be addressed based on regulatory requirements by the FDA. Risk assessment and mitigation will be discussed using a role-play process. The content of the course includes seminars, case studies, project reports, and journal article-reviews.
Summer Term
1 Course Unit

REG 6250 Manufacturing Novel Therapies & Imaging Agents
Novel therapeutic and diagnostic agents (eg. CAR T cells, gene therapy for sickle cell disease, radionuclides etc.) have revolutionized modern clinical medicine. Historically, these agents were first developed in academia then transferred to industry for clinical scale manufacturing. Recently, however, some academic centers have developed clinical scale biomanufacturing facilities. Operation of these new facilities requires a unique blend of manufacturing, clinical, basic, regulatory and laboratory sciences. Examples of areas in which academic medical centers have developed in-house manufacturing include cell therapy, gene therapy and novel imaging agents. This course will cover manufacturing approaches, challenges, and controversies in each of these domains. At the completion of this course students will understand: -The general approach to development, manufacturing, quality control and regulatory compliance in academic manufacturing facilities -Critical steps in the manufacturing cycles of cell therapies, gene therapies and imaging agents -Current challenges in development, manufacturing, and maintaining regulatory compliance in academic manufacturing -Key considerations and relative merits of different positions in the current controversies surround these agents Each week includes a combination of synchronous and asynchronous work. Synchronous sessions will include instructor led discussions based on pre-recorded lectures or case-based discussions. Asynchronous material includes pre-recorded lectures and discussion board prompts to which students will respond throughout the week. One unique aspect to this course are the debates. For each debate week, two students will be assigned as debaters and will represent opposing points of view. All students will be provided with required pre-reading and pre-recorded lectures relevant to the debate topic. Ahead of the debate, the debaters will meet with an assigned faculty advisor to help to prepare. Students who are not assigned as debaters for that week will post questions to the discussion board ahead of the debate. The debate will occur during a synchronous session. The debaters will deliver a short introductory statement. This will be followed by QA with the audience. Finally, the debates will deliver a closing statement. These debates are a fun and interactive way for students to engage with controversial and evolving topics in the field. By the end of the course, students will appreciate the academic perspective on core elements of therapeutic and diagnostic agent manufacturing.
Fall
1 Course Unit

REG 6250 Patent Law for Drug Development
This course will examine the role and impact of patent law on the behavior of major players in the biotechnology and pharmaceutical industries as they navigate the regulatory process. This course begins with an overview of the current patent laws in the U.S. and how policies and recent changes to those laws affect the research and development of new medicines. This course will also examine the dilemmas created by patents as patent holders seek to bring their technology on to the market. The course will consist of synchronous and asynchronous materials and readings that will conclude with a paper and presentation analyzing a complex issue facing drug innovation and regulatory affairs.
1 Course Unit
REG 6300 Clinical Trials
This course is to serve as a general introduction to clinical trials and will emphasize trial design issues. This is not a course on the biostatistics of clinical trials. It is expected that at the conclusion of the course, a student will be able to plan a clinical trial. Each class will consist of a two-hour lecture followed by a one-hour discussion. The weekly session will focus on either a group discussion of the assigned reading or a practical application based on the material presented during the two-hour lecture. Students will be evaluated on their participation in class (20%); a clinical trial document (50%), which should include the rationale for the study, study design, objectives and endpoints, sample size and analysis sections, and consent form; and a class presentation of their trial or another topic (30%). Prerequisite: Permission of instructor.
Spring
Also Offered As: EPID 6300
Prerequisite: EPID 5100 AND EPID 5260
1 Course Unit

REG 6400 Capstone I
1 Course Unit

REG 6410 Capstone II
1 Course Unit

REG 6990 Independent Study
MRA students may perform an independent study for credit based on meeting specific educational requirements. All independent study courses require a designated MRA independent study advisor and prior approval from the program director, who will serve as course director for the class. The MRA independent study course can be performed as an alternative to REG 6400 capstone proposal. The independent study plans must have a learning objective, plan of study and methods of assessment. These elements should be drafted by the student and must be approved by both the designated course director and program staff. The independent study plans are expected to align with the expectations of the capstone proposal writing credit.
1 Course Unit

REG 9910 Thesis I
1 Course Unit

REG 9911 Thesis II
1 Course Unit

Religion and Culture (RELC)
The courses listed on this page are exclusive to the LPS BAAS degree (https://lpsonline.sas.upenn.edu/features/what-bachelor-applied-arts-and-sciences-degree/) and LPS Online certificates (https://lpsonline.sas.upenn.edu/academics/certificates/).

RELC 1010 Greek and Roman Mythology
Myths are traditional stories that have endured many years. Some of them have to do with events of great importance, such as the founding of a nation. Others tell the stories of great heroes and heroines and their exploits and courage in the face of adversity. Still others are simple tales about otherwise unremarkable people who get into trouble or do some great deed. What are we to make of all these tales, and why do people seem to like to hear them? This course will focus on the myths of ancient Greece and Rome, as well as a few contemporary American ones, as a way of exploring the nature of myth and the function it plays for individuals, societies, and nations. We will also pay some attention to the way the Greeks and Romans themselves understood their own myths. Are myths subtle codes that contain some universal truth? Are they a window on the deep recesses of a particular culture? Are they entertaining stories that people like to tell over and over? Are they a set of blinders that all of us wear, though we do not realize it? We investigate these questions through a variety of topics creation of the universe between gods and mortals, religion and family, sex, love, madness, and death.
1 Course Unit

RELC 2000 Gods, Ghosts, Monsters
This course seeks to be a broad introduction. It introduces students to the diversity of doctrines held and practices performed, and art produced about “the fantastic” from the earliest times to the present. The fantastic (the uncanny or supernatural) is a fundamental category in the scholarly study of religion, art, anthropology, and literature. This course focuses on both theoretical approaches to studying supernatural beings from a religious studies perspective while drawing examples from Buddhist, Shinto, Christian, Hindu, Jain, Zoroastrian, Egyptian, Central Asian, Native American, and Afro-Caribbean sources from earliest examples to the present—including mural, image, manuscript, film, codex, and even comic books. It also introduces students to related humanistic categories of study: material and visual culture, theology, cosmology, shamanism, transcendentalism, soteriology, eschatology, phantasmagoria, spiritualism, mysticism, theophany, and the historical power of rumor.
1 Course Unit

RELC 2010 Monsters of Japan
This course focuses on both theoretical approaches to studying supernatural beings from a religious studies perspective while drawing examples from Buddhist, Shinto, Christian, Hindu, Jain, Zoroastrian, Egyptian, Central Asian, Native American, and Afro-Caribbean sources from earliest examples to the present—including mural, image, manuscript, film, codex, and even comic books. It also introduces students to related humanistic categories of study: material and visual culture, theology, cosmology, shamanism, transcendentalism, soteriology, eschatology, phantasmagoria, spiritualism, mysticism, theophany, and the historical power of rumor.
1 Course Unit

RELC 2500 Asian Religions
This course is an introduction to the wide variety of religious beliefs, practices, and ritual technologies in Asia. These religious traditions will not be investigated in isolation. Each Asian tradition, like each Western religion, is syncrctic and multiple, full of internal contradictions and presenting diverse definitions of the sacred and profane. They each “structure” and are often comfortable with “their own multiplicity.” While we will look at traditions such as Jainism, Buddhism, Hinduism, Taoism, Zoroastrism, Sikhism, Zen, and Shinto, we will constantly question their boundaries and integrity. Week by week the panoply (or perhaps cacophony) of types and perceptions of religious experience, ritual, knowledge, directives, motives, and aspirations as displayed in these traditions will be touched upon. We will also think hard about the ways we approach the study of religion and question the very study of “Asian Religions” and “World Religions” in general. This course seeks to generate questions, promote critical inquiry and elaborate on ways the sacred has been made and continues to be made tangible and the vicissitudes of life made meaningful in Asia.
1 Course Unit
RELS 0003 History, Culture, and Religion in Early India
This course surveys the culture, religion and history of India from 2500 BCE to 1200 CE. The course examines the major cultural, religious and social factors that shaped the course of early Indian history. The following themes will be covered: the rise and fall of Harappan civilization, the "Aryan Invasion" and Vedic India, the rise of cities, states and the religions of Buddhism and Jainism, the historical context of the growth of classical Hinduism, including the Mahabarata, Ramayana and the development of the theistic temple cults of Saivism and Vaisnavism, processes of medieval agrarian expansion and cultic incorporation as well as the spread of early Indian cultural ideas in Southeast Asia. In addition to assigned secondary readings students will read select primary sources on the history of religion and culture of early India, including Vedic and Buddhist texts, Puranas and medieval temple inscriptions. Major objectives of the course will be to draw attention to India’s early cultural and religious past and to assess contemporary concerns and ideologies in influencing our understanding and representation of that past.
Fall or Spring
Also Offered As: HIST 0755, SAST 0003
1 Course Unit

RELS 0004 Myths and Religions of the Ancient World
This course will survey the religions of the ancient Middle East, situating each in its historical and socio-cultural context and focusing on the key issues of concern to humanity: creation, birth, the place of humans in the order of the universe, death, and destruction. The course will cover not only the better-known cultures from the area, such as Egypt and Mesopotamia, but also some lesser-known traditions, such as those of the Hittites, or of the ancient Mediterranean town of Ugarit. Religion will not be viewed merely as a separate, sealed-off element of the ancient societies, but rather as an element in various cultural contexts, for example, the relationship between religion and magic and the role of religion in politics will be recurring topics in the survey. Background readings for the lectures will be drawn not only from the modern scholarly literature, but also from the words of the ancients themselves in the form of their myths, rituals, and liturgies.
Spring
Also Offered As: ANCH 1203, NELC 0004
1 Course Unit

RELS 0006 Hindu Mythology
Premodern India produced some of the world’s greatest myths and stories: tales of gods, goddesses, heroes, princesses, kings and lovers that continue to capture the imaginations of millions of readers and hearers. In this course, we will look closely at some of these stories especially as found in Purana-s, great compendia composed in Sanskrit, including the chief stories of the central gods of Hinduism: Visnu, Siva, and the Goddess. We will also consider the relationship between these texts and the earlier myths of the Vedas and the Indian Epics, the diversity of the narrative and mythic materials within and across different texts, and the re-imagining of these stories in the modern world.
Fall or Spring
Also Offered As: COML 0006, SAST 0006
1 Course Unit

RELS 0008 India: Culture and Society
What makes India INDIA? Religion and Philosophy? Architectural splendor? Kingdoms? Caste? The position of women? This course will introduce students to India by studying a range of social and cultural institutions that have historically assumed to be definitive India. Through primary texts, novels and historical sociological analysis, we will ask how these institutions have been reproduced and transformed, and assess their significance for contemporary Indian society.
Fall or Spring
Also Offered As: HIST 0851, SAST 0008
1 Course Unit

RELS 0020 Religions of the West
This course surveys the intertwined histories of Judaism, Christianity, and Islam. We will focus on the shared stories which connect these three traditions, and the ways in which communities distinguished themselves in such shared spaces. We will mostly survey literature, but will also address material culture and ritual practice, to seek answers to the following questions: How do myths emerge? What do stories do? What is the relationship between religion and myth-making? What is scripture, and what is its function in creating religious communities? How do communities remember and forget the past? Through which lenses and with which tools do we define "the West"?
Fall or Spring
Also Offered As: JWST 0020
1 Course Unit

RELS 0040 Art and Religion
What is religious art and what makes art religious? This course will survey a wide variety of artistic expressions from a number of religious traditions which draw on spiritual themes, are inspired by religious experiences or texts, and which serve an important role in religious practice and belief. Some of the themes which this course will explore are: visualization and action within the cosmos, passion and religious ecstasy, the material culture of personal devotion, icons and iconoclasm, depictions of the miraculous, and the relationship between word and image. Objects and images from Christianity, Islam, Judaism, and Buddhism and will be explored along with examples from other traditions.
Fall or Spring
1 Course Unit
REL 0050 Gender, Sexuality, and Religion
What does it mean to be a gendered individual in a Muslim, Hindu, Jewish, Christian, Buddhist, or Sikh religious tradition? How important are gender differences in deciding social roles, ritual activities, and spiritual vocations? This course tackles these questions, showing how gender - how it is taught, performed, and regulated - is central to understanding religion. In this course we will learn about gendered rituals, social roles, and mythologies in a range of religious traditions. We will also look at the central significance of gender to the field of religious studies generally. The first part of the course will be focused on building a foundation of knowledge about a range of religious traditions and the role of gender in those traditions. This course emphasizes religious traditions outside the West. Although it is beyond the scope of this class to offer comprehensive discussions of any one religious tradition, the aim is to provide entry points into the study of religious traditions through the lens of gender. This course will emphasize both historical perspectives and contemporary contexts. We will also read religion through feminist and queer lenses - we will explore the key characteristics of diverse feminist and queer studies approaches to religion, as well as limits of those approaches.

Fall
Also Offered As: GSWS 0050
1 Course Unit

REL 0055 Introduction to Indian Philosophy
This course will take the student through the major topics of Indian philosophy by first introducing the fundamental concepts and terms that are necessary for a deeper understanding of themes that pervade the philosophical literature of India - arguments for and against the existence of God, for example, the ontological status of external objects, the means of valid knowledge, standards of proof, the discourse on the aims of life. The readings will emphasize classical Hindu, Buddhist, and Jain philosophical articulations (from 700 B.C.E to 16th century CE) but we will also supplement our study of these materials with contemporary or relatively recent philosophical writings in modern India.

Fall or Spring
Also Offered As: PHIL 1252, SAST 0050
1 Course Unit

REL 0088 Penitentiaries to PILOTs: Religion and Institutions in Pennsylvania
This first-year seminar examines how religion works through institutions such as penitentiaries, residential facilities for Native children, private universities, for-profit corporations, and public schools. Focusing on the State of Pennsylvania and the City of Philadelphia as examples of broader national trends in the US, over the course of the term we investigate the fraught religious history of many local educational and correctional institutions. We consider topics such as the role of religion in prison culture, perceptions of public education as a right and as a duty, federal and supreme court cases related to schoolhouse ritual, the 1985 MOVE bombing and its aftermath, and the public consequences of tax exemption for private mega-nonprofits.

Fall, odd numbered years only
1 Course Unit

REL 0130 Gods, Ghosts, and Monsters
This course seeks to be a broad introduction. It introduces students to the diversity of doctrines held and practices performed, and art produced about "the fantastic" from earliest times to the present. The fantastic (the uncanny or supernatural) is a fundamental category in the scholarly study of religion, art, anthropology, and literature. This course will focus both theoretical approaches to studying supernatural beings from a Religious Studies perspective while drawing examples from Buddhism, Shinto, Christian, Hindu, Jain, Zoroastrian, Egyptian, Central Asian, Native American, and Afro-Caribbean sources from earliest examples to the present including mural, image, manuscript, film, codex, and even comic books. It will also introduce students to related humanistic categories of study: material and visual culture, theodicy, cosmology, shamanism, transcendentalism, soteriology, eschatology, phantasmagoria, spiritualism, mysticism, theophany, and the historical power of rumor. It will serve as a gateway course into the study of Religion among numerous Asian, and East Asian Studies, as well as Visual Culture and Film Studies. It will include guest lectures from professors from several departments, as well as an extensive hands-on use of the collections of the Penn Museum of Archaeology and Anthropology and the manuscripts held in the Schoenberg Collection of Van Pelt Library. It aims to not only introduce students to major, approaches, and terms in the study of religion and the supernatural, but inspire them to take more advanced courses by Ilya Vinitsky, Liliane Weissberg, Projit Mukharji, Talya Fishman, Annette Reed, David Barnes, David Spafford, Frank Chance, Michael Meister, Paul Goldin, Renata Holod, Paul Rozin, among several others.

Fall
Also Offered As: EALC 0502
1 Course Unit

REL 0180 Saints and Devils in Russian Literature and Tradition
This course is about Russian cultural imagination, which is populated with "saints" and "devils": believers and outcasts, the righteous and the sinners, virtuous women and fallen angels, holy men and their most bitter adversary - the devil. In Russia, where people's frame of mind has been formed by a mix of Eastern Orthodox Christianity and earlier pagan beliefs, the quest for faith, spirituality, and the meaning of life has invariably been connected with religious matters. How can one find the right path in life? Can a sinner be redeemed? Should one live for God or for the people? Does God even exist? In "Saints and Devils," we read works of the great masters of Russian literature and learn about the historic trends that have filled Russia's literature and art with religious and mystical spirit. Among our readings are old cautionary tales of crafty demons and all-forbearing saints, about virtuous harlots and holy fools, as well as fantastic stories by Nikolai Gogol about pacts with the devil, and a romantic vision of a fallen angel by Yury Lermontov. We will be in awe of the righteous portrayed by Nikolai Leskov and follow the characters of Fedor Dostoevsky, Leo Tolstoy and Anton Chekhov, as they ponder life and death and search for truth, faith, and love. In sum, over the course of this semester we will talk about ancient cultural traditions, remarkable works of art, and the great artists who created them. In addition to providing a basic introduction to Russian literature, religion, and culture, the course introduces students to literary works of various genres and teaches basic techniques of literary analysis. (No previous knowledge of Russian literature necessary. All readings are in English).
Not Offered Every Year
Also Offered As: COML 2013, REES 0180
1 Course Unit
RELS 0215 The Religion of Ancient Egypt
Weekly lectures (some of which will be illustrated) and a field trip to the
University Museum's Egyptian Section. The multifaceted approach to
the subject matter covers such topics as funerary literature and religion,
cults, magic religious art and architecture, and the religion of daily life.
Not Offered Every Year
Also Offered As: NELC 0215
1 Course Unit

RELS 0300 Gurus, Prophets & Aliens: Understanding New Religious Movements
This course offers a thematic introduction to the history of New Religious Movements (NRM) from the mid-19th century to the present day. Often labeled as "cults" by the state and established religious institutions, new religions offer modern believers alternative spiritual and ideological solutions to age-old problems. In this class, students will be introduced to the teachings and practices of prominent NRMs in North America, Europe, Asia, and Australia, from wide-spread movements such as Scientology, Mormonism, and the Unification Church to lesser known groups such as the Church of the Almighty God, Neo-Paganism, and Raelism. We will explore the emergence of the anti-cult campaign in the second half of the 20th century, the relationship between apocalyptic sects such as the Peoples Temple and the Branch Davidians and political and social protest, and the role of Asian religions such as the Maharishi Mahesh Yogi's Transcendental Meditation in the development of New Age religiosity. In addition, we will learn how new religious movements such as Wicca and the Children of God helped reshape gender roles and changed mainstream views about sexuality, and how developments in mass media and popular culture contributed to the creation of new groups such as the Star Wars inspired Temple of the Jedi Order (Jedism), the Church of the Latter-Day Dude (Dudeism), as well as UFO religions such as Heaven's Gate. Throughout the semester, students will be exposed to a wide variety of primary and secondary sources, from academic articles and scholarly essays to documentaries, feature films, and TV shows. No previous knowledge in Religious Studies is required. 1 Course Unit

RELS 0301 Introduction to the Bible: The Old Testament
An introduction to the major themes and ideas of the Hebrew Bible (the Old Testament), with attention to the contributions of archaeology and modern Biblical scholarship, including Biblical criticism and the response to it in Judaism and Christianity. All readings are in English.
Fall
Also Offered As: JWST 0303, NELC 0300
1 Course Unit

RELS 0305 Great Books of Judaism
Since the early medieval period, Jews have been known as "the People of the Book". Yet the books they produced and consumed changed drastically over time and place, spanning a variety of known genres and inventing new ones. These works, in turn, shaped the texts, ideas, and lives of Jews and others for millennia, spawned vast commentary traditions, and inspired new works. This course engages prominent Jewish texts, such as the Hebrew Bible, Rabbinic Literature, the works of major medieval philosophers, pre-modern intellectuals, and modern authors, situating them in their literary, cultural, and social contexts, and examining their later reception.
Fall
Also Offered As: JWST 0305, NELC 0305
Mutually Exclusive: NELC 5210
1 Course Unit

RELS 0310 Religion and Violence
Perhaps nothing haunts modern politics more than religious violence. Killing sprees done in the name of God reveal the limits of political power. What space is left for the rule of law when appeals to dogma and the divine supersede reason? The causes and nature of divinely motivated violence are so mystifying that they are a constant topic of debate among academics, political parties, and news commentators. What really motivates religious violence? Is it just economic of class grievances in disguise? Are all religions prone to violence? Are some religions more violent than others? Or, are religions only violent when they go awry, denying their true messages? And does religion need to be quarantined and privatized, to keep us all safe? In this course, we'll probe the dividing line separating religion from politics in an effort to better understand the causes and nature of religious violence. How do we know the difference between religious violence and political violence? What makes religion violent, and what makes violence religious?
1 Course Unit

RELS 0315 Jewish Literature in the Middle Ages in Translation
Course explores the cultural history of Jews in the lands of Islam from the time of Mohammed through the late 17th century (end of Ottoman expansion into Europe) – in Iraq, the Middle East, al-Andalus and the Ottoman Empire. Primary source documents (in English translation) illuminate minority-majority relations, internal Jewish tensions (e.g., Qaraism), and developments in scriptural exegesis, rabbinic law, philosophy, poetry, polemics, mysticism and liturgy.
Fall or Spring
Also Offered As: COML 0315, JWST 0315, NELC 0315
1 Course Unit

RELS 0325 Jewish Mysticism
Survey of expressions of Jewish mysticism from Hebrew Scripture through the 21st century. Topics include rabbinic concerns about mystical speculation, the ascent through the celestial chambers - heikhalot; the Book of Creation, the relationship of Jewish philosophy and mysticism, techniques of letter permutation, schematization of the Divine Body, the prominence of gender and sexuality in kabalistic thought, the relationship of kabbalah to the practice of the commandments, Zohar, Lurianic kabbalah, Hasidism, New-Age Jewish spirituality and the resurgence of Jewish mysticism in the 20th century. All readings will be in English translation.
Not Offered Every Year
Also Offered As: JWST 0325, NELC 0325
1 Course Unit
RELS 0330 Modern Catholic Christianity
At the turn of the twentieth century, Sigmund Freud hypothesized that religion was a dead duck. Many other thinkers of "modernity" have agreed with his thesis; and yet, over a century later, it is clear that religion is still a forceful presence in human culture. One religious tradition that has survived to the surprise (and even consternation) of some critics, is Roman Catholic Christianity. This first-year seminar will look closely at the Catholic Church in the twenty-first century, to explore the ways in which Catholicism has (and has not) adapted to modernity. We will begin with an investigation into the history of Roman Catholicism; how it is defined, and how it developed in relation to politics and culture in the Roman Empire, medieval and early modern Europe, and in the Americas; but most of the semester will focus on the Catholic Church of the past 200 years, especially as it appears in the United States. We will consider the relationship of Catholicism to many aspects of modern life, including science and technology, political systems and leaders, aesthetics (visual arts, music, literature and film), and understandings of gender and sexuality. There will be a mid-term examination and a final paper of 6 to 10 pages.
1 Course Unit

RELS 0335 Themes Jewish Tradition: Iberian Conversos: Jew-Christian?
Course topics will vary; they have included The Binding of Isaac, Responses to Catastrophes in Jewish History, Holy Men & Women (Ben-Amos); Rewriting the Bible (Dohrmann); Performing Judaism (Fishman); Jewish Political Thought (Fishman); Jewish Esotericism (Lorberbaum) Democratic culture assumes the democracy of knowledge - the accessibility of knowledge and its transparency. Should this always be the case? What of harmful knowledge? When are secrets necessary? In traditional Jewish thought, approaching the divine has often assumed an aura of danger. Theological knowledge was thought of as restricted. This seminar will explore the "open" and "closed" in theological knowledge, as presented in central texts of the rabbinic tradition: the Mishnah, Maimonides and the Kabbalah. Primary sources will be available in both Hebrew and English.
Fall or Spring
Also Offered As: JWST 0330, NELC 0330
1 Course Unit

RELS 0500 East Asian Religions
This course will introduce students to the diverse beliefs, ideas, and practices of East Asia's major religious traditions: Buddhism, Confucianism, Daoism, Shinto, Popular Religion, as well as Asian forms of Islam and Christianity. As religious identity in East Asia is often fluid and non-sectarian in nature, there religious traditions will not be investigated in isolation. Instead, the course will adopt a chronological and geographical approach, examining the spread of religious ideas and practices across East Asia and the ensuing results of these encounters. The course will be divided into three units. Unit one will cover the religions of China. We will begin by discussing early Chinese religion and its role in shaping the imperial state before turning to the arrival of Buddhism and its impact in the development of organized Daoism, as well as local religion. In the second unit, we will turn eastward into Korea and Japan. After examining the impact of Confucianism and Buddhism on the religious histories of these two regions, we will proceed to learn about the formation of new schools of Buddhism, as well as the rituals and beliefs associated with Japanese Shinto and Korean Shamanism. The third and final unit will focus on the modern and contemporary periods through an analysis of key themes such as religion and modernity, the global reception and interpretation of East Asian religions, and the relationship between religion and popular culture. The class will be conducted mainly in the form of a lecture, but some sessions will be partially devoted to a discussion of primary sources in translation. The course assignments are designed to evaluate the development of both of these areas. No previous knowledge of East Asian languages is necessary, and all readings will be available in English on the Canvas site in PDF form.
Fall
Also Offered As: EALC 0500
1 Course Unit

RELS 0504 Introduction to the Qur'an
The goal of this course is to provide students with a general introduction to the holy scripture of the religion of Islam, the Qur'an. In particular, students will become familiar with various aspects of Qur'anic content and style, the significance of the Qur'an in Islamic tradition and religious practice, scholarly debates about the history of its text, and contemporary interpretations of it. Through close readings of a wide range of passages and short research assignments, students will gain first-hand knowledge of the Qur'an's treatment of prophecy, law, the Biblical tradition, and many other topics. No previous background in Islamic studies or Arabic language is required for this course.
Fall, odd numbered years only
Also Offered As: NELC 0500
1 Course Unit

RELS 0666 Satan: History, Poetics, and Politics of the Archenemy
This course explores the oldest and the most powerful antagonist of human history. Satan, the Devil, referred with many other names in different religious traditions, has a rich history from ancient dualist cosmologies, through the monotheistic traditions, up to the modern day. In this course, we will survey the many expressions of human creativity that underlies the emergence and development of this character. We will study mythology, scripture, philosophy, medicine, material culture, ritual practice, and iconographic representations to discover the many dimensions of the archenemy over the course of two millennia. Through an extensive study of Satan, we will see the ways in which people answered some perennial questions, such as: What is a human? How do we relate to the cosmos and nature? How do we make meaning of suffering? What is morality?
Fall or Spring
1 Course Unit
RELS 0690 Love and Hate
This course focuses on important constants of human life as they are grappled with across religious traditions. Drawing on data across a range of religious traditions (such as Christianity, Hinduism, Judaism, Islam, Buddhism and Mesoamerican Religion), we will explore topics such as sexual identity, politics, religion and the individual in contemporary life; and eroticism, sex and love as they are reflected in religious literature, art and history. Divine love and religious devotion will be examined in relation to acts of violence, including human sacrifice and self-sacrifice in the past as well as the present. Other important questions considered in this course include: how does the body function as the locus in which religion is enacted? What is the conflict between our agency over our bodies and socioreligious claims over individual autonomy? Is violence an integral part of religion? What are religious understandings of the relationship between our agency over our bodies and socioreligious claims over individual autonomy? Is violence an integral part of religion? What are religious understandings of the relationship between love and sex? What does it mean for human beings to love God?
Spring
Also Offered As: SAST 0690
1 Course Unit

RELS 0790 The Religion of Anime
Be it shrine maidens, gods of death, and bodhisattvas fighting for justice; apocalypse, the afterlife, and apotheosis... the popular Japanese illustrated media of manga and anime are replete with religious characters and religious ideas. This course uses popular illustrated media as a tool for tracing the long history of how media and religion have been deeply intertwined in Japan.
Fall
Also Offered As: CIMS 0790, EALC 1550
1 Course Unit

RELS 1010 Religion and Evolution
This class will explore encounters between religion and evolutionary sciences, from the 19th century to the present. We will consider the history of evolutionary biology’s entanglements with faith, from the initial explosion of interest in the wake of Darwin’s Origin of the Species in 1859 to contemporary debates about creationism and intelligent design here in Pennsylvania in the 21st century. In the first half of the class, we will look at how writers, philosophers, and theologians from around the world and a range of religious traditions have assessed the evolution-religion relationship — some seeing conflict, others cord. In the second half, we will consider evolutionary approaches to the origins of religion, from late-19th century accounts to modern cognitive science and group selection theories. Topics covered will include scientific racism, sociobiology and the evolutionary origins of morality, primate religion, and the relationship between science, religion, and politics.
Fall or Spring
1 Course Unit

RELS 1020 Sacred Stuff: Religious Bodies, Places, and Objects
Does religion start with what’s in our heads? Or are religious commitments made, shaped and strengthened by the people, places, and things around us? This course will explore how religion happens in the material world. We’ll start with classical and contemporary theories on the relationship of religion to stuff. We’ll then consider examples of how religion is animated not just by texts, but through interactions with objects, spaces, bodies, monuments, color, design, architecture, and film. We’ll ask how these material expressions of religion move beyond private faith and connect religion to politics and identity.
Fall or Spring
Also Offered As: ANTH 1120, ARTH 0339
1 Course Unit

RELS 1050 Virtual Religion: Religion in the Digital Age
How has religion responded and adapted to modern technology? How has the internet impacted our understanding of community, religion, morality, and embodiment? Can piety be digitized; can artificial intelligence be religious? In the new world in which we are discussing the advantages and perils of automatization, humans vs. robots, advanced medical practices, and the like, where does religion fit in? How to understand the discussions around virtual religious gatherings during the global pandemic? This course explores the ways in which religion is expressed and experienced through digital media around the globe. We will read literature on philosophy of technology, environment, and material aspects of religion. In light of such theoretical frameworks, we will analyze media that have been changing the paradigms of religious practice, such as the internet, digitization of texts and objects, 3-d printing, virtual reality experiments, artificial intelligence, and the recent global health crisis. The course will draw examples from a variety of religious traditions and will study various conversations taking place between religion and technology. We will give special attention to the on-going debates about virtual religion in connection to the Covid-19 pandemic, and will speak about the future of religious communities and practice.
Not Offered Every Year
1 Course Unit

RELS 1100 American Jesus
Images and beliefs about Jesus have always been a compelling part of American life. This course seeks to examine the social, political, religious and artistic ways that Jesus has been appropriated and used in American life, making him a unique figure for exploring American religious life. Special attention will be given to how Jesus is used to shape social and political concerns, including race, gender, sexuality and culture.
Not Offered Every Year
Also Offered As: AFRC 1100
1 Course Unit

RELS 1105 Buddhist Arts of East Asia: Sources, Iconography and Styles
Survey of art and architecture created for Buddhist religious purposes in China, Japan, and to a lesser extent Korea, Tibet, and Central Asia. The course will include a brief overview of Buddhist monuments in South Asia, study of the iconography of Buddhist images in graphic and sculptural media, and analysis of a variety of Buddhist styles in painting, sculpture, and architecture.
Not Offered Every Year
Also Offered As: EALC 1105
1 Course Unit
RELS 1110 God and Money
The relationship between how people understand god(s) and money has always been a complicated one. Many religions have a relationship to money, whether in offerings, asking for blessings, or to build and create places of worship. God and Money explores the relationship between how religions view money, capitalism, and religion, and how movements like the prosperity gospel have expanded and complicated the interplay between religion, money and capitalism around the world.
Fall or Spring
1 Course Unit

RELS 1112 Religion and Cinema in India
This seminar examines key themes in the study of religion and Indian cinema. The aim of the seminar is to foreground discussions of performativity, visual culture, representation, and politics in the study of modern South Asian religions. Themes include mythological cinema, gender and sexuality, censorship and the state, and communalism and secularism. The films we will be deploying as case studies will be limited to those produced in Hindi, Telugu and Tamil (the three largest cinema cultures of India). No knowledge of any South Asian language is needed for this course however.
Not Offered Every Year
Also Offered As: CIMS 1112, SAST 1112
1 Course Unit

RELS 1120 Religious Ethics and Modern Society
Religious beliefs of Malcolm X and MLK formed their social action during the Civil Rights for African Americans. This seminar will explore the religious religious biographies of each leader, how religion shaped their public and private personas, and the transformative and transgressive role that religion played in the history of the Civil Rights movement in the United States and abroad. Students in this course will leave with a clearer understanding of religious beliefs of Christianity, The Nation of Islam, and Islam, as well as religiously based social activism. Other course emphases include the public and private roles of religion within the context of the shaping of ideas of freedom, democracy, and equality in the United States, the role of the "Black church" in depicting messages of democracy and freedom, and religious oratory as exemplified through MLK and Malcolm X.
Fall or Spring
Also Offered As: AFRC 1120
1 Course Unit

RELS 1130 How to Read the Bible
The aim of this course is to explore what the Bible means, and why it means such different things to different people. Why do people find different kinds of meaning in the Bible. Who is right in the struggle over its meaning, and how does one go about deciphering that meaning in the first place? Focusing on the book of Genesis, this seminar seeks to help students answer these questions by introducing some of the many ways in which the Bible has been read over the ages. exploring its meaning as understood by ancient Jews and Christians, modern secular scholars, contemporary fiction writers, feminist activists, philosophers and other kinds of interpreter.
Also Offered As: JWST 1130, NELC 0365
1 Course Unit

RELS 1150 American Jewish Experience
This course offers a comprehensive survey of American Jewish history from the colonial period to the present. It will cover the different waves of Jewish immigration to the United States and examine the construction of Jewish political, cultural, and religious life in America. Topics will include: American Judaism, the Jewish labor movement, Jewish politics and popular culture, and the responses of American Jews to the Holocaust and the State of Israel.
Fall or Spring
Also Offered As: HIST 1150, JWST 1150
1 Course Unit

RELS 1170 African American Religion
The unique history and experiences of African Americans can be traced through religion and belief. Through the mediums of literature, politics, music, and film, students will explore the religious experience of people of the African Diaspora within the context of the complex history of race in American history. The course will cover a broad spectrum of African American religious experience including Black Nationalism, urban religions, the "black church" and African religious traditions such as Santeria and Rastafarianism. Special attention will be paid to the role of race, gender, sexuality, and popular culture in the African American religious experience.
Fall or Spring
Also Offered As: AFRC 1117
1 Course Unit

RELS 1189 Islam and the West
How did Muslims and modern South Asia interact with the West? What Islamic idioms, orientations and movements emerged in the nineteenth and twentieth centuries? Was South Asia a prominent global center of Islam? What kinds of Islamic educational institutions developed in modern South Asia? How did Muslims appropriate technologies? What materials were printed by Muslims? Were Muslims part of the British army? What was jihad in modernity? How did Muslim 'modernists' and 'traditionalists' respond to the challenges of colonialism and modernity? What was the nature of Sufism in modern South Asia? What was the nature of political Islam in South Asia? How do some Muslims demand a Muslim State? What was the Partition? How has Muslim history been remembered in Bangladesh, India and Pakistan? This is an introductory course, and aims to introduce students to a facet of the long history of Islam, Muslims, and the West.
Not Offered Every Year
Also Offered As: SAST 1189
1 Course Unit

RELS 1200 The Bible in Translation
This course introduces students to one specific Book of the Hebrew Bible. "The Bible in Translation" involves an in-depth reading of a biblical source against the background of contemporary scholarship. Depending on the book under discussion, this may also involve a contextual reading with other biblical books and the textual sources of the ancient Near East. Although no prerequisites are required, this class is a perfect follow-up course to "Intro to the Bible."
Fall or Spring
Also Offered As: JWST 1200, NELC 1200
1 Course Unit
RELS 1259 Ultimate Meanings
Does life have some ultimate meaning? In their search for an answer to this question, people tell stories—stories about the creation of the world, about great human beings confronted with the mysteries of existence, about what happens to people after death. To explore the role of stories in finding meaning in life, we will focus on some of the most meaningful stories ever composed: the biblical stories of Adam and Eve, Abraham and his family, the Exodus, Job and his friends, and the life and death of Jesus. One of our goals is to try to retrieve the original meaning of these narratives, what their authors intended, but we will also explore what they have come to mean for readers in our own day for believers and skeptics, scientists and artists, fundamentalists and feminists.
1 Course Unit

RELS 1270 Gender and Religion in Israel
Contemporary Israel is a site not just of religious conflict but of clashing gender norms, bringing together a variety of groups - the secular and the religious, the Orthodox and the non-Orthodox - that are distinguished from each other in part by their understanding of gender and their treatment of women and LGBTQ people. As a way into understanding the interaction of religion and gender more broadly, this course survey various intersections of religion, gender and politics in Israel today, investigating how religion shapes gender relations, and is shaped in turn by gender.
Also Offered As: JWST 1270
1 Course Unit

RELS 1271 Israel: Law, Religion and State
This course aims to explore the role of religion in the political and legal culture of the state of Israel by examining Israel’s efforts and vision to be both a Jewish state and a democratic state at the same time. How does the state of Israel manage the challenges and conflicts inherent in such an identity, and what is there to be learned about the relationship between the state and religion by comparing the situation in Israel with the separation of Church and State in the United States? What is the status of gender equity in Israel when it is in apparent conflict with religious considerations? Religious freedom and the rights of people belonging to other religious groups? Students will have the opportunity to learn more about these and other questions as the course examines the political, legal and cultural foundations of Israel’s self-identity as a Jewish and democratic state.
Not Offered Every Year
Also Offered As: JWST 1272
1 Course Unit

RELS 1280 Spirituality in Contemporary Israel
This course maps out spiritual and religious life in Israel today, ranging from state-supported orthodox communities to groups that practice alternative forms of spirituality. What role do tradition, custom and ritual practice play in the construction of contemporary Israeli identity? How does the State shape religious and spiritual life? What forms of spiritual life are emerging beyond orthodoxy? The course will explore these and other questions through the examination of various media including newspapers, movies, and online conversations with Israeli religious leaders and important figures in popular culture.
Fall, even numbered years only
Also Offered As: JWST 1280
1 Course Unit

RELS 1280 The History of God
This course introduces the history of God as understood by modern scholars of religion. Why do people believe in gods in the first place? How is the God of the Old Testament different from earlier Near Eastern deities, or different from God as represented in the New Testament and the Quran? When and why did people come to question the existence of God, and how has the idea of God changed in the last century in light of experiences like the Holocaust, social movements like feminism, and the rise of new technologies like the Internet? This course will address these questions as it surveys the approaches scholars have developed to comprehend the history of a being who would seem beyond human comprehension.
Not Offered Every Year
Also Offered As: ANCH 1204, JWST 1320
1 Course Unit

RELS 1350 Introduction to the New Testament
What can be known - from historical perspectives - about the life and teachings of Jesus and his earliest followers? Did Jesus see himself as a teacher and/or a revolutionary and/or the messiah? If Jesus and the apostles were all Jews, how did Christianity emerge as a distinct "religion"? distinct from Judaism? And how is that this small Galilean and Judean movement came to shape world history and Western culture even to this day? This course explores these questions through a focus on the formation of the New Testament - from the letters of Paul in the early first century CE, to the collection and closure of the canon of Christian Scriptures in the fourth century CE. In the process, we will explore the lived worlds of the first followers of Jesus through readings of texts within and outside the New Testament but also through art, artifacts, and manuscripts at Penn and in Philadelphia.
Fall or Spring
1 Course Unit

RELS 1360 Death and the Afterlife in Ancient Judaism and Christianity
This course surveys the development of concepts about death and the afterlife in Judaism and Christianity, exploring the cultural and socio-historical contexts of the formation of beliefs about heaven and hell, the end of the world, martyrdom, immortality, resurrection, and the problem of evil. Readings cover a broad range of ancient sources, including selections from the Hebrew Bible and New Testament, as well as other Jewish and Christian writings (e.g., "apocrypha," "pseudepigrapha," Dead Sea Scrolls, classical rabbinic literature, Church Fathers, "gnostic" and "magical" materials). In the process, this course introduces students to formative eras and ideas in the history of Judaism, Christianity, and Western culture.
Fall or Spring
Also Offered As: JWST 1360
1 Course Unit

RELS 1370 Religion and the Global Future
What role is religion playing in shaping the future of the globe? Has it made the world more or less dangerous? Can it help humanity address challenges like international conflict, climate change and poverty, or is it making those problems worse? The goal of this course is to help students think through these questions in light of the scholarship on religion and its intersections with international relations and public policy.
Spring
1 Course Unit
RELS 1440 The Making of Scripture: From Revelation to Canon
The Bible as we know it is the product of a lengthy process of development, elaboration, contest, and debate. Rather than a foregone conclusion, the process by which the texts and traditions within the Bible, and the status ascribed to them, was turbulent and uncertain. This course examines that process, examining the Bible, traditions and communities from the Second Temple Period - such as the Dead Sea Scrolls and Community - that rewrote, reconsidered, revised, or rejected now well-recognized figures and stories, and constructed distinct ideas of what was considered scripture and how it should be approached. Even as the bible began to resemble the corpus as we now know it, interpretive strategies rendered it entirely different, such as Hellenistic Allegorizers, working from the platonic tradition, rabbinc readers who had an entirely different set of hermeneutics, early Christians, who offered different strategies for reading the "Old" and "New" Testaments alongside one another (and employing categories like "Old" and "New," themselves constituting a new attitude and relationship to and between these texts), and lastly early Muslim readers, who embraced many of the stories in the Bible, altered others, and debated the status of these corpuses under Islam.
Also Offered As: JWST 1400, NELC 1400
1 Course Unit

RELS 1430 Introduction to Islam
This course is an introduction to Islam as a religion as it exists in societies of the past as well as the present. It explores the many ways in which Muslims have interpreted and put into practice the prophetic message of Muhammad through historical and social analyses of varying theological, philosophical, legal, political, mystical and literary writings, as well as through visual art and music. The aim of the course is to develop a framework for explaining the sources and symbols through which specific experiences and understandings have been signified as Islamic, both by Muslims and by other peoples with whom they have come into contact, with particular emphasis given to issues of gender, religious violence and changes in beliefs and behaviors which have special relevance for contemporary society.
Fall or Spring
Also Offered As: NELC 0550, SAST 1430
1 Course Unit

RELS 1440 From Jesus to Muhammad: History of Early Christianity
"Jesus and Muhammad walk into a bar..." We can think about multiple ways to complete the joke. They could talk about prophecy and prophetic succession, God’s word, women, pagans and Jews, state authority, among others. This course traces the long arc of religious history, from the Jesus movement to the rise of Islam. Through texts, objects, buildings, and artistic representations we will study the time period that connects these two significant developments that majorly changed world history. Lectures and discussions will consist of close reading, analysis, and discussion of primary sources, analysis of non-literary media, and engagement with modern scholarship. We will raise questions about ancient and modern perspectives on religious practice, representation, authority, gender, race/ethnicity, memory, and interreligious encounters.
Not Offered Every Year
1 Course Unit

RELS 1520 What is Taoism?
This course introduces a wide variety of ideas and practices that have at one time or another been labeled as Daoist (or "Taoist" in the Wade-Giles Romanization), in order to sort out the different senses of the term, and consider whether these ideas and practices have had any common features. We will begin with the two most famous Daoist works—the Zhuangzi and the Daodejing (or Laozi). We will also survey other bio-spiritual practices, such as the meditational techniques of Inner Alchemy and the self-cultivation regimens known today as Qigong and Tai-chi, as well as the theological and ritual foundations of organized Daoist lineages, many of which are still alive across East Asia. We will conclude with a critical review of the twentieth-century reinvention of "Daoism," the scientization of Inner Alchemy, and the new classification of "religious" versus "philosophical Daoism." While familiarizing ourselves with the key concepts, practices, and organizations developed in the history of Daoism, this course emphasizes the specific socio-political context of each of them. Throughout the course, we will think critically about the label of "Daoist" (as well as "Confucian" and "Buddhist") in Chinese history and in modern scholarship. We will also question modern demarcations between the fields of philosophy, religion, and science.
Not Offered Every Year
Also Offered As: EALC 1520
1 Course Unit

RELS 1600 Jews and Judaism in Antiquity
A broad introduction to the history of Jewish civilization from its Biblical beginnings to the Middle Ages, with the main focus on the formative period of classical rabbinic Judaism and on the symbiotic relationship between Judaism, Christianity, and Islam.
Spring
Also Offered As: HIST 1600, JWST 1600, NELC 0350
1 Course Unit

RELS 1605 Muslims, Christians, and Jews in the Middle East: Historical Perspectives
A reading- and discussion-intensive seminar that addresses several recurring questions with regard to the Middle East and North Africa. How have Islam, Judaism, and Christianity influenced each other in these regions historically? How have Jews, Christians, and Muslims fared as religious minorities? To what extent have communal relations been characterized by harmony and cooperation, or by strife and discord, and how have these relations changed in different contexts over time? To what extent and under what circumstances have members of these communities converted, intermarried, formed business alliances, and adopted or developed similar customs? How has the emergence of the modern nation-state system affected communal relations as well as the legal or social status of religious minorities in particular countries? How important has religion been as one variable in social identity (along with sect, ethnicity, class, gender, etc.), and to what extent has religious identity figured into regional conflicts and wars? The focus of the class will be on the modern period (c. 1800-present) although we will read about some relevant trends in the early and middle Islamic periods as well. Students will also pursue individually tailored research to produce final papers. Prior background in Islamic studies and Middle Eastern history is required. Middle Eastern history is required. This class is intended for juniors, seniors, and graduate students.
Fall or Spring
Also Offered As: HIST 0836, JWST 1605, NELC 1605
1 Course Unit
RELS 1610 Medieval and Early Modern Jewry
Exploration of intellectual, social, and cultural developments in Jewish civilization from the rise of Islam in the seventh century to the assault on established conceptions of faith and religious authority in 17th century Europe, that is, from the age of Mohammed to that of Spinoza. Particular attention will be paid to the interaction of Jewish culture with those of Christianity and Islam.
Fall
Also Offered As: HIST 1610, JWST 1610, NELC 0355
1 Course Unit

RELS 1630 Witchcraft and Possession
This course explores world witchcraft and possession from the persecutions of the early seventeenth century through the rise of Wicca in the twentieth century. The mere mention of these terms, or of such close cousins as demonology, sorcery, exorcism, magic, and the witches Sabbath, raises clear ethnographic and historical challenges. How can the analysis of witchcraft— including beliefs, patterns of accusation, the general social position of victims, the intensity and timing of witch hunts, and its relation to religious practice, law, language, gender, social marginalization, and property—lead us to a more humane understanding of belief and action? Films such as The Exorcist, The Blair Witch Project, The Crucible, and Three Sovereigns for Sarah will focus discussion.
Fall or Spring
Also Offered As: ANTH 1630, GSWS 1630, HIST 1630
1 Course Unit

RELS 1640 Devotion's New Market: Religion, Economics, and the City
This graduate and undergraduate level course introduces students to the new forms of devotion as circulated in various urban centers in South Asia with a focus on growing market economy and urbanization. This course will particularly discuss case studies of how different modes of Hinduism, Islam, Christianity and other minor religions operate in an urbanized middle-class and educated communities. We will read theoretical and ethnographical works of contemporary research in religious studies and anthropology that deal with the questions of modernity, reformism and economic developmentalism. Throughout the semester, we focus on 1) how does religious forms such as sainthood practices, private and public rituals, narrative modes and everyday life evolve in the background of growing politics of development; 2) we discuss the tensions between classical notions of devotion and their new transformations in the city life, and finally 3) theoretically, we analyze concepts such as reformism, fundamentalism, recent discourses on identity politics and gender implications as connected to urban religious life.
Not Offered Every Year
Also Offered As: ANTH 1171, SAST 1171
Mutually Exclusive: SAST 5571
1 Course Unit

RELS 1690 Modern Jewish Intellectual and Cultural History
An overview of Jewish intellectual and cultural history from the late 18th century until the present. The course considers the Jewish enlightenment Reform, Conservative and Neo-Orthodox Judaism, Zionist and Jewish Socialist thought, and Jewish thought in the 20th century, particularly in the context of the Holocaust. Readings of primary sources including Mendelsohn, Geiger, Hirsch, Herzl, Achad-ha-Am, Baeck, Buber, Kaplan, and others. No previous background is required.
Fall or Spring
Also Offered As: HIST 1690, JWST 1690
1 Course Unit

RELS 1710 Jews in the Modern World
This course offers an intensive survey of the major currents in Jewish culture and society from the late middle ages to the present. Focusing upon the different societies in which Jews have lived, the course explores Jewish responses to the political, socio-economic, and cultural challenges of modernity. Topics to be covered include the political emancipation of Jews, the creation of new religious movements within Judaism, Jewish socialism, Zionism, the Holocaust, and the emergence of new Jewish communities in Israel and the United States. No prior background in Jewish history is expected.
Spring
Also Offered As: HIST 1710, JWST 1710, NELC 0360
1 Course Unit

RELS 1730 Introduction to Buddhism
This course seeks to introduce students to the diversity of doctrines held and practices performed by Buddhists in Asia. By focusing on how specific beliefs and practices are tied to particular locations and particular times, we will be able to explore in detail the religious institutions, artistic, architectural, and musical traditions, textual production and legal and doctrinal developments of Buddhism over time and within its socio-historical context. Religion is never divorced from its place and its time. Furthermore, by geographically and historically grounding the study of these religions we will be able to examine how their individual ethic, cosmological and soteriological systems effect local history, economics, politics, and material culture. We will concentrate first on the person of the Buddha, his many biographies and how he has been followed and worshipped in a variety of ways from Lhasa, Tibet to Phrae, Thailand. From there we touch on the foundational teachings of the Buddha with an eye to how they have evolved and transformed over time. Finally, we focus on the practice of Buddhist ritual, magic and ethics in monasteries and among lay communities in Asia and even in the West. This section will confront the way Buddhists have thought of issues such as “Just-War,” Women’s Rights and Abortion. While no one quarter course could provide a detailed presentation of the beliefs and practices of Buddhism, my hope is that we will be able to look closely at certain aspects of these religions by focusing on how they are practiced in places like Nara, Japan or Vietnam, Laos.
Fall or Spring
Also Offered As: EALC 0501, SAST 1730
1 Course Unit

RELS 1999 Independent Study
Students arrange with a faculty member to pursue a program of reading and writing on a suitable topic.
Fall or Spring
1 Course Unit

RELS 2014 Medieval Literature Seminar: Premodern Animals
This course introduces students to critical animal studies via medieval literature and culture. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: COML 2014, ENGL 2014
1 Course Unit
RELS 2040 Ancient Iranian Empires

Iran - as a landmass and a political entity - was central to the ancient world in a variety of ways. Ancient Iranian Empires were of central importance to - and centrally located in - the ancient world. It was the successor kingdom to the Assyrians and Babylonians; the power against which Greece and Rome defined themselves; and the crucible in which various communities and models of rule developed. This course offers a survey of the history of the ancient Persianate world, focusing in particular on the political and imperial entities that rose to power, the cultural, political, mercantile, and other contacts they shared with their neighbors to the East and West, and the communities and religious groups that arose and flourished within their lands. Ancient Iranian empires rivaled the Greek and Roman Empires to their West, and the central and eastern Asian Empires to their east, and the ongoing history of diplomacy, cultural contact, and war between these regions was formative to each and to the ancient world as a whole. Iran was home to and similarly formative for a variety of religions, including Zoroastrianism, Judaism, Christianity, Manichaeism, and Islam, and a central question of the course is the category of whiteness for understanding Jewish identity, and what does their association in the U.S. mask about Jews and Jewish life today? And what are the roles of Jews in the continuing struggle for racial justice now underway in the world? This course aims to address these questions in light of a range of intellectual perspectives and disciplinary approaches. It will be built around a series of weekly guest lectures by leading scholars of Jews, race and/or religion, and will include among the questions and topics that it explores opportunities to explore connections among scholarship, personal experience and activism.

Not Offered Every Year
Also Offered As: JWST 2070
1 Course Unit

RELS 2070 Jews, Race and Religion

Contemporary Jewish identity exists at an uneasy cross-section of race, religion and ethnicity. This course aims to expose students to the diversity of Jewish experience through the lenses of race and religion, examining the various ways these categories intersect and complicate each other. How can the study of race and religion help us to understand the present and future of Jewish life? How do Jews figure in the study of race and race relations in North America and Israel? Of what relevance is the category of whiteness for understanding Jewish identity, and what does their association in the U.S. mask about Jews and Jewish life today? And what are the roles of Jews in the continuing struggle for racial justice now underway in the world? This course aims to address these questions in light of a range of intellectual perspectives and disciplinary approaches. It will be built around a series of weekly guest lectures by leading scholars of Jews, race and/or religion, and will include among the questions and topics that it explores opportunities to explore connections among scholarship, personal experience and activism.

Not Offered Every Year
Also Offered As: ANTH 1103, NELC 2040
1 Course Unit

RELS 2070 Animals and Religion

Religion is full of animals—lions and lambs, monkeys and elephants, buffalo and snakes, even mythical beasts. The identity of the human being is explained, in many traditions, by contrast with the identity of other species. We know who we are because we know who they are, or do we? This course interrogates—through an exploration of sacred texts, art, film, and museum artifacts—the tension present in many traditions between an anthropocentric prioritization of the human being and religious resources that encourage a valuing of other animal species. We'll explore the way animals function both as religious objects and as religious subjects across diverse traditions, asking how human-animal relationships have shaped religion and how religion has shaped the way we think about and interact with other animals. We'll ask how religion has engaged with animals over time and across global cultures, understanding them as symbols, messengers, and manifestations of the divine; as material for ritual and sacrifice; as kin and subordinates; as food and as filth; as helpmeets and as tempters. How have these perspectives shaped animal ethics, influencing the treatment, use, and consumption of animals and their bodies? Finally, we'll ask what it means that we ourselves are evolved animals. How does our own animality factor into the practice of human religion? Is our religious capacity part of what sets us apart from other animals or is religiosity a trait we might expect to find in other species? To what extent is religion a function of the animal?

Not Offered Every Year
Also Offered As: ANTH 2120, ENVS 2420
1 Course Unit

RELS 2100 Religion and Ecology

This course will introduce the overlaps between religion and ecology. Rather than assuming that there is a necessary positive or negative relationship between religion and ecology, we will look at how these relationships have materialized in complicated ways at different moments in history. We'll consider perspectives and case studies from a range of different moments in history. We'll consider perspectives and case studies from a range of different traditions, with a special attention paid to the genesis of the field of Religion and Ecology in critiques of Christian attitudes toward the environment in the 1960s and 1970s.

Not Offered Every Year
Also Offered As: ANTH 2110, ENVS 2410
1 Course Unit

RELS 2110 Religion and Ecology

This course will explore the history of the religion(s) designated by the term 'Hinduism' from their earliest articulations down to the rise of modern reforms in the nineteenth century. The study of Hinduism is perhaps unique among the scholarly traditions on world religions in that it has to date had no serious connected account of its historical development, as scholars have preferred to take structural, sociological, phenomenological, and doctrinal approaches to the religion. The course, after a brief review of scholarly approaches to Hinduism and their interpretive legacies, will seek to develop a historical sense of the religion through attention to shifts in liturgy, ritual, theology, doctrine, sacral kingship, and soteriology. The course will include the reading of primary sources relevant to understanding these changes a well as highlight both modern and premodern traditions of their interpretation. It will also consider and assess some of the key interpretive ideas in the study of Hinduism, including, Sanskritization, Great and Little Traditions, cult formation, regional and popular religious movements, and canon formation. There will also be sustained consideration of the question of religion and socio-political power as well as relations between Hinduism and other religions like Buddhism and Islam.

Not Offered Every Year
Also Offered As: SAST 2250
1 Course Unit
RELS 2270 Queer and Religious in Israel
This course explores intersections of gender and religion among Jewish LGBTQ+ people in contemporary Israel. Using case studies, the course investigates the struggle for recognition, the creation of new ritual practices, and other dimensions of religious LGBTQ+ experience, both within Israel and in comparison to the United States. The course is offered at an introductory level and is meant for all students interested in the way gender and religion combine in the formation of identity. Not Offered Every Year
1 Course Unit

RELS 2350 Eastern Christianities
The history of Christianity is often told from the perspective of its spread westward from Israel to Rome. Yet, in the first millennium, there were more Christians living in the East, in places as far away as Persia, Yemen, India, China, and Mongolia, than in the West. Spread across the Asian continent, these Christians were actively involved in local and imperial politics, composed theological literature, and were deeply embedded in the cultural fabric of their host societies. This course traces the spread of Christianity eastward, paying particular attention to its regional developments, its negotiations with local political powers, and its contact with other religions, including Buddhism, Manichaism, and Islam. Readings will cover a broad range of sources, including selections from classical Syriac literature, Manichaean texts, Mesopotamian magic bowls, the so-called “Jesus Sutras,” and the Quran. All readings will be provided in English, and no background is presumed. Not Offered Every Year
Also Offered As: NELC 3260, SAST 2350
1 Course Unit

RELS 2390 Death, Disease & Demons in the Medieval World
How did life end for people in the medieval world? For most, death was not considered an end point because the soul journeyed on after the end of the body. But to where did it journey? And how would it be re-united with the body in the future? Between the classical period and the High Middle Ages, death shifted from a moment of quiet release to a frightening struggle in which angels and demons lay in wait for a soul as soon as it exited the body. This course will examine these changing beliefs about dying, focusing primarily on Christian medieval Europe but drawing comparative examples from Judaism, the Roman world, and Byzantine Christianity. Other topics we’ll consider include martyrdom and fears of bodily disembention; the emergence of purgatory and depictions of the afterworld; and the development of Christian rites for the dead. We’ll also investigate beliefs about the invisible powers of demons and the apocalyptic end of times. The course will also explore not only the process by which people entered the afterlife in the Middle Ages but also the causes of their deaths—what kinds of disease primarily afflicted medieval society, and how did age, class and gender intersect with disease to affect certain populations? We will end the semester by examining that most apocalyptic of Medieval events—the Black Death—in light of recent scientific discoveries, medieval medical explanations, and social changes brought on by this demographic catastrophe. Students will be exposed to a range of primary sources as well as evidence from tombstone inscriptions, architecture and manuscript illuminations, and archaeology. No prior knowledge of Medieval history is necessary. Not Offered Every Year
1 Course Unit

RELS 2440 From Miracles to Mindfulness
In 1902, the most famous philosopher in America, William James, revolutionized the study of religion by analyzing religion as an experience rather than as a set of doctrines or scriptures. In this course, we will pick up the inquiry that James and scholars such as Sigmund Freud began by exploring new approaches to the science and philosophy of religious experience. We will invite a series of experts from a wide range of fields—neuroscience, psychoanalysis, phenomenology, psychology, anthropology, to name only a few—to present their cutting-edged research on the nature of religious experience. How can religious experience be studied? What does the research reveal about religious experience? And what can we learn from such experiences about the workings of the human mind and human society? The course has two components: 1) a discussion-centered mini-seminar from 3:30-5:00 will open consideration of the subject with help from relevant readings 2) a lecture series every Tuesday from 5:00-6:30, featuring leading scholars who approach religious experience from different disciplinary angles or in light of different questions.
Also Offered As: JWST 2440
1 Course Unit

RELS 2450 Sufism
This course is a survey of the large complex of Islamic intellectual and social perspectives subsumed under the term Sufism. Sufi philosophies, beliefs, practices, and social organizations have been a major part of the Islamic tradition in all historical periods and Sufism has also served as a primary muse behind Islamic aesthetic expression in poetry, music, and the visual arts. In this course, we will attempt to understand the nature and importance of Sufism by addressing both the world of ideas and socio-cultural practices. We will trace the development of Sufism as a form of Muslim piety linked to key notions in the Quran as well as living practices of venerating the Prophet Muhammad. We will then immerse ourselves in Sufi theoretical writings through a select list of primary sources introducing foundational Sufi concepts concerning the annihilation of oneself in God, and the various stages of the Sufi quest for spiritual union. From there, we will shift to a discussion of the interactions between Sufism and philosophy by looking at the writings of two of the most influential Sufi thinkers, Al-Ghazali and Ibn al-Arabi. We will also study the important role of Sufi poetry through a close reading of a selection of Rumi’s works. In our discussion of the social and political dimensions of Sufism, we will explore the relations between Sufi movements and religious and political authority, focusing on antimonianism and patronage in the Ottoman Empire, and on Sufi responses to colonial rule. The last part of the course will look at the roles of Sufis and Sufism in contemporary societies from South Asia to North America.
Spring
1 Course Unit
REL 2460 Spirituality in the Age of Global Warming: Designing a Digital Mapping Project in Scalar
We are living in the midst of one of the most severe crises in the Earth’s history. Science confirms the glaciers are melting, hurricanes are growing more intense, and the oceans are rising. But there is also a deeply spiritual dimension to global warming that does not factor into the scientific explanations of the Anthropocene. “Spirituality” will be defined not in terms of one particular religion, but in relationship to a passionate study of the environment and nature. Readings will include materials from both the sciences and the humanities such as Donella Meadows’s Thinking in Systems, Elizabeth Kolbert’s The Sixth Extinction, Barbara Kingsolver’s Flight Behavior, and films such as Black Fish and Wale Rider. The theoretical focus of the course will be how “multispecies partnerships” can help us better understand and mitigate the effects of Climate Change. This class will work collaboratively on a digital archive with an interactive mapping interface designed in Scalar. This newly developed platform allows for the creation of multimedia exhibits that will document how Global Warming is affecting coral reefs in the tropics, glaciers in the Arctic and Antarctic, rainforests in the Amazon and rivers of Philadelphia. Students will also work individually to design interactive maps on the Scalar platform documenting their own personal interactions with the environment.
Not Offered Every Year
Also Offered As: ENGL 1599, ENVS 2430
1 Course Unit

REL 2531 Religion in Modern China
This course focuses on the history and role of religion in the Chinese cultural sphere (Mainland China, Taiwan, and the Diaspora) from the mid-19th century to the present day, focusing on the relationship between religious institutions and the state during the imperial, republican, and communist regimes. We will learn about the impact of religious ideas, practices, and organizations on social, political and economic processes and inspect the role of religion in the consolidation of individual, communal, and national identity. Adopting a comparative and interdisciplinary approach, we will attempt to ascertain the impact of the various Chinese religious traditions: Confucianism, Daoism, Buddhism, and popular sects, as well as global religions such as Islam and Christianity, on the internal sociopolitical structure of the Chinese state and their role in shaping power relations on a transregional, national, and local level. Special emphasis will be given to the role and use of the grand narratives of secularism and modernity in the shaping of the Chinese nation-state, as well as the value of using these frameworks in the study of modern China. The class is discussion based, supplemented by lectures, student presentations, and documentary films. No knowledge of Chinese is presumed. All readings will be in English.
Not Offered Every Year
Also Offered As: EALC 2531
1 Course Unit

REL 2540 Violence, Tolerance, Freedom
This seminar examines how the adjective “religious” has been used to modify the nouns “violence,” “tolerance,” and “freedom.” It traces the historical development of liberal ideas of tolerance and human rights, interrogates the common assumption that religion exerts a pervasive influence on politics and vice versa, critically examines the concept of terrorism, and connects the neoliberal ideal of unfettered free markets to the idea of being “spiritual but not religious.”
Spring
Also Offered As: ANTH 2540
1 Course Unit

REL 2550 Media and Religion
This course will look at the ways that religion intersects with media in South Asia—exploring how the medium is the message. The class begins with a discussion of how it is difficult to define “religion” and “media” in the Global South, specifically in South Asia. We will analyze how religion and media are inextricable, and also how news media has gone about the business of turning religion into news. The class will familiarize students with a variety of media forms aside from the obvious sources of internet, TV and newspaper—these include traditional architecture, devotional texts, devotional poetry, music, visual-sensory worship, modern film, recorded music, clothing, and live performance. We will conclude with a look at religion in forms of contemporary media, with particular attention to new media (TV, radio, internet). The course also offers students lectures providing a foundation of knowledge on a few of the primary religious traditions that will be central to the regions under discussion: Islam, Hinduism, Sikhism, Jainism, Zoroastrianism, and Christianity. There will be guest speakers and a visit to Penn Museum. While much of the course will be immersed in the history and the past, we will conclude by considering contemporary contexts, both globalized and local. There is no prerequisite for the course. All students are welcome.
Fall
Also Offered As: SAST 2551
1 Course Unit

REL 2560 Existential Despair
This is an experimental course that seeks to combine creative pedagogical methods and alternative scheduling to encourage intellectual reflection and emotional vulnerability through an in depth study of the way people cope with existential despair. Through a reading of memoirs, novels, poetry, and essays in an atmosphere conducive to close-reading and full-participation students will explore a wide-range of ways of coping with, describing, and comprehending moments of great despair. Lectures will explain the ritual, liturgical, homiletic, meditative, reflective, self-destructive, psycho-somatic, and ascetic ways despair is both conditioned and mitigated by different thinkers from various traditions over time. Format: This course is different from most others in that there is no homework, no outside reading, and no research papers. There will be no work given to students or expected of them outside of class. All work is done in class and class is very long (8 hours straight, once a week, from four PM to midnight). Students will eat together in class, there will be three bathroom breaks, but there will be no internet, no phones, no computers, and no auditors. Each student must be fully committed to the class and 75% of the grade will be determined by class participation.
1 Course Unit

REL 2710 The Politics of Shinto
Shinto-derived images and ideas frequently appear in Japanese anime and film, and journalists and academics frequently mobilize the term Shinto as a way of explaining Japan’s past or envisioning its future. The environmentalist left champions a green Shinto while Shinto-derived ideas serve as red meat for politicians pandering to Japan’s nationalist right. While the influential position Shinto occupies in Japanese sociopolitical life is therefore clear, the term Shinto itself is actually not. Depending on who one asks, Shinto is either the venerable indigenous religion of the Japanese archipelago, the irrefutably core of Japanese culture, a tiny subset of Japanese Buddhism, an environmentalist ethic, or some combination of these. This course investigates the multifarious types of Shinto envisioned by these competing interests groups.
Spring
Also Offered As: EALC 2550
Mutually Exclusive: RELS 6710
1 Course Unit
RELS 2730 Buddhist Literature
This course seeks to introduce students to the diversity of texts, textual practices, and textual communities in Buddhist Asia. We will look at cosmological, historical, narrative, psychological, grammatical, magical, didactic, and astrological genres to gain an understanding of how Buddhist writers from various places and times have expressed their views on the inner workings of the mind, the nature of action, the illusion of phenomena, the role of the ethical agent, the origin of chaos, the persistence of violence, the contours of the universe, and the way to Enlightenment.
Also Offered As: EALC 3203
1 Course Unit

RELS 2870 Religion and Society in Africa
In recent decades, many African countries have perennially ranked very high among the most religious. This course serves as an introduction to major forms of religiosity in sub-Saharan Africa. Emphasis will be devoted to the indigenous religious traditions, Christianity and Islam, as they are practiced on the continent. We will examine how these religious traditions intersect with various aspects of life on the continent. The aim of this class is to help students to better understand various aspects of African cultures by dismantling stereotypes and assumptions that have long characterized the study of religions in Africa. The readings and lectures are will be drawn from historical and a few anthropological, and literary sources.
Also Offered As: AFRC 2870, HIST 0837
1 Course Unit

RELS 3099 Honors Thesis Seminar
Required of honors majors who choose the research option.
Spring
1 Course Unit

RELS 3100 Orthodox America (SNF Paideia Program Course)
This course surveys the rich history of Orthodox Christian communities in North America from the early 19th century to the present day. Orthodox Christians from the Middle East, eastern Europe, Russia, Ethiopia, India, and elsewhere have immigrated to America for more than two hundred years, and contributed to the American religious, political, legal, literary, and material landscapes. Their stories are, however, rarely incorporated into the often Protestant-centric grand narratives of the history of religion in America. Through the lenses of post-colonial, immigration and diaspora, gender, media, and religious studies, this course surveys the literature, art, material culture, and religious practice of various Orthodox Christian communities, highlighting the multifaceted ways Orthodox Christianity shaped America. The classes will consist of robust study of primary sources and scholarly works (including theoretical, historical, and ethnographic works), critical engagement with representations of Orthodox Christians in mass media, social media, and popular culture, and museum and church visits. The course is offered both at graduate and advanced undergraduate level.
Mutually Exclusive: RELS 6100
1 Course Unit

RELS 3110 Religion & Politics in America
For over a century, scholars predicted religion’s influence in the public sphere would decline due to the forces of modernization and secularization. They were wrong. Religion remains a strong influence on politics in America, shaping laws on the state and national level. This seminar analyzes the relationship between religion and politics in the United States from a historical and contemporary perspective. Students will examine liberal and conservative viewpoints regarding religion on a range of topics, including abortion, gay rights, race, the environment and capitalism
1 Course Unit

RELS 3170 “Black Spiritual Journeys: Modern African American Religious Memoir”
This seminar presents African Americans who have created religious and spiritual lives amid the variety of possibilities for religious belonging in the second half of the twentieth century and the early twenty-first century. By engaging an emerging canon of memoirs, we will take seriously the writings of Black spiritual gurus, theologians, hip hop philosophers, religious laity, activists, LGBTQ clergy, religious minorities, and scholars of religion as foundational for considering contemporary religious authority through popular and/or institutional forms of African American religious leadership. Themes of spiritual formation and religious belonging as a process—healing, self-making, writing, growing up, renouncing, dreaming, and liberating—characterize the religious journeys of the African American writers, thinkers, and leaders whose works we will examine. Each weekly session will also incorporate relevant audiovisual religious media, including online exhibits, documentary films, recorded sermons, tv series, performance art, and music.
Fall
Also Offered As: AFRC 3452
1 Course Unit

RELS 3203 Power and Peril: The Paradox of Monarchy among Ancient Greeks, Romans, and Jews
We imagine ancient Greece and Rome as the cradles of democracy and republicanism, early Judea as a pious theocracy, but monarchy was the most common and prevalent form of government in antiquity (and the premodern world in general). In this class, we will take a special look at kinship among the Jews, Greeks, and Romans to assess and discuss similarities, differences, and mutual influences. In all these cultures, the king was a polarizing figure in reality and in conception. On the one hand, some revered the monarch as ideal leader, and monarchy provided the language with which to describe and even imagine the very gods. On the other, monarchs were widely reviled in both theory and practice, from the Greek tyrants to biblical Saul. The Emperor Augustus loudly denied his own affinity to the office of king, even as he ruled alone and was revered as a god. In other words, kings stood both for the ideal and the worst form of government. This class confronts the paradox of monarchical rule and will, through the lens of the king, explore ideas of god, government, human frailty, and utopianism.
Not Offered Every Year
Also Offered As: ANCH 3203, CLST 3203, JWST 3203
1 Course Unit
RELS 3330 Material Christianities
What can objects tell us about Christianity? How might a lavish mosaic, a withered body part, a dark crypt, or a pilgrim’s oil lamp challenge and complicate visions of the past extracted from texts? This course investigates the first thousand years of Christianity through the lens of material culture. The history of Christianity - from its nebulous beginnings in Palestine to its recognition as the official religion of the Roman Empire and subsequent expansion - is often narrated from a perspective that privileges the writings of elite men. To capture the rich diversity in Christian experience and expression, we will turn to the material practices of religion and explore how things, places, and bodily acts shaped what it meant to be Christian. Building on insights drawn from archaeology, art history, anthropology, and religious studies, we will seek to recover the experiences of diverse and often marginalized subjects and communities, and in the process, will problematize the categories of religion, authority, and identity. Regular visits to the Penn Museum and other collections in Philadelphia will complement lectures and group discussions.
Also Offered As: ARTH 3330
Mutually Exclusive: RELS 6333
1 Course Unit

RELS 3333 Love and Sex in Buddhism
From monastic celibacy to sanctified sex, this course examines the wide variety of attitudes and practices towards love, desire, attachment, and pleasure in the Buddhist tradition. Readings include primary sources from South, Southeast, and East Asia, secondary scholarship on Buddhist social history and doctrine, and theoretical literature on gender, sex, and the body.
Spring, odd numbered years only
Also Offered As: GSWS 4333
Mutually Exclusive: RELS 6333
Prerequisite: RELS 0050 OR RELS 1730 OR RELS 0130 OR RELS 0500 OR RELS 0790
1 Course Unit

RELS 3425 Gender, Religion, and China
This course examines the interrelationship among "gender," "religion," and "China" as conceptual and historical categories. We ask, for example, how gender plays critical and constitutive roles in Chinese religious traditions, how religion can be used both to reinforce and to challenge gender norms, how religious women impact Chinese society and culture, and what the construction of "China" as a cultural identity and as a nation-state has to do with women, gender, and religion. We will also think about what assumptions we have when speaking of gender, religion, and China, and the infinite possibilities when we strive to think beyond. We will read three kinds of materials: (1) scholarship on gender and religion in historical and contemporary China as well as the Chinese-speaking world, (2) scholarship concerning theories and methodology of gender and religious studies not necessarily focused on China, and (3) historical record of religious women in English translation.
Spring
Also Offered As: EALC 3425, GSWS 3425
1 Course Unit

RELS 3524 Daoist Traditions
This course examines the history of various intellectual and religious traditions that came to be known as Daoist (or Taoist in the Wade-Giles Romanization). We will begin with a critical review of the twentieth-century reinvention of Daoism and the new classification of religious versus philosophical Daoism, before tracing chronologically the textual, institutional, and social history of Daoist traditions from the fourth century B.C.E. While familiarizing students with the key concepts, practices, and organizations developed in the history of Daoism, this class emphasizes the specific socio-political context of each of them. Throughout the course, we will think critically about the labeling of Daoist (as well as Confucian and Buddhist) in Chinese history and in modern scholarship. We will also question modern demarcations between philosophy, religion, and science, as well as that between the spiritual and the physical.
Not Offered Every Year
Also Offered As: EALC 3524
1 Course Unit

RELS 3560 Living Deliberately: Monks, Saints, and the Contemplative Life
Students who are not Religious Studies Majors and are not honors students must gain permission from instructor to enroll in this course. This is an experimental course in which students will experience monastic and ascetic ways of living. There will be no examinations, no formal papers, and very little required reading. However, each participant will need to be fully committed intellectually and participate in the monastic rules in the course involving restrictions on dress, technology, verbal communication, and food. The course subject matter is about ways in which nuns, monks, shamens, and swamis in various religious traditions (Buddhist, Muslim, Catholic, Jain, Taoist, Hindu, Animist, among others) have used poetry, meditation, mind-altering chemicals, exercise, magic, and self-torture to cope with pain and suffering, as well as struggle with spiritual, ethical, and metaphysical questions concerning the nature of the soul, the afterlife, and reality. Through monastic and spiritual practice, this course hopes to provide students with an opportunity to struggle with these questions themselves.
Not Offered Every Year
1 Course Unit

RELS 3999 Directed Reading
Students arrange with a faculty member to pursue a program of reading and writing on a suitable topic.
Fall or Spring
1 Course Unit

RELS 4050 Religion, Social Justice & Urban Development
Urban development has been influenced by religious conceptions of social and economic justice. Progressive traditions within Judaism, Christianity, Islam, Buddhism, Hinduism, Jainism, Baha’i, Humanism and other religions and systems of moral thought have yielded powerful critiques of oppression and hierarchy as well as alternative economic frameworks for ownership, governance, production, labor, and community. Historical and contemporary case studies from the Americas, Europe, Africa, Asia, and the Middle East will be considered, as we examine the ways in which religious responses to poverty, inequality, and ecological destruction have generated new forms of resistance and development.
Spring
Also Offered As: AFRC 4050, URBS 4050
1 Course Unit
RELS 4140 Creating a Constitution in Israel
Why does the State of Israel not have a constitution? If it ever establishes a constitution, what will it consist of? How would it impact contemporary Israeli politics if it voted to accept one? The aim of this course, offered in conjunction with Penn's law school, is to explore the attempt to write a constitution for Israel in light of readings and the instructor's personal experience as a member of Israel's parliament (the Knesset) and chair of its Constitution, Law and Justice Committee at the time that it drafted a full Israeli constitution. We will explore legal and political issues and controversies involved in the effort to create a constitution, including issues bearing on the relationship of religion and the state in Israel, and will seek to understand the process in light of larger social, historical and philosophical contexts.
Not Offered Every Year
Also Offered As: JWST 4130
1 Course Unit

RELS 4300 Rabbinic Writers on Rabbinic Culture
This course traces reflections on rabbinic culture produced within Jewish legal literature of the classic rabbinic period - - Midrash, Mishna, and Talmud - - and in later juridical genres - - Talmudic commentary, codes and responses. Attention will be paid to the mechanics of different genres, the role of the underlying proof text, the inclusion or exclusion of variant opinions, the presence of non-legal information, the balance between precedent and innovation. Reading knowledge of Hebrew is required.
Not Offered Every Year
Also Offered As: HEBR 4000, JWST 4000
1 Course Unit

RELS 4305 Spirit and Law
While accepting "the yoke of the commandments", Jewish thinkers from antiquity onward have perennially sought to make the teachings of revelation more meaningful in their own lives. Additional impetus for this quest has come from overtly polemical challenges to the law, such as those leveled by Paul, medieval Aristotelians, Spinoza and Kant. This course explores both the critiques of Jewish Law, and Jewish reflections on the Law's meaning and purpose, by examining a range of primary sources within their intellectual and historical contexts. Texts (in English translation) include selections from Midrash, Talmud, medieval Jewish philosophy and biblical exegesis, kabbalah, Hasidic homilies, Jewish responses to the Enlightenment, and contemporary attempts to re-value and invent Jewish rituals.
Not Offered Every Year
Also Offered As: JWST 4305, NELC 4305
1 Course Unit

RELS 4998 Advanced Research Project
Guided independent research under department faculty supervision. Fall or Spring
1 Course Unit

RELS 4999 Culminating Experience
Required of majors who do not choose the honors thesis option.
1 Course Unit

RELS 5000 Theory and Method in the Study of Religion
This graduate seminar will map the theories and methods underpinning the contemporary study of religion. To draw this map, we will consider the history of the field. We'll proceed by examining how problems within religious studies have been resolved in different ways at different times, constructing a web of dialogs and debates between different figures across history. Specific topics to be considered will include experience, discourse, embodiment, feminism, postcolonialism, science, and materiality.
Not Offered Every Year
1 Course Unit

RELS 5010 Sacred Stuff in Medieval & Early Modern Europe
During devotional activities people engage with various objects and believe that they are imbued with religious significance. In this seminar, we will explore the material culture of religion across medieval and early modern Europe. From rosary beads and crucifixes to devotional books, prints, and paintings, a range of "sacred stuff" populated the lives of medieval and early modern Europeans. We will consider objects associated with daily life as well as rites of passage. We will study objects of Christian devotion and will consider how the advent of Protestantism and the Catholic Reformation influenced the types of objects devotees used for their devotion. In this seminar, we will discuss the material culture of Judaism and Islam, religions also practiced in medieval and early modern Europe. We will engage with "sacred stuff" from a variety of disciplinary perspectives, including art history, literature, archaeology, social history, and cultural history. We will then hone these skills with visits to local museums and libraries where we will view medieval and early modern books, objects and images. Course assignments will include an in-depth analysis of a devotional object from medieval or early modern Europe chosen by the student.
Not Offered Every Year
1 Course Unit

RELS 5022 The Icon
This seminar explores the Byzantine icon and its legacy. Spanning nearly two millennia, from the emergence of Christian sacred portraiture to the reception of icon painting by the early twentieth-century Russian avant-garde, the seminar will introduce you to the history, historiography, and theories of the icon. While our focus will be on Byzantium and the wider world of Orthodox Christianity, especially in the Slavic Balkans and Eastern Europe, the seminar will also engage with fundamental questions concerning the nature, status, and agency of images across cultures. Topics to be addressed include iconoclasm and the problem of idolatry; the social and ritual lives of icons; authorship, originality, and replication; viewer response and the cultural construction of vision; the frontier between art and the sacred image; and the afterlife of the icon in modernity. Open to graduate and undergraduate students.
Not Offered Every Year
Also Offered As: AAMW 5320, ARTH 5320
1 Course Unit

RELS 5050 Religion & Cinema
This course looks at religion in film. As we will see, this is not just a question of how religion is represented onscreen, but how cinematic objects make religious subjects. We'll explore the ways films are crafted through technique, performance, and distribution, then consider how these components shape religious bodies and religious traditions in turn.
Spring
Also Offered As: CIMS 5050
1 Course Unit
RELS 5090 Teaching Religion
Many faculty in academia, especially at a research university, think of themselves as scholars first and teachers second. The emphasis on scholarship is essential for a position at a research university, but what the culture of such institutions can obscure is the importance of teaching as part of the academic vocation. The purpose of this course is to help prepare graduate students to teach academic religious studies, not to teach them how to teach, a skill developed through experience and feedback, but to encourage students to plan in advance for their work as educators and to develop their teaching aspirations and approach in dialogue with issues and debates in Religious Studies, the Humanities and the field of Education.
Fall
1 Course Unit

RELS 5100 Civil Religion
In the first half of the course, we will examine the theoretical question of whether modern liberal societies need a civil religion - an idea first proposed in the late eighteenth century by writer who feared that without some unifying ideal or principle the centrifugal forces at work in modern societies would lead them to disintegrate. We will examine various authors who have defended the idea of civil religion in these terms (including J.J. Rousseau, J.G. Herder, and G.W.F. Hegel) as well as several who (implicitly or explicitly) have rejected the argument (Max Weber, Michael Oakeshott, Daniel Bell, and Niklas Luhmann). In the second half of the class, we will turn to the American context and explore the way these arguments have played themselves out from the time of the constitutional frames to today. In this part of the class, we will read and discuss excerpts from the Federalist Papers and Tocqueville’s Democracy in America, selected presidential speeches, nineteenth- and twentieth-century debates surrounding Manifest Destiny and American Exceptionalism, John Dewey/Richard Rorty’s proposal for a religion of democratic “common faith,” and the neoconservative case for a civil religion of “national greatness.” Along the way we will also have occasion to examine sociological treatments of civil religion by such authors as Emile Durkheim, Robert Bellah, and Seymour Martin Lipset.
Not Offered Every Year
1 Course Unit

RELS 5150 Syriac Christianity Past and Present
This course surveys the long and diverse history of Syriac-speaking Christianity, from the 4th century CE to the modern era. Syriac Christianity refers to the individuals and groups that identify with the linguistic, liturgical, and cultural traditions of the Syriac language, a dialect of Aramaic that has been spoken in Mesopotamia, Syria and beyond in late antiquity, through the Middle Ages until today. We will study the literature, material culture, ritual practice, theology, and other aspects of the Syriac Church, as well as its encounters with other religious communities. While we will explore the key figures and formative events that are remembered as foundational, we will incorporate the understudied elements of Syriac Christianity, such as gender, non-elite forms of piety and devotion, and music and aesthetics. Through the lens of Syriac Christianity, we will analyze the relationships between religion and language, scripture, myth-making, human body, race, state, geography, and movement. Knowledge of the Syriac language is not required for this course.
Fall or Spring
1 Course Unit

RELS 5170 Topics in American Religion
From Marvin Gaye, to Tammy Faye Baker, to Sarah Palin and James Baldwin, Pentecostalism has influenced many, including politicians, preachers, writers, and the media. One of the fastest growing religious movements in the world, Pentecostalism continues to have a profound effect on the religious landscape. Pentecostalism’s unique blend of charismatic worship, religious practices, and flamboyant, media-savvy leadership, has drawn millions into this understudied and often controversial religious movement. This course will chronicle the inception and growth of Pentecostalism in the United States, giving particular attention to beliefs, practices, gender, ethnicity, and Global Pentecostalism.
Not Offered Every Year
Also Offered As: AFRC 5170
1 Course Unit

RELS 5250 Cults and New Religious Movements
This course offers a thematic introduction to the history of New Religious Movements (NRM) from the mid-19th century to the present day. Often labeled as “cults” by the state and established religious institutions, new religions offer modern believers alternative spiritual and ideological solutions to age-old problems. In this class, students will be introduced to the teachings and practices of prominent NRMs, from global movements such as Scientology, Mormonism, and Hare Krishna to lesser known groups such as the Source Family, the Church of All Worlds, and Raëlianism. Main topics will include the emergence of the public discourse on cults, brainwashing, and deprogramming, the role of mass media in framing the relationship between NRMs such as the Peoples Temple and the Branch Davidians and violence, and the rise of populist cults of personality in the 21st century. In addition, we will learn how NRMs such as Wicca and the Children of God helped reshape gender roles and change mainstream views about sexuality, and explore the role played by race in shaping public perception of Asian-inspired religions such as Transcendental Meditation and the Unification Church. Throughout the semester, students will be exposed to a wide variety of primary and secondary sources, from academic articles and scholarly essays to documentaries, feature films, and TV shows.
Summer Term
1 Course Unit

RELS 5330 Material Christianities
What can objects tell us about Christianity? How might a lavish mosaic, a withered body part, a dark crypt, or a pilgrim’s oil lamp challenge and complicate visions of the past extracted from texts? This course investigates the first thousand years of Christianity through the lens of material culture. The history of Christianity - from its nebulous beginnings in Palestine to its recognition as the official religion of the Roman Empire and subsequent expansion - is often narrated from a perspective that privileges the writings of elite men. To capture the rich diversity in Christian experience and expression, we will turn to the material practices of religion and explore how things, places, and bodily acts shaped what it meant to be Christian. Building on insights drawn from archaeology, art history, anthropology, and religious studies, we will seek to recover the experiences of diverse and often marginalized subjects and communities, and in the process, will problematize the categories of religion, authority, and identity. Regular visits to the Penn Museum and other collections in Philadelphia will complement lectures and group discussions.
Also Offered As: ARTH 5330
Mutually Exclusive: ARTH 3330, RELS 3330
1 Course Unit
RELS 5340 Christian Thought From 1000 to 1800
This course will trace the development of Christian thought (including philosophy, theology, spirituality and mysticism) from the early Scholastic period to early Methodism. Readings will be from both primary and secondary sources. A research paper will be required of each student. Spring 2014: This course will give an overview of the main currents of Western Christian thought from the first age of reform (that is, the Central Middle Ages) through the Reformations of the sixteenth century, to the eve of the Enlightenment. In these centuries, "Christendom" underwent an almost constant process of internal and external self-definition. The most striking results of this process were the definitive separation of eastern and western Christianity and the division of the western church into what became known as Protestant and Catholic Christianity. Our focus will be on the changing definitions of Christian culture, including theological formulations (definitions of orthodoxy and heterodoxy), trends of spirituality and mysticism, forms of worship, and gender roles and definitions. Attention will also be given to institutional questions such as ecclesiastical hierarchy, monasticism, scholasticism and the rise of universities, and the changing relationship between the secular and religious worlds. Readings will be from both original and secondary sources. Additional primary sources will be available online, attached to the course Blackboard page. I will supply copies of other readings. Students will write two papers. The first (due Feb. 8) is a 5-7 pp. analysis of a primary source from the class, for which another text may be substituted by permission of the instructor. The second paper, due at the end of the course, should be a more ambitious research paper (at least 10 pp. for undergraduates, longer for graduate students) that includes some aspect of this history we did not directly study in class. Prerequisite: Some background in European history is helpful. Not Offered Every Year
1 Course Unit

RELS 5380 Topics in Medieval History
This course introduces students to the development of Christian biblical interpretation by focusing on ancient, medieval, and modern interpretations of the Sermon on the Mount. Students will encounter a variety of important interpreters (including Origen, Tertullian, Gregory of Nyssa, John Chrysostom, Augustine, Thomas Aquinas, Luther, Leo Tolstoy, Albert Schweitzer, Dietrich Bonhoeffer, and Hans Dieter Betz), guided by appropriate secondary materials. The Sermon on the Mount is part of the Gospel of Matthew and is often considered to summarize the essential teachings of Jesus of Nazareth. This course has no prerequisites. Readings will be made available in English. Students will be encouraged to do original research in the primary sources. Fall or Spring
1 Course Unit

RELS 5410 Religion and the Visual Image: Seeing is Believing
Seeing is Believing engages in a historical, theoretical, and cross-cultural analysis of the place of visuality in religion and of religion in visual culture. We will examine images, buildings, places, objects, performances and events. The geographical, cultural and historical scope of the material is broad, including subjects from Europe, the Islamic World, non-Muslim South Asia, the US and Latin America from the medieval period until the present. Theoretical works will be read in conjunction with representative examples to invite intellectual engagement in a socially and historically grounded way. Important issues to be covered include the relationship of visual to material culture; visual theories versus theories of vision; locating religion in human sensory experience; perception at individual and collective levels; authentics, fakes and simulacra; iconoclasm and image veneration; aesthetics, use and utility, and things. Not Offered Every Year
Also Offered As: NELC 6560, SAST 5410
1 Course Unit

RELS 5450 Sufi Thought and Literature
This course is an intensive survey of the rich variety of Islamic intellectual, literary and cultural phenomena subsumed under the term Sufism. Sufi philosophies, liturgical practices, and social organizations have been a major part of the Islamic tradition in all historical periods, and Sufism has also served as a primary muse behind Islamic aesthetic expression in poetry, music, and the visual arts. In this course, we will explore the various significations of Sufism by addressing both the world of ideas and socio-cultural practices. The course is divided into three broad sections: central themes and concepts going back to the earliest individuals who identified themselves as Sufis; Sufi metaphysics and epistemology as exemplified in the work of Ibn al-'Arabi and his school, and literary expressions as exemplified in the epic poem Layla and Majnun by Nizami, The Conference of the Birds by Attar, and in the life and poetry of Mawlana Jalaluddin Rumi. In studying this material, we will be concerned equally with establishing common patterns and seeing how being a Sufi has meant different things to various people over the course of history. Not Offered Every Year
1 Course Unit

RELS 5470 Topics in the Study of Religion
This course deals with various religious topics, such as Mass Religious Conversion.
Not Offered Every Year
Also Offered As: AFRC 5470
1 Course Unit

RELS 5520 Affect Theory and Power
This seminar will examine contemporary affect theory and its relationship with Michel Foucault’s theory of power. We will begin by mapping out Foucault’s “analytics of power,” from his early work on power knowledge to his late work on embodiment, desire, and the care of the self. We will then turn to affect theory, an approach which centralizes the non-rational, emotive force of power. No previous knowledge of theory is required. Also Offered As: COML 5520, GSWS 5520
1 Course Unit
RELS 5555 History of Hinduism
This course will explore the history of the religion(s) designated by the term ‘Hinduism’ from their earliest articulations down to the rise of modern reforms in the nineteenth century. The study of Hinduism is perhaps unique among the scholarly traditions on world religions in that it has to date had no serious connected account of its historical development, as scholars have preferred to take structural, sociological, phenomenological, and doctrinal approaches to the religion. The course, after a brief review of scholarly approaches to Hinduism and their interpretive legacies, will seek to develop a historical sense of the religion through attention to shifts in liturgy, ritual, theology, doctrine, sacral kingship, and soteriology. The course will include the reading of primary sources relevant to understanding these changes as well as highlight both modern and premodern traditions of their interpretation. It will also consider and assess some of the key interpretive ideas in the study of Hinduism, including, Sanskritization, Great and Little Traditions, cult formation, regional and popular religious movements, and canon formation. There will also be sustained consideration of the question of religion and socio-political power as well as relations between Hinduism and other religions like Buddhism and Islam.
Not Offered Every Year
Also Offered As: SAST 5550
1 Course Unit

RELS 5570 An Intellectual History of Pakistan: Religion and politics
The course will introduce students to significant events in Pakistan's history, critical foundational moments, and key religious-political texts. To make the course theoretically rigorous, I have conceptualized it in a broader framework of intellectual history. My focus would be on probing an interrelated set of questions about class, postcoloniality, Cold War politics, worker mobilizations, Political Islam, a non-Western history of citizenship and democracy, decoloniality, and feminist movements. Thus, the course's focus is not on a chronology of events in Pakistan but on providing a reading praxis and a form of inquiry with which we should understand the postcolonial histories of the global South.
1 Course Unit

RELS 5600 Creating Black Sacred Cultures: Readings in African American Religious History
This graduate seminar entertains the history of African American cultural production primarily in the twentieth century through foundational and emerging works in the field. This seminar focuses on African American religious history, with a focus on the material, visual, auditory, and literary religious constructions of everyday worlds, lives, and professions. Our readings attend to intersectional dimensions of African American religious life, highlighting the connections of race, gender identity, sexual orientation, class, alternative religious identities, and region. A focus on Black cultural production and its producers enriches African American religious history. Seminar participants will engage the theoretical concerns and methodological approaches that illuminate the ways that Black women and men capture and (re)shape the meaning of their worlds in a variety of domestic, professional, social, and political settings. The seminar's primary aims are to help participants define interests within the field to pursue further study, to consider potential areas of research, and to aid preparation for doctoral examinations.
Spring
Also Offered As: AFRC 5600
1 Course Unit

RELS 5710 Advanced Topics in Buddhism
This is an advanced course for upper level undergraduates and graduate students on various issues in the study of Buddhist texts, art, and history. Each semester the theme of the course changes. In recent years topics have included: Magic and Ritual, Art and Material Culture, Texts and Contexts, Manuscript Studies. Fall 2013 Topic: Buddhist repertoires (idosyncratic and personal assemblages of beliefs, reflections, wanderings, possessions, and practices) for a large part, material and sensual. Buddhists are often sustained by their collection, production, and trading of stuff amulets, images, posters, protective drawings, CDs, calendars, films, comic books, and even Buddha-inspired pillow cases, umbrellas, and coffee mugs. Aspirations are interconnected with objects. Beliefs are articulated through objects. Objects are not empty signifiers onto which meaning is placed. The followers and the objects, the collectors and their stuff, are overlooked in the study of religion, even in many studies in the growing field of material culture and religion. What is striking is that these objects of everyday religiosity are often overlooked by art historians as well. Art historians often remove (through photography or physical movement to museums or shops) images and ritual implements from their ritual context and are seen as objets d’art. While art historians influenced by Alfred Gell, Arjun Appadurai, and Daniel Miller have brought the study of ritual objects into the forefront of art historical studies, in terms of methodologies of studying Buddhist art, art historians have generally relegated themselves to the study of either the old and valuable or the static and the curated. This course aims to 1) bring a discussion of art into the study of living Buddhism. Art historians have primarily concentrated on the study of images, stupas, manuscripts, and murals produced by the elite, and primarily made before the twentieth century; 2) study art as it exists and operates in dynamic ritual activities and highly complex synchronic and diachronic relationships; 3) focus on the historical and material turn in the study of images, amulets, and murals in Buddhist monasteries and shrines.
Not Offered Every Year
Also Offered As: ARTH 5120, EALC 5501
1 Course Unit

RELS 5750 Religion in Eleven Objects
This advanced course for Religious Studies majors and minors approaches the study of religion through material objects. By looking at both sacred and everyday objects like rosaries melted in atomic blasts, magical amulets used in healing rituals, temple murals defaced by invading armies, manuscript stained by hold water, we will explore the many ways people express their spiritual aspirations and existential fears through objects. Not only will a different object from a variety of religious traditions be examined each week (eleven in total), but we will also explore different methodological and theoretical approaches to the study of religion. Psychological, phenomenological, bio-genetic, sociological, art historical, discursive, post-modern, and narrative approaches will be discussed.
1 Course Unit
RELS 5860 History of Islam in Asia
This class is designed to structure reflection on Islam and Islamic culture in South Asia-- Indonesia, Pakistan, India, and Bangladesh. Contrary to the popular perception that the Middle East defines Islam, Asian countries not only host the most Muslims in the world but have been the source of some of Islam's most important social and reform movements in the last three hundred years. This class looks at the history of Muslim societies across Asia not just as a religious community but also as a social and cultural bloc (a distinctive part of what Marshall Hodgson called the 'Islamicate' world, but also an area that challenges some of Hodgson's assumptions about the Islamicate world). This course allows for the study of the Muslim world between the years 1700 to present. The class will allow students to compare and contrast Muslim societies over the last three centuries, examine points of confluence for geographically- or culturally- distinct Muslim peoples in the last three centuries, and in their writing assignments focus on the history of one society in a wider Islamicate context. In the process students will gain a more nuanced awareness of how Islam has made an impact in Asian countries, and how Asian countries have in turn impacted Islam.
Fall or Spring
Also Offered As: SAST 5860
1 Course Unit

RELS 6080 Worlds of Late Antiquity
The period between the third and eighth centuries - from the Tetrarchy led by Diocletian to the rise of Umayyad Caliphate - is characteristically regarded as a period of ferment and change, whether that be on the still-influential model of Decline and Fall first proposed by Edward Gibbon in the eighteenth century or the somewhat less deterministic account of transformation favored by Peter Brown in the late twentieth. These narratives tend to emphasize the large-scale processes that played out over these centuries, such as the florescence and fragmentation of two world empires; the emergence of two highly influential monotheistic religions of the book; and the codification of legal systems that continue to dominate contemporary practices and theories of law. Equally, what characterizes these centuries is the particular granularity and character of the textual and archaeological evidence that exists for the functioning of this world at the micro-scale, as against the periods that preceded and followed. This course traces the social, economic, cultural, and religious institutions and processes that make this period distinctive, explores the nature of the evidence for those institutions and processes, and exposes to scrutiny the assumptions and preconceptions that underpin the scholarly narratives that have been constructed about them.
Not Offered Every Year
Also Offered As: ANCH 6080, NELC 6080
1 Course Unit

RELS 6100 Orthodox America
This course surveys the rich history of Orthodox Christian communities in North America from the early 19th century to the present day. Orthodox Christians from the Middle East, eastern Europe, Russia, Ethiopia, India, and elsewhere have immigrated to America for more than two hundred years, and contributed to the American religious, political, legal, literary, and material landscapes. Their stories are, however, rarely incorporated into the often Protestant-centric grand narratives of the history of religion in America. Through the lenses of post-colonial, immigration and diaspora, gender, media, and religious studies, this course surveys the literature, art, material culture, and religious practice of various Orthodox Christian communities, highlighting the multifaceted ways Orthodox Christianity shaped America. The classes will consist of robust study of primary sources and scholarly works (including theoretical, historical, and ethnographic works), critical engagement with representations of Orthodox Christians in mass media, social media, and popular culture, and museum and church visits. The course is offered both at graduate and advanced undergraduate level.
Fall or Spring
Mutually Exclusive: RELS 3100
1 Course Unit

RELS 6101 Topics in Medieval Studies: Premodern Animals (c.500-c.1500)
From St. Cuthbert, whose freezing feet were warmed by otters, to St. Guinefort, a miracle-performing greyhound in 13th-century France, to Melusine, the half-fish, half-woman ancestress of the house of Luxembourg (now the Starbucks logo), medieval narratives are deeply inventive in their portrayal of human-animal interactions. This course introduces students to critical animals studies via medieval literature and culture. We will read a range of genres, from philosophical commentaries on Aristotle and theological commentaries on Noah's ark to werewolf poems, bestial fables, political satires, saints' lives, chivalric romances, bestiaries, natural encyclopaedias, dietary treatises and travel narratives. Among the many topics we will explore are the following: animals in premodern law; comfort and companion animals; vegetarianism across religious cultures; animal symbolism and human virtue; taxonomies of species in relation to race, gender, and class; literary animals and political subversion; menageries and collecting across medieval Europe, the Near East, and Asia; medieval notions of hybridity, compositeness, trans-species identity, and interspecies relationships; art and the global traffic in animals (e.g., ivory, parchment); European encounters with New World animals; and the legacy of medieval animals in contemporary philosophy and media. No prior knowledge of medieval literature is required. Students from all disciplines are welcome.
Also Offered As: CLST 7710, COML 5245, ENGL 5245
1 Course Unit

RELS 6200 Studies in Medieval Jewish Culture
Through close reading of primary sources in the original Hebrew, participants in this seminar will explore historical circumstances that engaged and shaped medieval Jews in both Christian and Muslim lands, along with the enduring cultural projects that Jews themselves produced. Topics will include Geonica, Karasm, the encounter of Reason and Revelation; the Christian "Other": the Muslim "Other": legal codification; the Tosafist project; Rhineland Pietism; Minhag (custom); family life; the aesthetic dimension; Kabbalah; conversos; messianism. Students should be able to comfortably read unpointed Hebrew.
Fall
Also Offered As: HEBR 6200, JWST 6200
1 Course Unit
RELS 6333 Love and Sex in Buddhism
From monastic celibacy to sanctified sex, this course examines the wide variety of attitudes and practices towards love, desire, attachment, and pleasure in the Buddhist tradition. Readings include primary sources from South, Southeast, and East Asia, secondary scholarship on Buddhist social history and doctrine, and theoretical literature on gender, sex, and the body.
Spring, odd numbered years only
Mutually Exclusive: RELS 3333
1 Course Unit

RELS 6510 Approaches to Islamic Law
This course aims to introduce students to the study of Islamic law, the all-embracing sacred law of Islam. In this course we will attempt to consider many different facets of the historical, doctrinal, institutional and social complexity of Islamic law. In addition, the various approaches that have been taken to the study of these aspects of Islamic law will be analyzed. The focus will be mostly, though not exclusively, on classical Islamic law. Specific topics covered include the beginnings of legal thought in Islam, various areas of Islamic positive law (substantive law), public and private legal institutions, Islamic legal theory, and issues in the contemporary development and application of Islamic law.
Not Offered Every Year
Also Offered As: NELC 6510
1 Course Unit

RELS 6560 Religion in Modern South Asia
This core seminar introduces graduate students to key themes in the study of religion in modern South Asia, with a focus on debates related to Hinduism, Islam, and Christianity in India from the nineteenth century to the present. Drawing upon a range of methodological and theoretical approaches, the seminar covers themes such as colonial and missionary constructions of religious categories, Orientalism and textual authority, social and religious "reform" movements, questions of caste and gender, and debates about religious nationalisms, democracy, and secularism.
Not Offered Every Year
Also Offered As: SAST 6645
1 Course Unit

RELS 6632 Hinduism and Colonial Modernity
This seminar deals with the question of modernity in South Asia, with a specific focus on the construction, dissemination, and politicization of Hinduism in nineteenth and twentieth century India. It focuses on three central heuristic lenses—namely those of European imperialism, Orientalism, and nationalism—to study modernity and its discontents. What was at stake in the encounter between colonial modernity and India's religions in nineteenth and early twentieth centuries? How did colonial and native discourses on "reform" and "revival" shape Indian religions as we understand them today? How is modern "Hinduism" inextricably hinged to early forms of cultural transnationalism, Orientalism, and incipient forms of nationalism? This seminar approaches questions such as these and others, with an eye to understanding how nineteenth and early twentieth century discourses continue to shape contemporary understandings of Hinduism in deep and highly politicized ways.
Not Offered Every Year
Also Offered As: SAST 6632
1 Course Unit

RELS 6710 The Politics of Shinto
Shinto-derived images and ideas frequently appear in Japanese anime and film, and journalists and academics frequently mobilize the term Shinto as a way of explaining Japan's past or envisioning its future. The environmentalist left champions a green Shinto while Shinto-derived ideas serve as red meat for politicians pandering to Japan's nationalist right. While the influential position Shinto occupies in Japanese sociopolitical life is therefore clear, the term Shinto itself is actually not. Depending on who one asks, Shinto is either the venerable indigenous religion of the Japanese archipelago, the irreducible core of Japanese culture, a tiny subset of Japanese Buddhism, an environmentalist ethic, or some combination of these. This course investigates the multifarious types of Shinto envisioned by these competing interest groups.
Also Offered As: EALC 6550
Mutually Exclusive: RELS 2710
1 Course Unit

RELS 6800 Coptic
The course will be an introduction to the writing, grammar, and literature of Coptic.
Not Offered Every Year
Also Offered As: ANEL 6800
1 Course Unit

RELS 7420 Qur'anic Studies
This seminar explores the nature and uses of the Qur’an. It focuses on the practice and theory of Qur’an commentary and interpretation (safsir and ta’wil). A major portion of the course will involve a close examination of manuscripts of the Qur’an at the Philadelphia Museum of Art and the Kislak Center at the University of Pennsylvania, concentrating on the relationship between the text and marginalia as well as on the peculiarities of individual manuscripts. The rest of the course will center around reading commentaries on the Qur’an in manuscript as well as print. In addition, we will read and discuss theoretical works on the history and nature of Qur’an commentary, literary criticism and textual analysis, and spend some of the later section of the course discussing issues of translation and editorial processes involved in popularizing Qur’an commentaries on the internet. READING KNOWLEDGE OF ARABIC REQUIRED.
Not Offered Every Year
Also Offered As: NELC 7550
1 Course Unit

RELS 7425 Gender, Religion, and China
This course examines the interrelationship among "gender," "religion," and "China" as conceptual and historical categories. We ask, for example, how gender plays critical and constitutive roles in Chinese religious traditions, how religion can be used both to reinforce and to challenge gender norms, how religious women impact Chinese society and culture, and what the construction of "China" as a cultural identity and as a nation-state has to do with women, gender, and religion. We will also think about what assumptions we have when speaking of gender, religion, and China, and the infinite possibilities when we strive to think beyond. We will read three kinds of materials: (1) scholarship on gender and religion in historical and contemporary China as well as the Chinese-speaking world, (2) scholarship concerning theories and methodology of gender and religious studies not necessarily focused on China, and (3) historical record of religious women in English translation.
Not Offered Every Year
Also Offered As: EALC 7425
1 Course Unit
RELS 7524 Daoist Traditions
This course examines the history of various intellectual and religious traditions that came to be known as Daoist (or Taoist in the Wade-Giles Romanization). We will begin with a critical review of the twelfth-century reinvention of Daoism and the new classification of religious versus philosophical Daoism, before tracing chronologically the textual, institutional, and social history of Daoist traditions from the fourth century B.C.E. While familiarizing students with the key concepts, practices, and organizations developed in the history of Daoism, this class emphasizes the specific socio-political context of each of them. Throughout the course, we will think critically about the labeling of Daoist (as well as Confucian and Buddhist) in Chinese history and in modern scholarship. We will also question modern demarcations between philosophy, religion, and science, as well as that between the spiritual and the physical.
Not Offered Every Year
Also Offered As: EALC 7524
1 Course Unit

RELS 7537 Asian Religions in the Global Imagination
This seminar critically examines the missionary impulses, colonial exploits, and translation endeavors that contributed to the rise of Asian studies and the emergence of the scholarly notion of "Asian religions." It shows the crucial roles played by Asian agents and their European counterparts in the formation of modern conceptions of "religion"; it also engages reflexive questions regarding theory, method, and the geopolitical underpinnings of both Asian studies and the non-confessional academic study of religion. Students will conduct sustained research projects on the country or region of their choice.
Not Offered Every Year
Also offered as: EALC 7537
1 Course Unit

RELS 7710 Readings Pali Buddhism
This course is an intensive reading course in Pali literature from South and Southeast Asia. Students who wish to take the course must have at least 3 years of Sanskrit and a knowledge of at least one Southeast Asian language. Reading will be in philosophical, narrative, magical, medical, historical, and ritual texts.
1 Course Unit

RELS 7720 Islam, Gender, and Colonialism
In the latter 19th and early 20th centuries South Asians became increasingly concerned with women's education and other social issues related to gender. Following the fall of the Mughal Empire in 1857, the class of urban gentry previously associated with government service and land ownership struggled to shore up the boundaries of their communities. For Muslims particularly, as the place of religion was pushed from the public to the private sphere, the middle class sought to ground itself in a discussion of what constituted proper female behavior. Influenced by the advent of the Victorian purity text in the same period, Indian authors (primarily male) began to weigh in on female propriety. Nazir Ahmed is the most prominent author of 19th century Urdu purity texts, which sought to demonstrate praiseworthy female behavior. Students will have a chance to look at theoretics texts related to gender, as well as read primary sources of influential purity texts written by Nazir Ahmed and Ashraf 'Ali Thanawi. Playful and subversive fictional accounts challenged some of these reformist mores. Newspaper accounts contemporary to the period will also provide context on the gender debate. Male norms of comportment were equally crucial in the debate regarding gender boundaries – our discussion of purity texts will include the importance of male behavior, and the pleasure of transgression associated with crossing gender boundaries.
Spring, odd numbered years only
1 Course Unit

RELS 7730 Southeast Asian Manuscript Traditions
This is an advanced PhD seminar in which the students will need advanced proficiency in Pali and at least one Southeast Asian Language (Burmese, Thai, Khmer, Lao, Leu, Khoen, Shan, and/or Lanna). Original manuscripts from Penn's collection of Southeast Asian religious, medical, botanical, historical, art, and literary archives will be examined and discussed.
Not Offered Every Year
Also Offered As: EALC 7590, SAST 7730
1 Course Unit

RELS 9999 Independent Study
Students arrange with a faculty member to pursue a program of reading and writing on a suitable topic.
Fall or spring
1 Course Unit

Robotics (ROBO)

ROBO 5970 Master's Thesis Research
Fall or spring
1 Course Unit

ROBO 5980 Capstone Project
This capstone project course gives students the opportunity to design, develop, and test complex robotics systems that address a societal or consumer need. Projects are devised by the team, sponsored by industry, or formulated by Penn professors. Each project is approved by a faculty advisor and the graduate program chair. Topics treated in the course include project planning, prototyping, testing and evaluation, patent and library searches, intellectual property, ethics, and technical writing and presentations. Students can register up to two credit units and the credits can count towards their technical electives. Prerequisites: ROBO Foundational courses and any technical electives specified by faculty and/or industrial advisor.
Fall or spring
1 Course Unit
**ROBO 5990 Masters Independent Study**  
Fall or Spring  
1 Course Unit

**Romance Languages (ROML)**

**ROML 0100 Beginning Haitian Creole**  
This course serves as an introduction to communicating in the Haitian Creole language ("kreyol," for short), which we will use to explore the complex narrative of Haiti and its people. The class is designed for students with no prior knowledge of Haitian Creole and draws on a variety of methods and media utilizing the Penn Language Center’s innovative online learning platform. Using these tools, students will develop their abilities in oral and written communication throughout the semester, establishing a firm foundation for further study of the language. Students with research, professional, or personal interests in Haiti or the Haitian Diaspora are encouraged to enroll. Haitian Creole is spoken by over 12 million people around the world (including many in cities across the Eastern seaboard) and serves as a wholly developed language with a complete orthography capable of fulfilling the full range of expressive and communicative needs of its speakers. It is also a language with a relatively recent history, dating back to the French colonization of Haiti (then called "Saint-Domingue") in 1697, and has thus been shaped by the same cultural and social forces that define Haiti’s situation today. Students should, therefore, expect our immersive study of Haitian Creole to extend to historical examination of the economic, political, sociological, and spiritual spheres within which the language was borne. This course is intended for students with no past exposure to Haitian Creole. While prior experience with French, the language from which Haitian Creole derives most of its lexicon, may be advantageous, it is neither assumed nor preferred. 
Not Offered Every Year  
1 Course Unit

**ROML 6010 Language Teaching and Learning**  
Please check the department’s website for the course description.  
https://www.sas.upenn.edu/french/pc  
Fall or Spring  
Also Offered As: FREN 6010  
1 Course Unit

**ROML 6160 Approaches to Literary Texts**  
Most seminars focus on literary texts composed during a single historical period; this course is unusual in inviting students to consider the challenges of approaching texts from a range of different historical eras. Taught by a team of literary specialists representing diverse periods and linguistic traditions and conducted as a hands-on workshop, this seminar is designed to help students of literature and related disciplines gain expertise in analysis and interpretation of literary works across the boundaries of time, geography, and language, from classic to modern. Students will approach literature as a historical discipline and learn about key methodological issues and questions that specialists in each period and field ask about texts that their disciplines study. The diachronic and cross-cultural perspectives inform discussions of language and style, text types and genres, notions of alterity, fictionality, literariness, symbolism, intertextuality, materiality, and interfaces with other disciplines. This is a unique opportunity to learn in one course about diverse literary approaches from specialists in different fields.  
Not Offered Every Year  
Also Offered As: CLST 7601, COML 6160, EALC 8290, ENGL 6160, REES 6450  
1 Course Unit

**Russian (RUSS)**

**RUSS 0100 Russian I**  
This course is the first in a series of first-year courses in the traditional track, intended for students with no previous background in Russian. The course develops competence in speaking, reading, writing, and understanding contemporary Russian. It will also introduce you to Russian culture and Russian-speaking cultures around the world through exciting authentic materials, including internet sites and cultural artifacts, songs, videos, short stories, as well as conversations with native speakers. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Russian. By the end of the course, you will be able to engage in simple conversations in Russian on topics concerning your daily life. You will know greetings and everyday expressions, talk about people and objects in your life, your hobbies, likes and dislikes, past activities and your residence. You will also be able to write short personalized messages in Russian.  
Fall  
1 Course Unit

**RUSS 0150 Accelerated Russian I-II**  
TWO IN ONE: This is an intensive two-credit course covering two semesters of the first-year sequence in the traditional track (RUSS0100 and 0200). The course is designed for students with no background in Russian and develops competence in speaking, reading, writing and understanding contemporary Russian. It will also introduce you to Russian culture and Russian-speaking cultures around the world through exciting authentic materials, including internet sites and cultural artifacts, songs, videos, short stories, as well as conversations with native speakers. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Russian. By the end of the course, you will be able to engage in simple conversations in Russian on topics concerning your daily life. You will know greetings and everyday expressions, talk about people in your life, your hobbies and interests, past activities and future plans, your residence, food preferences and health. You will also be able to write short personalized messages in Russian in a variety of informal and formal contexts. Together with RUSS0300 and 0400 fulfills Penn Language Requirement.  
Not Offered Every Year  
2 Course Units
RUSS 0200 Russian II
This course is the second in a series of first-year courses in the traditional track, continuation of Russian I. The course continues to develop competence in speaking, reading, writing, and understanding contemporary Russian. We will continue the exploration of Russian culture and Russian-speaking cultures around the world through exciting authentic materials, including internet sites and cultural artifacts, songs, videos, short stories, as well as conversations with native speakers. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Russian. By the end of the course, you will be able to engage in simple conversations in Russian on many topics in informal and some formal contexts concerning your daily life. You will be able to talk in detail about your interests, study habits and daily schedule, plans for the future, food preferences and health and compare these with practices common in the target cultures. You will also be able to write longer personalized messages in Russian.

Spring
Prerequisite: RUSS 0100
1 Course Unit

RUSS 0201 Russian for Heritage Speakers I
This is the first in the series of literacy courses for students who have spoken Russian at home and seek to improve literacy skills and language competence. The course aims to enhance linguistic accuracy in spelling, grammar, word choice and pronunciation, as well as fluency, narrative structure and appropriate use of idiomatic expressions in both speaking and writing. We will also focus on developing effective reading and listening strategies. Course readings include works of Russian classics, contemporary literature and mass media on cultural issues and daily life of the Russian-speaking community around the world. Students who complete this course in combination with RUSS 0401 satisfy Penn Language Requirement.

Fall
1 Course Unit

RUSS 0300 Russian III
This course is the first in a series of second-year courses in the traditional track, continuation of Russian II. The course will strengthen students' competence in speaking, reading, writing, and understanding contemporary Russian and will expand students' active and passive vocabulary on a variety of topics. We will continue the exploration of Russian culture and Russian-speaking cultures around the world through exciting authentic materials, including internet sites and cultural artifacts, songs, videos, short stories, as well as conversations with native speakers. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Russian. By the end of the course, you will be able to engage in increasingly complex conversations in Russian on many topics in informal and formal contexts concerning your daily life, significant personal and cultural events, attitudes and perspectives. You will be able to write longer messages in a variety of informal and formal contexts.

Fall
Prerequisite: RUSS 0200 OR RUSS 5200 OR RUSS 0150
1 Course Unit

RUSS 0360 Intermediate Russian Grammar Review, Composition, and Conversation
The course will review and solidify foundational grammar concepts covered in Russian III, strengthen students' competence in speaking, reading, writing, and understanding contemporary Russian and will expand students' active and passive vocabulary on a variety of topics.

Prerequisite: RUSS 0200 OR RUSS 5200 OR RUSS 0150
1 Course Unit

RUSS 0400 Russian IV
This course is the second in a series of second-year courses in the traditional track, continuation of Russian III. The course will continue strengthening and expanding students' competence in speaking, reading, writing, and understanding contemporary Russian and increasing active and passive vocabulary on a variety of topics. We will continue the exploration of Russian culture and Russian-speaking cultures around the world through exciting authentic materials, including internet sites and cultural artifacts, songs, videos, short stories, as well as conversations with native speakers. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Russian. By the end of the course, you will be able to engage in increasingly complex conversations in Russian on many topics in informal and formal contexts concerning your daily life, significant personal and cultural events, attitudes and perspectives. You will be able to write longer messages in a variety of informal and formal contexts.

Spring
Prerequisite: RUSS 0300
1 Course Unit

RUSS 0401 Russian for Heritage Speakers II
This course is the second in the series of literacy courses for students who have spoken Russian at home and seek to improve literacy skills and language competence. The course continues to focus on enhancing linguistic accuracy in spelling, grammar, word choice and pronunciation, as well as fluency, narrative structure and appropriate use of idiomatic expressions in both speaking and writing. We will continue developing effective reading and listening strategies. Course readings mostly include works of Russian classics and focus on topics in Russian history as well as cultural issues and daily life of the Russian-speaking community around the world. Satisfies Penn Language Requirement.

Spring
Mutually Exclusive: RUSS 5401
Prerequisite: RUSS 0201 OR RUSS 5201
1 Course Unit

RUSS 1100 Russian Society Today
This course develops students' skills in speaking and writing about topics in Russian literature, contemporary society, politics, and everyday life. Topics include women, work and family; sexuality; the economic situation; environmental problems; and life values. Materials include selected short stories by 19th and 20th century Russian authors, video-clips of interviews, excerpts from films, and articles from the Russian media. Continued work on grammar and vocabulary building.

Fall
Mutually Exclusive: RUSS 5500
Prerequisite: RUSS 0400 OR RUSS 5400
1 Course Unit
RUSS 1200 Russia Society Today II
Primary emphasis on speaking, writing, and listening. Development of advanced conversational skills needed to carry a discussion or to deliver a complex narrative. This course will be based on a wide variety of topics from everyday life to the discussion of political and cultural events. Russian culture and history surveyed briefly. Materials include Russian TV broadcast, newspapers, Internet, selected short stories by contemporary Russian writers. Offered each spring.
Spring
Mutually Exclusive: RUSS 5600
Prerequisite: RUSS 1100
1 Course Unit

RUSS 3670 Russian for Business
This advanced language course focuses on developing effective oral and written communication skills and competencies required for working in a Russian-speaking business environment. Russian language grows its significance as a language of business communication in the Post-Soviet space. Students will discuss major aspects of doing business in Russian-speaking markets and learn about various companies and business practices in Eastern Europe, Central Asia, and the Caucuses using material from the business press and case studies. In addition, students will engage in creative projects, such as business negotiation simulations and building a competitive new business in a Russian-speaking market.
Not Offered Every Year
1 Course Unit

RUSS 5150 Accelerated Elementary Russian
TWO IN ONE: This is an intensive two-credit course covering two semesters of the first-year sequence (RUSS001 and 002). The course is designed for students with no background in Russian and develops language competence in speaking, reading, writing and understanding contemporary Russian. Class work emphasizes development of communication skills and cultural awareness. Together with RUSS003 and 004 fulfills Penn Language Requirement.
Not Offered Every Year
2 Course Units

RUSS 5201 Russian for Heritage Speakers I
This course is intended for students who have spoken Russian at home and seek to achieve proficiency in the language. Topics will include an intensive introduction to the Russian writing system and grammar, focusing on exciting materials and examples drawn from classic and contemporary Russian culture and social life. Students who complete this course in combination with RUSS361 satisfy the Penn Language Requirement. Prerequisite: Previous language experience required.
Fall
1 Course Unit

RUSS 5401 Russian for Heritage Speakers II
This course is the second in the series of literacy courses for students who have spoken Russian at home and seek to improve literacy skills and language competence. The course continues to focus on enhancing linguistic accuracy in spelling, grammar, word choice and pronunciation, as well as fluency, narrative structure and appropriate use of idiomatic expressions in both speaking and writing. We will continue developing effective reading and listening strategies. Course readings mostly include works of Russian classics and focus on topics in Russian history as well as cultural issues and daily life of the Russian-speaking community around the world. Satisfies Penn Language Requirement.
Spring
Mutually Exclusive: RUSS 0401
Prerequisite: RUSS 5201 OR RUSS 0201
1 Course Unit

RUSS 5670 Advanced Russian for Business
This advanced language course focuses on developing effective oral and written communication skills for working in a Russian-speaking business environment. Students will discuss major aspects of Russian business today and learn about various Russian companies using material from the current Russian business press. In addition, students will be engaged in a number of creative projects, such as business negotiation simulations, and simulation of creating a company in Russia. Prerequisite: At least one RUSS 400-level course or comparable language competence.
Not Offered Every Year
1 Course Unit

Russian and Eastern European Studies (REES)

REES 0010 Central and Eastern Europe: Cultures, Histories, Societies
The reappearance of the concept of Central and Eastern Europe is one of the most fascinating results of the collapse of the Soviet empire. The course will provide an introduction into the study of this region - its cultures, histories, and societies - from the foundation of the Holy Roman Empire to the enlargement of the European Union. Students are encouraged to delve deeper into particular countries, disciplines, and sub-regions, such as Central Europe, Eastern Europe, and the Balkans, through an individual research paper and class presentations.
Spring
1 Course Unit
REES 0100 Portraits of Old Rus: Myth, Icon, Chronicle
Three modern-day nation-states – Russia, Ukraine, and Belarus – share and dispute the cultural heritage of Old Rus, and their political relationships revolve around interpretations of the past. Has the medieval Rus state been established by the Vikings or by the local Slavs? Is early Rus a mother state of Russia or of Ukraine, and, therefore, should it be spelled ‘Kyivan Rus,’ or ‘ Kievans Rus’ in English? Has the culture of Russian political despotism been inherited from the Mongols, or is it an autochthonous ideology? The constructed past has a continuing importance in modern Russia, Ukraine, and Belarus, and it is keenly referenced, often manipulatively, in contemporary social and political discourse. For example, President Putin invaded Ukraine under a pretense that its territory has “always” been an integral part of Russia and its history. The course covers eight centuries of cultural, political, and social history of the lands that are now within the borders of Russia, Ukraine, and Belarus, from early historical records through the 18th century, a period that laid the foundation for the Russian Empire and the formation of modern nations. Students gain knowledge about formative events and prominent figures, as well as social and cultural developments during this period. The course takes multidisciplinary approach by combining the study of textual sources, objects of art and architecture, music, ritual, and film in their social and historical contexts. Students learn to analyze and interpret primary sources (historical documents and literary texts), identify their intellectual issues, and understand the historical, cultural, and social contexts in which these sources emerged. While working with these primary sources students learn to pose questions about their value and reliability as historical evidence. By exposing students to the critical examination of “the uses of the past,” the course aims to teach them to appreciate the authoritative nature of historical interpretation and its practical application in contemporary social and political rhetoric. The study of pre-modern cultural and political history through the prism of nationalism theories explains many aspects of modern Belarusian, Russian, and Ukrainian societies, as well as political aspirations of their leaders. At the end of the course, students should develop understanding of the continuity and change in the history of Russia, Ukraine and Belarus, their belief systems, and nationalistic ideologies, and will be able to speak and write about these issues with competence and confidence.
Fall
Also Offered As: HIST 0724
Mutually Exclusive: REES 6100
1 Course Unit

REES 0105 Portraits of Tsarist Russia: Intrigue, Innovation, Institution
This course covers the history, literature, and culture of Russia from the accession of Ivan IV "the Terrible" in 1547 to the death of Catherine II "the Great" in 1796, representing the monumental period of transition whereby the Tsardom of Russia became the Russian Empire. It is organized chronologically in week-long units that each explore an aspect of social and cultural history through a primary focus on a single literary text, film, or historical document. Main texts will be supplemented with additional materials, including paintings, icons, historical readings, cultural-analytical readings, excerpts from other literary works, etc. Our aim is not only to understand the social codes and rituals that informed early modern Russian life as such, but also to investigate the symbolic value later taken on by the monarchs, historical events, and social conflicts of this era, employing a dual focus on literary interpretation and social history throughout.
1 Course Unit

REES 0110 Portraits of Russian Society: Art, Fiction, Drama
This course covers 19C Russian cultural and social history. Each week-long unit is organized around a single medium-length text (novella, play, memoir) which opens up a single scene of social history birth, death, duel, courtship, tsar, and so on. Each of these main texts is accompanied by a set of supplementary materials: paintings, historical readings, cultural-analytical readings, excerpts from other literary works, etc. The object of the course is to understand the social codes and rituals that informed nineteenth-century Russian life, and to apply this knowledge in interpreting literary texts, other cultural objects, and even historical and social documents (letters, memoranda, etc.). We will attempt to understand social history and literary interpretation as separate disciplines yet also as disciplines that can inform one another. In short: we will read the social history through the text, and read the text against the social history.
Not Offered Every Year
Also Offered As: HIST 0823
1 Course Unit

REES 0130 Portraits of Soviet Society: Literature, Film, Drama
How can art and literature open a window on Russian lives lived over the course of the tumultuous twentieth century? This course adopts a unique approach to questions of cultural and social history. Each week-long unit is organized around a medium-length film, text or set of texts by some of the most important cultural figures of the era (novella, play, memoir, film, short stories) which opens up a single scene of social history: work, village, avant-garde, war, Gulag, and so on. Each cultural work is accompanied by a set of supplementary materials: historical readings, paintings, cultural-analytical readings, excerpts from other literary works, etc. We will read social history through culture and culture through history.
Spring
Also Offered As: HIST 0825
1 Course Unit

REES 0131 Putin's Russia: Culture, Society and History
Winston Churchill famously said that Russia "is a riddle, wrapped in a mystery, inside an enigma." Strikingly, today many informed Russians would agree: no one can provide definitive answers concerning what has driven Russian public life and politics over the past decade, as it ricocheted from the mass protests of 2011 and 2012, into the Pussy Riot scandal, then the intense patriotism that drove the Russian annexation of Crimea and intervention in Ukraine. In this course we will examine how Russians themselves communicate about and represent Russia and what this reveals about this complex society and its development. We will consider print journalism, novels, films, televised media, and the internet, paying close attention both to particular representations and to social institutions for their production, dissemination and consumption. Topics of special concern will include: conspiracy theories, representations of Russian history, collective identity and patriotism, intellectuals and elites, gender and sexuality, consumption and wealth. Putin's Russia is an introductory level course for which no prior knowledge of Russian history, culture or society is required. All readings and screenings will be in English.
Not Offered Every Year
1 Course Unit
REES 0150 Prague: The Making of a European Nation
The focus of the proposed course is Prague, the capital of the Czech Republic and the geographical center of Europe. From the 14th century, when it became a seat of the Holy Roman Emperor, to the Hussite Revolution; from the 19th-century national revival and the birth of the independent Czechoslovakia in 1918, to the "Prague Offensive," the last major operation of the Soviet Army in World War II and the re-appearance of the Soviet tanks after the "Prague Spring" in 1968, to the "Velvet" Revolution in 1989, and on to the present day as an EU member, Prague has been the site of major European developments and is where the Czech national identity was forged. Today a popular tourist destination with a uniquely preserved historical center that is part of the UNESCO World Heritage List, Prague combines national character with an increasingly cosmopolitan flavor. Focusing on what makes Prague a national capital, we will note how the "national" negotiates its place with the "global." As a cultural hub and political center, Prague is the repository of a cultural collective memory and of historical and emotional records. It thus presents an excellent case study of how a national identity could be formed around a single urban center. The study of the many layers of Prague's urban landscape allows us to observe how history is built into the physical environment, while the analysis of literary and artistic production reveals how the city has become perceived as a national shrine, embodied in word and image. Students will read the "Prague text" as humanists, anthropologists, and historians. They will learn to apply methods of literary, cultural, and historical analyses, and will ask questions of what it means to be a Czech, a Central European, a European, and even, perhaps, an American.
Not Offered Every Year
1 Course Unit

REES 0170 Europe: From an Idea to the Union
Employing the methods from the humanities and social sciences this interdisciplinary seminar will explore the variety of factors that contributed to dividing and uniting Europe. The continent will be considered as a geographical and cultural space and the construction of its identity will be examined through several historical periods from the Middle Ages to Modernism–comprising the rich layer of pan-European civilization across the ethnic or national borders. Finally, the structure of the European Union will be scrutinized including its institutions, decision-making mechanism, monetary union, collective security, Brexit, and Europe's changing relationship with Russia. Participants will be encouraged to select a particular topic in European studies and research it through assigned readings, film, literature, and other media.
1 Course Unit

REES 0171 The Socialist City
This course will explore the ideology and politics of the socialist city in the Soviet Union, East Europe, and the Second World. We will focus on how design professionals, politicians, and residents realized utopian socialist values in the face of national design traditions, local politics, and limited resources. Beginning with the Soviet case, the course will consider how planners and architects addressed modernization, multi-family housing, and neighborhood units in new city plans. We will consider capitals, like Moscow, as well as less well-known regional centers that had strong local identities, such as Tashkent, Belgrade, and Prague. We will examine the state’s use of public spaces for commemorations and preservationists’ reinterpretation of existing historic sites. In addition, we will consider how everyday residents experienced the socialist city, such as multi-family housing, shopping centers, and subway systems. We will address how citizens circumvented official state channels to obtain state housing and illegally build homes for themselves, sometimes in a folk style. The course will center on Soviet and East European cities, but also address socialist cities in Cuba and Africa whose design was influenced by transnational exchanges. Most broadly, this course explores the question, what was the socialist city? How did its planners, architects, and politicians understand it, and what did they intend to construct? And, what resulted? In the past fifteen years, North American scholars have begun to take seriously the study of the socialist city, and this course draws on the emerging scholarship on this exciting, cross-disciplinary topic. How do scholars understand the socialist city today? We will examine the shared legacies that socialist cities across East Europe shared with their Western European counterparts, as well as the particularities of design that have sparked North American scholars’ debates on what distinguished the socialist city from ones that emerged in a capitalist context. In our discussions, we will seek to understand how socialist design professionals understood their work and the emerging cities at the time, as well as how North American scholars view the socialist city today. Disciplinarily, the focus of the call will fall at the intersection of architectural history and politics.
Not Offered Every Year
Also Offered As: URBS 0171
1 Course Unit

REES 0172 Madness and Madmen in Russian Culture
Is "insanity" today the same thing as "madness" of old? Who gets to define what it means to be "sane," and why? Are the causes of madness biological or social? In this course, we will grapple with these and similar questions while exploring Russia's fascinating history of madness as a means to maintain, critique, or subvert the status quo. We will consider the concept of madness in Russian culture beginning with its earliest folkloric roots and trace its depiction and function in the figure of the Russian "holy fool," in classical literature, and in contemporary film. Readings will include works by many Russian greats, such as Pushkin, Gogol, Dostoevsky, Chekhov, Bulgakov and Nabokov.
Not Offered Every Year
Also Offered As: COML 1097
1 Course Unit
REES 0180 Saints and Devils in Russian Literature and Tradition
This course is about Russian cultural imagination, which is populated with "saints" and "devils": believers and outcasts, the righteous and the sinners, virtuous women and fallen angels, holy men and their most bitter adversary - the devil. In Russia, where people's frame of mind has been formed by a mix of Eastern Orthodox Christianity and earlier pagan beliefs, the quest for faith, spirituality, and the meaning of life has invariably been connected with religious matters. How can one find the right path in life? Can a sinner be redeemed? Should one live for God or for the people? Does God even exist? In "Saints and Devils," we read works of the great masters of Russian literature and learn about the historic trends that have filled Russia's literature and art with religious and mystical spirit. Among our readings are old cautionary tales of crafty demons and all-forbearing saints, about virtuous harlots and holy fools, as well as fantastic stories by Nikolai Gogol about pacts with the devil, and a romantic vision of a fallen angel by Yury Lermontov. We will be in awe of the righteous portrayed by Nikolai Leskov and follow the characters of Fedor Dostoevsky, Leo Tolstoy and Anton Chekhov, as they ponder life and death and search for truth, faith, and love. In sum, over the course of this semester we will talk about ancient cultural traditions, remarkable works of art, and the great artists who created them. In addition to providing a basic introduction to Russian literature, religion, and culture, the course introduces students to literary works of various genres and teaches basic techniques of literary analysis. (No previous knowledge of Russian literature necessary. All readings are in English).
Not Offered Every Year
Also Offered As: COML 2013, RELS 0180
1 Course Unit

REES 0190 Russia and the West
This course will explore the representations of the West in eighteenth- and nineteenth-century Russian literature and philosophy. We will consider the Russian visions of various events and aspects of Western political and social life, revolutions, public executions, resorts, etc., within the context of Russian intellectual history. We will examine how images of the West reflect Russia's own cultural concerns, anticipations, and biases, as well as aesthetic preoccupations and interests of Russian writers. The discussion will include literary works by Karamzin, Pushkin, Gogol, Dostoevsky, Leskov, and Tolstoy, as well as non-fictional documents, such as travelers' letters, diaries, and historiosophical treatises of Russian Freemasons, Romantic and Positivist thinkers, and Russian social philosophers of the late Nineteenth century. A basic knowledge of nineteenth-century European history is desirable. The class will consist of lectures, discussion, short writing assignments, and two in-class tests.
Not Offered Every Year
Also Offered As: COML 2020, HIST 0824
1 Course Unit

REES 0191 Imagining Asia: Russia and the East
This course examines the important role of the East in Russian literature and nationalism. Focusing specifically on the Caucasus, Central Asia, Iran, and Turkey, this course will analyze how Russian writers connected the East to Russian identity, and how their approaches implicate different artistic periods (Romanticism, Realism, Socialist Realism, Post-Modernism) and different political atmospheres (Tsarist Russia, Soviet Union, Post-Soviet). Students will also ascertain how Russian literature on the East has affected and influenced literature and political movements produced in the East. In particular, students will analyze how Soviet Central Asian writers, Iranian Socialists, and contemporary Turkish writers were influenced by Russian literature and Soviet ideology. Ultimately, this course examines the impact of Russia's cultural and political history in 20th century Central Asia and the Middle East. Readings will include works by Pushkin, Lermontov, Tolstoy, Dostoevsky, Platonov, Chingiz Aitmatov, Sadek Hedayat, Orhan Pamuk, and others. All readings are in English.
Not Offered Every Year
1 Course Unit

REES 0230 Eastern and Central European Art, 1917 to the Present
This is a survey course examining the prolific and significant artistic production of the region in four parts: the rise and fall of the Avant-Garde (1917-1934), the development of Socialist Realism (1934-1953), the embrace of post-war Nonconformism (1953-1989); and the proliferation of contemporary art (1989 - 2023). The course will include Russian artists, where applicable; however, it will intentionally recenter the narrative around artists from the satellite states (Poland, Hungary, Romania) and republics of the Soviet Union (Latvia, Lithuania, Estonia, and Ukraine). In light of the war in Ukraine, additional emphasis on Ukrainian art will be provided. Subtopics will include architecture and graphic design; monuments and memory; colonialism and postcolonialism; feminism and LGBTQIA+; the environment; protest. All readings and lectures will be in English.
Not Offered Every Year
Also Offered As: ARTH 2879
Prerequisite: n/a
1 Course Unit

REES 0270 Russian History in Film
This course draws on fictional, dramatic and cinematic representations of Russian history based on Russian as well as non-Russian sources and interpretations. The analysis targets major modes of imagining, such as narrating, showing and reenacting historical events, personae and epochs justified by different, historically mutating ideological postulates and forms of national self-consciousness. Common stereotypes of picturing Russia from "foreign" perspectives draw special attention. The discussion involves the following themes and outstanding figures: the mighty autocrats Ivan the Terrible, Peter the Great, and Catherine the Great; the tragic ruler Boris Godunov; the brazen rebel and royal impostor Pugachev; the notorious Rasputin, his uncanny powers, sex-appeal, and court machinations; Lenin and the October Revolution; images of war; times of construction and times of collapse of the Soviet Colossus.
Not Offered Every Year
Also Offered As: CIMS 2750
Mutually Exclusive: REES 5270
1 Course Unit
REES 0275 Montage and Revolution: Conceptual Cinema of Sergei Eisenstein
The 1917 Russian Revolution was to inaugurate a new epoch in human history. Working with and within this time of political and cultural upheaval, Sergei Eisenstein inaugurated a revolution in montage technique that would usher a new age of cinema, a new practice of art, and a new way of thinking in images. Eisenstein's cinematic techniques aimed at producing concepts in the language of film. It also sought modes of expression inaccessible to discursive thought. Navigating a tenuous line between art and politics, Eisenstein's works explore the social and political power of affectivity and expressivity, and the cinematic potential for both representing and eliciting emotion in individual viewers and masses alike. In conversation with the tumultuous political and cultural shifts of the Soviet society from the revolutionary 1920s to the age of Stalinism and the World War II, this course will follow Eisenstein's filmography, from his monumental reconstruction of the revolutionary Petersburg in October to the engagement with representations of history during the Stalinist era in Ivan the Terrible. We will engage with Eisenstein's theoretical writings, his cartoons and sketches, public speeches, and his lost and unrealized projects, such as his collaboration with Hollywood and a plan to film Marx's Capital. In this process, we will learn basic tenets of film and aesthetic theory, while practicing the analysis of film with attention to form and content. Following the lead of Eisenstein's artistic and theoretical production, we will engage with questions his work raises: How can cinematography elicit and manipulate the emotions of its viewer? What is expressivity? Can film represent philosophical concepts? What is cinema's relation to propaganda and politics? What is revolutionary about the medium of film, and what is film's role in the revolution? No prior knowledge of Russian history, culture or society is required, nor is specialized knowledge of film history or film analysis. All readings will be in English and all films will be subtitled in English.
Fall or Spring
Also Offered As: CIMS 0275
1 Course Unit

REES 0280 Andrei Tarkovsky: Cinema, Spirit and the Art of the Long Take
Andrei Tarkovsky is universally acknowledged to be the greatest Soviet filmmaker of the last half of the twentieth century. Kurosawa claimed that Tarkovsky had "no equal among film directors alive now." Bergman called his work "a miracle." His films are beautiful, intellectually challenging, and spiritually profound. They also represent a prolonged exploration of the potential of the long take - unusually extended, continuous shots. Tarkovsky's works range from "Ivan's Childhood", a study of wartime experience through the eyes of a child; to "Solaris", a philosophical essay in the form of a science-fiction thriller; to "Andrei Rublev" an investigation of the power of art and spirituality. In this course, we will study Tarkovsky's films and life, with attention to his formal and artistic accomplishments, his thought and writings, and the cultural and political contexts of his work. Each student will learn to analyze film form and content and write two short and one longer paper on some longstanding aspect of Tarkovsky's work of the student's choice.
Not Offered Every Year
Also Offered As: CIMS 2501
1 Course Unit

REES 0301 The Rise and Fall of the Russian Empire, 1552-1917
How and why did Russia become the center of the world's largest empire, a single state encompassing eleven time zones and over a hundred ethnic groups? To answer this question, we will explore the rise of a distinct political culture beginning in medieval Muscovy, its transformation under the impact of a prolonged encounter with European civilization, and the various attempts to re-form Russia from above and below prior to the Revolution of 1917. Main themes include the facade vs. the reality of central authority, the intersection of foreign and domestic issues, the development of a radical intelligentsia, and the tension between empire and nation.
Not Offered Every Year
Also Offered As: HIST 0240
Mutually Exclusive: HIST 5240
1 Course Unit

REES 0310 The Rise and Fall of the Russian Empire, 1552-1917
Out of an obscure, backward empire, the Soviet Union emerged to become the great political laboratory of the twentieth century. This course will trace the roots of the world's first socialist society and its attempts to recast human relations and human nature itself. Topics include the origins of the Revolution of 1917, the role of ideology in state policy and everyday life, the Soviet Union as the center of world communism, the challenge of ethnic diversity, and the reasons for the USSR's sudden implosion at the end of the century. Focusing on politics, society, culture, and their interaction, we will examine the rulers (from Lenin to Gorbachev) as well as the ruled (peasants, workers, and intellectuals; Russians and non-Russians). The course will feature discussions of selected texts, including primary sources in translation.
Not Offered Every Year
Also Offered As: HIST 0290
1 Course Unit

REES 0410 Masterpieces of 19th-Century Russian Literature
A bronze monument to an all-powerful emperor comes to life and pursues a poor everyman through the streets, driving him to his death. A studious young man kills an old woman as a philosophical experiment. A young woman at the height of aristocratic society abandons her husband and young son to devote herself to her lover. These and other tales from the classics of nineteenth-century Russian literature will touch and delight you, get under your skin, and even attempt to show you how to live. Out of an obscure, backward empire, the Soviet Union emerged to become the great political laboratory of the twentieth century. This course will trace the roots of the world's first socialist society and its attempts to recast human relations and human nature itself. Topics include the origins of the Revolution of 1917, the role of ideology in state policy and everyday life, the Soviet Union as the center of world communism, the challenge of ethnic diversity, and the reasons for the USSR's sudden implosion at the end of the century. Focusing on politics, society, culture, and their interaction, we will examine the rulers (from Lenin to Gorbachev) as well as the ruled (peasants, workers, and intellectuals; Russians and non-Russians). The course will feature discussions of selected texts, including primary sources in translation.
Not Offered Every Year
Also Offered As: HIST 0290
1 Course Unit
REES 0430 Masterpieces of 20th-Century Russian Literature

"Only in Russia is poetry respected. They kill you for it," famously quipped the poet Osip Mandelstam, who died in Joseph Stalin's concentration camps. Russia is a society that takes literature seriously—one in which the pen is assumed to have direct historical consequences. In this course, we will study how twentieth century Russian literature actively participated in war, revolution, totalitarian dictatorship, and resistance. The masterworks we will study open windows into worlds of revolutionary rapture, moral uplift in the face of tyranny, courageous subversion of the repressive state, and historical reflection on its failures. Our readings will range from an avant-garde play intended to rewire your mind, to an epic representation of revolutionary social transformation, to surreal and absurdist representations of a world gone mad. In other words: fasten your seatbelts low and tight across your waist; turbulence ahead!

Spring
1 Course Unit

REES 0470 Poetics of Screenplay: The Art of Plotting

This course studies screenwriting in a historical, theoretical and artistic perspective. We discuss the rules of drama and dialogue, character development, stage vs. screen-writing, adaptation of nondramatic works, remaking of plots, auteur vs. genre theory of cinema, storytelling in silent and sound films, the evolvement of a script in the production process, script doctoring, as well as screenwriting techniques and tools.

Not Offered Every Year
Also Offered As: CIMS 1110, COML 1018
1 Course Unit

REES 0471 Russian Short Story

This course studies the development of 19th and 20th-century Russian literature through one of its most distinct and highly recognized genres – the short story. The readings include great masters of fiction such as Pushkin, Gogol, Dostoevsky, Tolstoy, Chekhov, Solzhenitsyn, and others. The course presents the best works of short fiction situating them in a larger cultural-political context. The students learn about the historical formation, poetic virtue, and thematic characteristics of major narrative modes such as sentimentality, romanticism, utopia, realism, modernism, and socialist realism. We study literary devices, styles, and trends of storytelling such as irony, absurd, satire, grotesque, anecdote, etc. Main topics include culture of the duel; the role of chance; the riddle of death; anatomy of madness; imprisonment and survival.

Not Offered Every Year
1 Course Unit

REES 0479 Literature of Dissent: Art as Protest in 20th-Century Poland and Czechoslovakia

Eastern and Central Europe was the site of monumental political changes in the twentieth century, including the disillusion of monarchical empires in the First World War and the expansion of Soviet-style communism. At every point, artists have taken part in political debates, sometimes advancing radical agendas, sometimes galvanizing movements, sometimes simply shouting into the void to register their own dissatisfaction. In this course, we will consider texts including literature, political philosophy and film that pushed back against the dominant political norms. In so doing, we will investigate Aesopian language, the mechanics of censorship, the repercussions of dissent, performativity, samizdat and the rise of an alternative culture. We will contextualize our readings of literature with the sociological and historical work of Benedict Anderson, Tony Judt, Jonathan Bolton, Shana Penn, Alexei Yurchak and the series Discourses of Collective Identity in Central and Southeast Europe. As well as becoming familiar with major thinkers and movements in Eastern and Central Europe, students will develop a sense of art as a tool of political protest.

Not Offered Every Year
Also Offered As: COML 2004
1 Course Unit

REES 0480 Dostoevsky

This seminar is a survey of the life and works of Fyodor Dostoevsky (1821-1881). Focal texts include a selection of his major novels and a range of shorter works that span Dostoevsky's early career, his return from exile in Siberia, and the last years of his life. We will work together to understand Dostoevsky's career and self-conception as a writer, the wide-ranging philosophical implications of his work, and how his activity can be interpreted in the historical, ideological, and literary contexts of nineteenth-century Russia and Europe.

Also Offered As: COML 2007
1 Course Unit

REES 0481 Tolstoy

Leo Tolstoy is a figure who arguably needs little introduction, if only as an effigy for the kind of author who writes books like "War and Peace" — prime examples of what Henry James called the "large, loose, baggy monsters" of nineteenth-century Russian literature, the sprawling novels with several parallel plot lines and hundreds of characters who inhabit page numbers in the quadruple digits. In this seminar, we will grapple together with the intricacies of "War and Peace," learn about the social, cultural, and historical contexts not only of its depiction and genesis, but also of its wide-ranging reception, and consider the big questions that preoccupied Tolstoy throughout his lifetime. Working with a range of his texts including a wide spread of his shorter fiction and also a number of Tolstoy's non-literary writings on topics such as aesthetics, religion, education, and social and political problems, we will work toward understanding Tolstoy's work, how he became who he was, and the reverberations of his thought throughout the rest of the world.

Also Offered As: COML 2004
1 Course Unit
REES 0630 Behind the Iron Curtain
This first-year seminar provides an introduction to the histories, cultures, and societies of Central and Eastern Europe, including Poland, the Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Albania, and the successor states of Yugoslavia. Through a selection of articles and essays written by anthropologists and sociologists and based on their extended fieldwork in the region, students will explore both the ethnographic method and the experience of everyday life during and after the communist era. Topics will include: popular music under socialism, food and wine, environmental concerns, the status of Muslim minorities, socialist aesthetics, public memory and cultures of commemoration, privatization, advertising, women's rights, gender and sexuality, emergent nationalisms, and the rise of income inequality and homelessness. All readings and assignments in English.
Not Offered Every Year
Also Offered As: ANTH 0630
1 Course Unit

REES 0982 Study Abroad Course Taught in English
This is for a course taken abroad on a topic not taught at Penn but which deserve departmental credit
1 Course Unit

REES 0992 Transfer Credit Course Taught in English
This number is for a course taken at another institution that fits that field of departmental major and minor programs.
1 Course Unit

REES 1172 Marx, Marxism, and the Culture of Revolution
Capitalist society is the object of Karl Marx's analysis and critique—a society that is the product of history and may one day vanish. This course will trace Marx's critique by moving between the fields of philosophy, economics, and politics. We will locate key interventions of Marx's thought that transform modern conceptions of history, the relation between economics and politics, and the limits of struggle and emancipation in capitalist society. We will consider the historical conditions of Marx's writing and the development of his thought to discover many sides of Marx and many divergent Marxisms (humanist, post-structuralist, feminist, and others) that follow, often at odds with each other. Further, we will ask about what kind of horizons Marx's and Marxist interventions open up for critique and analysis of capitalist society with respect to gender, race, class, and nation. "Theory becomes a material force when it has seized the masses," argues the young Marx; indeed, his theories have fueled emancipatory movements and propped up tyrannical regimes, substantiated scientific theories and transformed philosophical debates. In examining Marx's legacy, we will focus on the elaborations and historical limitations of his ideas by examining the challenges of fascism, the communist experiment in the Soviet Union and its collapse, as well as the climate and other crises currently taking place. In conclusion, we will turn to the question of whether and to what extent Marx's ideas remain relevant today, and whether it is possible to be a Marxist in the contemporary world dominated by global capital.
Not Offered Every Year
Also Offered As: COML 1020, GRMN 1020, PHIL 1439
1 Course Unit

REES 1173 From Things Real to Things More Real: Symbolism and Spirituality in Russian Modernist Movements
The Latin motto 'a realibus ad realiora' ('from things real to things more real') coined by Russian Symbolist poet and philosopher V. Ivanov, encapsulates the spiritual orientation, developed by Russian Symbolist poetry and art at the turn of the 20th century. This spiritual search extended to the avant-garde movements that flourished throughout the Russian Empire in the early decades of the 20th century. Drawing from the spiritual wisdom of Russian realist writers, Christianity, Eastern religious teaching, and esoteric philosophies and mysticism, Russian iterations of international modernism went far beyond the ideas of aesthetic revolution and embraced a broader array of cultural phenomena from family relationships, sexual practices and gender identities to social utopianism. These modernist visions of the turn of the 20th century later supplied spiritual themes to the artistic and literary realms of the Soviet era. This course aims to explore the great masterpieces of Russian modernist art and poetry focusing on their underlying philosophical, spiritual, and esoteric content. In particular, we will delve into the history, international contexts and the intellectual foundations of significant modernist and avant-garde movements and forms, such as symbolism, futurism, cubism, abstraction, and other innovative geometric and non-figurative art forms. Additionally, we will examine how the intellectual and artistic syntheses that originated at the turn of the 20th century continued to manifest themselves in Soviet culture during the Soviet era, both through the works of non-conformist artists and writers, as well as the official culture.
Not Offered Every Year
1 Course Unit
REES 1174 National Antiquities: Genealogies, Hagiographies, Holy Objects

Human societies have always wanted to know about their origins, the reasons for their customs, the foundations of their social institutions and religious beliefs, and the justification of their power structures. They have conceived of creation myths and of origins stories for their communities in order to position themselves within the past and present of the natural and human worlds. The newly Christianized kingdoms of Medieval Europe faced the challenge of securing a place in the new vision of universal Providential history, and they inscribed their own histories into the narratives they knew from the authoritative sources of the time - biblical genealogies and heroic stories inherited from the poets of classical antiquity. The deeds and virtues of saintly kings and church hierarchs provided a continuity of historical narrative on the sacred map of time and space. In the 19th century, while interest in medieval antiquity as a source of inspiration for political and cultural renewal brought about a critical study of evidence, it also effected reinterpretation and repurposing of this evidence vis-a-vis a new political concept - that of a nation. This seminar will focus on central, eastern and southeast European nations and explore three categories of "national antiquities" that have been prominent in the workings of their modern nationalisms: (1) stories of ethnogenesis (so-called, origo gentis) that narrate and explain the beginnings and genealogy of peoples and states, as they are recorded in medieval and early modern chronicles, (2) narratives about holy people, who are seen as national patron-saints, and (3) material objects of sacred significance (manuscripts, religious ceremony objects, crowns, icons) that act as symbols of political, cultural and national identities. Our approach will be two-fold: On the one hand, we will read medieval sources and ask the question of what they tell us about the mindset of the authors and societies that created them. We will think about how the knowledge of the past helped medieval societies legitimize the present and provide a model for the future. On the other hand, we will observe how medieval narratives and artifacts have been interpreted in modern times and how they became repurposed - first, during the "Romantic" stage of national awakening, then in the post-imperial era of independent nation-states, and, finally, in the post-Soviet context of reimagined Europe. We will observe how the study of nationalistic mentality enhances our understanding of how the past is represented and repurposed in scholarship and politics.

Also Offered As: HIST 0725
1 Course Unit

REES 1177 Universal Language: From the Tower of Babel to Artificial Intelligence

This is a course in European intellectual history. It explores the historical trajectory, from antiquity to the present day, of the idea that there once was, and again could be, a universal and perfect language among the human race. If recovered, it can explain the origins and meaning of human experience, and can enable universal understanding and world peace. The tantalizing question of the possibility of a universal language have been vital and thought-provoking throughout the history of humanity. The idea that the language spoken by Adam and Eve was a language which perfectly expressed the nature of all earthly objects and concepts has occupied the minds of intellectuals for almost two millennia. In defiance of the Christian biblical myth of the confusion of languages and nations at the Tower of Babel, they have over and over tried to overcome divine punishment and discover the path back to harmonious existence. By recovering or recreating a universal language, theologians hoped to be able to experience the divine; philosophers believed that it would enable apprehension of the laws of nature, while mystic cabbalists saw in it direct access to hidden knowledge. In reconstructing a proto-language, 19th-century Indo-Europeanist philologists saw the means to study the early stages of human development. Even in the 20th century, romantic idealists, such as the inventor of Esperanto Ludwik Zamenhof, strived to construct languages to enable understanding among estranged nations. For writers and poets of all times, from Cyrano de Bergerac to Velimir Khlebnikov, the idea of a universal and perfect language has been an inexhaustible source of inspiration. Today, this idea echoes in theories of universal and generative grammars, in approaching English as a global tongue, and in various attempts to create artificial languages, even a language for cosmic communication. Each week we address a particular period and set of theories to learn about universal language projects, but above all, the course examines fundamental questions of what language is and how it functions in human society.

Fall or Spring
Also Offered As: COML 0095, ENGL 1445, HIST 0822
1 Course Unit
REES 1179 War and Representation
This class will explore complications of representing war in the 20th and 21st centuries. War poses problems of perception, knowledge, and language. The notional "fog of war" describes a disturbing discrepancy between agents and actions of war; the extreme nature of the violence of warfare tests the limits of cognition, emotion, and memory; war's traditional dependence on declaration is often warped by language games--"police action," "military intervention," "nation-building," or palpably unnamed and unacknowledged state violence. Faced with the radical uncertainty that forms of war bring, modern and contemporary authors have experimented in historically, geographically, experientially and artistically particular ways, forcing us to reconsider even seemingly basic definitions of what a war story can be. Where does a war narrative happen? On the battlefield, in the internment camp, in the suburbs, in the ocean, in the ruins of cities, in the bloodstream? Who narrates war? Soldiers, refugees, gossips, economists, witnesses, bureaucrats, survivors, children, journalists, descendants and inheritors of trauma, historians, those who were never there? How does literature respond to the rise of terrorist or ideology war, the philosophical and material consequences of biological and cyber wars, the role of the nuclear state? How does the problem of war and representation disturb the difference between fiction and non-fiction? How do utilitarian practices of representation--propaganda, nationalist messaging, memorialization, xenophobic depiction--affect the approaches we use to study art? Finally, is it possible to read a narrative barely touched or merely contextualized by war and attend to the question of war's shaping influence? The class will concentrate on literary objects--short stories, and graphic novels--as well as film and television. Students of every level and major are welcome in and encouraged to join this class, regardless of literacy experience. Fall or Spring
Also Offered As: COML 1050, ENGL 1449
1 Course Unit

REES 1230 Russian and East European Film from the October Revolution to World War II
The purpose of this course is to present the Russian and East European contribution to world cinema in terms of film theory, experimentation with the cinematic language, and social and political reflex. We discuss major themes and issues such as the invention of montage, the means of revolutionary visual propaganda and the cinematic component to the communist cultural revolutions, party ideology, and practices of social-engineering, cinematic response to the emergence of the totalitarian state in Soviet Russia before World War II.
Also Offered As: CIMS 1640
1 Course Unit

REES 1231 Russian and East European Film after World War II
The purpose of this course is to present the Russian and East European contribution to world cinema in terms of film theory, experimentation with the cinematic language, and social and political reflex. We discuss major themes and issues such as means of visual propaganda and the cinematic component to the communist cultural revolutions, party ideology and practices of social-engineering, cinematic response to the emergence of the totalitarian state in Russia and its subsequent installation in Eastern Europe after World War II.
Also Offered As: CIMS 1650
Mutually Exclusive: REES 6231
1 Course Unit

REES 1272 Nationalism and Ethnic Conflict in Film
This course studies the cinematic representation of civil wars, ethnic conflicts, nationalistic doctrines, and genocidal policies. The focus is on the violent developments that took place in Russia and on the Balkans after the collapse of the Soviet Bloc and were conditioned by the new geopolitical dynamics that the fall of communism had already created. We study media broadcasts, documentaries, feature films representing the Eastern, as well as the Western perspective. The films include masterpieces such as "Time of the Gypsies", "Underground", "Prisoner of the Mountains", "Before the Rain", "Behind Enemy Lines", and others.
Not Offered Every Year
Also Offered As: CIMS 1272
1 Course Unit

REES 1370 Cold War: Global History
The Cold War was more than simply a military confrontation between the United States and the Soviet Union; it was the frame within which the entire world developed (for better or worse) for nearly five decades. This course will examine the cold War as a global phenomenon, covering not only the military and diplomatic history of the period, but also examining the social and cultural impact of the superpower confrontation. We will cover the origins of the conflict, the interplay between periods of tension and detente, the relative significance of disagreements within the opposing blocs, and the relationship between the "center" of the conflict in the North Atlantic/European area and the global "periphery".
Fall or Spring
Also Offered As: HIST 1735
1 Course Unit

REES 1380 Tolstoy's War and Peace and the Age of Napoleon
In this course we will read what many consider to be the greatest book in world literature. This work, Tolstoy's War and Peace, is devoted to one of the most momentous periods in world history, the Napoleonic Era (1789-1815). We will study both the book and the era of the Napoleonic Wars: the military campaigns of Napoleon and his opponents, the grand strategies of the age, political intrigues and diplomatic betrayals, the ideologies and human dramas, the relationship between art and history. How does literature help us to understand this era? How does history help us to understand this great book? Because we will read War and Peace over the course of the entire semester, readings will be manageable and very enjoyable.
Fall or Spring
Also Offered As: COML 1262, HIST 1260
1 Course Unit
REES 1470 Chekhov: Stage & Screen
What’s so funny, Mr. Chekhov? This question is often asked by critics and directors who still are puzzled with Chekhov’s definition of his four major plays as comedies. Traditionally, all of them are staged and directed as dramas, melodramas, or tragedies. Should we cry or should we laugh at Chekhovian characters who commit suicide, or are killed, or simply cannot move to a better place of living? Is the laughable synonymous to comedy and the comic? Should any fatal outcome be considered tragic? All these and other questions will be discussed during the course. The course is intended to provide the participants with a concept of dramatic genre that will assist them in approaching Chekhov plays as comedies. In addition to reading Chekhov’s works, Russian and western productions and film adaptations of Chekhov’s works will be screened. Among them are, Vanya on 42nd Street with Andre Gregory, and Four Funny Families. Those who are interested will be welcome to perform and/or direct excerpts from Chekhov’s works.
Not Offered Every Year
Also Offered As: CIMS 1470
1 Course Unit

REES 1471 Fate and Chance in Literature and Culture
In Fate and Chance in Literature and Culture, we will explore these two interrelated concepts in comparative perspective over a broad historical range. As a result, the students will learn how the philosophy of fate and chance has been reflected in works of different Russian authors and in different cultural and political environments. In Russian as well as western systems of belief fate and chance represent two extreme visions of the universal order, or, perhaps, two diametrically opposed cosmic forces: complete determinism, on the one hand, and complete chaos or unpredictability, on the other. These visions have been greatly reflected by various mythopoetic systems. In this course, we will investigate religious and folkloric sources from a series of Russian traditions compared to other Indo-European traditions (Greek, East-European). Readings will include The Song of Prince Igor’s Campaign, The Gambler by Dostoevsky, The Queen of Spades by Pushkin, Vîj by Gogol, The Black Monk by Chekhov, The Fatal Eggs by Bulgakov, and more.
Also Offered As: COML 1095
1 Course Unit

REES 1530 Communism
The rise and fall of Communism dominated the history of the short twentieth century from the Russian revolution of 1917 to the collapse of the Soviet Union in 1991. As a system of government, Communism is more or less dead, but its utopian ideals of liberation from exploitation and want live on. Communism remains the one political-economic system that presented, for a time, an alternative to global capitalism. In this course, students will gain an introduction to socialist and Communist political thought and explore Communist political and economic regimes’ successes and failures, critics and dissidents, efforts at reform, and causes of collapse. We will learn about the remnants of Communism in China, North Korea, and Cuba and efforts of contemporary theorists to imagine a future for Communism.
Not Offered Every Year
Also Offered As: PSCI 0102
1 Course Unit

REES 1531 Socialism
Socialism has become a hot topic in US politics. Some advocate it as an ideology that supports economic equality; others decry it as a path towards excessive state control. But what does the word socialism really mean? Why does it seem to mean different things to different people? What is the historical background of socialism? Are there meaningful differences between different forms of socialism or are they more or less the same thing? Which societies are socialist in practice, both past and present? What about the US? What are the different proposals US and other Socialists make today? What is their logic? How socialist are they? Are their policy ideas or bad? What effects would they have? This course will introduce students to socialism in theory and practice, with an emphasis on different models of Western social democracy and how they are impacting political discourse right now.
Fall or Spring
Also Offered As: PSCI 1104
1 Course Unit

REES 1535 Russian Politics
This course will present an in-depth examination of political, economic and social change in post-Soviet Russia within a historical context. After a brief discussion of contemporary problems in Russia, the first half of the course will delve into the rise of communism in 1917, the evolution of the Soviet regime, and the tensions between ideology and practice over the seventy years of communist rule up until 1985. The second part of the course will begin with an examination of the Gorbachev period and the competing interpretations of how the events between 1985 and 1991 may have contributed to the collapse of the Soviet Union. We will then proceed to make sense of the continuities and changes in politics, economics and society in contemporary Russia. Important topics will include the confrontations accompanying the adoption of a new constitution, the emergence of competing ideologies and parties, the struggle over economic privatization, the question of federalism and nationalism, social and political implications of economic reform, and prospects for Russia’s future in the Putin and post-Putin era.
Spring
Also Offered As: PSCI 1172
1 Course Unit

REES 1570 Russia and Eastern Europe in International Affairs
Russia and the European Union (EU) are engaged in a battle for influence in Eastern Europe. EU foreign policy towards its Eastern neighbors is based on economic integration and the carrot of membership. With the application of this powerful incentive, Central and Southeastern European countries such as Poland, Hungary, the Czech Republic, and Croatia have progressed rapidly towards integration with the EU (and NATO). Yet, given Russia’s opposition to the further enlargement, membership is off the table for the large semi-Western powers such as Russia itself and Turkey and the smaller countries inhabiting an emerging buffer zone between Russia and the EU, such as Georgia, Ukraine, Azerbaijan, Moldova, and Belarus. These in-between countries find themselves subject to intense competition for influence between Eastern and Western powers. In this context, EU countries must balance their energy dependence on Russia and need for new markets and geopolitical stability with concern for human rights, democratic governance, and self-determination. What are the trade-offs implicit in the foreign policies of Russia, EU member states, and Eastern Europe? What are the best policy approaches? What are the main opportunities and obstacles?
Fall
Also Offered As: PSCI 0401
Mutually Exclusive: REES 5570
1 Course Unit
REES 1580 China & USSR Compared
A comprehensive and multi-faceted survey of China and Russia, mostly in the twentieth century, through examining preludes and postludes, but focusing above all on their time as Communist states and sometimes quarreling Cold War allies. Of course we will cover the history, the geography, the economics, the leaders (Stalin, Mao), and the great events - not least the Second World War in each - always comparing, contrasting, and drawing linkages. We will also examine, however, daily life and work for ordinary people, developments in society, and not least their common attempts at revolution, at somehow creating new and unprecedented polities, having populations of radically transformed new people. This informative, fascinating quest will take us from folklore to literature and the arts to dissent and religion and ecology, among other topics. As far as possible we will let their people speak for themselves, by assigning mostly translations of original sources including novels and memoirs, even poetry. A comprehensive assessment of the strategic critical Asian heartland - which at over 14 million square miles is larger than Canada, the United States, and Western Europe combined. Lectures, readings, midterm, short paper, and in-class final.
Spring
Also Offered As: EALC 1712, HIST 1790
1 Course Unit

REES 1630 Soviet and Post-Soviet Economy
The course will cover the development and operation of the Soviet centrally planned economy - one of the grandest social experiments of the 20th century. We will review the mechanisms of plan creation, the push for the collectivization and further development of Soviet agriculture, the role of the Soviet educational system and the performance of labor markets (including forced labor camps - GULags). We will discuss the strengths and weaknesses of the Soviet system and the causes of its collapse. Privatization, called by some “piratization,” will be one of the central issues in our consideration of the transition from central planning to a market economy in the early 1990s. Even though our main focus will be on the Soviet economy and post-Soviet transition, we will occasionally look back in time to the tsarist era and even further back to find evidence to help explain Soviet/Russian economic development.
1 Course Unit

REES 1670 Population and Public Health in Eastern Europe
Since the collapse of communism in 1989 in Eastern Europe (and 1991 in the Soviet Union), many of the countries in the region have experienced public health crises and demographic catastrophe. Below replacement fertility rates and massive out migration have decimated the populations of these countries even as populations age and place unsustainable strains on pension systems and medical services. The demographic collapse has also been accompanied by falling male life expectancy and the rise of alcoholism, depression, domestic violence, and suicide. The economic exigencies of the transition from communism to capitalism dismantled welfare states at the exact moment when health services were most needed, leaving charities and nongovernmental organization to try to fill in the gaps. Through a combination of readings from the fields of epidemiology, demography, and medical anthropology, this course examines the public health implications of poverty and social dislocation in post-communist states. All readings and assignments are in English.
Also Offered As: ANTH 1670, SOCI 2950
1 Course Unit

REES 1680 Sex and Socialism
This seminar examines classic and current scholarship and literature on gender and sexuality in contemporary Eastern Europe, and examines the dialogue and interchange of ideas between East and West. Although the scholarly and creative works will primarily investigate the changing status of women during the last three decades, the course will also look at changing constructions of masculinity and LGBT movements and communities in the former communist bloc. Topics will include: the woman question before 1989; gender and emerging nationalisms; visual representations in television and film; social movements; work; romance and intimacy; spirituality; and investigations into the constructed concepts of "freedom" and "human rights."
Also Offered As: ANTH 1688, GSWS 1680, SOCI 2972
1 Course Unit

REES 2170 Russian Song and Folklore
This course offers a general introduction to the history of Russian folklore, song and musical culture. Students will explore the history of song in Russia and various song genres including folk songs, gangster songs, cabaret, war songs, Soviet ideological songs, and Russian rock and pop music. We will discuss ritual functioning of songs in Russian calendar rites, examine the aesthetic properties of song lyrics and music, and analyze the educational, community-building and ideological roles of song in Russian society.
Not Offered Every Year
Prerequisite: RUSS 1200
1 Course Unit

REES 2171 Russian Revolution
This course is a content-based course intended for students who speak Russian at home and seek to improve their command of formal and professional registers of the Russian language. Paying tribute to the centennial of the Russian Revolution, the course examines the sociopolitical milestone of the 20th century through the works of literature, art, music, film, and material culture that both refracted the revolutionary situation and responded to the revolutionary change. The course's primary sources include works of Russian symbolist poets (e.g. Blok) and realist writers (e.g. Korolenko, Chekhov, Gorky, Andrei Platonov), the music of modernist composers, Soviet montage films, and the Soviet architecture of the International Style. The specific attention will be on the relationship between sociopolitical transformation and the raise of avant-garde movements in visual arts and poetry known as the artistic revolution (e.g. Khlebnikov, Maiakovskii, Kandinskii, Goncharova, Malevich, Chagall).
Not Offered Every Year
Prerequisite: RUSS 0401
1 Course Unit

REES 2172 Global Landscapes: Russia in XXI Century
The goal of this course is to improve students' ability to engage in informed and articulate debate on a number of issues facing Russia and the world at large today, such as: political freedom, and the future of political protest, environmental problems and catastrophes and their aftermath (Chernobyl nuclear disaster), problems of social inequality and redistribution of wealth, national security, the economy, health care, international politics. This will be accomplished through intensive work on expanding lexical knowledge, increasing grammatical accuracy, and developing rhetorical skills. By the end of the course, students will be able to comprehend increasingly complex written and spoken texts on a range of topics and defend their own viewpoint in oral debate and persuasive essay formats.
Not Offered Every Year
1 Course Unit
REES 2173 The Living & the Dead: The Great Patriotic War in Russian Cultural Imagination
This course is dedicated to the 70th anniversary of the Great Patriotic War, 1941-45. Students will explore the cultural myth of the war, created in the 1960-80s. The materials will include literary texts, documentaries, photographs, and films. We will focus on three major themes of this myth: 1. moral strength and courage; 2. respect for Russia's military past; and 3. the rise of national consciousness.
Not Offered Every Year
Prerequisite: RUSS 0401
1 Course Unit

REES 2177 Moscow and Muscovites in Russian History and Literary Imagination
This course is intended for students who have spoken Russian at home and seek to improve their capabilities in formal and professional uses of the Russian language. Moscow is not only a city with rich history, but also a cultural myth, similarly to Rome, St. Petersburg or Paris. The memories of historical events and literary narratives, real and fictional biographies, existing and lost landmarks imbue the image of the city with multiple layers of meanings and symbolism. This course will examine the key components of Moscow myth: historical events and fictional stories that left their traces on the cultural map of Moscow throughout its history. We will also explore the material culture of the city. historic places, buildings, artifacts and locations that anchor historical memories and urban legends alike. The readings will include excerpts from Moscow chapters of such Russian classics, as Leo Tolstoy's War and Peace, Mikhail Bulgakov's Master and Margarita and Boris Pasternak's Doctor Zhivago, along with the work of contemporary Russian authors Victor Pelevin and Maya Kucherskaya.
Prerequisite: RUSS 0401
1 Course Unit

REES 2181 Masterpieces of Soviet Propaganda
The subject of this course is the history and evolution of Soviet propaganda and propaganda art from the Communist Revolution to Stalinism, World War II, and the Cold War. We will investigate major propaganda myths and rituals, and study different styles of propaganda art in a broad historical and political context, in particular, looking at historical events, government policies and political ideas that are associated with their creation and dissemination. We will also examine the impacts of the artistic culture of both the Russian Orthodox Church and the Russian avant-garde on the origin of the language and imagery of Soviet propaganda. Finally, we will compare methods and styles of Soviet propaganda and capitalist advertising.
Fall or Spring
Prerequisite: RUSS 0401
1 Course Unit

REES 2250 Russian Culture Through Art and Architecture: From Fin de Siecle to Perestroika
This course offers a general introduction to the history of Russian visual art and material culture. It surveys styles, traditions, and fashions in Russian visual culture from the Middle Ages to Perestroika, considering them in the context of Russian social and political history. The course examines the very important role that visual art played in the history of Russian culture, and seeks to arrive at a deeper understanding of the relationship between visual media and key aspects and events of Russian civilization, such as Orthodoxy, Westernization and Nationalism, Communist utopia, and political protest.
Not Offered Every Year
Mutually Exclusive: REES 5271
Prerequisite: RUSS 1200
1 Course Unit

REES 2270 Contemporary Russia Through Film
This course continues developing students' advanced skills in Russian and offers intensive study of Russian film, arguably the most powerful medium for reflecting changes in modern society. This course will examine Russia’s transition to democracy and market economy through the eyes of its most creative and controversial cinematographers. The course will focus on the often agonizing process of changing values and attitudes as the country moves from Soviet to Post-Soviet society. Russian films with English subtitles will be supplemented by readings from contemporary Russian media sources. The course provides an excellent visual introduction to the problems of contemporary Russia society.
Not Offered Every Year
Also Offered As: CIMS 2270
Mutually Exclusive: REES 5270
Prerequisite: RUSS 1200
1 Course Unit

REES 2271 Post-Soviet Russia in Film
This course is intended for students who have spoken Russian at home and seek to improve their capabilities in formal and professional uses of the Russian language. Film is arguably the most powerful medium for reflecting changes in modern society. This course will examine Russia’s transition to democracy and market economy through the eyes of its most creative and controversial cinematographers. The course will focus on the often agonizing process of changing values and attitudes as the country moves from Soviet to Post-Soviet society. Russian films with English subtitles will be supplemented by readings from contemporary Russian media sources. The course provides an excellent visual introduction to the problems of contemporary Russia society.
Not Offered Every Year
Also Offered As: CIMS 2271
Mutually Exclusive: REES 5271
Prerequisite: RUSS 0401
1 Course Unit
**REES 2350 Reading Russian History**
The course explores defining episodes, concepts, and figures in Russian history, from the earliest time to the present day, and their reception in today's scholarship and society. Students learn about Russian historical heritage through the reading of primary sources and analytical essays, as well as examining how this history is used in the present socio-political and ideological discourse. Work on language focuses on matters of style, sentence structure, and vocabulary building.
Not Offered Every Year
Prerequisite: RUSS 1200
1 Course Unit

**REES 2370 Russian Folk and Literary Tale**
This course continues developing students' advanced skills in Russian. It focuses on the language, style, and narrative techniques of Russian tales. Course materials include written, animated, and cinematic versions of folk fairy tales, epic songs, and literary tales by major Russian authors, such as Alexander Pushkin, Nikolai Gogol, and Leo Tolstoy. The course aims to improve students' knowledge of idiomatic language and to expand their knowledge of Russian popular culture.
Not Offered Every Year
Prerequisite: RUSS 1200
1 Course Unit

**REES 2340 Twentieth-Century Russian Literature, Film and Culture:**
Utopia, Revolution and Dissent
This course continues developing students' advanced skills in Russian, and introduces students to major movements and figures of twentieth-century Russian literature and culture. We will read the works of modern Russian writers, and watch and discuss feature films. The course will introduce the first Soviet films and works of the poets of the Silver Age and beginning of the Soviet era as well as the works from later periods up to the Perestroika and Glasnost periods (the late 1980s).
Not Offered Every Year
Also Offered As: CIMS 2430
Prerequisite: RUSS 1200
1 Course Unit

**REES 2470 Fear and Loathing of Capitalism in Russian Literature of the 19th Century**
This course is a content-based course intended for students who speak Russian at home and seek to improve their command of formal and professional registers of the Russian language. Free trade and market relations were slowly developing in the 19th century Russia, rising against the inhibiting influence exerted by the institution of slavery and rigid social hierarchy. Russian classical realist literature is known for its fierce attacks on capitalism and capitalist values through literary characters and conflicts that prominently feature money and private property. Despite all their philosophical and ideological differences, great Russian writers signal their inherent opposition to capitalist mode of production and remain indifferent to liberal values and creative potential associated with capitalist competition. In this course we will explore what was the cultural and historical context for that palpable fear of capitalism and loathing of bourgeois values, and what was it in free market relations that scared so much all the grand authors of Russian 19th century canon. We will examine these questions through reading and analyzing the works of such authors as Pushkin, Turgenev, Ostrovsky, Tolstoy and Chekhov.
Not Offered Every Year
1 Course Unit

**REES 2345 Classic Russian Literature Today**
This course is intended for students who have spoken Russian at home and seek to improve their skills in formal and professional uses of the Russian language. A study of classic Russian literature in the original. Readings consist of some of the greatest works of 19th and 20th-century authors, such as Pushkin, Gogol, Tolstoy, Dostoevsky, and Bulgakov. Students will examine various forms and genres of literature, learn basic techniques of literary criticism, and explore the way literature is translated into film and other media. An additional focus of the course will be on examining the uses and interpretations of classic literature and elitist culture in contemporary Russian society. Observing the interplay of the "high" and "low" in Russian cultural tradition, students will develop methodology of cultural analysis.
Not Offered Every Year
Prerequisite: RUSS 0401
1 Course Unit
REES 2473 Fathers and Sons: an Encyclopedia of Generational Conflict in 19thC Russia
This course offers a close reading of one of the most exquisitely narrated novels of the Russian realist canon, Turgenev’s Fathers and Sons. Written in the early 1860s, the novel is set in an era of transition when progressive, enlightened liberalism of the Russian landed gentry clashed with the new revolutionary ideas espoused by young radicals. A simple tale of a generational conflict becomes a mirror in which the key social and political questions of the time are reflected and enlarged. The purpose of the course is to expand students’ knowledge of political and cultural history of the 19th century Russia through a close reading of the novel aided by an array of historical and literary sources, such a memoirs, literary fragments and journalism of the era.
Not Offered Every Year
Prerequisite: RUSS 0401
1 Course Unit

REES 2477 Science Fiction, Fantasy, and Fantastic Imagination in Russian Culture
This course explores masterpieces of Russian fantastic imagination from folklore and 19th-century classics to 20th and 21st-century dystopia, magic realism and science fiction. Readings include works by Nikolai Gogol, Mikhail Bulgakov, the Strugatsky brothers, and Victor Pelevin. Discussions focus on 1) the philosophical quest of Russian fantastic authors and their ideas about humanity, the meaning of existence, and human relationship with nature; 2) the texture of fantasy, including the absurd and surreal, the grotesque humor, and macabre irony.
Not Offered Every Year
Prerequisite: RUSS 0401
1 Course Unit

REES 2479 Anton Chekhov: Love and Death in Russian Culture
In this course we will study Anton Chekhov’s short prose and dramatic works exploring the significance of love and death in human experience. The first part of the course will be focused on examining existential, social and cultural aspects of these themes represented in Chekhov’s poignant and humorous short stories, such as “The Student,” “The Darling,” “About Love,” “House with a Mezzanine” and “The Bishop.” Then we will attempt a dramatic interpretation of Chekhov using the ideas we discovered while reading his short prose. We will create a stage version of Chekhov’s play or produce our own short play inspired by Chekhov’s themes and characters. As a group we will decide on the type of our performance, whether it will be a stage reading or staging a play, and each of the students will choose how to participate in it: whether by acting, directing, writing, project managing or tech work.
Prerequisite: RUSS 0401
1 Course Unit

REES 2630 Soviet Childhood
This course examines “Soviet childhood” as a changing historical and political concept, beginning with its incipient notions in the pre-revolutionary period and moving through the Soviet and post-Soviet eras in Russia. We will access the viewpoints of children and adults at various points in time, while engaging with educational theory and practices, legislation, societal norms, and cultural rituals associated with Soviet childhood. This course relies on the close study of literature, songs, films, artifacts of mass production, as well as documentary resources (diaries, recorded interviews, drawings, etc.), in addition to relevant scholarship.
Not Offered Every Year
Prerequisite: RUSS 1200
1 Course Unit

REES 2670 Shaping Russian Society: Soviet Heritage and Transformation
This Russian-language content course continues to develop students’ functional proficiency in speaking, writing, reading, and listening. The course is designed to familiarize students with contemporary Russian society and its historical background. It covers the current political, economic, and societal developments in Russia, focuses on a variety of issues central to Russian society since the fall of the Soviet Union, including the search for national identity, changing values, and popular perceptions of Westerners and Western practices. We will observe the business community and its relations with the government, trace the origin of Russian oligarchs and entrepreneurs and investigate how informal Soviet practices and the criminal world shaped the current business environment. Course materials will include interviews, articles, essays by leading Russian journalists and statesmen, and contemporary Russian movies.
Not Offered Every Year
Mutually Exclusive: REES 5670
Prerequisite: RUSS 1200
1 Course Unit

REES 2671 Everyday Life in the Soviet Union
This course is intended for students who have spoken Russian at home and seek to improve their capabilities in formal and professional uses of the Russian language. The course focuses on the history of everyday life in the Soviet Union during the twenty year period before the collapse of the communist system (1960s-1980s). We will examine experiences, practices and material culture related to various spheres of Soviet life including living arrangements, food, housekeeping, work and leisure, education and health. We will also study emotions and etiquettes associated with romantic, matrimonial and generational relationships and everyday communications. Finally, we will explore how ideas and practices of socialist living continue to influence younger generations of former Soviet families that have never lived under socialism. Course readings include films, literary texts, memoirs and history documents, social journalism and publications on statistics and social anthropology.
Not Offered Every Year
Prerequisite: RUSS 0401
1 Course Unit

REES 2673 Not by Bread Alone: Food in Russian History and Culture
The subject of this course is food culture in various eras of Russian and Soviet history. We will look at historical practices of food preparation and consumption, investigate the history of several important ingredients, and study the origin and history of Russian traditional dishes, while also discussing changes in tastes and attitudes to food over centuries. We will also examine how production, consumption and distribution of food reflected social and cultural distinctions, class hierarchies, and gender roles. Last but certainly not least, the students will get hands-on experience preparing a number of popular contemporary Russian dishes. The readings for this course range from fairy tales and myths to classical literature, from culinary journalism and advertising posters to excerpts from autobiographical writings and memoirs.
Fall or Spring
Prerequisite: RUSS 0401
1 Course Unit
REES 2770 The Russian Revolutions, 1905-1924: Brave New World?
Many believe that the 1917 Russian Revolution was the most significant event in the twentieth century, both as a rupture from the past and as a precursor of much that was to come in the twentieth century. The February Revolution of 1917 made the Russian Republic—at one stroke, in the midst of the world war—the world's most democratic state. The October Revolution of 1917, following it, was the world's first socialist revolution, and it established the world's first socialist state—the Soviet Union. Throughout the twentieth century and beyond, people have looked to it with either fear or with hope. It generated great dreams of equality and liberation—and great misery. This course will examine the causes, course and consequences of this crucial period, for the peoples of the Soviet Union and for the world. In some ways, the term "Russian Revolution" is in fact not entirely correct. First, there was not one Russian Revolution—were a series of overlapping revolutions in this period—labor, rural, nationalist, liberalization. And second, it was a revolution that was not limited to European Russia, but encompassed the entire space of Russian empire (the Caucasus, the Baltics, Poland, Central Asia), and had worldwide and global significance. How do programs for liberation produce both new possibilities and great misery?
Also Offered As: HIST 2256
1 Course Unit

REES 3170 Tears and Laughter in the World of Anton Chekhov
Chekhov's theatre has been an impartial and compassionate mirror not only for his generation but for human society across different eras and places for more than a century. The world-acclaimed writer began his literary career as an author of short humorous stories for entertainment and satire magazines. With time, as he brought a more complex emotional palette and existential themes to his oeuvre, he conceived his celebrated dramatic style that weds tragic and serious meanings with skeptical laughter. The visions of human loneliness, disconnectedness, boredom, unrequited love and existential meaninglessness in Chekhov's dramatic masterpieces are interspersed with humor and irony and combined with comedic presentations of characters. The purpose of this course is a hands-on examination of Chekhov's style through a practical attempt to stage Chekhov's work. The first part of the course will be focused on examining Chekhov's comedic style against the background of the tradition of laughter in Russian literature. Then we will attempt a dramatic interpretation of Chekhov's play or a theatrical adaptation of his short-stories, using the ideas we discovered while reading his short prose. The students will be able to choose how they would like to contribute to the project: by acting, directing, stage management or stage design. The play will be performed in front of a live audience at the end of the semester.
Not Offered Every Year
Prerequisite: At least one advanced Russian seminar
1 Course Unit

REES 3470 Poetry Matters: Russian Poetry of 18-21 Centuries
This is a content-based Russian language course that offers a general introduction to the study of Russian poetic tradition. We will survey key genres and trends of the almost three centuries of modern Russian poetry, focusing on several larger thematic questions: What ethical challenges loom large in poetic practice? How does poetry address experiences of trauma and harm? How do poems "do" things they do? Taking our cue from Daniil Kharms's famous dictum, "A poem should be written in such a way that if you throw it at a window, the window will break," we will consider poetic utterances in a variety of contexts and situations both private and public. Particular attention will be directed to the genre of elegy understood as a narrative of absence and loss. We will closely follow the transformations of the Russian elegiac tradition from 19th Romantic elegy to avant-garde experiments, blockade and prison poetry. The course will also introduce students to scansion and the study of prosody in verse. Course will be taught in Russian. Readings in Russian and English.
Fall or Spring
Prerequisite: At least one advanced Russian seminar
1 Course Unit

REES 3770 Cinema and Socialism
Films from socialist countries are often labeled and dismissed as "propaganda" in Western democratic societies. This course complicates this simplistic view, arguing for the value in understanding the ties between socialist governments, the cinematic arts, and everything in between. We will examine films from past and present socialist countries such as the Soviet Union, China, North Korea, and Cuba, as well as films made with socialist aspirations. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ARTH 3100, CIMS 3100, EALC 2314, ENGL 2934
1 Course Unit

REES 4998 Honors Thesis
This course is for the research and writing of undergraduate honors theses in the Department of Russian and East European Studies. Please see the department webpage and consult with the undergraduate chair for more information about honors theses.
Fall or Spring
1 Course Unit

REES 5001 Introduction to Russian and East European Studies I: Social Science Approaches
This graduate level seminar provides an introduction to social science approaches to the study of the Eastern half of Europe and Eurasia, including Poland, the Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Albania, the successor states of Yugoslavia as well as the successor states of the former Soviet Union. Through a selection of articles and essays written by historians, anthropologists, sociologists, demographers, political scientists, and economists, students will explore how social scientific methodologies have been used to understand modern and contemporary society, politics, cultures, and economies of this region from the rise of nationalism in the 19th century to the current day. All readings and assignments in English.
Fall
1 Course Unit
REES 5002 Introduction to Russian and East European Studies II: Humanistic Approaches
This course will provide an overview of humanistic approaches to the study of Russia, Eastern Europe and Eurasia. Weekly modules are divided into those focused on Methods, Moments, and Geographies (although these dimensions of scholarly work are of course all activated in each module), including: Methods 1: Disciplines - What are the Humanities? 2: Texts and Cultures: Close Reading 3: Images: Close Analysis 4: Institutions - Cultural and Social Institutions and Their Study 5: Histories and Archives 6: Data: The Digital Humanities Genres: 1. What are the main scholarly genres of humanities scholarship: Articles, rev Geographies: 1: Caucasus 2: Russian and Soviet Empires 3: East and East Central Europe 4: Central Asia Moments: 1: Medieval-18C 2: 19C 3: 20C 4: 21C All readings will be provided in English, although students are encouraged to read in the original, if possible. Some originals will be provided in parallel to the translated English texts. Students will either complete an original research paper or a selection of smaller outputs (an oral report, an extended review essay, an annotated bibliography).
Spring
1 Course Unit

REES 5100 Old Church Slavonic: History, Language, Manuscripts
The language that we know today as Old Church Slavonic was invented, along with the Slavic alphabet(s), in the 9th century by two Greek scholars, Sts. Cyril and Methodius. They had been tasked by the Byzantine Emperor with bringing the Christian faith to the Slavic-speaking people of Great Moravia, a powerful medieval state in central Europe. From there, literacy, along with the Christian faith, spread to other Slavs, and even non-Slavic speakers, such as Lithuanians and Romanians. Church Slavonic and its regional variants were used to compose the oldest texts of the Slavic-speaking world, which today is comprised of Belarus, Bosnia, Bulgaria, Croatia, Czechia, Macedonia, Montenegro, Russia, Poland, Slovakia, Serbia, Slovenia, and Ukraine. Knowledge of this language and tradition aids in understanding the cultural, literary, and linguistic history of any modern Slavic language. For learners of Russian and other Slavic languages, Church Slavonic provides a layer of elevated stylistic vocabulary and conceptual terminology, similar to, and even greater than, the role of Latin and Greek roots in the English language. For historical linguists, Church Slavonic provides unique material for comparison with other ancient Indo-European languages, such as Latin, Greek, and Sanskrit. For medievalists and cultural historians, it opens the door into the Slavic Orthodox tradition that developed in the orbit of the Byzantine Commonwealth.
Not Offered Every Year
Also Offered As: COML 5180
1 Course Unit

REES 5101 History of Russian Literary Language and Culture
This course examines the linguistic, literary, and social history of the Russian language from the earliest written records to the modern day. Course topics include: the creation of the Slavic alphabets and the first literary language of the Slavs, Old Church Slavonic; the beginnings and development of writing and literacy in Medieval Rus (modern Belarus, Russia, and Ukraine); the evolution of the Russian literary language, its styles, and registers; grammatical categories of Russian; features of Russian lexicography; the social history and politics of language use; analysis of texts. Readings in Russian & English; advanced language proficiency required.
Not Offered Every Year
1 Course Unit

REES 5170 Tears and Laughter in the World of Anton Chekhov
Chekhov's theatre has been an impartial and compassionate mirror not only for his generation but for human society across different eras and places for more than a century. The world-acclaimed writer began his literary career as an author of short humorous stories for entertainment and satire magazines. With time, as he brought a more complex emotional palette and existential themes to his oeuvre, he conceived his celebrated dramatic style that weds tragic and serious meanings with skeptical laughter. The visions of human loneliness, disconnectedness and boredom, unrequited love and existential meaningfulness in Chekhov's dramatic masterpieces are interspersed with humor and irony and combined with comedic presentations of characters. The purpose of this course is a hands-on examination of Chekhov's style through a practical attempt to stage Chekhov's work. The first part of the course will be focused on examining Chekhov's comedic style against the background of the tradition of laughter in Russian literature. Then we will attempt a dramatic interpretation of Chekhov's play or a theatrical adaptation of his short-stories, using the ideas we discovered while reading his short prose. The students will be able to choose how they would like to contribute to the project: by acting, directing, stage management or stage design. The play will be performed in front of a live audience at the end of the semester.
Not Offered Every Year
Mutually Exclusive: REES 3170
Prerequisite: RUSS 0401 OR RUSS 5401 OR RUSS 1200 OR RUSS 5600
1 Course Unit

REES 5172 Global Landscapes: Russia in XXI century
The goal of this course is to improve students' ability to engage in informed and articulate debate on a number of issues facing Russia and the world at large today, such as: political freedom, and the future of political protest, environmental problems and catastrophes and their aftermath (Chernobyl nuclear disaster), problems of social inequality and redistribution of wealth, national security, the economy, health care, international politics. This will be accomplished through intensive work on expanding lexical knowledge, increasing grammatical accuracy, and developing rhetorical skills. By the end of the course, students will be able to comprehend increasingly complex written and spoken texts on a range of topics and defend their own viewpoint in oral debate and persuasive essay formats.
Not Offered Every Year
1 Course Unit

REES 5175 Stalinist Culture
In the Soviet Union in the late 1920s the dynamic cultural life of the revolutionary era, characterized by avant-gardism, experimentation, and diversity, gave way to a new organization of Soviet cultural life-one dominated by the newly formulated official style of "Socialist Realism" and bureaucratic institutions such as the Soviet Writers Union. In this course we will study the conditions that gave rise to this new era, its institutional realities, and masterworks in film, photography and literature of official art, including those by Kavelin, Pasternak and Eisenstein. We will also examine the social phenomena of cultural resistance and non-conformism of this period and its works written "for the drawer" or for non-official consumption, such as those of Akhmatova, Mandelstam, Bulgakov, Kharmas and Druskin.
1 Course Unit
REES 5250 Russian Culture Through Art and Architecture: From Fin de Siecle to Perestroika
This course offers a general introduction to the history of Russian visual art and material culture. It surveys styles, traditions, and fashions in Russian visual culture from the Middle Ages to Perestroika, considering them in the context of Russian social and political history. The course examines the very important role that visual art played in the history of Russian culture, and seeks to arrive at a deeper understanding of the relationship between visual media and key aspects and events of Russian civilization, such as Orthodoxy, Westernization and Nationalism, Communist utopia, and political protest.
Not Offered Every Year
Mutually Exclusive: REES 2270
Prerequisite: RUSS 1200
1 Course Unit

REES 5270 Russian History in Film
The course draws on the cinematic/fictional representation of the Russian/Soviet history based on Russian as well as non-Russian sources. The analysis targets major modes of imagining, staging and reenacting history, construction of images that satisfy dominant political, cultural and ideological stereotypes, and help create national identities. Bias, eye-witness accounts, propaganda uses and abuses of history, forgeries and the production of alt-facts become topics of particular interest. The discussions involve nation builders, iconic heroes and charismatic antiheroes, great commanders and revolutionaries such as Alexander Nevsky, Ivan the Terrible, Rasputin and the Fall of the Romanovs, Lenin and the October Revolution, Stalin and the construction of the Soviet Colossus, the Storming of the Winter Palace, the Civil War, the Great Purge, the Red Scare in the US, etc.
Also Offered As: CIMS 5750
Mutually Exclusive: REES 0270
1 Course Unit

REES 5271 Post-Soviet Russia in Film
This course is intended for students who have spoken Russian at home and seek to improve their capabilities in formal and professional uses of the Russian language. Film is arguably the most powerful medium for reflecting changes in modern society. This course will examine Russia’s transition to democracy and market economy through the eyes of its most creative and controversial cinematographers. The course will focus on the often agonizing process of changing values and attitudes as the country moves from Soviet to Post-Soviet society. Russian films with English subtitles will be supplemented by readings from contemporary Russian media sources. The course provides an excellent visual introduction to the problems of contemporary Russia society.
Not Offered Every Year
Mutually Exclusive: REES 2271
Prerequisite: RUSS 0401
1 Course Unit

REES 5272 Nationalism and Ethnic Conflict in Film
This course studies political violence, terrorism, civil wars, ethnic conflicts, and genocidal policies as represented in the social media, cable news, documentaries, feature films. We discuss various techniques and strategies of the propaganda wars, post-truth media environment, etc. The regions of interest are Former Soviet Union, Russia, the Caucasus, and the Balkans, US homegrown political violence, and the Middle East. The students are expected to develop and demonstrate a critical approach to different aspects of the cinematic, news, and social media representation of ethnic conflict. We focus on the violent developments that took place in Russia and the Balkans after the collapse of the Soviet Bloc, conditioned by the geopolitical dynamics that the fall of communism had created. We study media broadcasts, documentaries, feature films representing both, the Eastern and the Western perspective.
Not Offered Every Year
Also Offered As: CIMS 5272
1 Course Unit

REES 5296 Contemporary Russia Through Film
This course continues developing students’ advanced skills in Russian and offers intensive study of Russian film, arguably the most powerful medium for reflecting changes in modern society. This course will examine Russia’s transition to democracy and market economy through the eyes of its most creative and controversial cinematographers. The course will focus on the often agonizing process of changing values and attitudes as the country moves from Soviet to Post-Soviet society. Russian films with English subtitles will be supplemented by readings from contemporary Russian media sources. The course provides an excellent visual introduction to the problems of contemporary Russia society.
Not Offered Every Year
Also Offered As: CIMS 5296
Mutually Exclusive: REES 2270
Prerequisite: RUSS 1200
1 Course Unit

REES 5310 The Rise and Fall of the Russian Empire, 1552-1917
How and why did Russia become the center of the world’s largest empire, a single state encompassing eleven time zones and over a hundred ethnic groups? To answer this question, we will explore the rise of a distinct political culture beginning in medieval Muscovy, its transformation under the impact of a prolonged encounter with European civilization, and the various attempts to re-form Russia from above and below prior to the Revolution of 1917. Main themes include the facade vs. the reality of central authority, the intersection of foreign and domestic issues, the development of a radical intelligentsia, and the tension between empire and nation.
Also Offered As: HIST 5240
Mutually Exclusive: HIST 0240
1 Course Unit

REES 5448 Twentieth-Century Russian Literature, Film and Culture: Utopia, Revolution and Dissent
This course continues developing students’ advanced skills in Russian, and introduces students to major movements and figures of twentieth-century Russian literature and culture. We will read the works of modern Russian writers, and watch and discuss feature films. The course will introduce the first Soviet films and works of the poets of the Silver Age and beginning of the Soviet era as well as the works from later periods up to the Perestroika and Glasnost periods (the late 1980s). Prerequisite: All lectures and readings in Russian.
Not Offered Every Year
1 Course Unit
REES 5470 Poetry Matters: Russian Poetry of 18-21 Centuries
This is a content-based Russian language course that offers a general introduction to the study of Russian poetic tradition. We will survey key genres and trends of the almost three centuries of modern Russian poetry, focusing on several larger thematic questions: What ethical challenges loom large in poetic practice? How does poetry address experiences of trauma and harm? How do poems “do” things they do? Taking our cue from Daniil Kharms’s famous dictum, “A poem should be written in such a way that if you throw it at a window, the window will break,” we will consider poetic utterances in a variety of contexts and situations both private and public. Particular attention will be directed to the genre of elegy understood as a narrative of absence and loss. We will closely follow the transformations of the Russian elegiac tradition from 19th Romantic elegy to avant-garde experiments, blockade and prison poetry. The course will also introduce students to scansion and the study of prosody in verse. Course will be taught in Russian. Readings in Russian and English.
Fall or Spring
Mutually Exclusive: REES 3470
Prerequisite: At least one advanced Russian seminar
1 Course Unit

REES 5471 Slavic Literary Theory in Western Context
This course will compare selected theoretical concepts advanced by Russian Formalists, Prague Structuralists, and the Bakhtin group (e.g., defamiliarization, aesthetic sign, dialogue) with similar or analogous notions drawn from Western intellectual tradition.
1 Course Unit

REES 5497 Fear and Loathing of Capitalism in Russian Literature of the 19th Century
This course is a content-based course intended for students who speak Russian at home and seek to improve their command of formal and professional registers of the Russian language. Free trade and market relations were slowly developing in the 19th century Russia, rising against the inhibiting influence exerted by the institution of slavery and rigid social hierarchy. Russian classical realist literature is known for its fierce attacks on capitalism and capitalist values through literary characters and conflicts that prominently feature money and private property. Despite all their philosophical and ideological differences, great Russian writers signal their inherent opposition to capitalist mode of production and remain indifferent to liberal values and creative potential associated with capitalist competition. In this course we will explore what was the cultural and historical context for that palpable fear of capitalism and loathing of bourgeois values, and what was it in free market relations that scared so much all the grand authors of Russian 19th century canon. We will examine these questions through reading and analyzing the works of such authors as Pushkin, Turgenev, Ostrovsky, Tolstoy and Chekhov.
Not Offered Every Year
1 Course Unit

REES 5550 Terrorism
This course studies the emergence of organized terrorism in nineteenth-century Russia and its impact on public life in the West, the Balkans, and America. We investigate the political and cultural origins of terrorism, its conspiratorial routine, structures, methods, manuals, and manifestoes. Historical and cultural approaches converge in the discussion of intellectual movements that forged the formula of terrorism and influenced the professionalization of the underground, such as nihilism, anarchism, and populism. We discuss the stern terrorist personality, self-denial, revolutionary martyrdom, and conspiratorial militancy. The theatricals of terrorism are of particular interest, its bombastic acts, mystification, and techniques of spreading disorganizing fear in the global media environment. We trace the creation of counterterrorism police in late imperial Russia and its methods to infiltrate, demoralize, and dismantle the terrorist networks, and reengineer their social base. First Red Scare and the formation of the FBI constitutes a unique case of managing rampant political violence and countering the asymmetrical threat of terrorism.
Fall or Spring
Also Offered As: CIMS 5550
1 Course Unit

REES 5570 Russia and Eastern Europe in International Affairs
Russia and the European Union (EU) are engaged in a battle for influence in Eastern Europe. EU foreign policy towards its Eastern neighbors is based on economic integration and the carrot of membership. With the application of this powerful incentive, Central and Southeastern European countries such as Poland, Hungary, the Czech Republic, and Croatia have progressed rapidly towards integration with the EU (and NATO). Yet, given Russia’s opposition to the further enlargement, membership is off the table for the large semi-Western powers such as Russia itself and Turkey and the smaller countries inhabiting an emerging buffer zone between Russia and the EU, such as Georgia, Ukraine, Azerbaijan, Moldova, and Belarus. These in-between countries find themselves subject to intense competition for influence between Eastern and Western powers. In this context, EU countries must balance their energy dependence on Russia and need for new markets and geopolitical stability with concern for human rights, democratic governance, and self-determination. What are the trade-offs implicit in the foreign policies of Russia, EU member states, and Eastern Europe? What are the best policy approaches? What are the main opportunities and obstacles?
Fall
Mutually Exclusive: REES 1570
1 Course Unit
REES 5637 Gender and Health in Post-Socialist Society
In terms of gender and health arrangements, post-socialist societies have provided through the course of their history examples both of radical empowerment and of evident discrimination, rapid emancipation and conservative backlashes. Social policy researchers frequently refer to this as a sui generis social laboratory, where health and gender policy experiments have taken place. This course aims to examine the premises and societal outcomes of such ‘experiments’ both on the empirical and conceptual levels. The course pursues two interconnected goals (1) to explore the specificities of gender and health in post-socialist societies, i.e. to consider how these phenomena are grounded in and affected by the political and institutional transition from state socialism; (2) to explore theoretical insights that social studies of the post-socialist experience provide for our understanding of health and gender. The course is structured thematically and chronologically. By tracing transformations of socialist and post-socialist gender order the first part of the course introduces students to the political and institutional context of societies under consideration. The second part of the course discusses social science categories that are used to analyze gender and health (medical professionalism, medical knowledge, emotions in healthcare, etc.) and examines, how attention to socialist and post-socialist experience can enhance our conceptualizations. The third part is devoted to different dimensions of health and gender inequalities on post-socialist space. Empirical researches discussed in this part are mostly concerned with the case of Russia, but are not limited to it. Generally, the course builds into the discussion on what analytical results can be gained through comparing health and gender in post-socialist and ‘Western’ contexts, and what variations between and within post-socialist societies exist. This is an introductory level graduate course.
Not Offered Every Year
Also Offered As: SOCI 5637
1 Course Unit

REES 5640 Geopolitics of Energy in Russia and Eurasia
Russia is one of the major players in the international energy market: third largest oil producer after the U.S. and Saudi Arabia and second-largest (after the U.S.) natural gas producers (2019). It is also a top coal and nuclear power producer. But the geopolitical might that the country holds with respect to energy markets stems not as much from how much energy it produces as from how much energy it exports. Today Russia leads global natural gas exports and trails only the Kingdom of Saudi Arabia in oil exports. Russia is also reliably one of the top coal-exporting countries. This class will explore the geopolitics of energy focusing on the role of Russia as a leading global energy supplier. In doing so, it hopes to provide a slightly different understanding of global energy that is usually taught from either the U.S. or OPEC angle.
Fall
Also Offered As: ENMG 5080
1 Course Unit

REES 5670 Shaping Russian Society: Soviet Heritage and Transformation
This Russian–language content course continues to develop students’ functional proficiency in speaking, writing, reading, and listening. The course is designed to familiarize students with contemporary Russian society and its historical background. It covers the current political, economic, and societal developments in Russia, focuses on a variety of issues central to Russian society since the fall of the Soviet Union, including the search for national identity, changing values, and popular perceptions of Westerners and Western practices. We will observe the business community and its relations with the government, trace the origin of Russian oligarchs and entrepreneurs and investigate how informal Soviet practices and the criminal world shaped the current business environment. Course materials will include interviews, articles, essays by leading Russian journalists and statesmen, and contemporary Russian movies.
Not Offered Every Year
Mutually Exclusive: REES 2670
Prerequisite: RUSS 1200
1 Course Unit
**REES 6100 Portraits of Old Russia: Myth, Icon, Chronicle**

This course covers eight centuries of Russia's cultural, political, and social history, from its origins through the eighteenth century, a period which laid the foundation for the Russian Empire. Each unit is organized around a set of texts (visual, literary, historical, cinematic, musical) which examine prominent historical and legendary figures as they represent chapters in Russia's history. Historical figures under examination include, among others, the Baptist of Rus, Prince Vladimir; the nation-builder, Prince Alexander Nevsky; the first Russian Tsar, Ivan the Terrible; the first Emperor and Westernizer, Peter the Great; the renowned icon painter Andrei Rublev; the epic hero, “bogatyr” Ilya Muromets; and the founder of Muscovite monasticism, St. Sergius of Radonezh. Three modern-day nation-states – Russia, Ukraine, and Belarus – share and dispute the cultural heritage of Old Rus, and their political relationships even today revolve around interpretations of the past and myths of ethnic descent. Has the Rus state been established by the Vikings or by the local Slavs? Is Russian political despotism an inheritance from the Mongols or a native ideology? Is Kievan Rus a mother state of Russia or Ukraine? The constructed past has a continuing influence in modern Russia, and is keenly referenced, sometimes manipulatively, in contemporary social and political discourse. Recently, for example, President Putin has justified the annexation of Crimea to Russia by referring to it as the holy site of Prince Vladimir’s baptism, from which Russian Christianity ostensibly originates. The study of pre-modern cultural and political history through the prism of nationalism theories explains many aspects of modern Russian society, as well as many political aspirations of its leaders. In this course, students gain knowledge about formative events and prominent figures, as well as social and cultural developments in Russia's pre-imperial history. The course takes multidisciplinary approach in that it combines the study of textual sources, objects of art and architecture, music, ritual, and film in their social and historical contexts. Students learn to analyze and interpret primary sources (historical documents and literary texts), identify their intellectual issues, and understand the historical, cultural, and social contexts in which these sources were created. While working with primary sources students learn to pose questions about their value and reliability as historical evidence. By exposing students to the critical examination of “the uses of the past” the course aims to teach them to appreciate the authoritative nature of historical interpretation and its practical application in contemporary social and political rhetoric. At the end of the course students should develop understanding of the continuity and change in Russia's history, its belief systems, and nationalistic ideologies, and will be able to speak and write about these issues with competence and confidence.

Not Offered Every Year
1 Course Unit

Mutually Exclusive: REES 0100

---

**REES 6101 Portraits of Russian Society: Art, Fiction, Drama**

This course covers 19C Russian cultural and social history. Each week-long unit is organized around a single medium-length text (novella, play, memoir) which opens up a single scene of social history birth, death, duel, courtship, tsar, and so on. Each of these main texts is accompanied by a set of supplementary materials paintings, historical readings, cultural-analytical readings, excerpts from other literary works, etc. The object of the course is to understand the social codes and rituals that informed nineteenth-century Russian life, and to apply this knowledge in interpreting literary texts, other cultural objects, and even historical and social documents (letters, memoraanda, etc.). We will attempt to understand social history and literary interpretation as separate disciplines yet also as disciplines that can inform one another. In short: we will read the social history through the text, and read the text against the social history.

Not Offered Every Year
1 Course Unit

---

**REES 6130 Portraits of Soviet Society: Literature, Film, Drama**

How can art and literature open a window on Russian lives lived over the course of the tumultuous twentieth century? This course adopts a unique approach to questions of cultural and social history. Each week-long unit is organized around a medium-length film, text or set of texts by some of the most important cultural figures of the era (novella, play, memoir, film, short stories) which opens up a single scene of social history: work, village, avant-garde, war, Gulag, and so on. Each cultural work is accompanied by a set of supplementary materials: historical readings, paintings, cultural-analytical readings, excerpts from other literary works, etc. We will read social history through culture and culture through history. All readings and lectures in English.

Spring
1 Course Unit

---

**REES 6131 Putin's Russia: Culture, Society and History**

Winston Churchill famously said that Russia "is a riddle, wrapped in a mystery, inside an enigma. Strikingly, today many informed Russians would agree: no one can provide definitive answers concerning what has driven Russian public life and politics over the past three years, as it ricocheted from the mass protests of 2011 and 2012, into the Pussy Riot scandal, then the Olympics, and most recently to the intense patriotism driving the Russian annexation of Crimea and intervention in Ukraine. In this course we will examine how Russians themselves communicate about and represent Russia and what this reveals about this complex society and its development. We will consider print journalism, novels, films, televised media, and the internetpaying close attention both to particular representations and to social institutions for their production, dissemination and consumption. Topics of special concern will include: conspiracy theories, representations of Russian history, collective identity and patriotism, intellectuals and elites, gender and sexuality, consumption and wealth. Putin's Russia is an introductory level course for which no prior knowledge Russian history, culture or society is required. All readings and screenings will be in English. Prerequisite: No prior knowledge of Russian is required.

Not Offered Every Year
1 Course Unit
REES 6149 Socialist and Post-Socialist Worlds
In 1989-1991, a whole world, perhaps many worlds, vanished: the worlds of socialism. In this graduate seminar we will investigate key cultural works, theoretical constructs and contexts spanning the socialist world(s), focused around the USSR, which was for many the (not uncontested) center of the socialist cosmos. Further, we will study the cultural and political interrelationships between the socialist world(s) and anticolonial and left movements in the developing and the capitalist developed nations alike. Finally, we will investigate the aftermaths left behind as these world(s) crumbled or were transformed beyond recognition at the end of the twentieth century. Our work will be ramified by consideration of a number of critical and methodological tools for the study of these many histories and geographies. The purview of the course is dauntingly large - global in scale - and therefore "coverage" will of necessity be incomplete. In addition to the lead instructor, a number of guest instructors from Penn and from other institutions will join us to lead our investigations into specific geographies, moments and areas. Additionally, four weeks have been left without content, to be filled in via consensus decision by the members of the seminar.
Not Offered Every Year
Also Offered As: COML 6149, ENGL 6490
1 Course Unit

REES 6150 Russian and Soviet Cultural Institutions
In this seminar, we will study Russian and Soviet culture through the history of its institutions, in the broader social-institutional context of land-based European empire and state socialism. The course will include material from the eighteenth to the twenty-first centuries, but attention will be focused disproportionately on the twentieth century. Each unit will focus on a specific social institution of culture, yet will also require the reading/viewing of canonical texts and films. Topics will include: reading publics and education; authorship and professionalization; cultural management of social, ethnic, gender and national diversity (including via institutions of translation); journals and publishing houses; genres; the Union of Soviet Writers; censorship and unofficial dissemination; the film industry; cultural history and memory (jubilee celebrations); the culture industry.
Not Offered Every Year
Also Offered As: COML 6530, ENGL 5910
1 Course Unit

REES 6151 Reading Marx's Capital: Divergent Traditions in Europe, the Soviet Union, and the Global South
Karl Marx's masterpiece Capital received little attention at the time of its publication, but gained new life in the twentieth and twenty-first centuries. The afterlives of Capital, however, took disparate forms across different regions and traditions globally: while working on the same text, these traditions gave rise to conflicting and contradictory interpretations, antagonistic dialogues, and cross-disciplinary encounters. This seminar will examine a series of exemplary interpretations of Capital with attention to detail in order to clarify the stakes of different readings and pose the question of relevance of Marx's masterpiece for the contemporary moment. We will investigate how political conjunctures, regional specificities, and ideological concerns shape disparate modes and cultures of reading. We will also examine how Capital is transfigured through the lens of disciplines such as literary studies and comparative literature, philosophy, political science, postcolonial studies, and economics. We will also pose the question of philosophical genealogies of Capital, tracing how divergent philosophical backgrounds inflect the reconfigurations of Marx's thought, e.g., in examining "Hegelian," "Spinozist," and "Epicurian" readings. The topics may include, but are not limited to, the following regions and traditions: France (Louis Althusser group), Italy (Mario Tronti and autonomia tradition), and Germany (Newe Marx Lektüre); Soviet Union (Isaak Rubin, Evald Ilyenkov); Bolivia (Alvaro Garcia Linera), and Argentina (Ernesto Laclau). Finally, we will engage with the most recent readings of Capital in the twenty-first century in the works of thinkers such as Sylvia Federici, Michael Heinrich, and A. Kiarina Kordela, among others.
Spring
Also Offered As: COML 6210, GRMN 6210
1 Course Unit

REES 6152 Madness and Madmen in Russian Culture
Is "insanity" today the same thing as "madness" of old? Who gets to define what it means to be "sane," and why? Are the causes of madness biological or social? In this course, we will grapple with these and similar questions while exploring Russia's fascinating history of madness as a means to maintain critique, or subvert the status quo. We will consider the concept of madness in Russian culture beginning with its earliest folkloric roots and trace its depiction and function in the figure of the Russian "holy fool," in classical literature, and in contemporary film. Readings will include works by many Russian greats, such as Pushkin, Gogol, Dostoevsky, Chekhov, Bulgakov and Nabokov.
Not Offered Every Year
1 Course Unit

REES 6190 Russia and the West
This course will explore the representations of the West in eighteenth- and nineteenth-century Russian literature and philosophy. We will consider the Russian visions of various events and aspects of Western political and social life Revolutions, educational system, public executions, resorts, etc. within the context of Russian intellectual history. We will examine how images of the West reflect Russia's own cultural concerns, anticipations, and biases, as well as aesthetic preoccupations and interests of Russian writers. The discussion will include literary works by Karamzin, Pushkin, Gogol, Dostoevsky, Leskov, and Tolstoy, as well as non-fictional documents, such as travelers' letters, diaries, and historiographical treatises of Russian Freemasons, Romantic and Positivist thinkers, and Russian social philosophers of the late Nineteenth century. A basic knowledge of nineteenth-century European history is desirable. The class will consist of lectures, discussion, short writing assignments, and two in-class tests.
Not Offered Every Year
1 Course Unit
REES 6230 Russian and East European Film from the October Revolution to World War II
The purpose of this course is to present the Russian and East European contribution to world cinema in terms of film theory, experimentation with the cinematic language, and social and political reflex. We discuss major themes and issues such as the invention of montage, the means of revolutionary visual propaganda and the cinematic component to the communist cultural revolutions, party ideology, and practices of social-engineering, cinematic response to the emergence of the totalitarian state in Soviet Russia before World War II.
Fall
1 Course Unit

REES 6231 Russian and East European Film after World War II
The purpose of this course is to present the Russian and East European contribution to world cinema in terms of film theory, experimentation with the cinematic language, and social and political reflex. We discuss major themes and issues such as the means of visual propaganda and the cinematic component to the communist cultural revolutions, party ideology and practices of social-engineering, cinematic response to the emergence of the totalitarian state in Russia and its subsequent installation in Eastern Europe after World War II.
Spring
Mutually Exclusive: REES 1231
1 Course Unit

REES 6272 Nationalism and Ethnic Conflict in Film
This course studies the cinematic representation of civil wars, ethnic conflicts, nationalistic doctrines, and genocidal policies. The focus is on the violent developments that took place in Russia and on the Balkans after the collapse of the Soviet Bloc and were conditioned by the new geopolitical dynamics that the fall of communism had already created.
We study media broadcasts, documentaries, feature films representing the Eastern, as well as the Western perspective. The films include masterpieces such as "Time of the Gypsies", "Underground", "Prisoner of the Mountains", "Before the Rain", "Behind Enemy Lines", and others.
Not Offered Every Year
1 Course Unit

REES 6400 Cultural History of Medieval Rus (800–1700)
This course offers an overview of the literary, cultural, and political history of Medieval Rus from its origins in the 9th century up to the reign of Peter the Great (early 18th century), the period that laid the foundation for the Russian Empire. The focus of the course is on the Kievan and Muscovite traditions but we also look at the cultural space of the Grand Duchy of Lithuania and Poland (i.e., the territory of today's Belarus and Ukraine).
The course takes a comparative and interdisciplinary approach to the evolution of the main cultural paradigms of Russian Orthodoxy viewed in a broader European context (vis-à-vis Byzantium and the Latin West). We learn about the worldview of Orthodox Slavs by examining their religion, ritual, spirituality, art, music, literature, education, and popular culture. Classes are conducted in English. Readings are in Russian and English. English translations of some primary sources are available for those with limited Russian competence.
Fall
Also Offered As: COML 6170
1 Course Unit

REES 6410 Masterpieces of 19th Century Russian Literature
A bronze monument to an all-powerful emperor comes to life and pursues a poor everyman through the streets, driving him to his death. A studious young man kills an old woman as a philosophical experiment. A young woman at the height of aristocratic society abandons her husband and young son to devote herself to her lover. These and other tales from the classics of nineteenth-century Russian literature will touch and delight you, get under your skin, and even attempt to show you how to live.
We will read these tales in order to understand how books can become events in their own right, how Russian literature gained such power and prestige, and what it can still teach us today. Authors include Pushkin, Lermontov, Gogol, Pavlova, Turgenev, Dostoevsky, Tolstoy, and others.
Fall
1 Course Unit

REES 6431 Masterpieces of 20th Century Russian Literature
"Only in Russia is poetry respected. They kill you for it," famously quipped the poet Osip Mandelstam, who died in Joseph Stalin's concentration camps. Russia is a society that takes literature seriously - one in which the pen is assumed to have direct historical consequences. In this course, we will study how twentieth century Russian literature actively participated in war, revolution, totalitarian dictatorship, and resistance. The masterworks we will study open windows into worlds of revolutionary rapture, moral uplift in the face of tyranny, courageous subversion of the repressive state, and historical reflection on its failures. Our readings will range from an avant-garde play intended to rewire your mind, to an epic representation of revolutionary social transformation, to surreal and absurdist representations of a world gone mad. In other words: fasten your seatbelts low and tight across your waist; turbulence ahead!
Spring
1 Course Unit

REES 6435 Modern Literary Theory and Criticism
This course will provide an overview of major European thinkers in critical theory of the 20th and 21st centuries. We will pay particular attention to critical currents that originated in Eastern European avant-garde and early socialist contexts and their legacies and successors. Topics covered will include: Russian Formalism and its successors in Structuralism and Deconstruction (Shklovsky, Levi-Strauss, Jakobson, Derrida), Bakhtin and his circle, dialogism and its later western reception; debates over aesthetics and politics of the 1930s (Lukacs, Brecht, Adorno, Benjamin, Radek, Clement Greenberg); the October group; Marxism, new Left criticism, and later lefts (Althusser, Williams, Eagleton, Jameson, Zizek).
Fall or Spring
Also Offered As: COML 6050, ENGL 6050, ENGL 7905, FREN 6050, GRMN 6050, ITAL 6050
1 Course Unit
REES 6450 Approaches to Literary Texts
Most seminars focus on literary texts composed during a single historical period; this course is unusual in inviting students to consider the challenges of approaching texts from a range of different historical eras. Taught by a team of literary specialists representing diverse periods and linguistic traditions and conducted as a hands-on workshop, this seminar is designed to help students of literature and related disciplines gain expertise in analysis and interpretation of literary works across the boundaries of time, geography, and language, from classic to modern. Students will approach literature as a historical discipline and learn about key methodological issues and questions that specialists in each period and field ask about texts that their disciplines study. The diachronic and cross-cultural perspectives inform discussions of language and style, text types and genres, notions of alterity, fictionality, literariness, symbolism, intertextuality, materiality, and interfaces with other disciplines. This is a unique opportunity to learn in one course about diverse literary approaches from specialists in different fields.
Not Offered Every Year
Also Offered As: CLST 7601, COML 6160, EALC 8290, ENGL 6160, ROML 6160
1 Course Unit

REES 6530 Communism
The rise and fall of Communism dominated the history of the short twentieth century from the Russian revolution of 1917 to the collapse of the Soviet Union in 1991. As a system of government, Communism is more or less dead, but its utopian ideals of liberation from exploitation and want live on. Communism remains the one political-economic system that presented, for a time, an alternative to global capitalism. In this course, students will gain an introduction to socialist and Communist political thought and explore Communist political and economic regimes their successes and failures, critics and dissidents, efforts at reform, and causes of collapse. We will learn about the remnants of Communism in China, North Korea, and Cuba and efforts of contemporary theorists to imagine a future for Communism.
Not Offered Every Year
1 Course Unit

REES 6630 Soviet and Post-Soviet Economy
The course will cover the development and operation of the Soviet centrally planned economy—one of the grandest social experiments of the 20th century. We will review the mechanisms of plan creation, the push for the collectivization and further development of Soviet agriculture, the role of the Soviet educational system and the performance of labor markets (including forced labor camps—GULags). We will discuss the strengths and weaknesses of the Soviet system and the causes of its collapse. Privatization, called by some “piratization,” will be one of the central issues in our consideration of the transition from central planning to a market economy in the early 1990s. Even though our main focus will be on the Soviet economy and post-Soviet transition, we will occasionally look back in time to the tsarist era and even further back to find evidence to help explain Soviet/Russian economic development.
Not Offered Every Year
1 Course Unit

REES 6631 Anarchism: Theories and Ethnographies
"That we are Utopians is well known. So Utopian are we that we go the length of believing that the Revolution can and ought to assure shelter, food, and clothes to all..." -Pyotr Kropotkin, The Conquest of Bread. Although born in the West through the works of William Godwin and Pierre-Joseph Proudhon, anarchism as a political theory was subsequently developed by a variety of Russian and Ukrainian theorists and activists, including Mikhail Bakunin, Lev Tolstoy, Pyotr Kropotkin, Nestor Makhno, and Emma Goldman (in exile in the United States). Anarchism fundamentally questions the need for political power and authority, particularly as embodied in a state. As a political theory, anarchism makes moral claims about the importance of individual liberty and presents a positive theory of human flourishing that is based on ideals of non-coercive consensus building. This course investigates the 19th century theoretical foundations of Russian and Ukrainian anarchist theory through a close examination of key texts from the 19th and early 20th centuries and includes ethnographic explorations of anarchist practices in eastern Europe in the 21st century. All readings will be in English.
Spring
1 Course Unit

REES 6670 Population and Public Health in Eastern Europe
Since the collapse of communism in 1989 in Eastern Europe (and 1991 in the Soviet Union), many of the countries in the region have experienced public health crises and demographic catastrophe. Below replacement fertility rates and massive out migration have decimated the populations of these countries even as populations age and place unsustainable strains on pension systems and medical services. The demographic collapse has also been accompanied by falling male life expectancy and the rise of alcoholism, depression, domestic violence, and suicide. The economic exigencies of the transition from communism to capitalism dismantled welfare states at the exact moment when health services were most needed, leaving charities and nongovernmental organization to try to fill in the gaps. Through a combination of readings from the fields of epidemiology, demography, and medical anthropology, this course examines the public health implications of poverty and social dislocation in post-communist states. All readings and assignments are in English.
Not Offered Every Year
1 Course Unit

REES 6683 Topics in Criticism & Theory: Object Theory
Topics vary annually
Not Offered Every Year
Also Offered As: ARTH 5730, CIMS 5730, COML 5730, ENGL 5730, GRMN 5730
1 Course Unit

REES 9900 Masters Thesis
Mandatory thesis writing course for REES MA students seeking to maintain full time status and fulfill their Masters Thesis requirement, normally in the second year of the program.
0 Course Units
**Sanskrit (SKRT)**

**SKRT 0100 Sanskrit 1st Year, Part I**
During the first semester of beginning Sanskrit, students will be introduced to the script, phonetics, and grammar of the Sanskrit language. By the end of the semester they will be able to begin to read Sanskrit texts and compose Sanskrit sentences in addition to carrying out simple conversation. They will build the requisite skills to read, by the second semester, simple inscriptions and sections from texts like the Ramayana, the Mahabharata, the Bhagavad Gita, Pancatantra, and Yoga Sutra. Students will also be introduced to many features of Sanskrit culture.

- **Fall**
- 1 Course Unit

**SKRT 0200 Sanskrit 1st Year Part II**
During the first semester of beginning Sanskrit, students will be introduced to the script, phonetics, and grammar of the Sanskrit language. By the end of the semester they will be able to begin to read Sanskrit texts and compose Sanskrit sentences in addition to carrying out simple conversation. They will build the requisite skills to read, by the second semester, simple inscriptions and sections from texts like the Ramayana, the Mahabharata, the Bhagavad Gita, Pancatantra, and Yoga Sutra. Students will also be introduced to many features of Sanskrit culture.

- **Spring**
- Prerequisite: SKRT 0100 OR SKRT 5100
- 1 Course Unit

**SKRT 0300 Sanskrit 2nd Year Part I**
This course will lead students to consolidate their knowledge of Sanskrit grammar and increase their familiarity with Sanskrit literature of all kinds, including epic, literary, philosophical, and narrative genres of texts. It will also introduce students to the study and reading of inscriptive materials.

- Two Term Class, Student must enter first term; credit given even if second term not complete
- 1 Course Unit

**SKRT 0400 Intermediate Sanskrit Part II**
This course will lead students to consolidate their knowledge of Sanskrit grammar and increase their familiarity with Sanskrit literature of all kinds, including epic, literary, philosophical, and narrative genres of texts. It will also introduce students to the study and reading of inscriptive materials.

- Two Term Class, Student must enter first term; credit given after both terms are complete
- Prerequisite: SKRT 0300 OR SKRT 5300
- 1 Course Unit

**SKRT 1000 Readings in Sanskrit Literature**
This course is for advanced students of Sanskrit. Designed as a seminar, the course aims to take students through the primary and secondary sources of Sanskrit literary and philosophical production. Each semester will focus on a different genre: epic, belles-lettres, lyric poetry, drama, philosophy, shastra, advanced grammar, history, poetics, and epigraphy. We will focus on original sources, secondary scholarship, and theoretical approaches toward the translation and study of Sanskrit texts.

- Fall or Spring
- Mutually Exclusive: SKRT 6000
- Prerequisite: (SKRT 0300 OR SKRT 5300) AND (SKRT 0400 OR SKRT 5400)
- 1 Course Unit

**SKRT 4998 Independent Study**
Independent Study in Sanskrit

- 0.5-1 Course Unit

**SKRT 5100 Sanskrit 1st Year, Part I**
During the first semester of beginning Sanskrit, students will be introduced to the script, phonetics, and grammar of the Sanskrit language. By the end of the semester they will be able to begin to read Sanskrit texts and compose Sanskrit sentences in addition to carrying out simple conversation. They will build the requisite skills to read, by the second semester, simple inscriptions and sections from texts like the Ramayana, the Mahabharata, the Bhagavad Gita, Pancatantra, and Yoga Sutra. Students will also be introduced to many features of Sanskrit culture.

- **Fall**
- 1 Course Unit

**SKRT 5200 Sanskrit 1st Year Part II**
During the first semester of beginning Sanskrit, students will be introduced to the script, phonetics, and grammar of the Sanskrit language. By the end of the semester they will be able to begin to read Sanskrit texts and compose Sanskrit sentences in addition to carrying out simple conversation. They will build the requisite skills to read, by the second semester, simple inscriptions and sections from texts like the Ramayana, the Mahabharata, the Bhagavad Gita, Pancatantra, and Yoga Sutra. Students will also be introduced to many features of Sanskrit culture.

- **Spring**
- 1 Course Unit

**SKRT 5300 Sanskrit 2nd Year Part I**
This course will lead students to consolidate their knowledge of Sanskrit grammar and increase their familiarity with Sanskrit literature of all kinds, including epic, literary, philosophical, and narrative genres of texts. It will also introduce students to the study and reading of inscriptive materials.

- Two Term Class, Student must enter first term; credit given even if second term not complete
- 1 Course Unit

**SKRT 5400 Intermediate Sanskrit Part II**
This course will lead students to consolidate their knowledge of Sanskrit grammar and increase their familiarity with Sanskrit literature of all kinds, including epic, literary, philosophical, and narrative genres of texts. It will also introduce students to the study and reading of inscriptive materials.

- Two Term Class, Student must enter first term; credit given after both terms are complete
- 1 Course Unit

**SKRT 6000 Readings in Sanskrit Literature**
This course is for advanced students of Sanskrit. Designed as a seminar, the course aims to take students through the primary and secondary sources of Sanskrit literary and philosophical production. Each semester will focus on a different genre: epic, belles-lettres, lyric poetry, drama, philosophy, shastra, advanced grammar, history, poetics, and epigraphy. We will focus on original sources, secondary scholarship, and theoretical approaches toward the translation and study of Sanskrit texts.

- Two Term Class, Student may enter either term; credit given for either
- Mutually Exclusive: SKRT 1000
- 1 Course Unit
SSPP 6000 Advocacy in Emergent Technology, Digital Media and Society
This course is designed to build a critical foundation for understanding the interplay of digital technologies and society and the important role of advocates in this space. Providing an overview of the history, students will investigate and critique contemporary emergent technologies in a social context, and explore their use in advocacy efforts. The course uses interactive lecture, discussion, readings, and guest speakers from technologists in the field.
Fall
Also Offered As: COMM 6000
1 Course Unit

SSPP 6010 Comparative Urban and Distributive Politics
As of 2007, more than half of the world’s population resides in cities. Cities and metropolitan regions are much more unequal than the countries that host them. For example, income inequality in the New York Metropolitan Area parallels that of Rwanda at around 15 Gini points higher than the U.S. as a whole. Especially in the world’s developing regions, the onset of rapid urbanization occurs in tandem with environmental degradation that disproportionately affects impoverished and marginalized communities. This course provides an introduction to the observable patterns and challenges confronting cities and metropolitan areas and the policy remedies and options available to government, NGOs, and the private sector. First, the course will explore the political, social, and economic explanations for the origins and evolution of urban environments. We will trace the historical development of local government institutions, analyze how urban coalitions form, and investigate distributions of power. In the second half of the course, we will examine urban welfare policies in the areas of growth, housing, the distribution of public goods/services (e.g., education, public security, sanitation), identity politics and culture wars, and poverty. Focusing especially on cities in the Global South, the topics covered in this course include: poverty and urban slums, informal housing, informal labor markets, public goods and distributive justice, urban land rights and other “rights to the city” (RTC), climate change adaptation in cities, environmental risk and urban precarious settlements, gentrification and evictions, among other topics.
Fall
1 Course Unit

SSPP 6020 Applied Data Ethics, Law, and the Social Good
This course explores the applied use of civic data, specifically "using data for the social good." Data can help us understand needs, improve services, shift policies, and build stronger, healthier, and more just communities. However, use of data can also reinforce legacies of racist policies and produce inequitable resource allocation, access, and outcomes. These tensions are the crux of this course. We will interrogate assumptions and ask difficult questions of ourselves as we hold this duality—that data can be used for good and for harm. It is up to us as practitioners to weigh the risks and benefits to ensure that civic data use is legal, ethical, and a good idea.
Fall
1 Course Unit

SSPP 6030 Journey to Joy: Designing a Happier Life for Social Work, Social Policy and Non-Profit Leadership
What does joy really mean? Could joy be an intervention for complex trauma, pain, grief, and loss? How does joy show up in policy making and leadership? This innovative new course combines cutting-edge research, practical techniques, and real-world examples to help you understand the power of joy and develop community-informed, anti-racist strategies for promoting it. From exploring the latest in clinical intervention, popular ideas around manifestation, self-care, and #Blackjoy, to examining the role of technology and cultural differences, you will gain a culturally humble and comprehensive understanding of what it takes to design a happier life. This course includes a blend of immersive, hands-on activities, short lectures, and engaging reflective discussions that will leave you feeling inspired and empowered. Whether you are social work, non-profit leader or social policy student, or someone who wants to increase their own experiences of joy and happiness, this course is a perfect way to jump start your journey to joy.
Fall
Also Offered As: COMM 6030
1 Course Unit

SSPP 6040 Social Justice Scholars Program Seminar
The intent of the seminar is to aid scholars in developing skills, knowledge, and concepts relevant to becoming social justice leaders in their field. To this end, the seminar will: Connect Scholars to relevant faculty, alumni and community and institutional leaders •Promote intellectual engagement among all scholars and faculty from across the school, as well as community-based representatives •Promote the development of critical consciousness and awareness of the issues of social justice in the scholar’s chosen fields •Develop possible action strategies using a critical framework
Fall, Spring, and Summer Terms
Prerequisite: Course is restricted to SP2 SJS Program participants
0 Course Units

SSPP 7000 Independent Research Workshop
Students in this course will carry out their own social science research project relating to social work, social policy, nonprofit leadership, or other social justice topics. Students must complete an introductory research course prior to enrolling—SWRK6150, MSSP6290, NPL5830, NPL7200 or the equivalent. Students must also have an approved research proposal and IRB approval prior to the start of the course. All students will be expected to prepare a publishable research paper by the end of the semester.
Fall
1 Course Unit
Science, Technology & Society (STSC)

STSC 0100 Emergence of Modern Science
During the last 500 years, science has emerged as a central and transformative force that continues to reshape everyday life in countless ways. This introductory course will survey the emergence of the scientific world view from the Renaissance through the end of the 20th century. By focusing on the life, work, and cultural contexts of those who created modern science, we will explore their core ideas and techniques, where they came from, what problems they solved, what made them controversial and exciting and how they relate to contemporary religious beliefs, politics, art, literature, and music. The course is organized chronologically and thematically. In short, this is a "Western Civ" course with a difference, open to students at all levels.
Fall
Also Offered As: HSOC 0100
1 Course Unit

STSC 0228 Studying Sex
The concept of "sex" has meant multiple things to science and medicine over the last few hundred years: a way of sorting bodies, a behavior to observe, a driving force behind reproduction and evolution, and a yardstick by which to measure normality. It has been both a binary of male and female, and a spectrum; both separate from gender, and inseparably entwined with it. It has been defined at different moments by anatomy, hormones, chromosomes, and even metabolism. In this course, we will explore how scientists have studied—and perhaps produced—the many-faceted thing called sex, and how historians have come to understand that past. This first-year seminar introduces students to primary source research; historical writing; and methods from both Science and Technology Studies (STS), and queer, trans, and feminist studies. Course materials will focus mainly on the United States in the 19th and 20th centuries.
Fall
Also Offered As: GSWS 0228, HSOC 0228
1 Course Unit

STSC 0283 Medicine, Magic and Miracles
This course explores the nature of disease and the history of medical practice and healing in the medieval period, using methods from intellectual, cultural, and social history, as well as the life sciences, and incorporating material from Indonesia to England. The themes of this course include: 1) the diversity of healing practices and beliefs in this period; 2) specific rationalities of different methods of healing; 3) views of the human body and disease; 4) the wide array of practitioners that people turned to for medical care, including physicians, midwives, family members, herbalists, snake handlers, saints, and surgeons; 5) institutions of medicine, such as the hospital. Students will have their minds blown as they learn to question everything they thought they knew about how science and medicine work.
Fall
Also Offered As: HSOC 0283
1 Course Unit

STSC 0313 Cane and Able: Disability in America
Disability is a near universal experience, and yet it remains on the margins of most discussions concerning identity, politics, and popular culture. Using the latest works in historical scholarship, this seminar focuses on how disability has been experienced and defined in the past. We will explore various disabilities including those acquired at birth and those sustained by war, those visible to others and those that are invisible. For our purposes, disability will be treated as a cultural and historical phenomenon that has shaped American constructions of race, class, and gender, attitudes toward reproduction and immigration, ideals of technological progress, and notions of the natural and the normal.
Fall
Also Offered As: HSOC 0313
1 Course Unit

STSC 0387 Epidemics in History
The twenty-first century has seen a proliferation of new pandemic threats, including SARS, MERS, Ebola, Zika, and most recently the novel coronavirus called COVID-19. Our responses to these diseases are conditioned by historical experience. From the Black Death to cholera to AIDS, epidemics have wrought profound demographic, social, political, and cultural change all over the world. Through a detailed analysis of selected historical outbreaks, this seminar examines the ways in which different societies in different eras have responded in times of crisis. The class also analyzes present-day pandemic preparedness policy and responses to health threats ranging from influenza to bioterrorism.
Fall
Also Offered As: HSOC 0387
1 Course Unit

STSC 0400 Medicine in History
This course surveys the history of medical knowledge and practice from antiquity to the present. No prior background in the history of science or medicine is required. The course has two principal goals: (1) to give students a practical introduction to the fundamental questions and methods of the history of medicine, and (2) to foster a nuanced, critical understanding of medicine's complex role in contemporary society. The course takes a broadly chronological approach, blending the perspectives of the patient, the physician, and society as a whole—recognizing that medicine has always aspired to "treat" healthy people as well as the sick and infirm. Rather than history "from the top down" or "from the bottom up," this course sets its sights on history from the inside out. This means, first, that medical knowledge and practice is understood through the personal experiences of patients and caregivers. It also means that lectures and discussions will take the long-discredited knowledge and treatments of the past seriously, on their own terms, rather than judging them by today's standards. Required readings consist largely of primary sources, from elite medical texts to patient diaries. Short research assignments will encourage students to adopt the perspectives of a range of actors in various historical eras.
Fall
Also Offered As: HIST 0876, HSOC 0400
1 Course Unit
STSC 0490 Comparative Medicine
This course explores the medical consequences of the interaction between Europe and the "non-West." It focuses on three parts of the world Europeans colonized: Africa, South Asia, and Latin America. Today's healing practices in these regions grew out of the interaction between the medical traditions of the colonized and those of the European colonizers. We therefore explore the nature of the interactions. What was the history of therapeutic practices that originated in Africa or South Asia? How did European medical practices change in the colonies? What were the effects of colonial racial and gender hierarchies on medical practice? How did practitioners of "non-Western" medicine carve out places for themselves? How did they redefine ancient traditions? How did patients find their way among multiple therapeutic traditions? How does biomedicine take a different shape when it is practiced under conditions of poverty, or of inequalities in power? How do today's medical problems grow out of this history? This is a fascinating history of race and gender, of pathogens and conquerors, of science and the body. It tells about the historical and regional roots of today's problems in international medicine.
Fall
Also Offered As: HSOC 0490
1 Course Unit

STSC 0600 Technology & Society
Technology plays an increasing role in our understandings of ourselves, our communities, and our societies, in how we think about politics and war, science and religion, work and play. Humans have made and used technologies, though, for thousands if not millions of years. In this course, we will use this history as a resource to understand how technologies affect social relations, and converse how the culture of a society shapes the technologies it produces. Do different technologies produce or result from different economic systems like feudalism, capitalism and communism? Can specific technologies promote democratic or authoritarian politics? Do they suggest or enforce different patterns of race, class or gender relations? Among the technologies we'll consider will be large objects like cathedrals, bridges, and airplanes; small ones like guns, clocks and birth control pills; and networks like the electrical grid, the highway system and the internet.
Spring
Also Offered As: HSOC 0600
1 Course Unit

STSC 0823 Sport Science in the World
This seminar is designed for first-year students who are interested in some big questions related to the topic of "sport science." Sport science may seem to be just a niche field where teams of physiologists, psychologists, geneticists, engineers and others work to make already very athletic people go "faster, higher, stronger." On the other hand, the work of sport scientists intersects everyday with far-reaching questions about how categories of sex, age, race, disability, and nationality are defined, measured, challenged, or maintained. Sport scientists weigh in on debates over what kinds of physical activity or bodies are "clean," what kinds of performance are "natural" or even human, and what kinds of sporting spaces or equipment are fair. In this class we'll read and discuss historical and contemporary accounts of sport science in the world. My hope is that students will enter the class interested in sports and in gendered science, objectivity and standardization, the politics of big data and more.
Fall
Also Offered As: HSOC 0823
1 Course Unit

STSC 1101 Science and Literature
Science fiction has become the mythology of modern technological civilization, providing vivid means for imagining (and proclaiming) the shape of things to come. This interdisciplinary seminar will consider SF in multiple manifestations -- literature, film and TV shows, visual art and architecture. We will debate how the genre has shaped ideas about scientific knowledge, the position of humans in the universe, and our possible futures by examining themes including time travel, robots and androids, alien encounters, extraterrestrial journeys, and the nature of intelligent life. This seminar will consider SF from the perspective of the history of science and technology; critically and comparatively, with a primary focus on social and cultural contexts in addition to literary aspects.
Spring
Also Offered As: ENGL 1509
1 Course Unit

STSC 1120 Science Technology and War
In this survey we explore the relationships between technical knowledge and war in the nineteenth and twentieth centuries. We attend particularly to the centrality of bodily injury in the history of war. Topics include changing interpretations of the machine gun as inhumane or acceptable; the cult of the battleship; banned weaponry; submarines and masculinity; industrialized war and total war; trench warfare and mental breakdown; the atomic bomb and Cold War; chemical warfare in Viet Nam; and "television war" in the 1990s.
Not Offered Every Year
Also Offered As: HSOC 1120
1 Course Unit

STSC 1151 Modern Biology and Social Implications
This course covers the history of biology in the 19th and 20th centuries, giving equal consideration to three dominant themes: evolutionary biology, classical genetics, and molecular biology. The course is intended for students with some background in the history of science as well as in biology, although no specific knowledge of either subject is required. We will have three main goals: first, to delineate the content of the leading biological theories and experimental practices of the past two centuries; second, to situate these theories and practices in their historical context, noting the complex interplay between them and the dominant social, political, and economic trends; and, third, to critically evaluate various methodological approaches to the history of science.
Fall or Spring
Also Offered As: HIST 0877
1 Course Unit
STSC 1160 Sustainability & Utopianism
This seminar explores how the humanities can contribute to discussions of sustainability. We begin by investigating the contested term itself, paying close attention to critics and activists who deplore the very idea that we should try to sustain our, in their eyes, dystopian present, one marked by environmental catastrophe as well as by an assault on the educational ideals long embodied in the humanities. We then turn to classic humanist texts on utopia, beginning with More’s fictive island of 1517. The “origins of environmentalism” lie in such depictions of island edens (Richard Grove), and our course proceeds to analyze classic utopian texts from American, English, and German literatures. Readings extend to utopian visions from Europe and America of the nineteenth and twentieth centuries, as well as literary and visual texts that deal with contemporary nuclear and flood catastrophes. Authors include: Bill McKibben, Jill Kerr Conway, Christopher Newfield, Thomas More, Francis Bacon, Karl Marx, Henry David Thoreau, Robert Owens, William Morris, Charlotte Perkins Gilman, Ayn Rand, Christa Wolf, and others.
Not Offered Every Year
Also Offered As: COML 1160, ENGL 1579, ENV 1050, GRMN 1160
1 Course Unit

STSC 1201 Darwin’s Legacy: The Evolution of Evolution
Darwin’s conceptions of evolution have become a central organizing principle of modern biology. This lecture course will explore the origins and emergence of his ideas, the scientific work they provoked, and their subsequent re-emergence into modern evolutionary theory. In order to understand the living world, students will have the opportunity to read and engage with various classic primary sources by Darwin, Mendel, and others. The course will conclude with guest lectures on evolutionary biology today, emphasizing current issues, new methods, and recent discoveries. In short, this is a lecture course on the emergence of modern evolutionary biology—its central ideas, their historical development and their implications for the human future.
Spring
1 Course Unit

STSC 1600 The History of the Information Age
We are said to live in an “information age.” Information technologies have been credited with ushering in an era of unprecedented information creation, collection, storage, and communication. We experience the impact of this firsthand: these technologies increasingly pervade our homes, workplaces, our schools, our most private spaces. But what exactly do we mean when we speak of the information age? When and how did it come into being? What developments—social, economic, political, or technological—made the digital world possible? How do these fit in the longer history of technology and society? And how is all this different from earlier eras? In this course, we explore these questions by looking to the history of information, information technologies, and information sciences, a history that long precedes the digital computer. Although, at the center of our story will be the development of new information technologies—from the printing press and the telegraph to the computer and of course the Internet—our focus will not primarily be on machines, but on people and how individuals conceptualized, contributed to, made sense of, and dealt with the many transformational changes that have shaped the contours of our modern digital world.
We will explore forms of identity, knowledge, and community that have emerged within this information age. Our goal will be to deepen historical perspectives and build analytical tools to critically evaluate the role of information in our increasingly digital world today.
Fall or Spring
Also Offered As: SOCI 2951
1 Course Unit

STSC 1761 Nature and the City: Place, Memory, and Environment
When news articles say that we’ve known about the climate crisis for decades, who is included in that “we”? What does place have to do with which events are memorialized and which are forgotten? In this course we’ll explore the relationships among cities, environments, and ideas about the past in the United States. From problems of drinking water to climate change, we’ll investigate how place and collective memory impact decisions and possibilities in facing environmental issues. Drawing on science and technology studies, anthropology, sociology, and history, this course offers students new ways to think about how people in the United States have understood their relationships to the places they live in and depend on. Using a combination of scholarly readings, primary sources, and field trips, this CWiC critical speaking seminar will focus on assignments designed to help students develop observation, critical reading, and public speaking skills to understand how stories about the past impact their lives.
1 Course Unit

STSC 1788 Everyday Technologies and the Making of the Modern World
Long before iPhones and Fitbits, personal technologies—small(ish), portable, purchasable—had a tremendous impact on the lives of people around the globe. Items such as wristwatches, bicycles, sewing machines, cars and radios could empower their users (or sometimes constrain them), creating economic, educational or recreational opportunities while also being associated with grander ideas and ideologies. This course will explore such everyday technologies across the nineteenth and twentieth centuries, in locations spanning the Americas, Europe, Africa and Asia. We will consider how the use and significance of particular technologies varied according to time and place; how these everyday items contributed to imperial and national identities and “self-fashioning” for individuals; and how, through use and modification, consumers themselves could become part of the story of technological change. In addition to reading a variety of classic and recent scholarship, students will work with a wide array of primary sources (newspapers, photographs, patent records, trade cards) and use digital tools to present their own research projects.
Fall
1 Course Unit

STSC 1880 Environment and Society
This course examines contemporary environmental issues such as energy, waste, pollution, health, population, biodiversity and climate through a historical and critical lens. All of these issues have important material, natural and technical aspects; they are also inextricably entangled with human history and culture. To understand the nature of this entanglement, the course will introduce key concepts and theoretical frameworks from science and technology studies and the environmental humanities and social sciences.
Fall or Spring
1 Course Unit
STSC 1897 Environmental History
This course provides an introduction to environmental history—the history of the interrelationship between humans and the rest of nature. In the words of historian J.R. McNeill, "Human history has always and will always unfold within a larger biological and physical context, and that context evolves in its own right. Especially in recent millennia, that context has co-evolved with humankind." In this course we will study this co-evolution between human actors and non-human actors in global history, analyzing political, social, cultural and economic factors that affect ideas about nature and material effects on nature. We will consider the concept of the Anthropocene and study current environmental changes and challenges.
Not Offered Every Year
1 Course Unit

STSC 2018 Science in the Public
How, where, and when does the public encounter knowledge generated by others? And what are the stakes of those encounters for knowledge and the public? This course examines the sites, methods, and media through which knowledge of the world (scientific and otherwise) is preserved, interpreted, and communicated to non-specialist audiences. We will consider what forms of knowledge are chosen for public dissemination, the expressive and affective dimensions of these encounters, and the ways in which cultures of public knowledge have changed over time. Possible topics include science journalism, nature films, World's Fairs, museums, parks, and historic sites. The course will also offer students the opportunity to develop skills and experience in the creation of a public-facing interpretive project.
1 Course Unit

STSC 2078 Agriculture & Science in the Pacific World
This course examines how agricultural science has shaped the modern world. It focuses on the lands touching the Pacific Ocean during the industrial era—from the late eighteenth century to the late twentieth century—to highlight how scientific knowledge of the natural world and regimes of agricultural production interacted to change spatial relations of power between distant places. We will explore the history of botany, chemistry, and entomology in the context of European and Euro-American exploration excursions into the Pacific. We will also explore the history of once-exotic but now commonplace things that sustain our existence, from sugar, rice, and palm oil to guano. In short, this course examines how ideas about nature, methods of converting nature into commodities, and nature itself all influence each other. Students will work throughout the semester to gain knowledge about the intersection of agriculture, science, and empire in the Pacific, while also developing and strengthening their ability to conduct historical research and produce original arguments.
Spring
1 Course Unit

STSC 2080 Science and Religion: Global Perspectives
This survey course provides a thematic overview of science and religion from antiquity to the present. We will treat well-known historical episodes, such as the emergence of Muslim theology, the Galileo Affair and Darwinism, but also look beyond them. This course is designed to cover all major faith traditions across the globe as well as non-traditional belief systems such as the New Age movement and modern Atheism
Not Offered Every Year
1 Course Unit

STSC 2097 Race and Gender in Global Science
This course critically examines the creation of scientific conceptions of 'race' and 'sex' in the modern era and their global impact. How did 'race' and 'sex' come to be the primary categories through which human variation has been classified in the modern West? What concepts of "race" and "sex" did colonial scientists, doctors, naturalists, and other experts invent, and how and why did they do this? How have scientific conceptions of 'race' and 'sex' been adapted to fit the sociopolitical projects of formerly colonized regions? And how have recent developments in genomic science sought to reinvent these categories? With these questions in mind, this course challenges us to think critically about the political contexts in which conceptions of 'race' and 'sex' have been crafted as well as how they have been contested and re-defined.
Spring
1 Course Unit

STSC 2146 Science and Technology in Modern East Asia
Technology from East Asia is ubiquitous in everyday life in the 21st century. You may be reading these very words on a device designed or assembled in Japan, China, South Korea, or Taiwan. The region, now a global center of research and innovation, contains some of the world's most impressive technological and scientific achievements. It also exhibits some of the most distressing—from mass facial recognition surveillance in China to nuclear disaster in Japan. This course explores how this state of affairs has taken shape from the 19th century through the present. Topics include industrialization, military technology, science and the rise of nationalism, the proliferation of consumer electronics, and environmental engineering in a warming world.
Also Offered As: EALC 2502
1 Course Unit

STSC 2167 Science in the Middle East
This course provides a long-term overview of science, learning and naturalistic practices in the Middle East, broadly defined, from the eighth to the present. The students may expect to read state-of-the-field analyses of some of the turning points and major debates, including the Graeco-Arabic translation movement, occultism, decline, colonization and modernity. The course is built on a mixture of primary and secondary sources. The students are expected to contribute to class discussion and to write a final research paper. Some knowledge of the history of the region is desirable, but not required.
Fall, odd numbered years only
1 Course Unit

STSC 2186 Climate Change: Science, Technology and Society
Climate change is a sign that humans have become a force with planet-altering power. We need to understand how human societies work if we hope to respond to its dangers effectively. This course will use history to help students see climate change's social and political aspects. We'll examine how previous societies have responded to episodes of non-anthropogenic climate change, exploring market-based policies, power imbalances, and vulnerability. Through the history of science, we will investigate and critique how the growth of scientific knowledge often led climate change to be framed as a techno-scientific problem, best addressed through research and technological innovation. Students will learn how climate politics have been pushed by environmental and social justice activists, as well as by anti-communist scientists and corporate-sponsored cultivation of public doubt. Assignments will help students learn how to translate scholarly insights into engaging media that can reach various publics.
Fall or Spring
1 Course Unit
STSC 2198 Race, Science, and Globalization
Why do racist ideologies persist when a majority of scientists and scholars reject the premises they rely upon? Since the end of WWII, major scientific organizations like UNESCO and the American Anthropological Association have published statements rejecting race as an accurate representation of human biological variation. Yet despite widespread scientific opposition to the validity of race as an object of study, troublesome issues concerning race and racism abound in Western societies. If not an accurate description of human biology then what is race? And is racism an inevitable feature of human societies?
Fall or Spring
Also Offered As: HSOC 2198, LALS 2198
1 Course Unit

STSC 2202 Journalistic Writing in Science, Technology, Society
This workshop is intended for students interested in using popular science writing to broaden public understanding of science, technology, and society. Good science writing helps the public understand how to judge scientific claims; students will hone journalistic skills such as how to research a topic; how to identify interviewees and conduct interviews; and how to redraft and edit. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Fall or Spring
Also Offered As: ENGL 3414
1 Course Unit

STSC 2213 Herbs and Humors: Medieval and Early Modern Pharmacology
What do gold, mummies, and rhubarb have in common? All were important ingredients in premodern pharmacy! This course surveys the history of pharmacology in the Medieval and Early Modern periods, beginning with the earliest European universities, through the professionalization of the medical field in the High and Late Middle Ages, and into the chymical medicine of the Renaissance. By engaging with a selection of both primary and secondary sources, students will learn about the development of the field of pharmacology and its relation to the broader field of medicine during its formation. Students will also learn how other emerging fields, such as alchemy and chemistry, and new technological advances made the development and advancement of pharmaceuticals possible. By the end of the course, students should expect to be able to address the following questions: How do theory and practice converge in premodern medicine and pharmacology? What is the relationship between the pharmacist and the physician, and how does this relationship shape medical practice? How does the invention of new technology shape the development of pharmacology during this period? No prior knowledge of medical history is needed for this course.
Also Offered As: HSOC 2213
1 Course Unit

STSC 2296 Technologies of Self and Society
As European empires expanded in the late eighteenth century, "social science" began to emerge in the lexicons of Western societies. Since these early beginnings in European imperialism, the social sciences have sought to represent, alter, and govern human existence while struggling to define "society" as something separate from "nature". This class examines how questions concerning the proper management of self and society are central to the ambitions and dilemmas of modern social sciences. We begin by tracing the origins of social science in late-eighteenth century thought and their professionalization in the nineteenth century. Continuing through to the twentieth century, we will observe how core social science disciplines like sociology, anthropology, and psychology attempted - in the name of anti-racism - to carve out distinct niches in opposition to biology and genetics. The course also examines the dramatic growth of the social sciences during the cold war period thanks to military funds. Our examination of cold war social science will focus on how social scientists began carving up the world into different "areas" of study and how they became increasingly oriented towards re-making individual psyches and societies in the "third world" to fit the image of an industrialized "West". The course will conclude by examining calls from indigenous scholars and scholars in the global South to decolonize social science.
Spring
1 Course Unit

STSC 2303 Fundamentals of Epidemiology
This course introduces students to the basic tenets of epidemiology and how to quantitatively study health at the population level. Students learn about measures used to describe populations with respect to health outcomes and the inherent limitations in these measures and their underlying sources of data. Analytic methods used to test scientific questions about health outcomes in populations then are covered, again paying particular attention to the strength and weaknesses of the various approaches. Multiple large epidemiologic research and field studies are used as in-class exemplars.
Spring
Also Offered As: HSOC 2303
1 Course Unit

STSC 2304 Insect Epidemiology Pests, Pollinators and Disease Vectors
Malaria, Dengue, Chagas disease, the Plague- some of the most deadly and widespread infectious diseases are carried by insects. The insects are also pernicious pests; bed bugs have returned from obscurity to wreak havoc on communities, invasive species decimate agricultural production, and wood borers are threatening forests across the United States. At the same time declines among the insects on which we depend- the honeybees and other pollinators--threaten our food security and ultimately the political stability of the US and other nations. We will study the areas where the insects and humans cross paths, and explore how our interactions with insects can be cause, consequence or symptom of much broader issues. This is not an entomology course but will cover a lot about bugs. It's not a traditional epidemiology course but will cover some fascinating epidemiological theory originally developed for the control of disease vectors. It will cover past epidemics and infestations that have changed the course of the history of cities and reversed advancing armies. HSOC 241. Stem Cells, Science and Society. Gearhart/Zaret.
Fall or Spring
Also Offered As: HSOC 2304
1 Course Unit
STSC 2418 Engineering Cultures
Modern engineering, technology, science, and medicine converge with each other in countless places, landscapes, institutions, and households. The profession of the engineer has been distinct from that of the scientist, and the "doctor," since its inception in the 1880s, however. In our class we trace overlaps and boundaries among engineers and other key experts of modern society, government, and public health, covering spaces in the Americas, Asia, and Europe. We explore rivalries, the roles of management and the state, class status and prestige, and we listen to engineers themselves and their understandings of their roles, functions, and purpose in modern societies. We cover fields such as civil engineering, mining, chemical-industrial engineering (including pharmaceutics and oil refinery), mechanical engineering and machine design/maintenance, computer science, and the engineering of information technologies. No pre-requisites, no prior knowledge required.
Also Offered As: HSOC 2418
1 Course Unit

STSC 2421 Manufacturing Minds: From Babbage to ChatGPT
When asked to tell its own history, ChatGPT answers literally, describing (vaguely of course) its own training data set. When pressed to describe the longer history of "technology like you," it mentions early computer science, programs that played chess or solved math problems, before naming deep learning algorithms and big data as the key breakthroughs. This lineage is not untrue, but it ignores the wider context in which individuals and organizations have come to pursue this strange dream of crafting an intelligent object. As an uncannily lucid conversation partner who freely performs all manner of textual tasks, ChatGPT participates in a longstanding tension in the history of information technology between the goals of manufacturing minds and making mindless clerical workers. In this course we historicize that tension in three domains—calculation, knowledge work, and games—all of which directly inform our efforts to imagine what ChatGPT and its ilk might be. Throughout, we will attend to the ways machinery shaped specific tasks’ construction in relation to gender, race, and class identities. We will see how technologies often imagined as disembodied are always material, interacting with human bodies and physical environments.
Not Offered Every Year
Also Offered As: HSOC 2421
1 Course Unit

STSC 2607 Cyberculture
Computers and the internet have become critical parts of our lives and culture. In this course, we will explore how people use these new technologies to develop new conceptions of identity, build virtual communities and affect political change. Each week we’ll see what we can learn by thinking about the internet in a different way, focusing successively on hackers, virtuality, community, sovereignty, interfaces, algorithms and infrastructure. We’ll read books, articles, and blogs about historical and contemporary cultures of computing, from Spacewar players and phone phreaks in the 1970s to Google, Facebook, World of Warcraft, WikiLeaks, and Anonymous today. In addition, we’ll explore some of these online communities and projects ourselves and develop our own analyses of them.
Fall or Spring
1 Course Unit

STSC 2644 Artificial Subjects: Golems, Homunculi, Robots, and Cyborgs
What is the difference between a cyborg and an automaton? How are golems and homunculi similar? Are the droids in “Star Wars” slaves? For at least three millennia, humans have been grappling with the idea of creating artificial people and animals. Exactly how life-like these creations are has never been constant, but neither have definitions and ideas about mimesis and life. How do artificial subjects enforce and expose the boundary between made and born? How are they used to configure or complicate notions of human subjectivity and autonomy? This course focuses on the relationship between the artificial and the natural, the representation of that relationship, and the various cultural meanings inscribed in the bodies of robots. Course materials will be drawn from literature, myth, religious texts, critical theory/STS, historiography, scientific treatises, images, and film/tv.
Not Offered Every Year
1 Course Unit

STSC 2607 Data and Death
Digital tools and data-driven technologies increasingly permeate twenty-first century life. But how have they affected death? Do we conceive of death differently in a digitally mediated world? How do we mourn in the age of Facebook? How is “big data” put to work in the medical world that seeks to diagnose and treat fatal illnesses? What new forms of death and violence have been imagined or developed with digital technologies in hand? And what of those who believe that they could live forever, defying death, by uploading "themselves" into some new digital form? This course offers a historical exploration of these questions, looking at different intersections between data and death. We will work with a range of different sources ranging from science fiction to medical journals to the often-controversial death counts that follow natural and political disasters. Our goal will be to map the many contours of death in a digital world, but also to recognize the longer histories of counting, mourning, diagnosing, dreaming, and dying that have shaped them.
Fall
Also Offered As: HSOC 2707
1 Course Unit

STSC 2708 Digital Democracy
Technological infrastructure shapes what forms of political life are possible within a society. Political campaigns, investigative journalism, public engagement, protest, government - all unfold on different time scales, in different forms, and with different consequences depending on what machines mediate them. This course explores the forms of American political life that have taken shape in and through modern digital computing. We will investigate especially a perceived tension at the heart of computing technologies - from artificial intelligence to social media - as they have been introduced to so many corners of American political life: Are computing technologies agents of liberation, or of control? The internet, for example, was embraced by some as an inherently democratizing and liberating force, giving users equal access to voice and information. On the other hand, many feared the internet as an unprecedented platform for corporate and government surveillance and manipulation. This course will analyze and historicize this tension, looking to unpack the complex and controversial role of computers in American political life from the Cold War to @POTUS.
Fall or Spring
1 Course Unit
STSC 2757 Prove It: Mathematics and Certainty
Mathematical knowledge is often held up as our most reliable and certain knowledge. The truths of mathematics serve as exemplars of certainty that are not tied to any specific time and place. Yet, throughout history, mathematics has been understood and practiced in quite different ways, for quite different reasons, and by quite different people. Mathematical certainty has been shaped by different beliefs and practices. Mathematicians and their work have been shaped by rich interactions with different dimensions of social life from religion and politics to architecture and war. Mathematics is not simply surrounded by a society external to it, it is an integral and complex part of it. What concerns have motivated mathematical research through history? How has mathematics been put to work in different domains of culture? What does it mean to be a mathematician in different times and places? Does mathematical knowledge bear traces of the conditions in which it was produced? What counts as proof and to whom? How do we reconcile the changing character of mathematical research with the traditional understanding of mathematical knowledge as time and place independent? This course takes up these questions by looking to different worlds in which mathematics and mathematical certainty have taken shape.
Fall
1 Course Unit

STSC 2829 Nature's Nation: Americans and Their Environment
The United States is "nature's nation." Blessed with an enormous, resource-rich geographically diverse and sparsely settled territory, Americans have long seen "nature" as central to their identity, prosperity, politics and power, and have transformed their natural environment accordingly. But what does it mean to be "nature's nation?" This course describes and explores how American "nature" has changed over time. How and why has American nature changed over the last four centuries? What have Americans believed about the nation's nature, what have they known about the environment, how did they know it and how have they acted on beliefs and knowledge? What didn't or don't they know? How have political institutions, economic arrangements, social groups and cultural values shaped attitudes and policies? How have natural actors (such landscape features, weather events, plants, animals, microorganisms) played roles in national history? In addition to exploring the history of American nature, we will look for the nature in American history. Where is "nature" in some of the key events of American history that may not, on the surface, appear to be "environmental?"
Not Offered Every Year
1 Course Unit

STSC 2999 Independent Study
Approved independent study under faculty supervision.
Fall or Spring
1 Course Unit

STSC 3028 Normal People
For most of us, what's normal feels downright natural. The normal is our baseline, invisible and unconsidered until something abnormal draws our attention to it. But a little prodding shows the contradictions within bland, boring normality: it's defined by our internal feelings as much as by quantified standards, it describes individuals as well as populations, and it is intensely difficult to describe on its own merits without comparison. So what does it mean to be normal, anyway? This seminar examines "the normal" as a medical and scientific concept from the Renaissance until today. Has the concept of normal always existed? What makes a person or body normal? How has such a thing been assessed? Can the normal exist without deviance — and is this relationship inherently one about power? We will examine how scientific ideas of "the normal" — and its conflation with "the natural" — shaped medical knowledge and ideologies about racial difference, sex and gender, socioeconomic class, anatomical difference and disability, and human behavior. How have the "normals" of the past shaped our current scientific understandings of ourselves and the people around us? Our goal will be to make visible the ways that "normal" gets normalized in order to deepen our critical engagement with modern medicine, wellness culture, and racial and gender politics.
Not Offered Every Year
Also Offered As: HSOC 3028
1 Course Unit

STSC 3087 Science and Spectacle: Seeing is Believing
In the 10th century, the Byzantine emperor received visitors on a levitating throne, surrounded by robotic animals. In the 17th century, Galileo gave public demonstrations to prove the existence of the moons of Jupiter (and the power of the telescope). In the 20th century, an estimated 650 million people watched the Apollo 11 moon landing. These are only a few examples of the ways that scientific and technological knowledge have been displayed for large numbers of people who are not themselves also involved in making scientific or technological knowledge. If seeing is believing, what do performances of scientific or technological virtuosity or discovery depict, and to what ends? This course explores the relationship between scientific and technological knowledge and public display, using examples taken from the medieval period to the 20th century.
Fall or Spring
1 Course Unit

STSC 3088 Science, Labor and Capital
This course looks at the intertwined history of science, labor and capital since the fifteenth century. Starting with the surge of patents for labor-saving devices in fifteenth century Italy and coming all the way down to the contemporary neoliberal university, the culture of science and the cultures of labor and capital have always remained in intense conversation. The first half of the course will focus on the early relations between science, labor and capital. We will discuss patterns of employment for scientists, the relationship between manual work and intellectual work, the scientific aspects of commercial capitalism as well as the debates on the transition to capitalism. The second half of the course will focus on the period from the nineteenth century to the present. We will talk about colonialism and science, the social ascendance of the scientist in relation to the technician, as well as the political economy of contemporary science and of the contemporary university. This is a seminar course and will require regular participation. Some knowledge of the existing literature on capitalism, especially the writings of Ellen Wood and E.P Thompson, are recommended but not required.
Also Offered As: HIST 0878
1 Course Unit
STSC 3097 Indigeneity in Health, Science, and Technology
In recent decades, Indigenous Studies has emerged as a trans-national and interdisciplinary academic discipline that seeks to understand the historical experience, social reality, and political aspirations of Indigenous peoples. This course examines how theories and methods from Indigenous Studies offer new perspectives on core issues in the social study of science and technology and of health and society. Through films, podcasts, literature, and academic articles we will examine the historical role that science, technology, and medicine have played in the colonization of Indigenous people in the Americas, Australia, and New Zealand. We will also examine how Indigenous groups have resisted scientific and technological projects and participated in their development in ways that foster self-governance and territorial sovereignty.
Spring, odd numbered years only
Also Offered As: HSOC 3097
1 Course Unit

STSC 3136 Queer Science
This course gives students a background in the development of sex science, from evolutionary arguments that racialized sexual dimorphism to the contemporary technologies that claim to be able to get at bodily truths that are supposedly more real than identity. Then, it introduces several scholarly and political interventions that have attempted to short-circuit the idea that sex is stable and knowable by science, highlighting ways that queer and queering thinkers have challenged the stability of sexual categories. It concludes by asking how to put those interventions into practice when so much of the fight for queer rights, autonomy, and survival has been rooted in categorical recognition by the state, and by considering whether science can be made queer. Along the way, students will engage with the tools, methods, and theories of both STS and queer studies that emphasize the constructed and political underpinnings of scientific thought and practice.
Spring
Also Offered As: GSW 3136
1 Course Unit

STSC 3145 The Universe: Historical Inquiries in Physics, Philosophy and Religious Belief
The National Science Foundation's decadal review states that "Today, astronomy expands knowledge and understanding, inspiring new generations to ask, How did the universe form and the stars first come into being? Is there life beyond Earth? What natural forces control our universal destiny?" Because of the remarkable scientific progress in recent decades, in particular the explosion over the last decade of interest in and urgency to understand several key areas in astronomy and astrophysics, scientists are now poised to address these and many other equally profound questions in substantive ways. The opportunities for the future fill us with awe, enrich our culture, and frame our view of the human condition. Undergraduates today encounter one of the most profound discoveries about the physical universe – discoveries of dark energy, quantum theory, exoplanets. These discoveries also prompt some of the most profound philosophical and theological questions. This course interrogates the astrophysical sciences and traditions of philosophy and religious belief in order to explore the universe, its nature, origins and destiny. It serves as an introductory course for undergraduates who are seeking a historical and philosophical context to scientific studies, especially in physics, and/or to develop their interdisciplinary skills of global thinking. This course does not attempt to resolve perennial questions about the universe, but rather to expose historical and scientific ways of reflecting on them.
Fall
1 Course Unit

STSC 3147 Scientific Instruments and the Making of Knowledge
This course surveys the history of scientific proof and authority through the instruments used to collect and interpret data. In stories of discovery, scientists' tools often take a back seat to their ideas, but instruments play a crucial role as physical intermediaries. All scientific instruments have been built and used by human beings according to their own ideas of what data are important to collect and how the data should be interpreted. How have the design and function of instruments affected scientists' perspectives, and vice versa? What intellectual, political, and symbolic roles have instruments played beyond simply collecting data, and how do they continue to do so? We begin by examining the instruments of the "Scientific Revolution" and the ways their owners put them to use constructing not just data sets, but a new scientific authority in describing previously invisible realms of nature. Next, we look at the reciprocal relationship between scientific theory and physical tools, assessing how each has shaped the other, both individually and for entire fields of study in the nineteenth and twentieth centuries. We conclude by expanding the view to include the ways instruments interact with and affect the general public, from doctor-patient interaction to national politics and policy.
Spring
Also Offered As: HSOC 3147
1 Course Unit

STSC 3167 Global Radiation History: Living in the Atomic Age 1945-Present
In this Collaborative Online International Learning Seminar, students will engage with broad experiences of radiation risk since 1945. We will explore the history of the global rise of nuclear weapons and nuclear power with special attention to those exposed to radiation, including Navajo uranium miners, indigenous groups in Australia, atomic bomb survivors at Hiroshima and Nagasaki, Marshall Islanders, and residents near Fukushima and Three Mile Island. We also consider the work and experiences of scientists and physicians working with those exposed around the world, and look at artistic and literary responses to atomic bombs and radiation risk. We will engage with protracted and complex ethical debates about bombs and power plants. Our virtual meetings will include a visit to see the "Lucky Dragon" boat in Tokyo, to the Atomic Bomb Museum in Hiroshima, to visit with a "downwinder" in Eastern Washington State, go on a tour of the B-Reactor at Hanford Nuclear Facility, discuss the atomic bombings with survivors on the Peace Boat, and go on a virtual tour of the Daigo Fukuryu Maru Exhibition Hall, where artists inspired by survivor accounts produce murals that reflect their stories.
Spring
1 Course Unit

STSC 3183 Profit and Knowledge
The goal of capitalism is profit; the goal of science is knowledge. These pursuits may seem different on the surface, but they often overlap in surprising ways. This course uses the tools of science and technology studies to explore the relationship between capitalism and science. By examining how people have pursued both profit and knowledge in different times and places, we'll look at how financial interests have shaped the practice of science and how science has shaped the pursuit of wealth. We'll also consider efforts to imagine new possibilities for economic and knowledge systems that have generated both rewards and risks, both pleasures and pains. Topics include the public goals and values of capitalism and science; case studies such as global trade and logistics, biotechnology, and the service economy; and challenges such as white supremacy, violence, and climate change.
Fall or Spring
1 Course Unit
STSC 3185 Global Radiation History: Living in the Atomic Age 1945-Present
In this seminar, students will engage with broad experiences of radiation risk since 1945, of Navajo uranium miners, scientists producing and testing nuclear weapons, physicians studying those exposed to radiation, Japanese survivors of the atomic bombings, and of the Fukushima nuclear disaster, and others. We will read novels and poetry relating to the atomic bombings and other radiation incidents, consider the protracted and complex ethical debate about nuclear risk, meet with artists who have contributed to the public debate, participate in meetings with survivors and scientists, museum professionals, activists, and others, and work together to come to understand the impact of the atomic bombs, the rise of nuclear energy, and the continuing legacies of radiation exposure and risk today. This is a Penn Global Seminar that involves travel.
Spring, odd numbered years only
Also Offered As: HSOC 3185
1 Course Unit

STSC 3216 Toxicity in Context
We live amidst a constant stream of messages, practices, and regulations about things, behaviors, or relationships deemed "toxic." Within environmental health in particular, all sorts of actors grapple with complex decisions about what it means to live with materials and anticipate the ways they can interact with human health and the environment - at present through the distant future. What exactly do we mean when we categorize some substances as toxic, and by extension others as safe? Are there other ways of managing uncertainty or conceptualizing harm? How are these concepts built into broader social structures, economics, and regulations? What other work are they used to do? In this course, we will explore major social science approaches to toxicity and apply these theories to our own analysis of examples from the contemporary United States, and in particular, to a robust oral history collection with residents, developers, and government scientists grappling with these questions just outside of Philadelphia. This course grows out of scholarship in the history and anthropology of environmental risk, and health, as well as direct ethnographic, historical, and oral history research at a site outside of Philadelphia grappling with the meaning of materials that remain on site after past industrial manufacturing. In this course, students will gain an introduction to oral history and analysis of in-depth interviews, and introduction to key approaches in theorizing toxicity. By connecting life experiences of residents, government scientists and others, at an actual site, with the literatures we read in class, students will think critically about the ways the literatures we engage do and do not fully encompass the experiences and concerns that are intertwined with toxicity for actual people grappling with making sense of uncertain harms amidst urban planning.
Also Offered As: HSOC 3216
1 Course Unit

STSC 3217 Weird Science
What do we mean by "science"? How did we come to agree on a common definition? Do we agree on a common definition? What about when we don't? This course explores histories of heterodox science and the construction of sciences and pseudosciences. In doing so, we will focus on expertise, authority, and legitimacy in science, as well as public consumption of science. This course will also introduce students to fundamental questions in the philosophy of science, as well as offering instruction in reading and methods of historiography. Topics include: phrenology, parapsychology, cryptozoology, UFOs, climate change denial.
Also Offered As: HSOC 3217
1 Course Unit

STSC 3247 Why Not Magic? Magic, Esoterica, and the Occult in the History of Science
What is magic? How (or why) does it differ from "science?" What is the difference between preparing a medical recipe under a full moon, using amulets to heal a physical malady, casting horoscopes, or summoning demons? Many types of knowledge considered practically and intellectually "valid" in other times and cultures - divination, alchemy, use of talismans, summoning the aid of non-corporeal entities - have since been dismissed as magic or superstition. Yet often the boundaries between legitimate and illegitimate knowledge is extremely porous and hotly contested. Who decided what constitutes magic, and how do those definitions change over historical periods? What can those definitions tell us about historical constructions of knowledge, as well as issues of class and gender? How is magic related to philosophy and science, and to an understanding of the physical and metaphysical worlds? This course examines these questions with a focus on practices and beliefs in pre-modern Christendom and Islamdom.
Not Offered Every Year
1 Course Unit

STSC 3279 Nutritional Modernities: Food, Science, and Health in Global Context
How has food shaped the global transition to modernity? Columbus’ 1492 voyage to the Americas sparked a global process that transformed the eating habits and environments of humans throughout the world. Using approaches from food studies, STS, environmental history and global history, this class examines how the production, consumption, and study of food has been central to the emergence of the modern capitalist system and its discontents. Topics include the role of diet and food in European colonial conquest, the links between racial anxieties and the creation of modern nutritional standards, the rise of dietary ‘technologies of the self’ such as calorie-counting and the BMI index, and the emergence of microbial regimes of health.
Fall or Spring
Also Offered As: HSOC 3279
1 Course Unit

STSC 3288 What is Prediction?
This course is an investigation into the notion of prediction from antiquity to the present. By looking closely at key practices from Homeric divination to modern acturial science and from early modern astrology to contemporary climate models, the course seeks to historicize the way we engage with the future. As part of the course, students also explore the role that methodology, models, causation and big data have played in predictive practices. The readings include a mixture of primary sources, modern scholarship and journalism.
Not Offered Every Year
1 Course Unit
STSC 3299 CSI Global: History of Forensic Science
Genetics may have transformed criminal detection, but it has built upon a long history of many different types of forensic science. The use of science in the pursuit of criminals has a long, complex and global history, involving diverse forms of knowledge and types of professionals. A range of skills and techniques ranging from trackers who followed traces in the mud to recover stolen cattle to criminal physiognomists who sought to read bodily signs of criminals, from Sherlock Holmes’ analysis of types of cigar ash in Victorian Britain to Charles Hardless’ chemical analysis of different types of ink in colonial India, have informed and influenced the development of our contemporary forensic modernity. This course will explore a range of different forensic techniques and their histories along with the rich cultural history, in the form of detective fiction and films from across the world.
Fall
Also Offered As: HSOC 3299
1 Course Unit

STSC 3334 Hybrid Science: Nature, health, and society in Latin America
What role did science and medicine play in the creation and growth of the Spanish and Portuguese empires? And why was the creation of science and health institutions crucial to the revolutionary movements for independence in Latin America? This course examines science and medicine in Latin America by attending to the ways that knowledge of nature and health has been central to the political struggles of the countries in this region. A crucial dynamic shaping the history and culture of this region is the interplay between the healing practices and cosmologies of European settlers, indigenous Americans, and the descendants of African slaves. Bearing this interplay in mind, this course explores how Latin America has been a fertile site of scientific creativity. It also examines the ways in which Latin American scientists and medical experts have refashioned concepts and practices from Europe and North America to fit local circumstances.
Spring
1 Course Unit

STSC 3509 Bioethics and National Security
At least since Augustine proposed a theory of “just war,” armed conflict has been recognized as raising ethical issues. These issues have intensified along with the power and sophistication of weapons of war, and especially with increasing engineering capabilities and basic knowledge of the physical world. The life sciences have had their place in these developments as well, perhaps most vividly with the revelations of horrific experiments conducted by the Nazi and Imperial Japanese militaries, but with much greater intensity due to developments in fields like genetics, neuroscience and information science, and the widely recognized convergence of physics, chemistry, biology and engineering. The fields of bioethics and national security studies both developed in the decades following World War II. During the cold war little thought was given to the fact that many national security issues entail bioethical questions, but this intersection has been increasingly evident over the past two decades. In spite of the overlapping domains of bioethics and national security, there has been remarkable little systematic, institutional response to the challenges presented by these kinds of questions: - What rules should govern the conduct of human experiments when national security is threatened? - Is it permissible to study ways that viruses may be genetically modified in order to defeat available vaccines, even for defensive purposes? - What role may physicians or other health care professionals play in interrogation of suspected terrorists? - Must warfighters accept any and all drugs or devices that are believed to render them more fit for combat, including those that may alter cognition or personality? - What responsibilities does the scientific community have to anticipate possible “dual purpose” uses or other unintended consequences of its work? Deploying the resources of ethics, philosophy, history, sociology and theory, this course will address these and other problems.
Spring
Also Offered As: HSOC 3383
1 Course Unit

STSC 3607 Data Dreams
The idea of solving problems by collecting as much data as possible about them is an old dream that has recently been revitalized. This course examines the hunger for data from a historical and social perspective, seeking to understand when, why, and how the collection of vast amounts of data has come to seem valuable and desirable, sometimes in ways that exceed any reasonable expectation of utility or feasibility. Topics include state surveillance, online tracking, the quantified self, citizen science, civic hacking, human genomics, bioinformatics, and climate science.
Fall or Spring
1 Course Unit

STSC 3627 Waters, Roads and Wires
This course studies infrastructures: how and why they develop, how they are maintained, how they reshape environments, and how they interconnect with other infrastructures. We begin by reading about infrastructure and about large technological systems, then explore some specific American structures. Possible topics: the electrical grid, the interstate highway system, hydroelectric dams, Amtrak, urban mass transit systems, disasters and infrastructure (Katrina, Harvey, etc.). As the semester progresses, students will spend more time in class on individual research topics of their choice, and in working groups producing a group project.
Fall or Spring
1 Course Unit
STSC 3657 Technology & Democracy
What is the relationship between technology and politics in global democracies? This course explores various forms of technology, its artifacts and experts in relation to government and political decision-making. Does technology “rule” or “run” society, or should it? How do democratic societies balance the need for specialized technological expertise with rule by elected representatives? Topics will include: industrial revolutions, factory production and consumer society, technological utopias, the Cold War, state policy, colonial and post-colonial rule, and engineers’ political visions.
Not Offered Every Year
1 Course Unit

STSC 3708 The Many Lives of Data: Population, Environment, and Planning in the United States
This is a class about the live(s) and afterlives of information from 1850 to the present. Not only can information be reproduced (in a variety of material conditions); it can be repurposed and funneled through a variety of different applications, some of them serving radically different purposes than the first purpose of gathering it. Thoreau’s journeys of plant flowering, for instance, have become important indicators of climate change. More controversial is the sale of biomedical information by personal genomics services for drug discovery, or the construction of forensic databases consisting of the DNA of suspects arrested as a result of racial profiling. We will study the ways in which data has become a way for us to understand and define change, stability, place, and time, beginning in the mid-nineteenth century, a period of accelerated and increasingly systematic gathering of data, particularly medical, forensic, and environmental data. The class will proceed both chronologically and thematically in three units, from the gathering and use of biomedical data as a way to make patient populations “legible” (to borrow from James Scott), to data as a way to make the environment understandable, and finally to data as a tool for producing and reproducing social relations. As a final project, students will trace a particular data set from its original gathering to its latest usage. Students will also have an opportunity to create their own course content in the final three weeks of class.
Fall or Spring
1 Course Unit

STSC 3709 Rifle and Compass
This course looks at the scientific and technological aspects of warfare during what is often called the Military Revolution. The main focus will be navigation and gunpowder warfare. The first part of this course will focus on magnetism, military drilling, architecture, geography and physics. The second part of the course will turn to case studies: the fall of Constantinople in 1453, the Ottoman-Austrian War of 1663-4 and the expansion of Russia in the early eighteenth century. Our goal generally is to interrogate the widespread belief that science and warfare are inextricably linked.
Fall
1 Course Unit

STSC 3766 Cultures of Surveillance
Developments in digital technology have generated urgent political discussions about the pervasive role of surveillance in our everyday life, from the mundane to the exceptional. But surveillance has a much longer history. In this course, students will learn to think and write critically about the historical, socio-cultural, and political dynamics that define surveillance today. This course asks: how can we historicize what we call surveillance to understand its political and social implications beyond what appears in the document caches of the NSA or on a Black Mirror episode? What role does identity and identification play in surveillance? How do surveillance and computational technologies produce racializing effects? Students will apply course concepts to technologies of daily use, such as self-tracking devices like fitbits or identity documents, and reflect on debates surrounding race, policing, imperialism, and privacy. Through primary source materials, films, podcasts, and key texts, we will engage in a cross-cultural exploration of the multi-faceted phenomena of surveillance technology. Through regular writing assignments, such as surveillancediaries, students will analyze and articulate how they understand surveillance to operate in various domains of everyday life. In this course, students will: (1) Apply course concepts to their lived experience, from securitized architecture to search engines, in order to understand how surveillance operates in everyday life; (2) Analyze how historical context has shaped the current configuration of securitization and surveillance on a global scale; (3) Use ethnographic approaches to study the interaction between individuals, their social relations, and technologies of surveillance.
Fall
Also Offered As: ANTH 3766
1 Course Unit

STSC 3824 Animals in Science Medicine Technology
This course explores human-animal relationships: the wide range of these relationships, why they originated and how they have changed over time. How have humans classified, valued, utilized, consumed, behaved toward and understood animals? Where is the boundary between humans and other animals, and how do we know, since humans are also animals? How is that boundary been maintained and redefined? Are humans part of the animal “natural” world- or apart from it? How are humans similar to and different from other kinds of animals? How do we know about animals and what is it we know? To what extent are questions about animals really questions about humans? How has the meaning of animal changed over time? The course focuses in particular to the roles and relationships of animals within science and medicine, and as biotechnologies.
Fall or Spring
Also Offered As: HSOC 3824
1 Course Unit
STSC 3889 Trans Method
What are the subjects of trans studies? What does “trans” as a category afford us in looking at texts, people, systems, and objects? To what extent is trans an identity? What might it mean to think of it as a methodology? How might the tools of trans studies intervene in conversations and practices beyond the field itself? What are the stakes of such an expansive approach? This course introduces students to “trans” as a still-forming analytic that has emerged out of academic spaces, activist movements, and trans cultural production. We will engage with texts and questions that build on trans studies’ connections to (and divergences from) queer and feminist studies, history, critical race studies, disability studies, and science studies, among other fields, and we will also consider how trans knowledge can act beyond the theoretical.
Not Offered Every Year
Also Offered As: GSWS 3500, HSOC 3889
Prerequisite: GSWS 0002 OR GSWS 0003 OR ENGL 1300
1 Course Unit

STSC 3923 Animals and America
This course looks at animals in the American past, to find out what a focus on an individual animal, a species, or a kind of animal (such as work animals, food animals, wildlife, zoo animals, pets and pests) can reveal by exposing the inner workings of different periods and events. When we make animals the focus of how we look at the past, things change. Making animals visible makes other things visible; hidden, surprising or even shocking aspects of the past appear. Americans have always lived with and employed animals. They also have “thought with” animals, using animals to work out their understandings of society, nature and power. How Americans perceived, named, classified, behaved toward and worked with animals bares the workings of race, class and gender, uncovers power structures, and reveals environmental and legal choices. If we want to understand how the current world came to be, taking a critter approach to history provides a way to explain how we got to now. Changing our view of the past can change our ideas of what the present can be. Though animals are everywhere in the past, they are often hidden from view. We will embark on a hunt for animals, foraging through historical writing, political documents, literature, and primary sources. We will watch movies, examine photographs and study cartoons. We will draw on knowledge from the fields of science, technology, health and environments, and employ the classifications of race, class, gender, nature and culture. We’ll talk about evolution, domestication and wildlife. We will look at zoomorphism, when people or things are labeled as animals (calling people pigs or snakes, or talking about bull or bear stock markets), and anthropomorphism, when animals are thought of or portrayed as people. In this seminar, we’ll begin with case studies from the nineteenth century, then start seeking the animals of the twentieth and twenty-first centuries. Writing, much of it informal, will be a regular part of this course, as will research exercises. There will be different options for writing and for research projects. Course materials will focus on American history and society but projects and exercises may look at places and times from around the globe and across the centuries.
Fall
1 Course Unit

STSC 4000 Capstone Research Seminar in Science, Technology and Society
This is the capstone research seminar for STSC majors. It is designed to provide the scholarly tools necessary to undertake original research in the field of Science and Technology Studies. All students in the course will produce a research paper by the end of the term; those intending to write an honors thesis (who must take the course in the spring of their junior year) will also complete a proposal for further research. Each student will work on a specific topic of their own choosing, while also learning about general methods of historical and social scientific research and reading key texts in Science and Technology Studies.
Spring
1 Course Unit

STSC 4094 Science and Disability
How have ideas about ability and disability shaped the questions we ask about the world and the methods we use to answer them? How do assumptions about who can and ought to be a scientist, engineer, or physician intersect with constructions of disability and difference? How might studying the lived experiences of people with disabilities in the context of STEM(Medicine) help us begin to answer these questions? This course explores the exciting intersection between disability studies and the history and sociology of science and medicine through weekly readings, discussions, and original research. Using materials ranging from archival and online sources to oral history interviews and museum collections, students in this course will learn how scientific ideas and institutions have helped shape 20th- and 21st-century categories and experiences of disability as an embodied and socio-political identity. At the same time, students will learn how to use disability as a critical theoretical lens for investigating the cultures, tools, and institutions behind the creation and application of modern scientific and medical knowledge. Collaborative and analytical writing work throughout the course will build towards the completion of a final original research project.
Fall or Spring
Also Offered As: HSOC 4094
1 Course Unit
STSC 4114 Sports Science Medicine Technology
Why did Lance Armstrong get caught? Why do Kenyans win marathons? Does Gatorade really work? In this course, we won’t answer these questions ourselves but will rely upon the methods of history, sociology, and anthropology to explore the world of the sport scientists who do. Sport scientists produce knowledge about how human bodies work and the intricacies of human performance. They bring elite (world-class) athletes to their laboratories or their labs to the athletes. Through readings, discussions, and original research, we will find out how these scientists determine the boundary between "natural" and "performance-enhanced," work to conquer the problem of fatigue, and establish the limits and potential of human beings. Course themes include: technology in science and sport, the lab vs. the field, genetics and race, the politics of the body, and doping. Course goals include: 1) reading scientific and medical texts critically, and assessing their social, cultural, and political origins and ramifications; 2) pursuing an in-depth The course fulfills the Capstone requirement for the HSOC/STSC majors. Semester-long research projects will focus on "un-black-boxing" the metrics sport scientists and physicians use to categorize athletes' bodies as "normal" or "abnormal." For example, you may investigate the test(s) used to define whether an athlete is male or female, establish whether an athlete's blood is "too" oxygenated, or assess whether an athlete is "too" fast (false start). Requirements therefore include: weekly readings and participation in online and in-class discussions; sequenced research assignments; peer review; and a final 20+ page original research report and presentation.
Not Offered Every Year
Also Offered As: HSOC 4114
1 Course Unit

STSC 4187 Sound in Science, Medicine and Technology
How do listening and knowing relate? This capstone will analyze sound as an object, an instrument, a product and a process of research in science, technology, and medicine. From anthropological field recordings to experiments in acoustics, readings will address the ways in which researchers have isolated and investigated sonic phenomena during the modern period. We will consider sound as a tool for knowing about other phenomena as well: bodily functions, seismic events, animal communication, and the like. Technologies of sound production, reproduction, storage, manipulation, and analysis will be front and center in this course. What can you do with magnetic tape that phonography does not allow? How might the hospital soundscape inform clinical decision-making? Why is Amazon's Alexa female? How has scientific communication changed over time? In addition to wrestling with questions like these, the course will provide undergraduate majors with the opportunity to research and execute an original paper of significant length in the humanistic social sciences. Students must be in their last three semesters for it to fulfill the capstone requirement, but any student may enroll.
Fall
Also Offered As: HSOC 4187
1 Course Unit

STSC 4242 The History & Future of Genetic Medicine
Nearly twenty years after the Human Genome Project was completed, genetic research continues to garner attention and resources. From news coverage to governmental initiatives and commercial investment, genetics is a force in medicine, industry, and society more generally. Using scholarship from diverse disciplines, this capstone seminar focuses on how genetic medicine came into existence. We will explore the field’s early history in eugenics and its transformation via technological advancements like prenatal testing and targeted therapies. Through case studies of select genetic conditions, we will examine scientific innovations alongside the lived experience of those advancements, broaching critical questions about disability, race, and inequality. This will provide students with the opportunity to debate historical changes and continuities, taking on some of the most vexing questions in bioethics.
Spring
Also Offered As: HSOC 4242
1 Course Unit

STSC 4288 Invisible Labor in the Human Sciences
This course looks at those disciplines that take people as their subjects of research—including biology and biomedicine as well as anthropology, linguistics, and sociology—to explore the contributions of a wide range of research participants. We will focus on the sciences of human behavior, information, and medicine to analyze the labors of behind-the-scenes actors including tissue donors, survey respondents, student subjects, patients, translators, activists, ethics review boards, data curators, and archivists. Our job will be to analyze the experiences of these technoscientific laborers with a view to systems of knowledge and power in the production and maintenance of Knowledge about humans and their bodies.
Fall or Spring
Also Offered As: HSOC 4288
1 Course Unit

STSC 4364 Biopiracy: Medicinal Plants and Global Power
Biopiracy has emerged as the name of conflict between multinational pharmaceutical companies attempting to get genetic patents on medicinal plants and indigenous communities in the Global South who have long known and used these plants for medicinal purposes. Today the story of Biopiracy is an unfolding story of plants, patents and power. The extraction and commercial exploitation of plants and knowledge about them from the Global South however is not new. It has been happening at increasing pace for at least the last two centuries. Both the anti-malarial drug quinine and the cancer drug vincristine for instance have their plant-origins in the Global South where local communities used them medicinally long before their discovery by biomedicine. This course will put the current debates around Biopiracy in context and explore how the entanglements of plants and power have changed or not changed.
Not Offered Every Year
Also Offered As: HSOC 4364
1 Course Unit
STSC 4595 Defining Disability
Live long enough, and you are almost certain to experience some kind of disability if you haven’t already. What, then, does it mean to be “disabled?” This capstone takes as its premise the idea that disability has meant different things to different stakeholders (e.g. activists, physicians, politicians, families, employers, artists, clergy, engineers) across cultures and over time. We will historicize and analyze these various definitions in order to better understand the complex socio-cultural construct of disability while simultaneously cultivating the research skills necessary for advanced work in the humanistic social sciences. Assignments will be scaffolded to help students write an original research paper of significant length by the end of the semester.
Fall
Also Offered As: HSOC 4595
1 Course Unit

STSC 4980 Honors Thesis
Research and writing of a senior honors thesis under faculty supervision.
Fall
1 Course Unit

STSC 4999 Undergraduate Independent Study
Independent primary research under faculty supervision to fulfill the capstone research requirement.
Fall or Spring
1 Course Unit

Scientific Computing (SCMP)

SCMP 5590 Multiscale Modeling of Chemical and Biological Systems
This course provides theoretical, conceptual, and hands-on modeling experience on three different length and time scales - (1) electronic structure (\(A, ps\)); (2) molecular mechanics (100A, ns); and (3) deterministic and stochastic approaches for microscale systems (um, sec). Students will gain hands-on experience, i.e., running codes on real applications together with the following theoretical formalisms: molecular dynamics, Monte Carlo, free energy methods, deterministic and stochastic modeling, multiscale modeling. Prerequisite: Undergraduate courses in numerical analysis and physical chemistry.
Not Offered Every Year
Also Offered As: BE 5590, CBE 5590
1 Course Unit

SCMP 5970 Master’s Thesis Research
For students working on advanced research leading to the completion of a master’s thesis.
Fall or Spring
1-2 Course Units

SCMP 5990 Master’s Independent Study
For Scientific Computing master’s students. Involves coursework and class presentations. The project will invariably include formally gradable work comparable to that of a CIS 500 level course. Students should discuss with the faculty supervisor the scope of the independent study, expectations, work involved, etc.
Fall or Spring
1-2 Course Units

SCMP 5990 Master’s Independent Study

Scientific Processes (SPRO)

SPRO 1000 Scientific Reasoning
Whether you are preparing for a degree concentration in the sciences or planning to specialize in creative pursuits, every course of study benefits from knowledge of scientific reasoning and logic. This introductory course provides an overview of the sources, tools, and history of scientific knowledge. Contextualizing products of scientific research such as theories, models, and laws of nature, the course examines the methods of producing scientific knowledge and explores how science is affected by questions of values, religion, objectivity, and public opinion. You also learn and practice the tools used to generate knowledge, including logic and probability.
1 Course Unit

Social Difference, Diversity, Equity and Inclusion (SDEI)

SDEI 1100 Introduction to Social Difference in American Society
In this course, we will consider matters relating to the origin, persistence, and change of social norms, the composition of diverse populations, and the meanings attached to the social construction of various social problems, including racial, class, and gender inequality. This course is designed to provide you with a broad introduction to social difference using contemporary America as a case study. We will engage with a collection of readings each week, which will highlight important issues, theories, concepts, and methodologies. We will focus on several aspects of American society including, race, education, gender, social class, the family, and poverty. In the long term, the exposure to the sociological approach to social problems will provide a more thorough and nuanced understanding of public issues that affect humans on both macro and micro levels. Foundational Requirements Contributions # Analytical and Critical Skills # Communication # Cross-Cultural Interactions & Diversity
Fall or Spring
1 Course Unit

SDEI 1500 Cultural Capital and Social Spaces
This course will explore the intersections of race, cultural capital, and social spaces, with a focus on professional and organizational spaces.
Fall or Spring
1 Course Unit

SDEI 1600 Race and Ethnicity in Organizations
As we adapt to meet our individual and collective needs within increasingly diverse organizations, it is important to study the ways race and ethnicity affect our day-to-day experiences. These critical concepts often impact how we build organizational culture. They can also influence where we find belonging—particularly within professional spaces that reflect larger societal structures. This course will focus on evidence-based examples that clarify why race and ethnicity matter for a variety of organizations. We will turn to historical case studies, contemporary reports, and ongoing research that help us identify practical strategies for advancing equity in the workplace. By the end of the course, students will build a collection of foundational approaches for exploring the social realities of race and ethnicity across organizations.
1 Course Unit
SDEI 1700 Gender and Sexuality in Everyday Life
It's no secret that gender and sexuality shape our social realities, even when we don't explicitly acknowledge their influence. Both can significantly affect where and with whom we build community, how we're compensated for our time and labor, how we're represented in popular culture, as well as impacting our lives in many other ways. In this course, we'll explore some of the ways gender and sexuality operate within diverse social contexts. We'll dig into examples of gender performances, sexual identities, intersectional experiences, and a spectrum of other concepts that show up in contemporary media, historical case studies, and ongoing research across the arts and sciences. Along the way, this course will help us think deeply about how we express power through everyday applications of gender and sexuality in society. It will also help us grow our capacity for critical reflection through daily practices that affirm who we are and how we care for each other. Essential Questions: To help model pathways for inquiry in this class, the course will revolve around five guiding questions, including: Why is it important to study gender and sexuality in different critical and creative contexts? What ways might we use existing research to explore how gender and sexuality show up within our personal and professional lives? How have gender and sexuality influenced media and popular culture? How can varying social locations and contexts impact the ways we think about identity, community, and communication? Which structural factors can we address to help advance sustainable forms of care and belonging in everyday life while centering gender and sexuality?
1 Course Unit

SDEI 2000 Organizational and Institutional Power
Power structures often order our personal and professional lives—from macro level institutional frameworks governed by collective laws and policies, to micro level organizational relationships shaped through individual actions and practices. Some of these structures are designed to offer clear, open, and equitable social benefits for diverse populations. Others are situated within systems that obscure their harmful effects on specific, historically marginalized, groups. This course will offer learners a critical lexicon for identifying, describing, and engaging with organizational and institutional expressions of power. In addition to examining mixed-methods research, historical examples, and contemporary case studies that demonstrate relationships between power, structural hierarchies, and difference, learners will participate in simulations that highlight the personal “power maps” each of us navigate in social landscapes—across real-world professional spaces—every day. Foundational Requirements Contributions: Analytical and Critical Skills # Communication # Cross-Cultural Interactions & Diversity # Historical Perspectives
Fall or Spring
1 Course Unit

SDEI 2500 Race, Place, and Space
In this course, our collective aims are to understand race as a dynamic social and political construct that evolves through time and space and to recognize how race as a social construct relates to social stratification, intergroup and intragroup relations, and economic and political hierarchies within U.S. society. The general purpose of this course is to introduce you to the study of race within the contemporary U.S. context and to provide a better understanding of how and why race continues to be such a powerful stratifying agent. We will explore the enduring persistence of racism and discrimination across Space and Place and how race as an ascribed, master status remains a key organizing principle in American society. We will focus on the power of Place as intrinsically linked to the social significance of race, racial identity, and racism for several underrepresented racial minority groups including Blacks, Indigenous Americans, Latinos, and Asian Americans; we will study how race affects these groups in different ways based on their historical and present-day positions within the racial hierarchy. For the purposes of this class, Place is defined as the permanent physical locations we inhabit throughout the life course and become socialized within including the family, school, neighborhood, and work. We will also explore in-depth the power of Space as those indefinite, liminal locations individuals construct and traverse daily based on their racial vantage points and interpretations of race as a significant factor in their upbringing, attitudes, worldview, and experiences as social and numerical minorities. To that end, we will explore how race and competing intersectional social identities such as gender, sexuality, social class, nativity, skin color and generational status affect individuals’ worldviews, racial consciousness, and self-concept, as well as their perceptions of racial climates, intraracial solidarity and hierarchies within their own racial groups and across the racial spectrum. In conclusion, we will analyze the power of intersectionality and the complexity of racialization along the color line for individuals within the aforementioned groups. Equally important, we will study the lexicon(s) of difference that individuals of all backgrounds must become fluent in to better understand the lived experiences of marginalized others in all contexts and to make meaningful, sustainable change to ensure equality for all. We will also host guest lecturers throughout the semester. Foundational Requirements Contributions: Analytical and Critical Skills - Communication - Cross-Cultural Interactions & Diversity - Historical Perspectives
No textbook is required. All course information is available on CANVAS. Students are required to take both SDEI 1100 and SDEI 2500 to take higher level SDEI courses.
Fall or Spring
1 Course Unit
SDEI 2600 Addressing Inequity through Art and Design
This course explores issues related to systemic inequality through the lens of art and design. We will closely observe and discuss works by contemporary artists who critique social inequity through painting, sculpture, video, and site-specific installation. Students will explore works by some of today's more important and impactful U.S. artists such as Kehinde Wiley, Kara Walker and others. Each week, the course will connect these contemporary artworks with artifacts of the past to visualize processes that created and continue to support systemic inequality. Weekly content is organized around key themes related to forms of inequity and inequality, including but not limited to: • Representation and power • The legacy of slavery • Immigration and the legacy of colonialism • Cultural appropriation • Indigeneity • Environmental and housing discrimination • Mass incarceration Our study is developed for students of diverse educational backgrounds and does not require specialized knowledge of art terminology. Key terms and explanation of art and design processes will be included in our study. Each weekly theme will incorporate an instructor-led video lecture, readings, videos, and podcasts. Optional weekly office hours will also be available.
1 Course Unit

SDEI 3000 Spaces of Creativity and Social Action
In this course, we will explore examples of spaces that support individual and collective social action through creativity, developing analytical tools to identify the ways in which these spaces and actions support goals of equity and inclusion.
Fall or Spring
1 Course Unit

SDEI 3500 Qualitative Methods
In this course, students will develop a foundation in understanding how researchers from the social sciences and humanities use qualitative methods to analyze and understand society and culture, with attention to empirical research in these areas focusing on social difference, diversity, equity, and inclusion. Students will learn the principles of sound qualitative research, and will be able to apply these principles to critical readings of published research literature.
Fall or Spring
1 Course Unit

SDEI 3550 Quantitative Methods
In this course, students will develop a foundation in understanding how researchers from the social sciences and humanities use quantitative methods to analyze and understand society and culture, with attention to empirical research in these areas focusing on social difference, diversity, equity, and inclusion. Students will learn the principles of sound quantitative research, and will be able to apply these principles to critical readings of published research literature.
Fall or Spring
1 Course Unit

SDEI 4000 Designing Critical Futures
In her Nebula award-winning novel Parable of the Talents, Octavia Butler writes that "(w)e can, each of us, do the impossible as long as we can convince ourselves that it has been done before." But what if this "before" is located somewhere in critical futures? Why should these futures matter to people who are concerned with practicable strategies for building a more just world? DIGC 320 invites students to imagine what "each of us" can do to reframe the possible by engaging with: (1) creative labor from sonic, literary, and visual artists; (2) critical labor from scholars, media experts, and non-profit professionals; and (3) social movement labor from activists, journalists, and civic participants. Along the way, students will design visions of critical futures that speak to the communities they hope to serve outside of the course. The course is organized around four essential units that each culminate in a creative project.
The first unit focuses on place-making efforts that connect speculative design to community organizing and civic engagement. The second thickens these connections through discussions of queer community, liberatory imagination, and feminist praxis. The third centers mutualistic collaboration and critical play as radical practices for advancing equity and affirming generative difference. These practices set up the final unit which invites students to make a digital object that engages with a critical future of their design. Each unit will frame speculative work and other materials as case studies for designing critical futures.
Fall or Spring
1 Course Unit

SDEI 4400 Intersectional History of Sexuality
In this course, we will consider the impact of social, economic, and political conditions on social constructions of sexuality, from the classical world of Greece and Rome, to the early modern West, to the streets of Victorian London and 1920s New York, to 21st-century movements for gender and sexual equity and inclusion. We will pay special attention to the ways that race, class, religion, ethnicity, and gender come together to shape power dynamics through the development, change, and continuity in sexual roles, norms, and relationships.
Fall or Spring
1 Course Unit

SDEI 4500 Advanced Topics in Social Difference, Diversity, Equity, and Inclusion
Advanced Topics in Social Difference, Diversity, Equity, and Inclusion.
Fall or Spring
1 Course Unit
Social Welfare (SOCW)

SOCW 6300 Quantitative Reasoning/Social Statistics
The primary goals of this course are (1) to provide students with a solid understanding of the logic of social science research as well as (2) to provide students with an introduction to a broad range of statistical methods commonly used in social science research. The first portion of the semester concentrates on defining research problems, research design (including sampling, measurement, and causal inference), and assessing research quality. The latter portion of the semester focuses upon data analysis including descriptive statistics, measures of association for categorical and continuous variables, introduction to t-tests, ANOVA and regression, and the language of data analysis. Students will learn how to choose and apply statistical tools to data sources, how to interpret quantitative studies, and will gain experience using SPSS - a statistical software package.
Fall
Also Offered As: MSSP 6300
1 Course Unit

SOCW 6680 Economics for Social Policy
Economics allows us to determine the costs and benefits of social policies like cash benefits, unemployment insurance, health insurance, pensions, education, etc. Policies typically affect the behavior of agents like individuals, families and firms, and we have to take these reactions into account when analyzing policy. Economics allows us to predict how policy is likely to affect behavior by understanding how the policy changes individuals' decisions, and what collective outcomes these myriad individual decisions bring about. For example, a universal basic income allows individuals to sustain themselves and their families when they are not working. At the same time, such guaranteed income has the potential to discourage people from looking for a job. If enough people are discouraged from looking for a job, employment in the economy will decrease, leading to lower production and lower tax revenues for the government. Policy makers have to take these phenomena into account in order to design a good income support system.
Fall, Spring, and Summer Terms
Also Offered As: MSSP 6680, SWRK 6680
1 Course Unit

SOCW 8030 Advanced History and Philosophy of Social Welfare
This seminar traces the evolution of social welfare from ancient to modern times focusing on its implications for the development of contemporary social welfare in the United States. The course examines the development of social welfare systems and the underlying philosophies in the context of the social, economic, political, and cultural environments in which they emerged. Topics include the evolution of modern conceptions of the "welfare state," the role of public, private and voluntary sectors in the social services, trends in social and family history and their relationship to social welfare, the professionalization of social work, and methods of historical and social policy analysis.
Spring
1 Course Unit

SOCW 8110 Social Theory
Course reading consists of the original works of theorists who offer classical, contemporary and postmodern perspectives on social thought, social interaction and issues germane to social welfare. Through intensive examination of multiple theoretical frameworks, students are expected to increase their analytical and critical orientation to theory. This more nuanced understanding about epistemology, underlying assumptions, and theory construction can then be used to inform the student's substantive field of study and methodological orientation to research. This course is conducted in mixed lecture-seminar format. Students have the opportunity to practice pedagogical techniques and exercise class leadership.
Spring
1 Course Unit

SOCW 8520 Social Welfare Research Methods
This is the foundation course in social work research. It deals with the nature of scientific inquiry; theory and its relation to research design and hypothesis testing; and various models of data collection, sampling, and analysis of research and is supported in following personal interests within the structure of ethical scientific research. Each student prepares an original study which demonstrates integration of the semester's work. Students learn to work on their own. Students completing this class are prepared for more advanced coursework in research. Completion of concurrent enrollment in a course on introductory Social Statistics is required.
Fall
1 Course Unit

SOCW 8550 Advanced Social Welfare Research Methods
The methodology of accountability research in human service programs is studied. Emphasis is placed on social program evaluation, idiographic research, and secondary data analysis in policy research as specialized methods of social work research. Students undertake a laboratory experience in an ongoing program evaluation project.
Spring
Prerequisite: SOCW 8520
1 Course Unit
SOCW 8610 Advanced Policy Analysis Research Methods
This course examines how policy research methods are applied to the study of contemporary social issues. The course is intended for students with a basic knowledge of regression, and will be especially useful for students with practical experience in a policy setting who want to learn about advanced research methods. The course begins by exploring policy analysis frameworks, and the contexts of social policy and social policy research. The remainder of the course explores a variety of common approaches to the conduct of social policy research by looking at the types of questions social policy analysts most frequently ask, and the types of answers that they are most often able to provide. The policy analysis approaches we will examine include: needs assessment methodologies (e.g. the “epidemiology” of social problems); analyses of client-level service utilization patterns (e.g. creating “typologies”); modeling trends in demand for services over time (e.g. forecasting); locational and other spatial factors associated with need, service use, and resource allocation decisions (e.g. block grant formula funding); machine learning (e.g. predictive analytics); the roles of qualitative research methods in policy research; comparative research on social welfare policy; performance management applications of administrative data; and longitudinal, multisectoral research using integrated administrative data systems. The application of these various methods is illustrated with studies of mental health, homelessness, criminal justice, child welfare, housing and segregation, welfare reform, income inequality and social service planning. Students participate as discussants of weekly readings, and as presenters of an assigned paper.
Fall
Also Offered As: MSSP 8610
1 Course Unit

SOCW 8970 Applied Linear Modeling
This course deals with the underlying assumptions and applications of the general linear model with social science, education, and social policy related questions/data. The first half of the course begins by covering simple linear regression and the assumptions of the general linear model, assumption diagnostics, consequences of violation, and how to correct for violated assumptions. This will also include methods of incomplete case analysis (i.e. missing data analysis). Then various aspects of regression analysis with multiple independent variables will be covered including categorical explanatory variables (e.g. to estimate group differences), interaction effects, mediating effects (e.g. to estimate the indirect effect of social processes), and non-linear effects. The course will then cover some of the applications of the generalized linear model including logistic regression, some elements of path modeling (structural equation modeling), multilevel analysis (hierarchical linear modeling), and longitudinal modeling (growth modeling). The course will be taught using SAS, but students are welcome to use any statistical package of comfort. Introductory Graduate Statistics is a prerequisite.
Fall
Also Offered As: MSSP 8970
1 Course Unit

SOCW 9010 Proseminar
This course is a weekly, 90-minute (.5 course unit) proseminar. The course contains two main components: a research seminar (i.e., faculty and student presentations of their in-progress research) and skills training (e.g., how to write an abstract, software demonstrations). The two are interwoven throughout the academic year (e.g., 2 weeks of the month devoted to the research seminar and 2 weeks of the month devoted to skills training). The proseminar is required of all students until they successfully defend their dissertation proposal. Course is offered in fall and spring terms.
Fall, Spring, and Summer Terms
0.5 Course Units

SOCW 9950 Dissertation Status
All students on dissertation status are registered for year-long dissertation status courses. These courses will receive a temporary mark of PR in the fall to indicate the course is in progress and a permanent mark of S (satisfactory progress) or U (unsatisfactory) at the end of the spring semester (or fall semester if that is the student’s last enrolled term). The mark will be a reflection of the evaluation by the Graduate Group of the student’s progress based, in part, on the student’s Annual Progress Report.
Fall, Spring, and Summer Terms
0 Course Units

Social Work (SWRK)

SWRK 5950 Effective Communication and Storytelling
Great leaders are storytellers. They are able to engage and entertain their communities, and tell a compelling narrative about how the world works. They use language powerfully and communicate in ways that uplift and inspire others. In this class, we will explore the power of telling great stories, and learn how to do it most effectively when promoting your campaigns to make the world a better place. We will also look at the skills of framing language in ways that will win over an audience. Finally, we will look at other key skills of effective communication, including the best strategies for persuasion, negotiation, and conflict resolution.
Summer Term
Also Offered As: NPLD 5950
1 Course Unit

SWRK 5960 Design and Incorporation of High Impact Nonprofits
Design and Incorporation of High Impact Not-For-Profits is designed for those who have a practitioner’s interest in the design, governance, leadership, and management of high impact not-for-profit organizations. This course is taught through learning best practice theory, applying this theory to a simulation experience, and providing students the opportunity to apply their new knowledge and experience in an interview with a current not-for-profit leader. Students, through the combination of theory and practice, are provided with the essential competencies and tools to design and incorporate a not-for-profit, conduct in-depth analysis of a not-for-profit’s effectiveness including, but not limited to, governance, leadership, social impact, financial sustainability, and systems and policy influence. Through the mock simulation process of designing, incorporating, and governing, students will leave with a “best practice” for not-for-profit manual that includes articles of incorporation, bylaws, governance deliverables, strategic business plan, organizational scorecard, 3-5 year budget, development plan and public policy strategy.
Spring
Also Offered As: NPLD 5960
1 Course Unit
SWRK 6000 The Penn Experience: Racism, Reconciliation, and Engagement
This new non-credit asynchronous course, consisting of six Modules, aims to establish common language and concepts for incoming graduate and professional students to facilitate subsequent difficult conversations about race, racism and difference in the classroom and beyond. Using video interviews, presentations, short readings and podcasts, the course highlights the significance of Penn and Philadelphia’s history of racism and other forms of oppression, Penn’s evolving relationship to West Philadelphia, and Penn’s efforts toward greater engagement and inclusion. Modules also focus on implicit bias, intercultural communication gender identity and disparities in healthcare. A final module was designed primarily to address the antiracist work that must be done to dismantle white supremacy. All incoming SP2 master’s students are expected to spend 20 or more hours reviewing the six modules and completing short assessments prior to starting the fall semester. Other graduate and professional schools will assign modules to be completed based on their schools requirements. Fall, Spring, and Summer Terms
0 Course Units

SWRK 6010 History and Philosophy of Social Work and Social Welfare
This course traces the development of social welfare policy in the United States and its relationship to social work. It analyzes the values and assumptions that form the foundation of existing welfare programs and institutions and explores the social, economic, political and cultural contexts in which they have developed. The course examines the development of cash assistance and social services programs in light of the enduring legacy of poverty, racism, and sexism. The view of “outsiders” in U.S. society - low-income persons, people of color, gays and lesbians - allows us to gain perspective on the source of conflict and consensus in American history, which augments material about institutional racism learned in SWRK 603 and content about behavioral responses learned in SWRK 602. The course traces, as well, the roles that social workers have played in the formulation and implementation of social welfare policy and links these historical examples to contemporary policy practice. Fall
1 Course Unit

SWRK 6020 Human Behavior in the Social Environment
This course introduces the student to the individual and family components of social interaction in a variety of different milieus. Theories of self and personality are studied, along with theories related to traditional and non-traditional family styles, different social and ethnic groups, and of assimilation and acculturation. Emphasis is given to the impact of different cultures and traditions on individual functioning. Additional attention is given to selected social characteristics of the larger society, such as factors of socio-economic class which influence individual and family behavior and functioning. Fall
1 Course Unit

SWRK 6030 American Racism and Social Work Practice
This course explores racism in America as an historical and contemporary phenomenon. It emphasizes the development of evidence-based knowledge about institutional systems of racism, analytical skill in understanding the complexity of institutional racism and other forms of oppression more broadly defined, self-awareness, and the implications of racism for social work services and practices. Fall
1 Course Unit

SWRK 6040 Foundations of Social Work Practice I
This is the first of a four-course sequence designed to help students develop a professional stance and evidence-based framework for social work services to individuals, groups, families, and communities. It integrates the student’s theoretical learning with the experience in the field placement agency. The student is introduced to a holistic process-oriented approach to social work practice and to methods for implementation. The course emphasizes the social context for practice with special attention to agency purpose, functions and structure; the client system and its perceptions of need; goals and resources and the social worker as a facilitator of change. Fall
1 Course Unit

SWRK 6140 Foundations of Social Work Practice II
This is the second in a four-course sequence and continues to examine varied practice frameworks and methods for service delivery in working with individuals, groups, families and communities. It emphasizes the eradication of institutional racism and other forms of oppression along with the integration of a culturally-sensitive approach to social work practice. Attention is given to understanding client problems in the context of different social work practice approaches and service requirements and to increased use of professional values to guide and inform practice. Spring
Prerequisite: SWRK 6040
1 Course Unit

SWRK 6150 Introduction to Social Work Research
This course presents the broad range of research tools that social workers can use to improve the effectiveness and efficiency of their practice. The course emphasizes the process of theory development, conceptualization, and hypothesis formulation across a broad spectrum of social work practice situations. The course includes methodological considerations relating to concept operationalization; research design (experimental, survey, and field), sampling instrumentation, methods of data collection and analysis, and report preparation and dissemination. The course also emphasizes how social work research can help professionals better understand and more effectively impact problems of racism and sexism in contemporary American society. Spring
1 Course Unit

SWRK 6200 Integrative Seminar
All Advanced Standing students are required to take this non-credit Integrative Seminar in the summer upon beginning the program. The seminar meets weekly during the second summer session and supports students as they begin their field placement. In order to enroll in the fall, students must achieve satisfactory performance in the Integrative Practice Seminar and summer field placement. Advanced Standing MSW students only. Summer Term
0 Course Units
**SWRK 6260 Health and Social Justice**
This course considers various theoretical approaches to justice and health, motivated by the idea that a moral framework is needed to address the ethical challenges posed by inequalities in access, quality, financial burdens, and resource priorities, as well as rising health care costs. The course includes four parts. The first part examines ethical frameworks that involve various approaches to medical and public health ethics. The second part presents an alternative theory of justice and health, the health capability paradigm (HCP), grounded in human flourishing. The third part explores domestic health policy applications of HCP, including equal access, equitable and efficient health financing and insurance, rising costs and allocating resources. The fourth and final part of the course investigates domestic health reform, particularly a normative theory of health policy decision making grounded in political and moral legitimacy. The course scrutinizes the relevance of health justice for governing health at the domestic level, that is within countries, offers a new theory of health and social justice, the health capability paradigm, and of health governance, shared health governance, evaluating current domestic health systems and proposals for reforming them in light of these alternative theoretical frameworks.

**Fall**
1 Course Unit

**SWRK 6270 Global Health Justice and Governance**
This course considers various theoretical approaches to global justice and global governance and analyzes their implications for global health. The course includes two parts. The first part examines accounts of cosmopolitanism, nationalism and other theories of global justice, critically assessing duties ascribed by each that may be owed universally to all persons or confined within associative boundaries of communities or nations. The second part explores applications to global health governance encompassing consideration of human rights and the operation and accountability of global institutions such as the United Nations, the World Bank, and the World Health Organization and national health systems. The course scrutinizes the relevance of global justice for governing the global health realm, proposes a new theory of global health justice, provincial globalism, and of global health governance, shared health governance, evaluating the current global health system and proposals for reforming it in light of these alternative theoretical frameworks.

**Spring**
1 Course Unit

**SWRK 6290 Health Capability**
This course considers various theoretical approaches to justice and health, motivated by the idea that a moral framework is needed to address the ethical challenges posed by inequalities in access, quality, financial burdens, and resource priorities, as well as rising health care costs. The course includes four parts. The first part examines ethical frameworks that involve various approaches to medical and public health ethics. The second part presents an alternative theory of justice and health, the health capability paradigm (HCP), grounded in human flourishing. The third part explores domestic health policy applications of HCP, including equal access, equitable and efficient health financing and insurance, rising costs and allocating resources. The fourth and final part of the course investigates domestic health reform, particularly a normative theory of health policy decision making grounded in political and moral legitimacy. The course scrutinizes the relevance of health justice for governing health at the domestic level, that is within countries, offers a new theory of health and social justice, the health capability paradigm, and of health governance, shared health governance, evaluating current domestic health systems and proposals for reforming them in light of these alternative theoretical frameworks.

**Fall**
1 Course Unit

**SWRK 7010 Health and Mental Health Policy**
Effective social policy and practice strategies promote social justice and ensure all individuals, groups, and communities have access to high quality, comprehensive, affordable health and social support services. In this course, we use a health equity lens to critically analyze how health and mental health policies are developed and implemented, and how such policies relate to social work practice, program planning, and research. A broad perspective is used in thinking about health and well-being, accounting for intersectional health equity considerations deriving from race, ethnicity, disability or gender. Key policy issues such as financing, cost, access, and the allocation of resources are explored in the context of existing systems and health reform proposals. Students learn about health and mental health policy through inquiry related to the social construction of illness, stigma, social determinants of health, health and behavioral health integration, and specific population groups such as children, families, LGBTQ individuals, or those with specific health conditions, among other topics.

**Spring**
1 Course Unit

**SWRK 7020 Social Work Practice in Health Care**
This course focuses on key issues in social work practice in health care settings. Social aspects of health and illness, including cultural variations, health beliefs and behavior, and the impact of illness on the patient and the family, are examined and their relevance for practice is discussed. Appropriate theoretical models for practice are identified and applied to practice in the areas of prevention, primary care, chronic and long-term care. New roles for social work in varied health delivery systems and inter-professional collaboration are explored.

**Fall or Spring**
1 Course Unit
SWRK 7030 Impacting Government: Policy Analysis & Coalition Building
This course focuses on developing a theoretical foundation for actionable skills in policy analysis and coalition building across a wide range of constituencies. The material begins with a structured focus on the ideological underpinnings of social welfare in the United States and the ways in which these perspectives shape our conception of equity, equality, and allocation of resources along the lines of race, class, gender, immigration status, and other identities. We will then utilize this basis for developing analysis frameworks, policy briefs, and media messaging that students will utilize when working with legislative bodies to advocate for and with the populations they serve. Distinct emphasis is placed on becoming conversant across differential systems, ideas, values, and assumptions while remaining grounded in relevant research and empirical approaches.
Not Offered Every Year
1 Course Unit

SWRK 7040 Advanced Clinical Social Work Practice I
Clinical Social Work Practice I and Field Practice builds on the generalist model of practice established in the foundation social work practice courses. The course work and assignments are closely linked to the students' learning objectives and experiences in the field. This course has students critically examine and deepen their understanding of advanced theoretical frameworks and specific skills to be applied in clinical practice with children, adolescents, adults, and families. Students begin with classic and modern formulations of psychodynamic work and use this as a foundation for understanding theoretically and empirically drive models of family intervention. In addition, use of self and social work values and ethics and working with diverse clients are addressed at an advanced level.
Fall
1 Course Unit

SWRK 7060 Policies for Children and Their Families
This course examines policies for children and their families with a specific focus on child welfare policy. The course examines the interrelationship between: the knowledge base on child abuse and neglect; evaluations of interventions; programs and policies designed to protect maltreated children; and child welfare policy at the state and national level. The course also examines federal and state laws that govern the funding and operation of child welfare systems; the history of child welfare policies; the operation of child welfare systems; and the legal, political and social forces that influence the structure and function of child welfare systems in the United States.
Spring
1 Course Unit

SWRK 7080 Advanced Macro Social Work Practice I
Advanced Macro Social Work Practice I and Field builds on the foundation social work practice courses and focuses on three areas: (1) context of macro practice; (2) organizational structure with a focus on nonprofits; and (3) program design and development. The course begins with providing theoretical frameworks for macro practice and then moves to focus on delivery of services at the community level. Knowledge and skill development focuses primarily on social work practice within communities and organizations. Students learn how to organize and build relationships with communities and develop, plan, manage, fund and assess/evaluate community-based programs. Specific skill development includes learning how to research, develop, write, and pitch a grant proposal. Course content is integrated with fieldwork and is specific to the service needs of the populations with whom students are working in their field agencies.
Fall
1 Course Unit

SWRK 7100 Supervision Seminar
Students in the Employed Practitioners Program are required to take this non-credit seminar in the fall and spring terms of their second year of study. The class meets every other week. In a limited number of cases, advanced-year students may be placed in agencies where there is no available MSW field instructor. In such instances, the student is required to attend the Clinical or Macro Supervision Seminar (depending on their concentration), which meets every other week during the academic year. Students who are required to participate in the clinical or macro supervision seminars will be given 1.5 hours of compensatory time off from their field placement every other week.
Fall, Spring, and Summer Terms
0 Course Units

SWRK 7110 Contemporary Social Policy
This course introduces students to the analysis of contemporary social welfare policy. Several social welfare policy areas, including social inequality, poverty, health care, and housing are examined. Each topic area is also used to illustrate a component of the policy analysis process, including the analysis of ideologies and values as they shape policy formulation, the process by which legislation is proposed and enacted, the roles of advocacy and lobbying organizations, and the challenges of policy implementation and evaluation.
Fall or Spring
1 Course Unit

SWRK 7130 Understanding Social Change: Issues of Race and Gender
This course builds upon the foundation of historical, psychological, sociological, economic, political, and personal knowledge about institutionalized forms of racism and discrimination developed in SWRK 6030, American Racism and Social Work Practice. The course uses understanding elements of oppression to critically examine strategies for addressing racism and sexism in organizations and communities through systematic assessment and planning for social change. The course examines change at three levels: organizations, communities, and social movements.
Spring
Prerequisite: SWRK 6030
1 Course Unit
SWRK 7140 Advanced Clinical Social Work Practice II  
The focus of learning in this semester is theories and skills related to clinical practice with individuals and groups, differential intervention, and the broadening of the professional role and repertoire. The course content and assignments are closely linked with the students’ learning objectives and experiences in the field. Students extend and refine their practice knowledge and skills and learn to intervene with cognitive, behavioral, and narrative modalities. This semester focuses also on work with complex trauma across systems and populations. Students consolidate their identification as professionals and learn to constructively use the environment to effect systems changes.  
Spring  
Prerequisite: SWRK 7040  
1 Course Unit  

SWRK 7170 Art and Social Work: Art and the Ecology of Justice  
How can the arts help us build a more just society? How can the arts transform social structures and systems? Public health crises involving clean water (Flint), police violence (Baltimore), and a lack of economic and educational opportunity following reentry (Philadelphia) make legible the need for a new visual language that critiques these conditions and challenges entrenched structural inequalities. We will engage the work of creative practitioners who are mapping new relationships between art and social justice and directly impacting individual and communal well-being. In so doing, the course seeks to challenge traditional constructions of public health, which often isolate individual histories from their social life and their relation to families, communities, and geographies. Readings will build upon disciplinary perspectives in the arts, humanities, and social policy. Requirements include weekly readings, class participation, and a collaborative final project. The course will meet in the Health Ecologies Lab at Slought Foundation, an arts organization on campus.  
Spring  
Also Offered As: FNAR 5057  
Mutually Exclusive: FNAR 3090  
1 Course Unit  

SWRK 7180 Advanced Macro Social Work Practice II  
Advanced Macro Social Work Practice II and Field helps students broaden and deepen the specific knowledge and skills required to become an effective and creative social work practitioner. The course focuses on five areas of macro practice: (1) community assessment and practice; (2) policy advocacy; (3) fiscal management and fundraising; (4) global human rights; and (5) emerging areas of macro practice. Students learn how to conduct a community practice analysis, engage in policy advocacy, develop an idea for a social enterprise, write an agency fundraising plan, and conduct an agency fiscal evaluation. Students learn to utilize administrative skills to promote social change within a variety of systems that influence the lives of client populations. Course content is integrated with fieldwork and is specific to the service needs of the populations with whom students are working in their field agencies.  
Spring  
Prerequisite: SWRK 7080  
1 Course Unit  

SWRK 7210 Social Work Healthcare Proseminar  
This is a mandatory, year long, bi-monthly, non-credit course for all students enrolled in the Social Work in Health Care Specialization (SWIHCS). SWIHCS aims to prepare students for successful careers across practice settings and with diverse populations and conditions. Grounded in the tenets of biopsychosocial approaches to direct practice, the specialization bridges systems of practice and introduces students to inter-professional collaboration and leadership skills. This proseminar will serve two functions for students in the specialization. First, the cohort will meet together monthly for case conceptualization, and consideration of challenges unique to health-related placements in both macro and direct practice settings. Second, students will meet monthly for special learning opportunities, guest lectures, and professional development. Topics may include, but are not limited to: direct practice work with children, families, the elderly, and communities coping with chronic and terminal illness, palliative and end of life care, health care advocacy, policy development and evaluation, and inter-disciplinary collaboration. Two Term Class, Student must enter first term; credit given after both terms are complete  
0 Course Units  

SWRK 7220 Practice with Children and Adolescents  
This course provides a foundation for social work practice with children and adolescents. Beginning with an overview of normative child and adolescent development and psychosocial developmental theory, the course covers various methods for helping at-risk children and adolescents and their families. Emphasizing the complex interplay between children and adolescents and their social environments, consideration will be given to biological, temperamental, and developmental status; the familial/cultural context; the school context; and other aspects of the physical and social environment. Particular attention is paid to working with socially, emotionally, financially, and physically challenged and deprived children and adolescents and their families.  
Fall or Spring  
1 Course Unit  

SWRK 7230 LGBTQ Certificate Proseminar  
This is a monthly, non-credit course for all students enrolled in the LGBTQ Certificate. The LGBTQ Certificate provides supplemental content and skills to existing professional master’s degrees at Penn with specialized courses and fieldwork addressing the legal, physical and mental health care, social service, and educational needs of LGBTQ communities and issues of gender and sexuality, more generally, across the lifespan. Because students can enroll in a variety of courses across schools to meet the certificate requirements, the proseminar is designed to serve as a shared community building and peer mentorship experience for each certificate cohort. The instructor will also provide an additional layer of mentorship for integrating field placement into the academic social work experience. The proseminar will take on different formats over the course of the semester including case review, guest lectures, and in-depth discussion of issues relating to ethics, identity, and cross-professional collaboration.  
Two Term Class, Student may enter either term; credit given after both terms are complete  
0 Course Units
SWRK 7240 Developmental Disabilities
This course enhances the students' ability to practice social work with and on behalf of people with developmental disabilities and their families. The course provides a base of knowledge about developmental disabilities and differences, their causes and characteristics. Students learn how disabilities and learning differences impact personal, familial, educational, social, and economic dimensions for the individual, family and society, with attention to the person's special life cycle needs and characteristics. The course also emphasizes legislative, programmatic, political, economic, and theoretical formulations fundamental to service delivery.
Fall
1 Course Unit

SWRK 7250 Relationship Theory
The goal of this course is to introduce the participants to the basic principles and practice of couple therapy. With its rich history as a distinct discipline integrating both individual and systemic theory, students will explore a broad range of theoretical and clinical approaches within this field. Issues such as intimacy, gender, power, class, race, orientation, family of origin, affairs, separation, divorce, domestic violence, sex, parent-child relationships, and money will be discussed.
Fall
1 Course Unit

SWRK 7260 Brief Treatment and Crisis Intervention
This course focuses on theory and practice of planned brief treatment in social work practice, primarily with individuals but with attention to couples, families and other groupings. The course covers the history of and different approaches to brief treatment. Topics include treatment issues such as criteria for selection of clients, understanding the importance of time in the treatment relationship, the use of history, the importance of focusing, the process of termination and other issues related to brief interventions. Particular attention will be paid to the use of brief treatment approaches in crisis situations. The course presents various methods of assessing an individual's crisis and of helping clients mobilize their strengths to utilize customary methods of coping and learn newer ways of coping.
Summer Term
1 Course Unit

SWRK 7270 Practice with Families
This course provides students with assessment and intervention skills for social work practice with varied family/partner configurations. The course begins with a grounding in family systems theory and proceeds to explore patterns of interaction in terms of the wide range of problems that families and partners bring to social agencies. Emphasis is given to exploring ways of supporting change in interaction patterns. Readings are augmented by videotapes of family sessions and simulations of clinical situations from students' field practice.
Fall or Spring
1 Course Unit

SWRK 7280 Taking Down the Prison Industrial Complex
The U.S. incarcerates more people than any other country, and more than any nation has ever done in history. The racial disparities that mark this carceral regime have led scholars to describe the prison industrial complex as a new form of Jim Crow. Philadelphia has one of the highest incarceration rates in the country, and one of the largest populations on parole and probation. This class explores structural and individual-level pathways to re-engage the vast population of recently incarcerated people who cycle through prisons, jails, juvenile homes, and other detention centers. Drawing on practice informed by critical race, postcolonial, feminist, and queer theories, the class prepares the conceptual and practice foundations for a prison abolitionist orientation in social work engagement with this community. Utilizing a daily workshop format that incorporates members of the Philadelphia decarcerate landscape, students will be trained in direct and macro practice, to engage with people and the carceral systems they are embedded in. The class will engage students with the innovative psychotherapeutic and macro practices being implemented in the Center for Carceral Communities at SP2, alternative programs in Philadelphia’s municipal and federal courts, educational degree programs at community colleges in Philadelphia, co-operative business initiatives for people emerging from incarceration, and social movements such as Black Lives Matter that are shaping the prison abolition landscape. The class blends morning sessions dedicated to discussions of texts with afternoon sessions dedicated to hands-on implementation workshops. At the end of the class, students will be prepared to immediately start engaging with members of the community emerging from incarceration.
Fall
1 Course Unit

SWRK 7290 Social Statistics
This course provides students with a broad range of statistical methods and applications. It introduces social work students to the use of quantitative data for planning and evaluating social programs and social policy. Course topics include conceptualization and measurement of variables and basic techniques and concepts for exploring and categorizing data, for generalizing research findings and testing hypotheses, and for statistical data processing. Students will gain experience in using a Windows-based statistical software package on personal computers. Emphasis is placed on the practical application of data to address social policy and social work practice issues. Students have the opportunity to critique the application of data analysis and presentation in technical reports and professional journals.
Fall
1 Course Unit
**SWRK 7310 Clinical and Macro Child Welfare Practice**

Students enrolled in this course will learn about the various contexts in which child welfare practice and policy services take place and the skills and modalities that are used with children, youth, and families who are the focus of child welfare intervention. Students learn about the social conditions and unmet needs that have typically precipitated child welfare policy and ideological debates informing child welfare policy. How to structure organizations and implement planning in support of strengthening front-line practice is also addressed. Taking stock of these policies and organizational factors, students gain a firm understanding of how they influence, shape, and govern direct clinical practice in child protection and casework. Particular attention will be devoted to developing students’ practice skills in safety assessment and safety planning, risk assessment, and permanency planning. Implementation of evidence-based, trauma-informed interventions to promote positive developmental outcomes among the racially/ethnically diverse pool of children and adolescents placed in out-of-home care will also be a focus of attention. Other topics include separation, loss, and identity development; disproportionality and disparity; and self-care in child welfare practice. In the spirit of bridging connections between macro and clinical practice, course content will delve into how direct casework services influence dependency actions in the juvenile courts. How these direct practices or interventions influence case outcomes as reported by a number of federal data reporting systems will also be discussed. A social justice framework will be applied to understand how child welfare policies and organizational services sustain child and family inequalities, especially for historically oppressed and marginalized populations who are disproportionally represented in the child welfare system.

Fall
1 Course Unit

**SWRK 7320 Integrative Seminar in Child Welfare**

This capstone course in the Child Well-Being and Child Welfare specialization will integrate direct/micro and macro levels of practice; research in child welfare and related fields, as the research relates to all levels of practice; the relationship of child maltreatment and other social problems; and perspectives from several disciplines, specifically social work, other mental health professions, law, and medicine, as these disciplines address problems of child maltreatment and child welfare. The seminar will highlight issues of social justice, disproportionality; particularly the over-representation of children and families of color in the child welfare system, and disadvantaged populations, including children in general and poor children in particular. Faculty from other disciplines will be features as guest speakers throughout the course.

Spring
1 Course Unit

**SWRK 7330 Supporting LGBTQ+ Individuals Across the Lifespan**

As recognition and acceptance of individuals across and beyond both the sexual orientation and gender identity spectrums continues to progress within the United States, clinical theory and applications for working with lesbian, gay, bisexual, transgender, and queer plus (LGBTQ+) individuals has also expanded. This course will explore the clinical theories and treatment approaches geared towards affirming and supporting LGBTQ+ individuals within their romantic and/or sexual relationships, families of origin, and families of choice. Areas of development will be addressed across the lifespan including specific milestones related to gender and sexuality development as well as psychological, sociocultural, and spiritual influences upon development. Centering on a social justice approach, learners will be encouraged to critically examine systemic factors impacting LGBTQ+ individuals as well as the intersectionality of various identities including race, ethnicity, gender identity, sexual orientation, age, ability/disability, socioeconomic status, educational attainment, mental and physical health, and other identities (both self-assigned and externally applied) that can impact development. Each stage of development will include multiple cases for review and consideration of potential practice implications at the individual, relationship, family, community, and systemic levels. Upon conclusion of the course, learners will have a stronger understanding of the practice theories that exist, the practice models that best fit their professional style, and clear understanding of practice application in regards to affirming and supporting LGBTQ+ individuals.

Fall or Spring
1 Course Unit

**SWRK 7360 Building Community Capacity**

This course provides an introduction to community organization and community capacity building. The course encompasses strategies, models, and techniques for the creation of organizations, the formation of federations of existing organizations; and coalition-building, all designed to address problems requiring institutional or policy changes or reallocation of resources to shift power and responsibility to those most negatively affected by current socio-economic and cultural arrangements. The course emphasizes development of strategies and techniques to organize low-income minority residents of urban neighborhoods, and to organize disenfranchised groups across geographic boundaries as the first required steps in an empowerment process.

Fall or Spring
1 Course Unit

**SWRK 7370 Bioethics in Social Work in Diverse Healthcare Settings**

As medical technology develops and evolves, ethical dilemmas are occurring more frequently in many diverse healthcare settings. Social workers play an integral and unique role in bioethics: primarily as patient advocates but also as guardians of autonomy and dignity. This can come into direct conflict with decisions patients, families, and healthcare teams are asked to make on a daily basis in healthcare settings. This course will explore many of the major ethical challenges confronting medicine, social work, and biomedical sciences. We will examine legal, institutional and personal positions, beliefs, and values as we consider and debate opposing arguments. You will be challenged to think and write critically, utilizing philosophical, bioethical, and social work frameworks to structure your arguments and ethical decision making. This course will prepare students to actively participate in ethics committees, mediation, patient/family conferences with diverse populations and interdisciplinary collaborative discussions regarding ethical issues in medical settings.

1 Course Unit
SWRK 7380 Anxiety and Depression
Anxiety and depression are two of the most common mental disorders seen in social work clients, and frequently they occur concurrently. This course describes the medical and "physical" concomitants and psychosocial factors associated with both conditions and introduces diagnostic and assessment procedures and methods of intervention that social workers use in working with clients with these conditions. The course also considers how culture, social class, gender, and other social differences affect the expression of these disorders and their concomitant treatment.
Fall or Spring
1 Course Unit

SWRK 7390 Illness and Family Caregiving
This course focuses on social work practice in medicine and the relationships between physical health, social environments, and psychosocial functioning. Student learning will be grounded in the biopsychosocial-spiritual model, and will address a number of domains, including the impact of illness on families over the course, the impact of a diagnosis on family functioning, medical decision making, coping, health beliefs and spirituality, culture and social class. Classroom content will include conceptualization of illness challenges from the presentation/prevention of symptoms to the end of life, in addition to writing case material, building self-awareness and identifying clinical interface issues, and the compilation of a "clinician's toolbox" for direct practice on the front lines. Activities will include the unique opportunity to participate in hands-on, interdisciplinary training at the Simulation Center in the School of Nursing.
Fall
1 Course Unit

SWRK 7400 Strategic Planning & Resource Development for Public & Nonprofit Organizations
Resilient organizations engage in a continuous process of self-review and refocusing. Referred to as "strategic planning," this process requires the active participation of a broad range of agency "stakeholders" who, in their work together, seek to realign the organization's goals, structures, and programs to make them more responsive to the changing needs of their service populations. Building on the content of foundation practice foundation courses, "Strategic Planning and Resource Development" has been designed to strengthen the student’s leadership capacity for engaging in strategic planning and resource development practice across a broad range of governmental (GOs) and civil society organizations (CSOs). The importance of organizational flexibility, innovation, and the creation of cooperative public-private partnerships is emphasized throughout the course.
Fall or Spring
1 Course Unit

SWRK 7410 Gender & Social Policy
Gender and Social Policy develops an advanced understanding of social policies through the lens of gender - a socially constructed classification system based on ideals of femininity and masculinity, which are most commonly understood to be binary, mutually exclusive categories corresponding to sex (female and male). (Gender is) a concept that pervades all aspects of culture: structuring institutions, social identities, cultural practices, political positions, historical communities, and the shared human experience of embodiment*. The class provides students with the opportunity to explore how social policies respond (and contribute) to the needs and risks of different groups of people based on gender classifications. Rather than a survey of "gender" policy, students will be introduced to key feminist and trans concepts and frameworks that can be applied to any social issue and policy intervention. Policy examples may include reproduction, state violence, exclusionary/inclusive space, and national emergencies. The topics and specific readings may change based on the course's interests and current events. Class assignments are designed to provide an opportunity to practice applying gender theory, as well as for each student to examine a policy issue of import to them through a gendered lens. *paraphrasing Garland-Thomson, 2002, "Integrating Disability, Transforming Feminist Theory", NWSA Journal, 14(3): pg. 4.
Fall, Spring, and Summer Terms
Also Offered As: MSSP 7410
1 Course Unit

SWRK 7420 Practice with Youth Who are Marginalized
The discourse on juvenile justice in the United States, once driven by themes of treatment and rehabilitation, has been dominated in recent years by vocabularies of punishment and incapacitation. The juvenile court, an enterprise founded by social reformers and the social work profession at the turn of the century to "save children," is now under severe political and legislative pressure to impose harsher penalties on younger and younger offenders who are increasingly portrayed as violent "super-predators," while its most vulnerable segments, children and youth, stand in greatest need of what a social service system can offer. Not surprisingly, those most likely to wind up under supervision are economically poor, under-educated, disproportionately of color and disproportionately at-risk to become victims of violent crimes. How does the profession situate itself in this discourse and what are individual social workers to do?
Fall
1 Course Unit

SWRK 7430 Action Research
Action research is a form of social research that combines research with intervention. It is characterized by a collaborative relationship between the researcher and a client organization that is in an immediate problematic situation. The research process is directed toward addressing the problem situation and producing knowledge that contributes to the goals of social science. Action research is compatible with many of the values and principles of social work. This course also addresses issues of social work ethics and values encountered by the action researcher.
Fall or Spring
Prerequisite: SWRK 6150
1 Course Unit
SWRK 7440 Direct Practice Research
This course provides graduate social work students with research knowledge and skills aimed at enhancing their direct practice with clients. The course examines methods of assessment, methods for choosing and evaluating techniques of intervention, methods for determining the effectiveness of practice and the use of research in social work decision-making. A successful outcome of the course will be that students perceive a more positive relationship between research and social work practice and possess a set of tools that they will be able to utilize in their future careers as social workers. The course starts from an assumption that students have some familiarity with research and are primarily engaged in direct practice with individuals, families or groups.
Fall
Prerequisite: SWRK 6150
1 Course Unit

SWRK 7450 Critical Race Theory
This course explores Critical Race Theory (CRT). CRT refers to a body of work that emerged during the 1980s and 90s among legal educators to try and explain why there seemingly has been racial progress on the one hand through laws and court decisions that outlaw the most visible symbols of racial discrimination, but growing signs of racial inequality on the other in education, health, criminal justice, housing, politics, and other areas. During the past ten years, fields such as women's studies, sociology, education, gender studies, history, criminology, and postcolonial studies have begun to look to the insights developed by critical race theorists. Without a doubt, CRT has spawned and/or influenced new areas of inquiry such as Latino/a critical studies, queer studies, critical race feminism, and critical white studies. Although social work researchers have begun to use CRT ideas such as intersectionality, the application of Critical Race Theory to the field remains largely unexplored.
Fall
1 Course Unit

SWRK 7460 Political Social Work
This course focuses on the role of social workers and the social work profession in advocacy and the political arena. It examines the methods of advocacy (e.g., case, class, and legislative) and political action through which social workers can influence social policy development and community and institutional change. The course also analyzes selected strategies and tactics of change and seeks to develop alternative social work roles in the facilitation of purposive change efforts. Topics include individual and group advocacy, lobbying, public education and public relations, electoral politics, coalition building, and legal and ethical dilemmas in political action.
Fall or Spring
1 Course Unit

SWRK 7470 Social Policy and the LGBTQ Community
The course will explore and analyze the development of social policy within the context of LGBTQ social movements both assimilationist and liberationist. Among the policies examined are HIV/AIDS, Defense of Marriage Act, Don’t Ask, Don’t Tell, Same-Sex Marriage, Adoption of Children, the DSM and Pathologizing the LGBT Community, Legal Issues, Non-Discrimination, and Hate Law Legislation. Social Services for the LGBTQ community will be discussed as well as support for LGBTQ youth. The particular difficulties confronting transpeople and their acceptance will be examined in the context of the social construction of gender; in this, the work of philosophers Judith Butler and Michel Foucault will be introduced. Questions of social justice will be threaded throughout the course, as will social work advocacy and coalition building.
Spring
1 Course Unit

SWRK 7480 Microfinance and Women's Empowerment in India
This course examines microfinance and its engagement with marginalized communities such as those in India. It is designed to provide students with an understanding of the phenomena of microfinance and its role in poverty alleviation. By studying the use of self-help groups with NGO facilitation, their impact on women’s empowerment will be examined and understood through interaction with women engaged in microfinance activities.
Spring
1 Course Unit

SWRK 7490 Civil Society Addressing Conflict in Israel/Palestine
This course offers a unique opportunity to experience the challenges and complexities of coexistence in Israel, the Holy Land for Christians, Jews and Muslims; a key point of interest and dispute for the international community, and the homeland shared and claimed by both Israelis and Palestinians. The course will focus on activities carried out by nonprofit organizations operating within the Israeli civil society, dealing with issues related to coexistence and to the protection and advancement of the civil and social rights of different populations, with special emphasis on the Arab-Palestinian population in Israel. These activities include educational and social services programs, community work and advocacy activities, aimed at creating dialogues and building coexistence among the different populations in the Israeli society and Palestine.
Summer Term
1 Course Unit
SWRK 7500 Social Policy and the LATINX Community
In this course on social policy and the Latinx immigrant community in the US, students will develop a broad understanding of how social policy at the local, state, and federal levels affect Latinx immigrants’ access to and interactions with social services. After developing a critical understanding of the diversity of the Latinx immigrant community and of the sociopolitical and –historical context for the development of social policies impacting this community, students will explore social policy and related social services around immigration, health, education, and labor that deeply affect the lived experiences of Latinx immigrants. Students will then investigate Latinx immigrants’ participation in the development of social policies as well as the ways in which Latinx grassroots movements and organizations influence national debates on public policy and social services for the Latinx immigrant community. Students will also learn about this group’s economic contributions to funding at local, state, and national levels to the U.S. social welfare system, as well as new and current initiatives promoting social policies geared towards social and economic justice for Latinx immigrants. Through course readings, lectures and discussions students will develop tools for critical thinking and analysis about how social services and the daily lived experiences of Latinx immigrants are mediated by policy and its implementation at local, state, and federal levels. Students will also develop skills in case study analysis through interactions and interviews with invited guests – local Latinx immigrant community members and social leaders – who will share their own perspectives, knowledge and firsthand experience around issues related to social policy and Latinx immigrants. Over the course of the semester, students will formulate plans for social policy advocating for social justice and human rights within the Latinx immigrant community.
1 Course Unit

SWRK 7510 Spirituality and Social Work Practice
Spirituality is a critical anchor of a holistic approach to social work, which views individuals, couples, families, groups, and communities in a bio-psycho-social-spiritual context. It varies in extent to which spiritual aspects of social work practice have been addressed explicitly in social work education. In a post September 11th, 2001 world, however, drawing from the wellsprings of spirituality seems more widespread, and even more crucial. Current trends in social work education, including the Council on Social Work Education’s Educational Policy and Accreditation Standards support the inclusion of content on religious and spiritual diversity. Accordingly, this course is an advanced clinical practice elective that focuses on spiritual aspects of social work practice. The professional values of client self-determination and empowerment will be stressed as diverse spiritual perspectives are explored. This course will strive to seek a balance of exploring the universalistic as well as the particularistic in relationship to spirituality. Some particularistic religious and/or spiritual traditions will be studied as they exemplify commitments of spirituality and as they intersect with a more universalistic spirituality. The impacts of spiritual and religious systems in relation to diversity (e.g. by gender, social class, ethnicity, culture, and sexual orientation) will be considered. As a practice elective, this course will make linkages directly to students’ practice experience in the field as well as to other curriculum areas such as human behavior theory, social policy, and research.
Spring
1 Course Unit

SWRK 7520 The Social Entrepreneurial Approach to Community Reintegration
In this course, students work closely with the instructor and partner agencies to experiment a social entrepreneurial approach to community reintegration for formerly incarcerated people. This course provides a unique and flexible opportunity for students to work together on an ongoing SP2-driven initiative called Penn Restorative Entrepreneurship Program (PREP). Founded by Prof. Charlotte Ren and currently led by Prof. Chao Guo, PREP identifies a small group of formerly incarcerated individuals based on survey and interview results and selects students from various schools at Penn to offer ten-week intensive training on starting and running a small business. After the curriculum training, PREP continues to provide a support system to help them turn business ideas into reality. Through PREP we hope to develop and demonstrate a sustainable and replicable model to effectively transition formerly incarcerated individuals back to the community.
Spring
1 Course Unit

SWRK 7530 Constructing America: A Socio-Legal History of Immigration
From the 1790 Act that restricted the right of naturalization to “free whites,” to the quota Acts of the 1920s that limited the entry of non-Nordic immigrants, to the reinvigorated restrictionism of the post-9/11 era, the laws of the nation and the discourses of immigration and immigrants that have enabled them have been key terrains in and through which legitimate and de-legitimized identities have been forged, and populations demarcated as viable participants in society or as undesirable Others to be excluded from full participation. Because immigration has been a central discriminating mechanism through which this selective peopling of the nation has been accomplished, the history of immigration and immigrants is a site par excellence for the examination of the mechanisms through which to examine contemporary issues of diversity, “difference,” and marginalization of populations. Social work’s development as a profession coincided with the period in U.S. history marked by the largest waves of immigration. The strategies the early U.S. social workers and social reformers devised to improve the poor and their communities were interventions located in and focused on immigrants and their neighborhoods. Work with poor immigrants in urban settings, shaped the nature and the direction of social work in these crucial early years of the profession. Moreover, in this work with the largely white immigrants—formulated and accomplished in the context of the rapidly developing social and physical sciences—social work cut its teeth, not only on the abiding issues of race, heredity, and culture, but on the still contested links between the individual and the environment. Examining the history of immigration—the history of the organic past which has constructed the particular demographic makeup of the present-day communities—is indispensable to understanding the profession’s current practices and future aspirations. This seminar will examine the socio-legal history of immigration. We will review major U.S. legislation concerning immigrants and immigration, refugees and asylum, and citizenship and naturalization. The legal codes, as well as the political and social discourses of identity that undergird and enabled those codes, will be analyzed through the lens of poststructuralist theories.
Spring
1 Course Unit
SWRK 7540 Play Therapy
Play is the method children use to master and understand their worlds. When working with children and adolescents, social workers often utilize play as a primary treatment intervention. This course will provide students with a foundation in play therapy theories, techniques, and practice intervention models. Play therapy philosophies will be critically analyzed. Play therapy will be presented for application in a variety of practice settings as well as with individuals, families, and groups. Students will be taught how to apply play therapy to address issues such as trauma, loss, mood disturbance, relational stress, anxiety, and academic performance. Emphasis will be placed on approaching play therapy from perspectives of multicultural competence, empowerment, social justice, and inclusion.
Spring
1 Course Unit

SWRK 7550 International Social Policy & Practice: Perspectives from the Global South
This interdisciplinary course will introduce students to social policy and practice perspectives from outside the U.S. and especially from communities in the Global South. The course will familiarize them with global professions and help prepare them for overseas/cross-cultural practice. Through the course students will identify numerous strategies and skills professionals have used to collaboratively build interventions within human rights, social policy, social welfare, education, healthcare and sustainable development arenas.
Fall
Also Offered As: MSSP 7550
1 Course Unit

SWRK 7560 Human Sexuality
The aim of this course is to increase students’ ability to deal more comfortably with the sexual aspect of human functioning. Readings, written assignments, and classroom presentations are directed to realizing the diversity, complexity, and range of human sexual expression. Current information about sexuality from the biological and physiological sciences is reviewed to increase comfort and skill in discussion and handling of sex-related behavior, personal and societal attitudes will be explored. A variety of sex-related social problems encountered by social workers in family, education, health, and criminal justice settings are discussed. Diagnostic interviewing and treatment methods are presented in role play, group exercises and case studies.
Spring
1 Course Unit

SWRK 7570 Loss through the Life Cycle
This course considers loss as a central theme throughout the life cycle. Content focuses on the physical, psychosocial, spiritual, and cultural aspects of loss, dying and bereavement processes and the interaction among individuals, families and professionals. Students examine historical trends of family, community, and institutional support for the terminally ill and those experiencing traumatic loss and learn ways to advocate for a system of services that supports full decision-making on the part of the client. Course materials, journals, and special projects identify how self and other factors impact service delivery to individuals, families, and communities experiencing loss, including ethical considerations prompted by cost, technology, and end of life issues.
Spring
1 Course Unit

SWRK 7590 Substance Use Interventions
This course addresses intervention approaches used in social work practice with individuals, families, and groups who misuse addictive substances themselves or are affected by another’s misuse. Students learn about addictive substances, models of intervention, how to engage and assess clients, and how to intervene and evaluate the effectiveness of their interventions. The course incorporates theory and research findings on various strategies of intervention.
Fall
1 Course Unit

SWRK 7600 Mental Health Diagnostics
This course familiarizes students with mental health and mental disorders within the context of the life cycle, viewed from a biopsychosocial perspective. Prevalent categories of psychiatric disorders are considered with respect to their differentiating characteristics, explanatory theories, and relevance for social work practice, according to the DSM and other diagnostic tools. The course includes biological information and addresses the impact of race, ethnicity, social class, age, gender, and other sociocultural variables on diagnostic processes.
Fall, Spring, and Summer Terms
1 Course Unit

SWRK 7620 Social Work Practice with Groups
Group work is an essential part of social work direct practice. Every social service agency utilizes groups, and social workers will engage with a variety of groups during the course of their careers. Given the fact that collective group processes are especially salient for marginalized communities, group work is essential to direct practice that is embedded in the principles of social justice. Moreover, group work has been shown to be a superior form of intervention for clients battling chronic conditions, entrenched behaviors and social stigma. In an era of evidence-based practice, successful and cost-effective group skills are a vital component of every social worker’s toolkit. Students will learn about different types of groups and modalities, facilitate groups in class and in field settings, and engage with social workers who have implemented group interventions in various communities in diverse contexts. The class will train students to facilitate therapeutic, psychoeducational, task, and decision groups, while helping them to explore how to start, manage and terminate groups in various social work settings.
Spring
1 Course Unit
**SWRK 7630 Global Human Rights & US Immigration: Implications for Policy & Practice**

This course will begin with the history of migration to the US, as well as legal definitions of newcomers, including obtaining documents for lawful permanent residence, refugee status, as well as grounds for exclusion and deportation, and paths to naturalized citizenship. We will then review how a framework of cultural competence, and a strength or asset-based approach can inform service to immigrant clients. The core portion of the course will then focus first on the intersection of immigrants and health, mental health, employment, crimes, public entitlements, and public education. The course will conclude with family issues relevant to immigrant families: women, children, lesbian and gay, and elderly immigrants. Public policy issues will be integrated throughout, and the course will end with specific suggestions on systems change at various levels. By the end of the course students should be able to identify strategies for individual clients advocacy (micro); agency and community strategies (mezzo), and government advocacy (macro) to empower immigrant clients to become full community participants.

Spring
1 Course Unit

**SWRK 7650 Supervision and Leadership in Human Services Organizations**

This course builds on social work knowledge, values, and skills gained in foundation practice courses and links them to the roles and functions of social workers as supervisors and managers in human service organizations. Course focus is on providing students with an overview of basic supervisory and human resource development concepts so they may be better prepared as professional social workers to enter agencies and provide direct reports (supervisees) with meaningful and appropriate direction, support, and motivation.

Not Offered Every Year
1 Course Unit

**SWRK 7660 Enhancing Relationships: Interpersonal, Group and Organizational Transformation**

SWRK 766 is for those seeking to increase their interpersonal, group, organizational, leadership and followership skills. It is assumed that participants will have the basics. Therefore the course is designed to uncover, explore and build new ways of understanding. This requires a set of logics that are readily available to us, but are rarely used. In SWRK 766 we will use three ways of thinking: the left-brain, digital, so-called "rational" logic; the right-brain, analogical, paradoxical logic; the links between our emotions and how we individually and collectively think and act. These forms of reasoning will help us recognize when a crisis is a genuine problem, as opposed to a decaying prelude to an emergent transformation. We will study people such as Mother Teresa, Nelson Mandela and Abraham Lincoln, ordinary folk who managed to create relationships at the interpersonal, group and organizational levels that were amazingly transformational. We will examine relationships that need to be reformed. And we will strive to develop enhanced leadership skills that can be applied in all of our endeavors. Members of all Penn graduate programs are welcome. SWRK 766 is designed for those: managing work groups; strengthening new ties with people from different walks of life; facilitating groups in reparative settings; dealing with societal disparities; conducting support groups; leading project groups; chairing committees; functioning as a classroom educator; serving on special task forces; addressing the pernicious societal isms; creating new enterprises; taking up leadership positions; building community resilience; advocating for those located in under-resourced enclaves; celebrating the many successful transformations constantly occurring; bringing latent possibility to life; or engaging in transformation that is sustainable and scalable.

Spring
1 Course Unit

**SWRK 7680 Social Policy Through Literature**

Also Offered As: MSSP 7680
1 Course Unit

**SWRK 7690 Aging: The Intersection of Policy and Practice**

This course examines a variety of social welfare policies that affect the rights and interests of older adults. These include policies related to economic security, health, long term care, and civil rights. In addition, the course reviews the policy-making process with a discussion of the influence of legislative sanctions and case law in establishing aging policy in the U.S. The focus of the course is on critical analysis of the key assumptions driving policy and policy change, e.g. social responsibility vs. individual responsibility. Finally, the course includes a critical examination of the intersection between policy and practice, that is, the influence that policy has on the design of interventions and service delivery practices at the state and local level and the impact of changing policies on communities, providers, and older adults.

Spring
1 Course Unit
SWRK 7720 Postcolonial Social Work Practice: International Social Welfare in India
In this course, students examine the global welfare system and its engagement with severely marginalized communities. This six-week course centers around a 700,000-strong sex workers’ collaborative based in Sonagachi, Kolkata, India, one of Asia’s largest red-light districts. Collaborative engagement with the collective and its grassroots movement is combined with research projects and class discussions (in open classrooms that at times include community members, as well as feminist and queer theory scholars from Indian Universities) in which students engage with texts on HIV, sex work, feminist postcolonial theory and international social work. The class counts for the Human Rights Certificate, as well as macro, direct practice, and NPL electives. As of this year, this course is also part of a campus-wide group of classes that has been put together by faculty involved in #PoliceFreePenn, that thoughtfully and intentionally foregrounds police state abolition. 
Summer Term
1 Course Unit

SWRK 7730 Mental Health Challenges in Childhood and Adolescence
This course will be an opportunity for the student and the instructor to explore the concept “psychopathology” as it has been and is applied to childhood and adolescence. There are some psychopathological challenges that are unique to childhood and some which can manifest themselves throughout childhood into adolescence and adulthood. The social worker/practitioner will encounter a wide range of symptomatic presentations among his/her clients. At this time in the fields of clinical social work, psychology, psychiatry, and psychotherapy there are numerous frameworks available to the practitioner to aid in an understanding of symptoms in children and adolescents. During the next several weeks three conceptual frameworks will be articulated. These three frameworks will elucidate the possible meaning, origin, and/or function of the symptoms and offer to the student a vocabulary with which to engage the situation. At the turn of the 19th century into the 20th century, psychoanalysis emerged in Europe as a method of understanding symptoms from the point of view of internal conflict within the child or adolescent. After World War II in the U.S.A., a model of understanding symptoms from a systemic/cybernetic point of view revolutionized the diagnostic processes involved in working with children and adolescents. Since the late 1980’s, postmodern ideas, primarily from Europe and Australia, have greatly influenced and informed the understanding of psychopathology in children and adolescents. Narrative, social constructivist, and linguistic usage patterns have become a common vocabulary in the discourse on psychopathology. This course is not intended to be a reading of the history of child psychopathology. It is intended to expose the student to the most influential paradigms in the field of child psychopathology.
Fall or Spring
1 Course Unit

SWRK 7740 Program Evaluation
This course introduces students to theoretical and practical aspects of social service program evaluation. Students learn about the design and implementation of all phases of an evaluation, from needs assessment to analysis of findings. Skills such as survey construction and budgeting are introduced. Intensive analysis of existing studies illustrates how evaluations are designed and how findings affect social programs and policy.
Fall or Spring
Prerequisite: SWRK 6150
1 Course Unit

SWRK 7750 Intimate Partner Violence
Intimate partner violence (IPV), defined as physical, sexual or psychological harm imposed by a current or former intimate partner, is a public health problem leading to increased morbidity and mortality worldwide. The purpose of this course is to familiarize students with the definition, theories, dynamics, scope, consequences of, and interventions to prevent and address, violence among intimate partners. Through this course, students will gain insight into the epidemiology of IPV across the life course, including risk and protective factors and examine unique considerations for vulnerable populations. The course will highlight current measurement issues in the field of IPV assessment and address IPV-related policies to address screening, prevention, and response to IPV. Using a social-ecological framework, we will examine the issue of IPV prevention and intervention from the individual, relationship, community, and societal perspectives, and explore approaches to and need for screening, as well as universal, selected, and indicated prevention efforts.
Spring
Also Offered As: PUBH 5750
1 Course Unit

SWRK 7770 Cognitive Behavioral Therapy
CBT is offered in both a one-week intensive and semester-long format, with the two formats usually offered in various terms throughout the year. The one-week format requires students to start a pre-course assignment approximately 2 months prior to the first day of the course. Students will receive an information request from the instructor during course registration and must reply in a timely fashion. Cognitive Behavioral Therapy (CBT) is the world’s most effective, empirically-based psychotherapy with strong scientific evidence. CBT is a collaborative and empowering psychotherapy that educates and helps clients to motivate themselves, set goals, develop, and implement treatment plans to reach those goals. This experiential/didactic advanced clinical skills course will present a CBT model to evidence-based practice that can serve as a conceptual framework for clinical applications to a wide variety of presenting problems and populations. The purpose of this course is to introduce graduate students to the theory of CBT and to begin to apply the basic principles through the stages of a self-directed case.
Fall or Spring
Prerequisite: SWRK 6010 AND SWRK 6020 AND SWRK 6030 AND SWRK 6040 AND SWRK 6140 AND SWRK 6150
1 Course Unit

SWRK 7780 Dialectical Behavioral Therapy
In this course we will examine the underlying theories, empirical foundations, and fundamental skill sets associated with dialectical behavioral therapy (DBT). Students will be expected to participate in role plays, lead mindfulness exercises, and carry out chain analyses.
Fall or Spring
1 Course Unit
SWRK 7800 Policy and Difference in Postmodernity
Social constructions of "difference" permeate the institutions, spaces, and assumptions of our society. These social constructions include but are not limited to the racialized, gendered, sexed, classed, and dis/abled constructions of the body. By leaning on postmodern thinkers such as Iris Marion Young, Pierre Bourdieu, Judith Butler, Jacques Derrida, Ernesto Laclau, and Michel Foucault, this seminar course will begin by engaging the questions of what is "difference" and how is "difference" discursively constructed and reproduced in society. Using a postmodern lens, the remainder of the course will engage various social science texts that deal with the varieties of "difference" (i.e. race, gender, class, sexuality) and the explicit and/or implicit policy implications of these works. Thus, we will critically engage policies such as welfare, affirmative action, economic policies of taxation, and same-gender marriage, among others. The underlying questions throughout the course will be to what extent does social policy enable the possibilities of freedom, justice, and democracy for the "Other", the deviant, the abject, the marginalized, those of assumed "difference"? And, to what extent does policy constrain those possibilities at the same time? This course does assume familiarity with social theory and is an introduction to postmodern thought on the law, the political, and policy.
Fall, Spring, and Summer Terms
Also Offered As: MSSP 7800
1 Course Unit

SWRK 7810 Qualitative Research in Social Work
Qualitative research encompasses a variety of methods that enable the researcher to enter into the "lived experience" of research participants. These methods are particularly sensitive to the voices of populations whose perspectives are silenced by dominant societal discourses. The course begins by giving attention to underlying philosophical issues and traditions of qualitative research and proceeds to examine qualitative research design, methods of data collection, strategies to ensure rigor, data analysis, and presentation of findings. Students will learn about research interviewing, focus groups, and participant observation and ways in which qualitative research can be used to inform and evaluate social work practice and programs. Students will have the opportunity to apply qualitative research methods to in-class activities and individual or group projects.
Fall
Prerequisite: SWRK 6150
1 Course Unit

SWRK 7830 Advanced Mental Health Practice with U.S. Veterans
Although this course is open to all students, it is designed for students in the clinical concentration and is required for students in the Cohen Veterans Network Scholars program. The course will focus on clinical knowledge and evidence-based practice skills for common mental health problems in veteran settings. The course will introduce students to the assessment and treatment of Post-Traumatic Stress Disorder (PTSD), Depression and Anxiety Disorders, Substance Abuse, Military Sexual Trauma (MST) and Suicide Assessment and Management among veteran populations. Other topics may include cultural competency, homelessness, and combat stress disorders. Since this is a seminar course, some classes will be taught by social workers/psychologists from the Veterans Hospital in Philadelphia and the Cohen Veterans Outpatient Clinic.
Fall
1 Course Unit

SWRK 7850 Criminal Justice Policies: Implications for Social Work
The United States prison population has risen more than three hundred percent in the last three decades. More people are currently incarcerated than at any other point in the history of the United States, and that of the world. This unprecedented period of incarceration has gone largely invisible although it represents one of the greatest social epidemics in the history of the United States. This course provides a critical analysis of the criminal justice system in the United States from a historical and contemporary perspective. It examines the implications of significant criminal justice policies such as the Rockefeller Drug Laws, 3-Strike Legislations, and Mandatory Minimums on the current state of incarceration, and the phenomenon of "Reentry" and "Recidivism". The intersections of criminal justice and social work practice are unmistakable when examining staples of social work practice such as homelessness, mental health and substance abuse, thus the course is intended to facilitate a more informed/holistic practice for all social work students.
Spring
1 Course Unit

SWRK 7860 Addressing Trauma in Practice
This course integrates trauma theory and practice and expands practice knowledge to include the treatment and assessment of the survivors of trauma. Emphasis is placed on differentiating PTSD from Complex Trauma in order to identify appropriate, evidence-based intervention strategies. Topics covered in the course include an historical overview of the development of our understanding of trauma and the exploration of various types of trauma including war trauma, domestic violence, childhood sexual and physical abuse, natural disasters, the experiences of political refugees and organizational trauma. Among the interventions covered in this course are CBT, EMDR, group and psychodynamic treatment. Students will consider issues that affect those treating the survivors of trauma, such as vicarious trauma, and will explore approaches to self-care. This is an advanced clinical course. Through assignments and class discussions, students are encouraged to use their experiences in the field to deepen their understanding of the material covered in the course.
Fall or Spring
1 Course Unit

SWRK 7870 Leadership Theory and Practice
This course will present the evolution of leadership theory beginning with classical trait theories and ultimately focusing on more modern perspectives such as adaptive, authentic, and shared leadership models that engage more critical understandings of traditional leadership theory. Ultimately, we frame leadership as socially constructed, collective experience that is generated by complex group dynamics. We will examine leadership in nonprofit organizations, government, and social movements. Readings will include a formal overview of leadership theory as well as contemporary feminist and futurist perspectives. The practice focus is on developing new relational capabilities that include deep listening, self-reflection, and adaptive problem solving. "There is nothing so practical as good theory" – Kurt Lewin, Organizational Psychologist "All models are wrong, but some are useful" – George Box, Statistician "To learn which questions are unanswerable, and not to answer them, this skill is most needful in times of stress and darkness." – Ursula K. Le Guin
Spring
1 Course Unit
SWRK 7880 Harm Reduction on the Borders: Substance Use and HIV Treatment in Puerto Rico
This course examines the U.S.-based substance use and HIV treatment systems, and its engagement with injection drug users in Fajardo, Puerto Rico. It is designed to provide the students with an understanding of the political economy of harm reduction initiatives, and the manner in which it is shaped by the complicated relationship between Puerto Rico and the U.S. Students are expected to gain an understanding of Puerto Rico's welfare environment, the role of social welfare and social work professionals in such a context, and the interweaving of social control and social change embedded in welfare initiatives in "borderlands" such as Fajardo. During the four week course in Fajardo, students will complete a placement in a needle exchange program, and engage with texts on HIV, substance use, postcolonial theory and international social work.
Summer Term
1 Course Unit

SWRK 7910 Internal Family Systems
This course offers in depth study of basic theory, techniques and clinical applications of the Internal Family System's (IFS) model of care. Together we will explore the foundational skills of the model and how to use it to support growth and healing in diverse client population and communities. This highly experiential course will emphasize mastery of the concepts as well as application of these concepts with clients. Students will be prepared to use core aspects of this model with clients in brief and long term treatment, group settings and community interventions. This class will meet virtually 10 times and will have two 5-hour, in-person Saturday class commitments. Please join this class only if you can attend both Saturday classes. In this course students will: 1) Develop an understanding of the concept of multiplicity of mind, interpersonal neurobiology and impact of family systems on individuals; 2) Learn conceptual framework of the IFS model; 3) Use this model to explore aspects of clients and one's own internal family system; 4) Recognizing which parts become triggered when working with different clients; 5) Assess and develop treatment strategies for their clients using the IFS model; and 6) Locate this model within the framework of anti-oppressive social work practices.
Fall
1 Course Unit

SWRK 7920 Psychodynamic Theory
The purpose of this course is to review the evolution of psychodynamic theory and consider key concepts in psychoanalysis, ego psychology, object relations theory, self-psychology, attachment theory, relational and intersubjective theories and current findings in cognitive neuroscience. Participants will explore human psychological functioning as explained by these various psychodynamic theories and through the biopsychosocial lens that informs social work practice. Students will examine how external factors such as race, class, gender, culture and biology are interwoven with often unconscious, internal psychological determinants, creating the complexities of human behavior that challenge us in our clinical work. Case presentations by students, the instructor and guest lecturers will demonstrate how concepts from psychodynamic theory can be applied to social work practice with diverse clients in varied settings.
Spring
1 Course Unit

SWRK 7930 Global Health Policy & Delivery
This participatory, interdisciplinary seminar course examines contemporary issues in global health policy and delivery. Students will develop skills in policy analysis, development of evidence-based policy, and effective delivery of global health interventions. The class will explore the health delivery and policy process using a variety of contemporary global health case studies, which focus on content areas such as maternal health, HIV policy, global child health, family planning and medication access. At the completion of this course, the student will be able to: (1) critically examine key issues in global health policy and delivery; (2) understand how epidemiology and various factors influence the design of evidence-based policy and interventions; (3) analyze frameworks for effective health intervention delivery in low-resource and middle-income countries; (4) develop skills to assess policy and program impact for continuous improvement and best practice dissemination.
Spring
Also Offered As: NURS 6400, PUBH 5510
1 Course Unit

SWRK 7940 Practice with Older Adults and Families
This course focuses on practice with older adults and families within a life course and resiliency perspective. It examines the nature of the aging process, needs and life issues, the ways in which persons adapt to changes, and the ways in which interventions may assist with these adaptations. Students learn assessment, case management, and intervention skills, including the use of rapid assessment and diagnostic tools, needed to work effectively with older populations and family caregivers in a variety of community-based and institutional settings. The course emphasizes evidence-based practices that enhance quality of life, dignity, respect for differences, and maximum independent functioning.
Fall
1 Course Unit

SWRK 7960 Family Economic Mobility: Problems and Policies
The experiences and voices of mothers, fathers, children, employers, children's teachers, human service workers, job training providers, policymakers and others in cities across America graphically show us the "real life" challenges to economic mobility facing today's families and organizations. These voices particularly illustrate how economic, social, and cultural policies, practices, and beliefs intersect to perpetuate economic inequality for low-income and many middle-income working families alike. The labor market, welfare and workforce programs, public schools and government are some of the institutions implicated in this intersection. In the course we deconstruct concepts such as the "work ethic," "family-friendly workplace," and "good jobs" in terms of economic, racial and cultural inequalities and, more broadly, in terms of their meaning, aims and rhetoric. At base, this course examines occupational mobility in America within the broad framework of capitalism, democracy, race, ethnicity and gender. Students from GSE, SAS, City Planning, and Communications often join SP2 students to read and critique classic and contemporary literature from multiple disciplines and explore generative roles for "meso-oriented" social change professionals.
Fall or Spring
Also Offered As: MSSP 7960
1 Course Unit

SWRK 7980 Advanced Topics
Titrles and Topics vary. See department website for descriptions: https://www.sp2.upenn.edu/academics/master-of-social-work/academics/course-descriptions/
Fall or Spring
1 Course Unit
SWRK 7990 Independent Study
Independent studies provide a flexible opportunity for standing faculty and students to work together in pursuing a topic of special interest that is not sufficiently covered by other courses in the curriculum. The content of independent studies is highly specialized and, as such, requires a plan of study developed jointly by the student(s) and the supervising standing faculty member. Part-time faculty members are not eligible to offer independent studies.
1 Course Unit

SWRK 9010 Proseminar
This course is a weekly, 90-minute (.5 course unit) proseminar. The course contains two main components: a research seminar (i.e., faculty and student presentations of their in-progress research) and skills training (e.g., how to write an abstract, software demonstrations). The two are interwoven throughout the academic year (e.g., 2 weeks of the month devoted to the research seminar and 2 weeks of the month devoted to skills training). The proseminar is required of all students until they successfully defend their dissertation proposal.
Fall or Spring
0.5 Course Units

SWRK 9100 Quantitative Research Methods
The purpose of this course is to teach the basics of practice research, with an emphasis on intervention research. This course will focus on research ethics, building a conceptual framework, source credibility, question and hypothesis formulation, design, sampling, measurement, and scale construction and selection. Special emphasis will be placed on the development of designing feasible and practical research studies to answer questions of importance to social work practice. The course will emphasize the selection and development of outcome measures, intervention manuals, and fidelity measures. It will closely examine the use and development of practice guidelines, evidence-based practice and meta-analytic procedures. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Fall
1 Course Unit

SWRK 9120 Qualitative Research Methods
This course will cover the essentials of qualitative research. Students will learn how to "situate themselves" in the research process so as to best capture the lived experience of the subjects under investigation. The course will explore the appropriate use of intensive interviews, grounded theory and ethnography. Mixed methods that employ both qualitative and quantitative approaches, will also be covered. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Spring
Prerequisite: SWRK 9100
1 Course Unit

SWRK 9130 Clinical Theory I
The purpose of this course is to broaden and deepen participants' mastery of several theories of development, personality, and behavior that have contributed to social work's knowledge base across the decades and continue to inform clinical social work epistemology today. Drawing primarily from original sources, we will consider key assumptions, constructs, and propositions of each theory in terms of its congruence with social work's principles, values, and mission and in relation to the profession's person-in-environment perspective. In this first semester, we will study the evolution of theories central to psychodynamic thought, from Freud's early biological model of the mind, through various relational perspectives, to contemporary work in the fields of attachment and interpersonal neurobiology. This examination will constitute a case study of the manner in which theories are socially constructed and will lay the foundation for critical inquiry into the social and political biases inherent in the Western European intellectual tradition from which most theories of human behavior have emerged. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Fall
1 Course Unit

SWRK 9140 Clinical Theory II
The purpose of Clinical Theory II is two-fold: to broaden and deepen students' mastery of theories of behavior and cognition and to develop understanding of psychotherapy integration. We will begin by establishing a clear rationale for the two-fold nature of the course. Then, we will review the history and fundamentals of behavioral theory, and its iterations, to ground students firmly in a tradition that emphasizes empirical research. Students will have opportunities to expand their knowledge base of these theories through application to clinical practice with case conceptualizations and choice of focus in assignments. This process will involve critically examining the empirical support and indications for the use of various cognitive-behavioral therapy (CBT) approaches, including culturally adapted CBT. We will consider key assumptions, constructs, and propositions of behavioral and cognitive theories from the lens of social work's principles, values, and mission with oppressed and marginalized people. Finally, we will focus on psychotherapy integration approaches which involve the flexible application of various theories and techniques for a diverse range of people and concerns based on the strengths and needs of each client. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Spring
Prerequisite: SWRK 9130
1 Course Unit

SWRK 9150 Dissertation Seminar
This seminar is designed to prepare participants for dissertation proposal writing and defense. Each component of this workshop moves the student closer to the two culminating assignments: a concisely crafted and well-supported 15-25 page written draft of the dissertation proposal and a presentation of the proposal with accompanying PowerPoint. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Fall
1 Course Unit
SWRK 9170 Applied Statistics
This course is designed to provide students with a range of statistical methods and applications used for research in human services and clinical practice settings. Topics covered include types of measurement and variables, and basic concepts and techniques for exploring and categorizing data, for generalizing data from sample to population and tests of significance. An emphasis will be placed on the practical applications of data to address social work practice issues. Students will learn how to choose and apply statistical tools to data sources, when and how statistical tools can be used to analyze data, and how to interpret others’ quantitative studies. Students will gain hands-on experience in using windows-based statistical software to manage and analyze quantitative data. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Fall
1 Course Unit

SWRK 9180 The Trauma Spectrum and Its Treatment: The PRISM Meta-Model
Research findings document that trauma is a ubiquitous human experience with many types and variations. It is often a highly personalized exposure or experience (individual, group, and collective) that has a wide range of psycho-social and neuro-physiological consequences. Both the types of trauma and types of response make up the trauma spectrum. This course will introduce this spectrum and contemporary trauma theory and findings. Due to the large number of traumatized individuals who seek services for current and past symptoms, social workers and other mental health (and medical) professionals can expect to treat a variety of traumatized clients over the course of their careers. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Fall
1 Course Unit

SWRK 9190 Teaching Social Work
This class will focus on classroom dynamics, class culture and instructor skills using an organismic model in which the class has a life of its own and is capable of growth and development. In addition, students will learn underlying theories, research, practice wisdom, etc. that we need to communicate to our students. The course should be helpful in thinking about issues that are central to effective teaching regardless of the practice models you present to your students or the content of courses including policy, research, etc. Students will have an opportunity to share their current or past teaching with a particular emphasis on those difficult moments when they had second thought about classroom teaching as a career. Examples will be used to help illustrate the theoretical content and the readings and bring the ideas to life as they address the real day-to-day issues we all face in teaching. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Fall
1 Course Unit

SWRK 9200 Advanced Topics in Social Work Practice
Topics vary. The second and final year of DSW coursework culminates in two electives selected by the student cohort completed as a group. Previous topics include: Neuropsychology of Trauma, Substance Use Interventions, Introduction to Sex Therapy, Clinical Practice with Adolescents and Young Adults, Ethics in Mental Health Care, Trauma Informed Supervision and Leadership for Change. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Spring
0.25-1 Course Unit

SWRK 9210 Culture, Race, and Identity
White supremacy and institutional racism are deep and pervasive parts of the American experience. They influence the daily experience of Black/African American people and other persons of color. Encounters with institutional oppression based in ideas about race are a defining element of social work practice. Racial profiling, inequity in access to health care, and segregation in housing, education, and work are the realities faced by people of color with whom social workers interact. This course explores the complexities of racism in America: the construction of racial and ethnic categories, the impact of racism and discrimination on identity, individuals and social institutions, and the influence of ideology and oppressive policies and practices on social welfare systems and their clients. The relationship between Blacks/African Americans and Americans of European descent provides a commonly understood history and social experience from which to analyze the experiences of oppression based on ascribed or inherent characteristics. We will discuss the assigned scholarship, and consider the congruence of the policies and practices with the ethics and values of clinical social work, and the social work profession more broadly. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Spring
0.25-1 Course Unit

SWRK 9220 Family Based Interventions
This course reviews contemporary theories of Couples and Family Therapy within a historical perspective. Family approaches reviewed include systemic, structural, experiential, attachment-based, narrative, and psycho-educational models. Couples models include the Gottman Method, Emotionally-Focused Couples Work, Imago, and Cognitive Behavioral Work. Case studies, films, and critical discussions will be used to deepen students’ understanding of different models. The course will also include an understanding of economic constraints, cultural differences, sexual orientation, and larger systemic influences. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Spring
1 Course Unit

SWRK 9230 Social Construction and Social Work Practice: Transforming Dialogues
This course will focus on the application of a social constructionist orientation to social work practice with an emphasis on its transforming potential. A primary objective of this course is to encourage you to reflect on and critically analyze traditional and contemporary issues germane to social work by using social constructionist ideas to explore how assumptions and dominant understandings of these issues are connected to policies and practices and the possibilities for transformative change. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Spring
0.5 Course Units
SWRK 9240 Leadership
This course will present the evolution of leadership theory beginning with classical trait theories and ultimately focusing on more modern perspectives such as adaptive, authentic, and shared leadership models that engage more critical understanding of traditional leadership theory. Ultimately, we frame leadership as a social-constructed, collective experience that is generated by complex group dynamics. We will examine leadership in non-profit organizations, government, and social movements. Readings will include a formal overview of leadership theory as well as contemporary feminist and futurist perspectives. The practice focus is on developing new relational capabilities that include deep listening, self-reflection, and adaptive problem interpretation. Course is restricted to Doctorate in Clinical Social Work (DSW) students.
Spring
0.5 Course Units

SWRK 9250 Supervision
Supervision is foundational to social work practice. It is a source of education and support in the profession's practice as well as during the pursuit of the BSW/MSW degree and clinical licensure. While the profession holds up supervision as an essential component of ethical and effective practice, there is little provided by way of training or education of clinical supervision on social work practice. This course will explore the structure, practice and barriers to providing supervision in an agency/organizational setting. The course material explores the changing context of supervision in the social work field, highlights supervision as a means to teach clinical material, support supervisees impacted by organizational dynamics, and spotlight strategies for managing compassion fatigue, secondary trauma, and burnout in the context of social work practice. This course will invite you to think about the role of clinical supervision in your career and your own style and model preference.
Spring
1 Course Unit

SWRK 9900 DSW Dissertation
All students on dissertation status are registered for year-long dissertation status courses. These courses will receive a temporary mark of PR in the fall to indicate the course is in progress and a permanent mark of S (satisfactory progress) or U (unsatisfactory) at the end of the spring semester (or fall semester if that is the student’s last enrolled term). The mark will be a reflection of the evaluation of the student’s progress based, in part, on the student’s Annual Progress Report.
Fall, Spring, and Summer Terms
0 Course Units

SWRK 9950 Doctoral Dissertation
Doctoral Dissertation
0 Course Units

Sociology (SOCI)

SOCI 0001 Poverty and Inequality
What does it mean to live in poverty in the "land of plenty" and experience inequality in the "land of opportunity?" This First-Year Seminar explores these questions and others related to poverty and inequality in contemporary America. The first part of this course focuses on poverty. We will examine topics such as poverty perceptions and measurement, poverty trends, causes of poverty, poverty-related outcomes, and anti-poverty policy. The second part of this course focuses on inequality more broadly. We will examine how inequality is defined and what it looks like in the U.S. We will compare the “Haves” and the "Have Nots" and discuss social class, mobility, wealth, and privilege. Lastly, we will explore how different domains (e.g. education, the labor market, health, the justice system) produce, maintain, and reproduce inequalities. Throughout the semester, we will consider the roles of race/ethnicity, gender, age, and place, and how they help deepen our understanding of poverty and inequality.
Fall or Spring
Also Offered As: URBS 0005
1 Course Unit

SOCI 0002 Social Inequality and Health - First Year Seminar
Eat well. Exercise regularly. Get 7-9 hours of sleep. We have all been bombarded with this type of advice for achieving and maintaining optimal health. But how are our health behaviors and outcomes shaped, influenced, and constrained by social factors? How does where we live influence how— and how long— we live? And how do racism, gender inequality, and other forms of social exclusion, oppression, and domination impact health and well-being? This course provides an introduction into how social forces, broadly, and social inequality, specifically, impact individual and population health. We will begin by learning about how health is more than the product of individual lifestyle choices and genetic factors by exploring the social determinants of health. We will then examine how social inequality— particularly along lines of race, immigration status, social class, and gender— contributes to population health differences. We will analyze how racism, gender inequality, and other forms of social stratification both shape access to health promoting resources and opportunities such as well-paying jobs and healthy and affordable foods and also pattern exposure to harmful stressors and toxins such as discrimination and violence. Finally, we will discuss and debate policy and programmatic approaches aimed at reducing population health disparities. In this course, we will examine concepts related social inequality and health through a process called “active learning,” which involves activities such as watching and reacting to films, reading about and responding to current events, and active dialogue and debate with classmates.
Fall or Spring
1 Course Unit
SOCI 0003 Sociology of Race and Ethnicity
This course will provide a foundation on the sociological perspectives of race and ethnicity in the United States. It begins by developing a working definition of race and ethnicity and examining racial categorization in the U.S. The first part of the course examines major themes including racial and ethnic identity, assimilation of immigrants, immigrants’ legal status, forms of racism and bias, white privilege, and intersectionality. The second part of the class focuses on race and social stratification, examining discrimination, wealth inequality, residential segregation, educational stratification, mass incarceration, and health. We will also discuss why COVID-19 has disproportionately affected minority communities, the Black Lives Matter movement, and the future of racial stratification. Students will examine policies that have perpetuated racial and ethnic inequality as well as those that attempt to ameliorate it.
Fall or Spring
1 Course Unit

SOCI 0004 The Law in our Lives
This seminar will provide students with the opportunity to engage in a discussion of the rule of law and how to make sense of it in their daily lives in light of the various theoretical perspectives and doctrines of law. Frequently, law is viewed exclusively to be what lawyers and judges do and what law students study, but its enduring presence in our lives is often not thought about. The very building in which a student is taking a class is governed by legal codes. If a student stopped at the library to copy some research material, copyright laws are involved. If a student made a purchase prior to class, liability laws and contract laws are involved, and so forth. The interaction of the individual with the rule of law is not limited to domestic and national laws, it also extends to international law. In analyzing the individual’s interaction with the rule of law, this seminar will introduce students to the classical and contemporary perspectives of law and society. Students will then apply the concepts, theories and doctrines of law that they have learned to the various daily domestic and international interactions they have with the rule of law in all aspects of their social, economic and political lives.
Fall or Spring
1 Course Unit

SOCI 0005 Sociology of Education First-Year Seminar
Schools play an important role in social life, and educational institutions are crucial in the creation of the social stratification system. Generally, schools reflect social inequalities, but, in some cases, schools also provide a pathway for upward mobility for a select few. In this course, we will examine important debates in sociology of education including the contributions of different types of schools (e.g., public schools, charter schools, and private schools). We will briefly examine disparities in funding, and the remarkable turnover in staffing as teachers flee the profession. Teachers are not neutral actors – and we will look at the research showing how teachers more harshly discipline African American children (especially boys) compared to white children, as well as how middle class children gain crucial advantages in educational settings. Course requirements include a midterm, final, and a research paper (i.e., five to seven pages) on a unique topic of interest.
Fall or Spring
1 Course Unit

SOCI 0006 Anxious Times: Social Change and Fear
Anxiety disorders are among the most common psychiatric disorders in the US. Although over the last 150 years many have proclaimed to be entering an abrupt new age of anxiety, the prevalence of anxiety appears to have been increasing steadily over time. Anxiety is also treated more frequently by physicians, suggesting it is taken more seriously as an illness. This class will explore the rise of anxiety as the signature 21st century disorder. We will focus on how scientists have understood anxiety; its place relative to other psychiatric symptoms and disorders, such as depression; and what social factors have increased its prevalence. Along the way we will discuss the evolutionary dimensions of anxiety, as well as public beliefs about anxiety and its cultural significance.
Fall or Spring
1 Course Unit

SOCI 0007 The Future of Work - First Year Seminar
This course draws on sociological research and other perspectives from the social sciences to conceptualize the complex and dynamic relationship between work and technology, in order to shed light on the future of work. Rather than viewing technology as an immutable force that sweeps across societies and leaves social change in its wake, we will examine how the design, implementation, and outcomes of technological change are imbricated in political, economic, and social forces. Using this perspective, we will interrogate distinctions between analytic categories that we often take for granted, such as the “old” and “new” economies, and the “local” and the “global.”
Fall or Spring
1 Course Unit

SOCI 0008 Work and Careers in the 21st Century - First Year Seminar
The premise of the class is that the workplace is undergoing major transformations that may well generate jobs, careers and organizations quite different from those currently in place. Many interrelated changes are underway, including: globalization, the information and internet revolutions, the diffusion of monitoring and evaluation systems, the mechanization and automation of many jobs and industries, the prospect of working remotely and the growing diversity of the labor force. These changes can be best understood by studying contemporary developments along with placing these changes in an historical perspective. By examining how the theory and practice of work have evolved over the last century and a half, we will be in a better position to understand the changes already in progress and those that may transform work and the workplace over the course of your careers.
Fall or Spring
1 Course Unit
SOCI 0009 Diversity, Technology and the Penn Experience
Penn is diverse in many ways. Let us explore this diversity together and understand its subtleties. How has the word “diversity” evolved over the years? Why is it (at times) such a loaded concept? When, where and how does diversity change within various contexts? What does the concept mean in a university context? How might it change in the future? We will explore different constructions of diversity at Penn. Have new technologies changed the ways in which we perceive culture, communicate and share ideas? Increasingly, we construct notions of ourselves and of others using video and social media in addition to personal experiences. How do such technologies define who we are, and the boundaries we draw to define “us” and “them”? Do sub-cultures thrive now in new ways? How does each student’s journey to Penn bring in new perspectives on the university? Reflections on personal experiences in the context of theories (cultural capital, social capital) will be a core part of this seminar. Readings and research assignments are interdisciplinary and will require critical analysis of both classic and contemporary perspectives. In addition to other assignments, small weekly response papers are due before each class meeting to encourage engaged discussions.

Fall
1 Course Unit

SOCI 0010 Modern Families: Society and the Changing American Family
The purpose of this course is to understand the American family as a contemporary social institution. We begin by asking how families define themselves. Who counts as a family member, who decides, and how has the definition of family changed over time? We then uncover the work that families do to sustain themselves. How do families negotiate and carry out time-intensive activities like paid work, childrearing, caregiving, housework, emotional labor, self-care, and community involvement? We explore how social institutions like employers, schools, and government challenge or enable families to succeed in this work. Finally, we focus on inequalities between families. How do families absorb the gendered, racialized, and socioeconomic inequalities that permeate American society, and how do they push back?

1 Course Unit

SOCI 0100 Sociology of the Black Community
This course explores a broad set of issues defining important aspects of the Black/African American experience. In addition to the “usual suspects” (e.g., race, socioeconomic status, poverty, gender, and group culture), we also think about matters of health and well-being, the family, education, and identity in Black/African American communities. Our goal is to gain a deeper sociological understanding and appreciation of the diverse and ever-changing life experiences of Blacks/African Americans.

Spring
Also Offered As: AFRC 0008
1 Course Unit

SOCI 0270 The Immigrant City
This course focuses on immigrant communities in United States cities and suburbs. We survey migration and community experiences among a broad range of ethnic groups in different city and suburban neighborhoods. Class readings, discussions, and visits to Philadelphia neighborhoods explore themes including labor markets, commerce, housing, civil society, racial and ethnic relations, integration, refugee resettlement, and local, state, and national immigration policies. The class introduces students to a variety of social science approaches to studying social groups and neighborhoods, including readings in sociology, geography, anthropology, social history, and political science. Ultimately, the class aims to help students develop: 1) a broad knowledge of immigration and its impacts on U.S. cities and regions; 2) a comparative understanding of diverse migrant and receiving communities; and 3) familiarity with policies and institutions that seek to influence immigration and immigrant communities.

Spring
Also Offered As: LALS 0270, URBS 0270
1 Course Unit

SOCI 1000 Introduction to Sociology
Sociology provides a unique way to look at human behavior and social interaction. Sociology is the systematic study of the groups and societies in which people live. In this introductory course, we analyze how social structures and cultures are created, maintained, and changed, and how they affect the lives of individuals. We will consider what theory and research can tell us about our social world.

Fall or Spring
Also Offered As: AFRC 1000
1 Course Unit

SOCI 1010 The Family
Family life is deeply personal but at the same time is dramatically impacted by social forces outside of the family. In this course we will examine how families are organized along the lines of gender, sexuality, social class, and race and how these affect family life. We will consider how family life is continually changing while at the same time traditional gender roles persist. For example, how "greedy" workplaces, which require long work hours, create work-family conflicts for mothers and fathers. We will also examine diverse family forms including single-parent families, blended families, families headed by same-gender parents, and families headed by gender non-conforming parents. The lectures will also examine how economic inequality shapes family life. Students will have the opportunity to apply key concepts to daily life.

Fall or Spring
Also Offered As: GSWS 1011
1 Course Unit

SOCI 1020 American Society
What is American Society? The literary critic Leslie Fielder once wrote: "...to be an American...is precisely to imagine a destiny rather than to inherit one; since we have always been, insofar as we are Americans at all, inhabitants of myth rather than history..." In this course we will explore the elements of the myth that form the basis of the civil religion as well as the facts on the ground that contradict our conceptions of American Society. Examples of mythic elements and their contradiction that we will explore are: A nation founded to pursue liberty and freedom yet allowed slavery, equality of opportunity and persistent structural inequality, and a welcoming of the Immigrant coupled with a suspicion of the outsider.

Fall or Spring
1 Course Unit
SOCI 1030 Deviance and Social Control
A sociological analysis of the origins, development, and reactions surrounding deviance in contemporary society. Topics include labeling theory, stigma, social organization, tradition, social power, crime, sexual deviance, drug use, and racism. Theoretical and methodological issues will be discussed and evaluated.
Fall or Spring
1 Course Unit

SOCI 1040 Population and Society
The course serves as an introduction to the study of population and demography, including issues pertaining to fertility, mortality, migration, and family formation and structure. Within these broad areas we consider the social, economic, and political implications of current trends, including: population explosion, baby bust, the impact of international migration on receiving societies, population aging, racial classification, growing diversity in household composition and family structure, population and environmental degradation, and the link between population and development/poverty.
Fall or Spring
Also Offered As: GSWS 1042
1 Course Unit

SOCI 1050 Social Stratification
In this course we study the current levels and historical trends of inequality in the United States especially in cross-national comparative perspective. We discuss causes and consequences of inequality as well as various policy efforts to deal with inequality. Topics include intergenerational social mobility, income inequality, education, gender, race and ethnicity among others.
Not Offered Every Year
1 Course Unit

SOCI 1051 Class Matters: Poverty, Prosperity, and the American Dream
Despite the United States being “the land of opportunity,” economic inequality is at an all-time high. The gap between the poorest and richest Americans continues to widen. Intergenerational social mobility continues to decline, and the “American Dream” of economic prosperity is becoming increasingly difficult to attain. So, who is rich and who is poor? How are income and wealth distributed in America? What are the causes and implications of this distribution? In this course, we will answer these questions from a sociological perspective. In the process, students will gain a fuller understanding of social class and how it relates to various domains such as family life, housing, education, employment, healthcare, and the legal system.
Not Offered Every Year
1 Course Unit

SOCI 1060 Race and Ethnic Relations
The course will focus on race and ethnicity in the United States. We begin with a brief history of racial categorization and immigration to the U.S. The course continues by examining a number of topics including racial and ethnic identity, interracial and interethnic friendships and marriage, racial attitudes, mass media images, residential segregation, educational stratification, and labor market outcomes. The course will include discussions of African Americans, Whites, Hispanics, Asian Americans and multiracials.
Fall or Spring
Also Offered As: AFRC 1060, ASAM 1510, LALS 1060, URBS 1060
1 Course Unit

SOCI 1070 Media and Popular Culture
This course relies on a variety of sociological perspectives to examine the role of media and popular culture in society, with a particular emphasis on the power of the mass media industry, the relationship between cultural consumption and status, and the social organization of leisure activities from sports to shopping.
Fall or Spring
Also Offered As: URBS 1170
1 Course Unit

SOCI 1090 Urban Sociology
This course is a comprehensive introduction to the sociological study of urban areas. This includes more general topics as the rise of cities and theories urbanism, as well as more specific areas of inquiry, including American urbanism, segregation, urban poverty, suburbanization and sprawl, neighborhoods and crime, and immigrant ghettos. The course will also devote significant attention to globalization and the process of urbanization in less developed counties.
Not Offered Every Year
Also Offered As: AFRC 1090, LALS 1090, URBS 1090
1 Course Unit

SOCI 1100 Sociology of Gender
Gender is an organizing principle of society, shaping social structures, cultural understandings, processes of interaction, and identities in ways that have profound consequences. It affects every aspect of people's lives, from their intimate relationships to their participation in work, family, government, and other social institutions and their place in the stratification system. Yet gender is such a taken for granted basis for differences among people that it can be hard to see the underlying social structures and cultural forces that reinforce or weaken the social boundaries that define gender. Differences in behavior, power, and experience are often seen as the result of biological imperatives or of individual choice. A sociological view of gender, in contrast, emphasizes how gender is socially constructed and how structural constraints limit choice. This course examines how differences based on gender are created and sustained, with particular attention to how other important bases of personal identity and social inequality—race and class—intersect with patterns of gender relations. We will also seek to understand how social change happens and how gender inequality might be reduced.
Fall or Spring
Also Offered As: GSWS 1101
1 Course Unit

SOCI 1110 Medical Sociology
This course will give the student an introduction to the sociological study of medicine. Medical sociology is a broad field, covering topics as diverse as the institution and profession of medicine, the practice of medical care, and the social factors that contribute to sickness and well-being. Although we will not explore everything, we will attempt to cover as much of the field as possible through four thematic units: (1) the organization and development of the profession of medicine, (2) the delivery of healthcare, especially doctor-patient interaction, (3) the social and cultural factors that affect how illness is defined, and (4) the social causes of illness. The class will emphasize empirical research especially but not only quantitative research.
Also Offered As: HSOC 1222
1 Course Unit
SOCI 1111 Mental Illness
This course is designed to give a general overview of how sociologists study mental illness. We will be concerned with describing the contributions of sociological research and exploring how these contributions differ from those of psychology, psychiatry, and social work. This overview will be done in three parts: we will discuss (i) what “mental illness” is, (ii) precisely how many Americans are mentally ill, (iii) how social factors (e.g., race, gender, class) and social arrangements (e.g., social networks) lead to mental illness, and (iv) how we as a society respond to and treat the mentally ill. Throughout the course, we will be concerned with uncovering the assumptions behind different definitions of mental health and exploring their political, social, and legal implications.
Fall or Spring
Also Offered As: HSOC 1312
1 Course Unit

SOCI 1120 Law and Society
After introducing students to the major theoretical concepts concerning law and society, significant controversial societal issues that deal with law and the legal systems both domestically and internationally will be examined. Class discussions will focus on issues involving civil liberties, the organization of courts, legislatures, the legal profession and administrative agencies. Although the focus will be on law in the United States, law and society in other countries of Africa, Asia, Europe and Latin America will be covered in a comparative context. Readings included research reports, statutes and cases.
Fall or Spring
Also Offered As: AFRC 1123
1 Course Unit

SOCI 1130 Discrimination: Sexual and Racial Conflict
This course is concerned with the structure, the causes and correlates, and the government policies to alleviate discrimination by race and gender in the United States. The central focus of the course is on employment differences by race and gender and the extent to which they arise from labor market discrimination versus other causes, although racial discrimination in housing is also considered. After a comprehensive overview of the structures of labor and housing markets and of nondiscriminatory reasons (that is, the cumulative effects of past discrimination and/or experiences) for the existence of group differentials in employment, wages and residential locations, various theories of the sources of current discrimination are reviewed and evaluated. Actual government policies and alternatives policies are evaluated in light of both the empirical evidence on group differences and the alternative theories of discrimination.
Not Offered Every Year
Also Offered As: AFRC 1131, GSWS 1130
1 Course Unit

SOCI 1140 Asian Americans In Contemporary Society
This course will explore Asian America through sociological frameworks and research. At the outset, we will establish a strong theoretical foundation by studying key sociological theories related to race and ethnicity, assimilation, and racial stratification. Additionally, we will briefly review key turning points in Asian American history. Throughout the semester, we will explore a broad range of contemporary topics, such as racial and ethnic identities (including multiracial identities); racialized desire and interracial relationships; controlling media images and subversive representations; transracial adoption; affirmative action; anti-Asian racism; and the role of the “model minority” myth in contemporary U.S. politics. Above all, this class will critically evaluate the viability of an Asian American panethnic identity while also exploring important axes of heterogeneity (e.g., class, gender, and sexuality) within the broader Asian American category.
Not Offered Every Year
Also Offered As: ASAM 1500
1 Course Unit

SOCI 1150 Fair Housing, Segregation and the Law
This course introduces students to the variegated roles of housing in society and has three broad aims. First, the roles of housing as shelter, locus of community, financial asset, and determinant of political power will be described and explored in detail. Second, the way the different functions of housing serve to create and reinforce social stratification is explored. Finally, the function and role of public policy in housing will also be examined.
Spring
Also Offered As: URBS 1155
1 Course Unit

SOCI 2000 Sociological Research Methods
One of the defining characteristics of all the social sciences, including sociology, is a commitment to empirical research as the basis for knowledge. This course is designed to provide you with a basic understanding of research in the social sciences and to enable you to think like a social scientist. Through this course students will learn both the logic of sociological inquiry and the nuts and bolts of doing empirical research. We will focus on such issues as the relationship between theory and research, the logic of research design, issues of conceptualization and measurement, basic methods of data collection, and what social scientists do with data once they have collected them. By the end of the course, students will have completed sociological research projects utilizing different empirical methods, be able to evaluate the strengths and weaknesses of various research strategies, and read (with understanding) published accounts of social science research.
Fall or Spring
Also Offered As: HSOC 2002
1 Course Unit
SOCI 2010 Social Statistics
This course offers a basic introduction to the application/interpretation of statistical analysis in sociology. Upon completion, you should be familiar with a variety of basic statistical techniques that allow examination of interesting social questions. We begin by learning to describe the characteristics of groups, followed by a discussion of how to examine and generalize about relationships between the characteristics of groups. Emphasis is placed on the understanding/interpretation of statistics used to describe and make generalizations about group characteristics. In addition to hand calculations, you will also become familiar with using PCs to run statistical tests.
Fall or Spring
Also Offered As: AFRC 2010
1 Course Unit

SOCI 2020 Social Statistics
This course is designed to introduce students to the quantitative study of factors that influence the health of populations. Topics to be addressed include methods for characterizing levels of health in populations, comparative and historical perspectives on population health, health disparities, health policy issues and the effectiveness of interventions for enhancing the health of populations. These topics will be addressed both for developed and developing world populations. The course will focus on specific areas of health and some of the major issues and conclusions pertaining to those domains. Areas singled out for attention include chronic diseases and their major risk factors, such as smoking, physical activity, dietary factors and obesity. Throughout the course, the focus will be on determining the quality of evidence for health policy and understanding the manner in which it was generated.
Fall or Spring
Also Offered As: HSOC 2202
1 Course Unit

SOCI 2200 Religion
How do the many religious institutions in our society differ, and what common qualities do they share? Why do some religious institutions adapt to modernity while others do not? In particular, why are the politics of sex and gender so fundamental to the current organization of the American religious landscape? These questions will be the central motivating questions for the semester. The course will begin with an introduction to current theories in the sociology of religion. We will then apply and critique those theories as we learn more about the histories, members, practices and beliefs of all the major religious groups in the US today, including Mainline, Fundamentalist and Evangelical Protestantism, Roman Catholicism, Judaism, and other groups such as the Seventh Day Adventists, Jehovah’s Witnesses and Mormons. Students will pick two religious groups (one liberal and one conservative) to observe over the course of the semester and will write papers comparing and contrasting the two groups.
Not Offered Every Year
Mutually Exclusive: SOCI 5200
1 Course Unit

SOCI 2210 Race and the Media
This course considers the theory and practice of minority representation in the public domain: film, theater, television, music, advertising and museums. How has “minority” been defined - who is included and why? How have notions of “minority” status been constructed in our public languages and what may be the impact of those images on both minority and non-minority populations? Our focus will be on representation and how it may work to marginalize or empower members of minority populations. While we will concentrate primarily on ethnic minorities, we will also consider how these same issues might affect sexual minorities. Our discussions will be supplemented by film and video examples. While the course will be theoretically situated in communication, it will consider how the perspectives of anthropology, feminism, and literary and ethnic studies have affected our understanding of public representations.
Not Offered Every Year
Also Offered As: AFRC 2210
1 Course Unit

SOCI 2220 Health of Populations
This course is designed to introduce students to the quantitative study of factors that influence the health of populations. Topics to be addressed include methods for characterizing levels of health in populations, comparative and historical perspectives on population health, health disparities, health policy issues and the effectiveness of interventions for enhancing the health of populations. These topics will be addressed both for developed and developing world populations. The course will focus on specific areas of health and some of the major issues and conclusions pertaining to those domains. Areas singled out for attention include chronic diseases and their major risk factors, such as smoking, physical activity, dietary factors and obesity. Throughout the course, the focus will be on determining the quality of evidence for health policy and understanding the manner in which it was generated.
Fall or Spring
Also Offered As: HSOC 2202
1 Course Unit

SOCI 2240 Law and Social Change
Beginning with discussion of various perspectives on social change and law, this course then examines in detail the interdependent relationship between changes in legal and societal institutions. Emphasis will be placed on (1) how and when law can be an instrument for social change, and (2) how and when social change can cause legal change. In the assessment of this relationship, emphasis will be on the laws of the United States. However, laws of other countries and international law relevant to civil liberties, economic, social and political progress will be studied. Throughout the course, discussions will include legal controversies relevant to social change such as issues of race, gender and the law. Other issues relevant to State-Building and development will discussed. A comparative framework will be used in the analysis of this interdependent relationship between law and social change.
Fall or Spring
Also Offered As: AFRC 2240
1 Course Unit

SOCI 2250 Work in a Changing World - The Sociology of Work
The material world is shaped and maintained through work, but so is the social world. How work is organized, allocated, and rewarded determines the opportunities people have for developing their own capacities, the kinds of ties they will have with others, and how much control they will have over their own lives. We will consider various sociological perspectives on work and compare alternative ways of organizing work, with a focus on the contemporary United States.
Not Offered Every Year
1 Course Unit
SOCI 2260 The Future of Work
This course draws on sociological and social scientific research and theorizing to conceptualize the complex and dynamic relationship between work and technology. Rather than viewing technology as an immutable force that sweeps across societies and leaves social change in its wake, we will examine how the design, implementation, and outcomes of technological change are imbricated in political, economic, and social forces. We will mostly, though not exclusively, focus on developments in and case studies of work and technology in the United States. We will begin by examining theoretical perspectives on the historical interplay between work and technology. Then, we will consider contemporary issues, building dialogues between our theoretical groundwork and empirical evidence to trace continuities and disjunctures. By the end of the course, you will be equipped to interrogate the role of technology in capitalism's past, understand its relation to our present age of digital disruption, and imagine the possibilities for our uncertain future.
1 Course Unit

SOCI 2270 Families and Capitalism
Despite highly romanticized and idealized views about family life, families play a crucial role in sustaining and organizing capitalist societies and inequalities by race, gender, and class. This course reviews classic and contemporary social theory to understand how family norms and behaviors shape and are shaped by political and economic structures. Students will learn about capitalism, racism, heteronormativity, and patriarchy, and engage with questions that connect these to family norms and behaviors. This includes questions like: why has gay marriage been outlawed until recently? Why were slaves denied marriage and family life? Why is caring for others disproportionately done by women and often unpaid? Why is poverty related to unstable family lives? Through engaging with this class material students will learn how to sociologically and critically rethink current family issues and the future of family life. Class structure and goals: This class requires carefully reading social theory texts (many of these texts might be dense, we will learn how to read them efficiently) and active participation in class discussion. Students will prepare short presentations, discussion questions, and write a research paper analyzing one policy related to family life (analyzing its politics and its relation to the social structures covered in class).
1 Course Unit

SOCI 2280 Sociology of Education
Schools play a crucial role in shaping inequality. In the United States, every child is told that anyone can grow up to become President. Yet, accidents of birth matter as children born to working-class families often have vastly different educational experiences than do the children born to upper-middle-class families. This course will provide an overview of educational institutions and the experiences of children within them. We will learn about social class and race differences in children’s experiences before school, during elementary school and secondary school, and in college. For example, racial inequality increases the more years children spend in school. There are also dramatic differences in the character of school experiences for children from different racial and ethnic groups. Learning about schools also helps us understand other social institutions including inequality in neighborhoods, family life, government policies, and the labor market.
1 Course Unit

SOCI 2281 Demography of Education
The proposed course will be open to undergraduate and graduate students with different assignments to each of undergraduate and graduate students. The major topic of the course is the impacts of education, especially college education, on various kinds of family behavior such as dating, cohabitation, living arrangements, marriage, fertility, parenting, divorce, and remarriage. In many countries, some family behaviors, if not all, are increasingly differentiated between college-educated and non-college-educated. For instance, increase in divorce is more evident among the less educated than their more educated counterparts, while marriage decline is more substantial among the less educated. Although parents' time and money investments in children's education have generally increased over time for both college-educated and non-college-educated parents, the increase is much more substantial among college-educated parents than their non-college-educated counterparts, leading to divergence. In such societies, college education has increasingly differentiated population with respect to family behavior, which has important implications for inequality of children's well-being. Of course, such diverging family behavior is not observed every society. In some countries, educational differentiation in family behavior is minimal. In this course, students first will be able to have a global perspective on education and family behavior by reviewing empirical evidence of the relationship between education and various kinds of family behavior across a variety of countries. After learning how different measurements and methods are used to identify the relationship between education and family behavior, students will be able to evaluate how empirical evidence is robust. Second, students will learn about different theories that explain why education has specific relationships with family behavior. Finally, students will have an opportunity to conduct their own research (in the format of either an empirical or a review paper) by choosing a specific context where they will first document the relationship between education and family behavior and apply theories to explain the relationship with explicit consideration of specific contextual factors.
Fall or Spring
Mutually Exclusive: SOCI 5970
1 Course Unit

SOCI 2290 Advanced Topics in Family Sociology
This course will focus on the intersection of family life and inequality. The course will cover theories and empirical research examining the ways in which the political economy of family life is implicated in sustaining and organizing inequalities by class, gender, sexuality, and race.
Fall or Spring
Mutually Exclusive: SOCI 5240
1 Course Unit

SOCI 2300 Environmental Sociology
This seminar will explore how sociologists and adjacent social scientists have investigated the intersections of the environment with inequalities of wealth and power, with a focus on a broad "climate change and society" field. The seminar will cover a) recent efforts to reframe the history of capitalism as the history of a socio-environmental system (and overlaps between that agenda and the "racial capitalism" framework); b) the genesis of US-based environmental justice scholarship; c) the global sociology of carbon emissions and international environmental movements; and, d) new trends in "climate change and society" studies.
1 Course Unit
SOCI 2310 Anxious Times: Social Change and Fear
This class will discuss the meaning, significance, and causes of anxiety. What is anxiety? How is anxiety different from depression, another common form of psychological distress? What does it mean to say we’re in an “age of anxiety”? And are we now, in fact, in one? Although this class is rooted in the sociological study of anxiety, we will also approach the topic from the standpoint of other disciplines, including psychology, psychiatry, history, and biology. We will discuss the development of anxiety as a concept; trends in anxiety over time and between cohorts; biological and social scientific research on anxiety’s causes; the cognitive dimensions of anxiety; and how anxiety is treated in medical settings. Some specific topics include the significance of status anxiety in the 21st century, social comparison processes, relationships, family, and attachment styles, and how social media has undermined mental health.
1 Course Unit

SOCI 2410 Metropolitan Growth and Poverty
This course analyzes the role of metropolitan regions in the U.S. and global economies, including the sources of metropolitan productivity, the ways that metropolitan structures affect residents, and analyses of public policy in metropolitan areas. The economic, political, and social forces that have shaped World War II urban and regional development are explored, including technology, demography, and government. Special attention is paid to how metropolitan change affects residents by income and race. Topics include: gentrification, schools, suburbanization, sprawl, metropolitan fragmentation, concentration of poverty, race, and various economic revitalization initiatives.
Fall or Spring
Also Offered As: URBS 2410
1 Course Unit

SOCI 2420 Social Problems and Public Policy
This course approaches some of today’s important social and political issues from a sociological vantage point. The course begins by asking where social problems come from. The main sociological perspectives of Marx, Weber and Durkheim are developed in connection with the issues of inequality, social conflict and community. We then turn to the social construction of social problems by examining how various issues become defined as social problems. This involves a consideration of the role of the media, social experts and social movements. The last section of the course considers how social problems are addressed. Here we discuss the relative strengths and weaknesses of government programs and regulations versus market-based approached. We also discuss the role of philanthropy and volunteerism. Finally, we consider the risk of unanticipated consequences of reforms. Along the way, we will consider a variety of social issues and social problems, including poverty, immigration, crime, global warming, and education.
Not Offered Every Year
1 Course Unit

SOCI 2430 Race, Science & Justice
What is the role of the life and social sciences in shaping our understanding of race? How has racial stratification influenced scientists and how have scientists constructed racial difference and helped to maintain or contest racial inequities? How have these racial theories shaped the production of scientific knowledge and the way we think about human bodies, diversity, and commonality—and what are the consequences for justice in our society? This course draws on an interdisciplinary body of biological and social scientific literature to explore critically the connections between race, science, and justice in the United States, including scientific theories of racial inequality, from the eighteenth century to the genomic age. After investigating varying concepts of race, as well as their uses in eugenics, criminology, anthropology, sociology, neuroscience, medicine, and public health, we will focus on the recent expansion of genomic research and technologies that treat race as a biological category that can be identified at the molecular level, including race-specific pharmaceuticals, commercial ancestry testing, and racial profiling with DNA forensics. We will discuss the significance of scientific investigations of racial difference for advancing racial justice in the United States.
Fall or Spring
Also Offered As: AFRC 2430
1 Course Unit

SOCI 2450 Poverty, Race and Health
This course is designed to introduce students to current literature on race/ethnic difference in health and mortality in the United States, covering such topics as explanations for why some race/ethnic groups fare better than others, how inner city poverty and residential segregation may contribute to racial/ethnic differences in health outcomes, and health of immigrants versus native-born populations. Current policy debated and recent policy developments related to health are also briefly discussed. The course is organized as a seminar with a combination of lectures and class discussions.
Not Offered Every Year
Also Offered As: URBS 2450
1 Course Unit
SOCI 2460 Social Inequality and Health
Eat well. Exercise regularly. Get 7-9 hours of sleep. We have all been bombarded with this type of advice for achieving and maintaining optimal health. But how are our health behaviors and outcomes shaped, influenced, and constrained by social factors? How does where we live influence how - and how long - we live? And how do racism, gender inequality, and other forms of social exclusion, oppression, and domination impact health and well-being? This course provides an introduction into how social forces, broadly, and social inequality, specifically, impact individual and population health. We will begin by learning about how health is more than the product of individual lifestyle choices and genetic factors by exploring the social determinants of health. We will then examine how social inequality - particularly along lines of race, immigration status, social class, and gender - contributes to population health differences. We will analyze how racism, gender inequality, and other forms of social stratification both shape access to health promoting resources and opportunities such as well-paying jobs and healthy and affordable foods and also pattern exposure to harmful stressors and toxins such as discrimination and violence. Finally, we will discuss and debate policy and programmatic approaches aimed at reducing population health disparities. In this course, we will examine concepts related to social inequality and health through a process called "active learning," which involves activities such as watching and reacting to films, reading about and responding to current events, and active dialogues and debates with classmates.
1 Course Unit

SOCI 2470 Outsider Within: Unpacking Intersectionality in Everyday Life
Who belongs within the fabric of American society? Put another way, who is protected by social and political structures and institutions and who is targeted? In what ways do social categories such as race, class, and gender render or reduce equal access to socio-political structures and institutions? Black feminist scholars have uncovered the ways in which social categories such as race and gender augment one’s social standing in American society, including the provision of equality, opportunity, and outcomes. Legal scholar Kimberle Crenshaw coined the term “intersectionality” to describe the interlocking oppressions that black women uniquely faced as occupants of two social identity categories: “black” and “woman”, not one or the other. Since then, critical scholars have greatly expanded the concept to include non-black women and other groups. Further, there has been a call to examine marginalized social groups beyond their oppressed status, but as agents of change. In this course, we will develop theoretical and practical knowledge of intersectionality in contemporary American society that goes beyond the original formulation of the theory. This is a critical speaking seminar with a focus on improving and evaluating oral communication skills. We will discuss the theoretical tenets of intersectionality and its uses for analyzing pressing social problems. Each week, we will analyze a contemporary sociological issue, drawing from popular culture, visual mediums, multi-media, and new media to understand and apply intersectionality theory. There will be written and spoken communication assignments due weekly. In addition to in-class assignments, our work will culminate in two major oral communication projects: an individual and group oral communication project, both with a multitude of creative possibilities. Come prepared to engage yourself as an orator, collaborator, and sociological thinker.
1 Course Unit

SOCI 2480 Economic Inequality, Advantage and the Rich
This class explores key issues of inequality from the perspective of advantage. While social scientists studying inequality have more traditionally focused on poverty and disadvantage, we will read and discuss issues of capital, riches, and economic advantage, paying attention to intersections of economic advantage and riches with gender, ‘race’ and class. We will address inequalities in the labour as well as capital markets, debate how we can conceptualise and measure those who are ‘rich’, and look at the relationship between riches, whiteness, masculininity and privilege. Students are encouraged to bring their ideas of riches and advantage to class.
Not Offered Every Year
1 Course Unit

SOCI 2490 Work, Love, and Independence: Coming of Age in East Asia
How do millennials in East Asia make transition to adulthood? What does it mean to become an adult in East Asia? Under the contexts of rapid educational expansion, growing economic inequality, and shifting cultural norms, Chinese, Japanese, Korean, and Taiwanese young people are facing various challenges in coming of age. The dim outlook for landing a full-time, stable, and good job, for instance, had led many Korean millennials to ‘give up’ dating, marriage, and parenting, considered as major milestones of adulthood. More and more young millennials delay departure from their parental home. At the same time, East Asian millennials are highly educated, tech-savvy, and culturally diverse, distinguishing themselves from older generations. This course first offers an overall view of changing patterns and timing of transition to adulthood in East Asia (particularly compared to experiences of young adults in the United States and Europe). In the class, students will be able to identify demographic, cultural and economic factors that shape specific pathways to adulthood in East Asia. The course highlights diversity and heterogeneity in stories of coming of age among East Asian millennials from different socioeconomic, cultural, and demographic backgrounds. Diverse narratives and perceptions of adulthood in East Asia are discussed.
1 Course Unit

SOCI 2600 Global Health
Combining lectures, discussions and documentaries, the course will help students develop a sociological perspective on global public health (GPH). This will include exploring the relationship between the discipline of sociology and field of public health; difference between sociology in and sociology of global public health; sociological critique of public health interventions and finally, proposing socio-medical model to the understanding global public health movement. It will also familiarize students with the key global public health concepts, patterns and trends of global burden of disease, central actors in global health, and policy interventions and implementation. Of particular importance are health-related millennium and sustainable development goals to address key global health threats and solutions, and recent reformulations for post-2015 health-related agenda. Furthermore, as the focus on the global dimension of public health does not override the concerns and consequences for micro and meso-levels, students will become aware of mechanisms and challenges involved in incorporating World Health Organization’s commitment to primary healthcare in 1978 with that of global public health principles that currently dominate the agenda of public health. Selected case studies will serve as illustrative material.
1 Course Unit
SOCI 2610 Latinos in the United States
This course presents a broad overview of the Latino population in the United States that focuses on the economic and sociological aspects of Latino immigration and assimilation. Topics to be covered include: construction of Latino identity, the history of U.S. Latino immigration, Latino family patterns and household structure, Latino educational attainment. Latino incorporation into the U.S. labor force, earnings and economic well-being among Latino-origin groups, assimilation and the second generation. The course will stress the importance of understanding Latinos within the overall system of race and ethnic relations in the U.S., as well as in comparison with previous immigration flows, particularly from Europe. We will pay particular attention to the economic impact of Latino immigration on both the U.S. receiving and Latin American sending communities, and the efficacy and future possibilities of U.S. immigration policy. Within all of these diverse topics, we will stress the heterogeneity of the Latino population according to national origin groups (i.e. Mexican, Puerto Rican, Cuban, and other Latinos), as well as generational differences between immigrants and the native born.
Fall or Spring
Also Offered As: LALS 2610
1 Course Unit

SOCI 2620 Social Movements
This course examines the main sociological theories and concepts in the analysis of revolutions, popular protest, and social movements. Special attention will be given to three theoretical traditions: resource mobilization, political process, and cultural analysis. We will study narratives, symbols, performances, and old and new media forms in the construction of identities and solidarities and the mobilization of publics. Historical and contemporary cases from the U.S. and around the world will be examined.
Also Offered As: COMM 2620
1 Course Unit

SOCI 2630 Contemporary Issues in African Society
This course will deal with law and society in Africa. After surveying the various legal systems in Africa, the focus will be on how and to what extent the countries of Africa "re-Africanized" their legal systems by reconciling their indigenous law with western law and other legal traditions to create unified legal systems that are used as instruments of social change and development. Toward this end, the experiences of various African countries covering the various legal traditions will be included. Specific focus will be on laws covering both economic and social relations. This emphasis includes laws of contracts and civil wrongs, land law, law of succession, marriage and divorce and Africa's laws of International Relations, among other laws. Throughout this course a comparative analysis with non-African countries will be stressed.
Also Offered As: AFRC 2630
1 Course Unit

SOCI 2640 Media Culture & Society in Contemporary China
This course covers Chinese media, culture, and society from the 1970s to the present. It examines the causes and consequences of social and institutional transformation, with an emphasis on civic engagement, cultural change, and the impact of digital media. In analyzing these developments, the course pays special attention to historical contexts and draws on concepts and theories from sociology, communication, and related fields. The course helps students develop nuanced and sophisticated approaches to the understanding of contemporary Chinese media, culture, and society and cross-cultural phenomena more broadly.
Also Offered As: COMM 2640
1 Course Unit

SOCI 2650 Sociology of the Climate Emergency
We're in the midst of a climate emergency, with climate change the most pressing problem. We need to transform our social and economic system to avoid the worst. There's still time to do this, while establishing the conditions for us, and our descendants, to live brilliant, stimulating lives. To move forward, we need to supplement natural science with social science. In the course, will ask, how did we get into this ecological crisis? How does climate figure in contemporary politics? How do the climate and water crises intersect with inequalities around the world? How does an ongoing revolution in the energy sector reflect these tendencies, and what is its promise? What are the big competing paradigms for positive, transformative change today? This fresh-person seminar will tackle these vast questions by introducing students to a range of novel social perspectives on the contemporary global environmental crisis - a crisis that is usually otherwise represented in coldly scientific terms or according to cliches about environmentalists.
Also Offered As: LALS 2650
1 Course Unit

SOCI 2660 International Migration
A comprehensive review of theories and research on international migration. The course introduces the basic precepts of neoclassical economics, the new economics of labor migration, segmented labor market theory, world systems theory, social capital theory and the theory of cumulative causation. Readings examine patterns and processes of global migration during the classic age from 1800-1914 as well as during the postwar period from 1945 to the present. The course also covers a history and evaluation of immigration policies around the world, and devotes signification attention to theoretical and empirical perspectives on immigrant adaptation. Within this larger topic, we will also discuss internal migration and urbanization; the relationship between gender and migration; the spatial distribution of immigrants within the United States, immigrant communities, and ethnic enclaves; and the undocumented population in the United States.
Also Offered As: LALS 2660
1 Course Unit

SOCI 2670 Sociology of Immigration
TBD
1 Course Unit
SOCI 2680 Contemporary Immigration in the U.S.
While this course will engage immigration issues more broadly, we will centrally focus on questions of immigrant incorporation and the effects of U.S. immigration policy. We will start with the broad question of what should be done about the estimated 10.5 million undocumented immigrants living in the United States. Then, we will take a deeper look at the ways in which macro-level forces such as our laws and institutions shape the micro-level, everyday lives of undocumented immigrants and those living in mixed-status families. We will pay close attention to the circumstances of young people, including their experiences of exclusion and belonging across social and educational contexts. More specifically, we will examine how these factors might affect young people's development, schooling experiences, academic trajectories and aspirations, assimilation and ethnic identity, family dynamics, civic engagement, and employment.
Also Offered As: LALS 2680
Mutually Exclusive: SOCI 5680
1 Course Unit

SOCI 2690 Comparative and International Education - Focus on East Asian Education
East Asian societies, specifically China, Japan, South Korea, and Taiwan, have experienced extraordinary expansion of education during the last few decades, probably the most rapid expansion in human histories so far. The spectacular development of education has been considered as a critical source of dramatic economic growth and technological advance in the region as well as global popularity of East Asian cultures. East Asian education is distinctive not only with respect to quantitative expansion but also to its qualitative development. East Asian students have constantly occupied top ranks in various international academic tests such as PISA (Programme for International Student Assessment) and TIMSS (Trends in International Mathematics and Science Study).
The excellence performance of East Asian students has attracted attention of policy makers and educators in other parts of the word to learn sources of their educational success. Despite all these quantitative and qualitative developments, however, East Asian education has also been criticized with its high levels of educational standardization, centralization, and exam-focused learning among others. Critics, both inside and outside of the region, have increasingly questioned whether East Asian education would be appropriate for flexible and globalized economies that require more individualized and differentiated learning opportunities. These distinctive features and developments of East Asian education provide an extremely useful case with which to understand the roles of education for individuals and societies. The proposed course will focus on the following four themes: 1) Historical background of East Asian Education; 2) Features of School Learning and Beyond in East Asia; 3) Educational Inequality in Comparative Perspective; and 4) Consequences of Education for Individuals and Societies. This course will be designated as a Penn Global Seminar, which requires a short-term travel after a semester-long class. During the semester of Spring 2023, students will learn historical development and various features of East Asian education. After finishing the semester, students will have an opportunity to actually visit South Korea. The focused trip to Korea will provide unique experiences of seeing and learning how education actually works in an East Asian society. In Korea, students will visit actual K-12 schools to observe how daily learning occurs inside of Korean schools and to talk with school teachers and students. The trip will also include visits to some education-policy institutions as well as higher education institutions.
Fall or Spring
1 Course Unit

SOCI 2691 Innovation, Regulations, Technology, and Society: Experience from East Asia
Innovation and creativity are universally recognized as aspects of modern life. From stem cell research to nanotechnology and machine learning, innovation is heralded as a thing of value to be actively fostered, as a key ingredient for the betterment of the human condition, and often as a desirable process for economic growth. While existing innovative activities are often based in the so-called advanced economies, particularly the United States and the European Union, increasingly we see new players on the global scene vying for influence and offering new forms of innovation and upgrading. These new players are often countries from East Asia. What positions do these East Asian countries occupy in the global knowledge economy? How are they navigating a constantly evolving and competitive frontier technology market where ownership of intellectual property rights remains in the hands of a handful of advanced economies? Technological innovation can take a toll, not least in the form of increased level of risks that a society must bear, as well as in environmental degradation, worker strife stemming from a shortage of jobs, gender disparity, and expanding wealth and knowledge gaps (including access to knowledge) between different socioeconomic classes. In this course, we will consider how regional patterns (and national variations) of economic growth and sociocultural changes under way in East Asia have been influenced by the global technological revolution, as well as the infrastructure of power and governance. Particularly, the course exposes students to scholarship on the governance of the global political economy, with a focus on the socio-legal regulation of emerging science and technology. The course will begin with discussing how states strike a balance between innovation and protection through implementing relevant regulatory frameworks. In addition, we will explore what implications emerging technologies have for societies, as well as how these evolving dynamics impact the lived experience of local communities.
Also Offered As: EALC 2701
1 Course Unit

SOCI 2700 Current Issues in Contemporary Japan
In this course, we aim to understand what social issues in Japanese society exist and how they occur. Japan had experienced rapid industrial and economic developments until the 1980s. The Japanese systems of education, labor markets, and social security, which have continued until today, were established by this period approximately. Although people at that time were suffered from problems like harsh entrance examinations for secondary and higher educations, long working hours after they started a job, and gender inequality, they accepted these problems in exchange for their economic flourishing.
Also Offered As: EALC 1759
Mutually Exclusive: SOCI 5690
1 Course Unit
SOCI 2810 Designing a Green New Deal: From Concept to Program
This advanced social science and design seminar is about mobilizing expert knowledge to develop transformative policy ideas to make the Green New Deal come alive. We'll look at cutting edge social science and design scholarship on the problems we're trying to solve, and the successes and failures of past efforts at transformative policy. And we'll focus in particular on the built environment. How might a Green New Deal make the physical changes to our infrastructures, homes, energy landscapes, transportation systems, public recreation amenities, care facilities, and more, in ways that slash carbon emissions, increase resiliency, and abolish inequalities of race, class, gender, and nation? That's not a rhetorical question: in this class, we'll assemble knowledge, get into teams, and come up with concrete proposals.
Also Offered As: LALS 2810
1 Course Unit

SOCI 2903 Exhibiting Black Bodies
This course concerns the exhibiting of Black Bodies in Museums and gallery spaces. We will trace the evolution of public history from the "Cabinets of Curiosity" in 18th and 19th Century Europe, through to the current institutional confirmation of the vindications traditions represented by Museu Afro Brasil (Sao Paulo, Brazil), National Museum of African American History and Culture (Washington, D.C.), and the Museum of Black Civilization (Dakar, Senegal). We will give particular attention to "why these representations at these times in these places?" In the process of addressing these questions we will give voice to the figures who conceived the curatorial content from those with the colonial mentality, to those with the abolitionist and nationalist and Pan-African visions.
Also Offered As: AFRC 2903
1 Course Unit

SOCI 2904 Oil to Diamonds: The Political Economy of Natural Resources in Africa
This course examines the ways in which the processes of the extraction, refining, sale and use of natural resources — including oil and diamond — in Africa produce complex regional and global dynamics. We explore how values are placed on resources, how such values, the regimes of valuation, commodification and the social formations that are (re)produced by these regimes lead to cooperation and conflict in the contemporary African state, including in the relationships of resource-rich African countries with global powers. Specific cases will be examined against the backdrop of theoretical insights to encourage comparative analyses beyond Africa. Some audio-visual materials will be used to enhance the understanding of the political economy and sociality of natural resources.
Fall
Also Offered As: AFRC 4500, ANTH 3045, PSCI 4130
Mutually Exclusive: AFRC 5700
1 Course Unit

SOCI 2905 Everyday Life in Africa
This course will explore the different dimensions of everyday life in Africa. Everyday life has been described by Agnes Heller (1978) as "the secret yeast of history." What constitutes this "yeast of history" in contemporary Africa? In exploring everyday life, we will examine the existing (in)capacities in the structures of state and society in Africa for human well-being in relation to the differences between political life (bios) and bare life (zoe). The course engages with the everyday life in terms of how social, economic, and political lives are constituted and the implications of this process for whether Africans live well or not, how they die, and their struggles for alternative lives. With (ethnographic) accounts and perspectives from different countries in Africa, the course focuses deeply on how to understand and explain the conditions under which everyday social needs and economic necessities are turned into political/existential struggles as well as the conditions under which political exigencies can transform into economic, social and bodily fatalities. The overarching questions that will animate this course include these: What are the prevalent conditions of everyday life in Africa? What and who determines (in)eligibility regarding the everyday tools of good life and human survival? How are these determinations related to the differential distribution of potential and/or actual injury, harm, and damage to human life and the conditions of its survival? What can ethnographic insight contribute to our understanding of everydayness in Africa? The roles of sexualities, gender, generation, humor, identities, racism, hate, memory, memorial, transactions, etc., in the construction, reconstruction, and deconstruction of daily life — and death — in the continent will be examined. Audio-visual materials will be used to analyze important themes about quotidian life in Africa.
Spring
Also Offered As: AFRC 2762, ANTH 2762
1 Course Unit
**SOCI 2907 Race, Rights and Rebellion**
This course provides an in-depth examination of theories of race and different kinds of social struggles for freedom around the globe. We will critically engage the latest scholarship from a variety of scholars and social movement actors. From anti-slavery revolts to struggles for independence to anti-apartheid movements, this course will emphasize how racialized peoples have employed notions of rights and societal resources grounded in cultural differences. Though much of the readings will highlight the experiences of African descendant peoples in Africa and its diaspora, the course will also explore the intersections of Black struggles with social movements organized by indigenous peoples in the Americas. Students will also have the unique experience of accessing readings primarily written by primarly Black scholars, some of whom have participated as key actors in the social movements they describe. Key concepts include power, resistance, subaltern, hegemony, identity politics, consciousness, and intellectual activism. The course will be organized around the following objectives: 1. To explore a range of contemporary theoretical perspectives and methodological approaches to the study of social movements; 2. To focus on the relationship between race, gender, class, culture, and politics in the African diaspora; 3. To study the historical development of organized struggles, social protests, uprisings, revolutions, insurgencies, and rebellions; 4. To examine the political agency of African descendant peoples in the global struggle for liberation and citizenship.

Spring
Also Offered As: AFRC 3515, ANTH 2515, LALS 3515
1 Course Unit

**SOCI 2910 Globalization And Its Historical Significance**
This course sets the current state of globalization in historical perspective. It applies the concepts of anthropology, history, political economy and sociology to the study of globalization. We focus on a series of questions not only about what is happening, but about the growing awareness of it and the consequences of this increasing awareness. In answering these questions we draw on a variety of case studies, from historical examples of early globalization (e.g. The Atlantic and Indian Ocean Worlds, global flows of conspicuous commodities such as sugar, coffee, and tea, the rise and transformations of early capitalism), to issues facing our current globalized world (e.g. mass-mediatization and multilingualism, border regimes and international migration, planetary urbanization). The body of the course deals with particular dimensions of globalization, reviewing both the early and recent history of each. The overall approach is historical and comparative, setting globalization on the larger stage of the economic, political and cultural development of various parts of the modern world. The course is taught by anthropologists who draw from economic, linguistic, sociocultural, archaeological, and historical perspectives, offering the opportunity to compare and contrast distinct disciplinary approaches. It seeks to develop a general social-science-based theoretical understanding of the various historical dimensions of globalization: economic, political, social and cultural.

Fall
Also Offered As: ANTH 0120, HIST 0862
1 Course Unit

**SOCI 2920 Criminology**
This introductory course examines the multi-disciplinary science of law-making, law-breaking, and law-enforcing. It reviews theories and data predicting where, when, by whom and against whom crimes happen. It also addresses the prevention of different offense types by different kinds of offenders against different kinds of people. Police, courts, prisons, and other institutions are critically examined as both preventing and causing crime. This course meets the general distribution requirement.

Fall
Also Offered As: CRIM 1000
1 Course Unit

**SOCI 2921 Criminal Justice**
This course examines how the criminal justice system responds to crime in society. The course reviews the historical development of criminal justice agencies in the United States and Europe and the available scientific evidence on the effect these agencies have on controlling crime. The course places an emphasis on the functional creation of criminal justice agencies and the discretionary role decision makers in these agencies have in deciding how to enforce criminal laws and whom to punish. Evidence on how society measures crime and the role that each major criminal justice agency plays in controlling crime is examined from the perspective of crime victims, police, prosecutors, jurors, judges, prison officials, probation officers and parole board members. Using the model of social policy evaluation, the course asks students to consider how the results of criminal justice could be more effectively delivered to reduce the social and economic costs of crime.

Spring
Also Offered As: CRIM 1100
1 Course Unit

**SOCI 2931 Latinx Communities and the Role of CBO's in Social Change**
The purpose of this course to create a Latino Studies/Service Learning ABCS course that cultivates dialogue and knowledge about the social, political, cultural and historical complexities of the Latinx experience in the United States (Philadelphia in particular) and the roles Latinx CBO’s play in meeting the needs of Latinx communities and in impacting social change.

Fall
Also Offered As: LALS 4240
1 Course Unit

**SOCI 2932 Latinx Cultural History**
This course takes a multi-disciplinary approach to the study of the resiliency and impact of Latinx cultural and artistic contributions, esthetics, expressions and institution building int he United States from the Civil Rights Era to the present. We will explore how Latinxs arogiculturally defining being "American"; how their artistic expressions fit and influence the creativity and productivity of American and global Arts & Cultural expressions; and the Latinx interactions of race, culture, society, economy and politics in the U.S.

Also Offered As: LALS 4250
1 Course Unit
SOCI 2933 Global Chinas and Chinese Diasporas
This seminar delves into the global imprint of contemporary Chinese diasporic communities, examining their significant influence from the lens of multiple sectors and regions—from Wenzhou migrants shaping the fashion industry in Italy to copper mining enterprises in Zambia to Chinese-owned nail salons and massage parlors dotting New York City. This exploration situates Chinese communities within the context of an interconnected world. As China has ascended to become the world's second-largest economy, its impact is not confined within its borders but extends into international politics, culture, commerce, technology, and beyond. This class endeavors to unpack the complexities of China's global engagement and deepen students' understanding of Chinese communities worldwide. The course is divided into two main sections. The first section provides an overview of the historical journey of China on the global stage and an introduction to research methods specific to studying this phenomenon. In the second half, the course adopts a more granular approach, delving into critical topics such as race and ethnicity, gender and family dynamics, transnational identity, educational achievement, labor, entrepreneurship, and soft power.
Also Offered As: ASAM 2620
1 Course Unit

SOCI 2940 Homelessness & Urban Inequality
This first-year seminar examines the homelessness problem from a variety of scientific and policy perspectives. Contemporary homelessness differs significantly from related conditions of destitute poverty during other eras of our nation's history. Advocates, researchers and policymakers have all played key roles in defining the current problem, measuring its prevalence, and designing interventions to reduce it. The first section of this course examines the definitional and measurement issues, and how they affect our understanding of the scale and composition of the problem. Explanations for homelessness have also been varied, and the second part of the course focuses on examining the merits of some of those explanations, and in particular, the role of the affordable housing crisis. The third section of the course focuses on the dynamics of homelessness, combining evidence from ethnographic studies of how people become homeless and experience homelessness, with quantitative research on the patterns of entry and exit from the condition. The final section of the course turns to the approaches taken by policymakers and advocates to address the problem, and considers the efficacy and quandaries associated with various policy strategies. The course concludes by contemplating the future of homelessness research and public policy.
Fall
Also Offered As: AFRC 0010, URBS 0010
1 Course Unit

SOCI 2942 Cities, Suburbs, Regions
This course will explore the political, economic, social, and demographic forces impacting development patterns in metropolitan areas, with a particular focus on Philadelphia. We will examine the government policies, economic forces, and social attitudes that affect the way a region grows, and the impact of these forces on poverty, equity and segregation. Specific topics to be discussed include the factors that make a region competitive, the city's changing role in the region, the impact place has on opportunity, and approaches to revitalizing and improving communities.
Spring, odd numbered years only
Also Offered As: URBS 2530
1 Course Unit

SOCI 2943 Global Urban Education
This course examines the demographic, social, and economic trends impacting the growth of global cities—providing the context for global urban education. Through the dual lens of globalization and local urban culture, we explore relationships between urban education and economic development, democratic citizenship, social movements, social inclusion, equity, and quality of urban life. We consider key historical legacies (e.g., Colonialism), informal settlements and “slums,” the rise of the “knowledge economy,” and the role of international aid. Additional topics include: early childhood; gender equity; youth culture; impacts of crisis and war; urban refugees; teacher training and identity; accountability & governance; information & computer technology; religion, indigenous cultures, and language identity; & the role of the private sector and school choice. We focus on cities like Sao Paolo, Mexico City, Shanghai, Hong Kong, Ho Chi Minh City, Johannesburg, Lagos, Nairobi, Jakarta, Mumbai, Lahore, Tehran, and Cairo, and draw comparisons to cities like New York, London, Paris and Tokyo.
Not Offered Every Year
Also Offered As: URBS 2580
1 Course Unit

SOCI 2944 Perspectives on Urban Poverty
This course provides an interdisciplinary introduction to 20th century urban poverty, and 20th century urban poverty knowledge. In addition to providing an historical overview of American poverty, the course is primarily concerned with the ways in which historical, cultural, political, racial, social, spatial/geographical, and economic forces have either shaped or been left out of contemporary debates on urban poverty. Of great importance, the course will evaluate competing analytic trends in the social sciences and their respective implications in terms of the question of what can be known about urban poverty in the contexts of social policy and practice, academic research, and the broader social imaginary. We will critically analyze a wide body of literature that theorizes and explains urban poverty. Course readings span the disciplines of sociology, anthropology, urban studies, history, and social welfare. Primacy will be granted to critical analysis and deconstruction of course texts, particularly with regard to the ways in which poverty knowledge creates, sustains, and constricts meaningful channels of action in urban poverty policy and practice interventions.
Fall
Also Offered As: HIST 0812, URBS 4200
1 Course Unit
**SOCI 2945 Globalization & The City: Global Urbanization**

In 2008, the UN estimated that the world's population had become primarily urban, for the first time in history. According to the OECD, by the end of the century, close to 85% of the projected population will live in cities. The transition towards an urban planet is likely to have far-reaching economic, environmental, social, political, and cultural impacts on our species, many of which we cannot yet predict. But what is urbanization? Will it lead to more inequality, exploitation, conflict, resource consumption, and exposure to natural disasters and climate change, or is it an opportunity to move the world in a more sustainable and equitable direction? Taught by Chandan Deuskar and Patricio Zambrano Barragan, this course aims to explore these questions. In the first half of the semester, we will discuss various challenges associated with global urbanization and its impacts. In the second half, we will focus on responses to these challenges. The assignments will allow students to explore some of the most salient debates around global urbanization. By the end of the semester, students will be better able to understand the context for any future academic research, professional work, or business activities in the cities of the ‘developing world’. The course will help provide a foundation for any students considering graduate studies or professional work in the fields of urban planning or international development.

Not Offered Every Year
Also Offered As: URBS 4570
1 Course Unit

**SOCI 2946 The History & Theory of Community Organizing**

"Power concedes nothing without a demand."--Frederick Douglass.
"Workers of the world, unite!"--Karl Marx. "Don't mourn, Organize."--Joe Hill.
"Strong people do not need strong leaders."--Ella Baker. "Freedom is a constant struggle."--Angela Davis. We will review the history and theory of critique, resistance, and solidarity, as we consider old and new social movements and freedom struggles around the world (Africa, the Americas, Europe, Asia)–from encampments for indigenous sovereignty of tribal lands to demonstrations by poor and working people seeking "the right to the city," from sit-ins and strikes to occupations and takeovers, from uprisings and insurrections to revolutions and counterrevolutions, from anti-capitalist, anti-colonial, anti-caste, and anti-racist insurgencies to mobilizations for racial and gender justice and solidarity economy; from civil rights, labor rights, student rights, human rights, animal rights, and environmental organizing to movements for peace, democracy, equality, and liberation--and more (based on student interests and commitments). Strategies and techniques will be reviewed. Successes and failures will be registered. Limitations and possibilities will be debated. Source material will be drawn from mainstream and radical traditions within popular praxis and numerous fields, including urban studies, philosophy and critical theory, religion, history, art and culture, anthropology, politics, development economics, social psychology, sociology, organizational development, and law. Note: Attendance at the first class is mandatory (for those already enrolled and for those considering enrollment in the course). Enrolled students who miss the first class must drop the course. Those who were not able to enroll but who attend the first class will be permitted to enroll.

Not Offered Every Year
Also Offered As: URBS 4730
1 Course Unit

**SOCI 2950 Population and Public Health in Eastern Europe**

Since the collapse of communism in 1989 in Eastern Europe (and 1991 in the Soviet Union), many of the countries in the region have experienced public health crises and demographic catastrophe. Below replacement fertility rates and massive out migration have decimated the populations of these countries even as populations age and place unsustainable strains on pension systems and medical services. The demographic collapse has also been accompanied by falling male life expectancy and the rise of alcoholism, depression, domestic violence, and suicide. The economic exigencies of the transition from communism to capitalism dismantled welfare states at the exact moment when health services were most needed, leaving charities and nongovernmental organization to try to fill in the gaps. Through a combination of readings from the fields of epidemiology, demography, and medical anthropology, this course examines the public health implications of poverty and social dislocation in post-communist states. All readings and assignments are in English.

Also Offered As: ANTH 1670, REES 1670
1 Course Unit

**SOCI 2951 The History of the Information Age**

We are said to live in an "information age." Information technologies have been credited with ushering in an era of unprecedented information creation, collection, storage, and communication. We experience the impact of this firsthand: these technologies increasingly pervade our homes, our workplaces, our schools, our most private spaces. But what exactly do we mean when we speak of the information age? When and how did it come into being? What developments—social, economic, political, or technological—made the digital world possible? How do these fit in the longer history of technology and society? And how is all this different from earlier eras? In this course, we explore these questions by looking to the history of information, information technologies, and information sciences, a history that long predates the digital computer. Although, at the center of our story will be the development of new information technologies—from the printing press and the telegraph to the computer and of course the Internet—our focus will not primarily be on machines, but on people and how individuals conceptualized, contributed to, made sense of, and dealt with the many transformational changes that have shaped the contours of our modern digital world. We will explore forms of identity, knowledge, and community that have emerged within this information age. Our goal will be to deepen historical perspectives and build analytical tools to critically evaluate the role of information in our increasingly digital world today.

Fall or Spring
Also Offered As: STSC 1600
1 Course Unit
SOCI 2952 Health and Social Justice
This course considers various theoretical approaches to justice and health, motivated by the idea that a moral framework is needed to address the ethical challenges posed by inequalities in access, quality, financial burdens, and resource priorities, as well as rising health care costs. The course includes four parts. The first part examines ethical frameworks that involve various approaches to medical and public health ethics. The second part presents an alternative theory of justice and health, the health capability paradigm (HCP), grounded in human flourishing. The third part explores domestic health policy applications, including equal access, equitable and efficient health financing and insurance, rising costs and allocating resources. The fourth and final part of the course investigates domestic health reform, particularly a normative theory of health policy decision making grounded in political and moral legitimacy. The course scrutinizes the relevance of health justice for governing health at the domestic level, that is within countries, offers a new theory of health and social justice, the health capability paradigm, and of health governance, shared health governance, evaluating current domestic health systems and proposals for reforming them in light of these alternative theoretical frameworks.
Also Offered As: BENF 2260
1 Course Unit

SOCI 2960 Participatory Cities (SNF Paideia Program Course)
What is a participatory city? What has that term meant in the past, what does it mean now, and what will it mean going forward? Against the backdrop of increasing inequality and inequity, and the rise in a search for solutions, what role can citizens play in co-creating more just cities and neighborhoods? How can citizens be engaged in the decision-making processes about the places where we live, work, and play? And most importantly, how can we work to make sure that all kinds of voices are meaningfully included, and that historically muted voices are elevated to help pave a better path forward? This course will connect theory with praxis as we explore together the history, challenges, methods, and approaches, and impact of bottom up and top down approaches to community participation and stakeholder involvement in cities. Multiple opportunities will be provided to be involved in community engagement work for live projects in Philadelphia.
Not Offered Every Year
Also Offered As: URBS 3140
1 Course Unit

SOCI 2970 Social Inequalities: Caste and Race
This course introduces students to two systems of inequity, caste in South Asia, particularly in India, and race in the United States. It’s main objective is to demonstrate how these modes of inequity, sometimes dismissed as outdated or irrelevant, continue to shape social and state institutions like family, law, and bureaucracy. The course will explore sociological literature on caste and race and examine how these systems existed in a range of historical contexts. It will examine how certain groups were recipients of economic, political, and social privilege, and how these groups othered communities such as Afro-Americans in the United States and Dalits in India. We will consider how privileged groups continue to represent modern institutions like state and law that fail to protect disadvantaged communities in both India and the United States. The course will also explore how privileged communities employ the tool of gendered violence of different kinds like physical violence against men and sexual violence against women of Afro-American communities and Dalit communities to maintain forms of social power and control. The final unit of the course will deal with the emerging and imagined solidarities between Afro-American social and political movements in the United States and Dalit movements in India.
Also Offered As: AFRC 2219, GSWS 2219, SAST 2219
1 Course Unit

SOCI 2971 Bioethics
This course is intended to introduce students to the fundamental principles of bioethics and the many ethical issues that arise in the rapidly changing fields of biomedicine and the life sciences. The first half of the course will provide an overview of the standard philosophical principles of bioethics, using clinical case studies to help illustrate and work through these principles. In the second half of the course we will focus on recent biomedical topics that have engendered much public controversy including diagnostic genetics, reproductive technologies and prenatal screening, abortion, physician assisted suicide, human experiments, and end of life decision making. We will use the principles learned in the first half of the course to systematically think through these bioethical issues, many of which affect our everyday lives.
Not Offered Every Year
Also Offered As: HSOC 1330
1 Course Unit

SOCI 2972 Sex and Socialism
This seminar examines classic and current scholarship and literature on gender and sexuality in contemporary Eastern Europe, and examines the dialogue and interchange of ideas between East and West. Although the scholarly and creative works will primarily investigate the changing status of women during the last three decades, the course will also look at changing constructions of masculinity and LGBT movements and communities in the former communist bloc. Topics will include: the woman question before 1989; gender and emerging nationalisms; visual representations in television and film; social movements; work; romance and intimacy; spirituality; and investigations into the constructed concepts of “freedom” and “human rights.”
Also Offered As: ANTH 1688, GSWS 1680, REES 1680
1 Course Unit
**SOCI 2973 Culture on Trial: Race, Media & Intellectual Property**

This course explores the US intellectual property regime's impact on the production, distribution and consumption of media and art. By the end of the class, students will come away with historical, theoretical, and practical understandings of how media technology changes the law and how the law has subsequently responded to changes in media technology. This course is affiliated with CWIC (Communication Within the Curriculum). See the English Department’s website at www.english.upenn.edu for a description of the current offerings.

Also Offered As: CIMS 2935, ENGL 2935

1 Course Unit

---

**SOCI 2974 Adivasis/Indigenous Peoples & British Colonialism in India**

Modern Western colonialism impacted the world in many ways. However, each country and community has had a different encounter and experience with colonialism. For the Adivasis (indigenous peoples) of India, it was catastrophic and marked a new phase in their history. The pre-colonial symbolizes a period of freedom in the hills and forest, whereas the colonial era symbolizes state coercion, eviction from land and the end of free movement in the forest. The proposed course discusses Adivasis’ encounters with the British colonial state. The course examines Indian history from the perspectives of Adivasis and contrasts these with dominant paradigms of Indian history. In this way, the course allows students to understand India from a different perspective. Under British colonialism, the diverse ethnic self-governing communities were imagined as primitive, uncivilized, barbaric, violent, backward and childlike people. The course discusses how such constructions impacted Adivasi social life and development. It traces how the expansion of the colonial state in forests and hills put an end to self-rule and induced massive migration from the plains of India and asks how Adivasi areas were integrated into the colonial economy. How did the colonial state use revenue and forest policies and regulations to bring these areas under its control? How did commercialization of agriculture and forest conservation work to further marginalize Adivasis? The course also examines how Adivasi knowledge of cultivation and forest conservation were viewed by the colonial state and asks why the colonial state encouraged caste-Hindu peasant migration into Adivasi areas. Finally, it traces the ways that colonial intervention has resulted in a series of contestations, acts of resistance, and insurgencies by Adivasi groups? Tracing forms of Adivasi resistance, the course puts these into conversation with intellectual history, emphasizing the role of rumours, myths, and orality, which provided the basis for the new insurgent consciousness that spread throughout Adivasi communities. Adivasi resistance movements have been documented and analyzed by colonial rulers and anthropologists. Colonial discourses were successful in criminalizing Adivasi politics. Ironically, many colonial-era discourses concerning Adivasis have been perpetuated within the post-colonial academy. The anti-colonial struggles of Adivasis were constructed as sporadic, spontaneous, unorganized and apolitical. The inauguration of the Subaltern Studies Project has reversed such arguments and attempted to provide ideological integrity to Adivasi politics. Students will be introduced to important literature on Adivasi anti-colonial insurgent consciousness and will be encouraged to think critically about the concepts and theories of subaltern politics. Assigned readings include texts by James Scott, Ranajit Guha, David Arnold, David Hardiman, Ajay Skaria, Dhanagare, Ramachandra Guha, Biswamoy Pati, Alpa Shah, Crispin Bates, Jangkhomang Guite and Bhangya Bhukya. One aim of the course is to sensitize the students to how the political and cultural mobilizations by subalterns have contributed to the shaping of democracy.

Spring

Also Offered As: ANTH 2109, HIST 0853, SAST 2239

Mutually Exclusive: SAST 5239

1 Course Unit
SOCI 2977 American Race: A Philadelphia Story (SNF Paideia Program Course)

This course proposes an examination of race with a two-pronged approach: one that broadly links the study of race in the United States with a multi-disciplinary approach and also simultaneously situates specific conversations within the immediate location of Philadelphia, home to the University. The broad historical examination advances key concepts of race and racialization, explores key theoretical methodologies, and highlights major scholarly works. For example, students will engage with the study of race through Africana Studies, Asian American Studies, Urban Studies and through Latin American & Latinx Studies. Readings and methodologies will introduce students to critical issues in education, in literature, in sociology, and with methods in oral history, archival work, and ethnography. Most importantly, this extensive approach highlights the impact of race across multiple communities including Black Americans, immigrant populations, and communities that are marginalized to emphasize connections, relationships, and shared solidarity. Students are intellectually pushed to see the linkages and the impacts of racism across and among all Americans historically and presently. As each theme is introduced a direct example from Philadelphia will be discussed. The combination of the national discourse on race, with an intimate perspective from the City of Philadelphia, engages students both intellectually and civically. The course will be led by Fariha Khan and Fernando Chang-Muy but guest instructors with varied disciplinary backgrounds and guest speakers from local community organizations. Each instructor not only brings specific disciplinary expertise, but also varied community engagement experience.

Spring
Also Offered As: AFRC 1115, ANTH 1150, ASAM 0115, LALS 0115, SAST 1115, URBS 1150
1 Course Unit

SOCI 2977 Just Futures Seminar I

This seminar analyzes the historical construction of race and ethnicity in the Americas by focusing on the processes of dispossession—of land, bodies, and heritage—that started with the European colonization of the continent. The first part of the class builds a theoretical framework that will allow students to understand the origin of ethnic and racial classifications as acts of symbolic power, and their connections to specific historical conjunctures. The second and main part of the class focuses on the historical processes that resulted in the colonization of the Americas and the global transformations that came from the encounter of people in the “New World” (the development of capitalism, the emergence of settler colonialism, the Atlantic slave trade, and modern liberalism) in order to trace the genealogy of the ethnic and racial classificatory systems that continue to be used today. We will pay particular attention to the transformation of land tenure and labor regimes and how different political economies produced different logics of racialization. The focus of the seminar is in the Americas as a unit, including both North and South America, and the Caribbean, from the 15th century to the present. The readings come from a wide range of disciplines, including sociology, anthropology, history, political science, settler colonial studies, and law. The last part of the class is organized as a workshop where students will develop their ideas for a final project and discuss student-selected readings.

Not Offered Every Year
Also Offered As: LALS 2977
1 Course Unit

SOCI 3000 Sociological Theory

This course will introduce students to sociological theory until the 1970s. We will read excerpts of original works from key theorists in, or influencing, the discipline. We will read original works of Tocqueville, Marx, Weber, Durkheim, DuBois, Gramsci, Marcuse, C. Wright Mills and more. We will also read a few more recent works echoing classical theory. The goal of this course is to help students understand the core concepts, including those of class, race, power, markets and the state, in classical sociological theory and to sharpen their own sociological imaginations.

Fall or Spring
1 Course Unit

SOCI 3010 Contemporary Sociological Theory

This course will explore contemporary social theory with an emphasis on theories and theoretical orientations related to social interaction, identity, culture, and inequality. For example, we will discuss sociological theories from the last half century about race and racism, gender, social class, education, emotion, and violence. Importantly, we will consider theory in the context of its application to empirical social science research and real world concerns. The course fulfills the theory requirement for sociology minors and all sociology majors.

Fall or Spring
Mutually Exclusive: SOCI 6010
1 Course Unit

SOCI 3200 Qualitative Methods

Some social scientific questions are best answered, or can only be answered, using qualitative methods, such as participant observation and interviewing. Qualitative methods can give otherwise unattainable insights into social reality and thus provide understanding of the mechanisms and meanings of social processes that might remain black boxes using non-qualitative methods. But the complexity of raw social situations and the fundamental nature of the methods required to describe and analyze these situations raise serious challenges for systematic and explanatory research. Over the course of the semester you will learn first-hand about the power and challenges inherent in qualitative methods by using them. You will design and carry out your own pilot research project using significant participant observation and interviewing. You will carefully construct a research plan intended to answer a specific, novel research question in the first few weeks of the course and then watch that design collide with the reality of the social world. You will spend the semester implementing, reflecting on, and revising that research plan. Class time will consist of instructor presentations, examinations of research based on qualitative methods, and workshops in which you will develop your plan or field techniques and evaluate the research of classmates in a constructive manner. Throughout the semester you will be evaluated through a series of small assignments. These smaller assignments will build upon one another and ultimately contribute to your final assignment, which is a research proposal designed to answer a specific, novel question grounded in the research you conduct during this class.

Not Offered Every Year
1 Course Unit
**SOCI 320 Sample Survey Methods**
This course provides an introduction to survey data collection. In meeting this objective, we examine the major planning tasks necessary for conducting surveys, including problem formulation, study design, questionnaire and interview design, pretesting, sampling, interviewer training and field management, code development and coding of data, and data cleaning and management. We critically explore the design of surveys and collection of data from epistemological and ethical perspectives. Students will leave the class with a solid understanding of the basic process of survey data collection and a familiarity with its strengths and weaknesses as a method of inquiry into human behavior.

Not Offered Every Year
1 Course Unit

**SOCI 3220 Basic Demographic Methods**
This course provides an introduction to basic demographic concepts, data, indicators, and techniques. The course emphasizes hands-on applications of techniques in the analysis of population dynamics in the U.S. and elsewhere. Students will learn about the main sources of demographic data, including censuses, surveys, and vital statistics, and methods to estimate demographic processes (e.g., mortality, fertility). Students will leave the course with a solid grounding in a) the sources and limitations of demographic data; b) the construction of basic demographic indicators; and c) appropriate use of basic demographic techniques to answer questions about human populations.

Fall or Spring
1 Course Unit

**SOCI 3230 Demography of Race**
This course will examine demographic and statistical methods used to capture the impact of racial stratification in society. This course covers the skills and insights used by demographers and social statisticians in the study of racial data. A key challenge facing researchers is the interpretation of the vast amount of racial data generated by society. As these data do not directly answer important social questions, data analysis and statistics must be used to interpret them. The course will examine the logic used to communicate statistical results from racial data in various societies. We will question the scientific claims of social science methodology by extending the critical perspective to biases that may underlie research methods. We will discuss good and bad practices within the context of the historical developments of the methods.

Also Offered As: AFRC 3230
1 Course Unit

**SOCI 3240 Demographic, Economic, and Social Interrelations**
The course investigates economic and social determinants of fertility, mortality, and migration, and it discusses the effects of population variables on economic and social conditions, including economic and social development. Topics discussed in the course include: How do economic changes affect marriage, divorce, and child bearing decisions? How do households make decisions about transfers and requests? How can economic and sociological approaches be combined in explanatory models of demography change? How does immigration to the US affect the ethnic composition of the population, the earnings of native workers, taxes on natives, and the macro-economy? What causes the aging of populations, and how will population aging affect the economies of industrial nations, and in particular, pension programs like Social Security? What accounts for the rise in women’s participation in the wage labor force over the past century? How are family composition and poverty interrelated? Does rapid population growth slow economic development with low income countries? In addition to these topics, the course also covers selected methods not included in DEMG/SOCI 535/536 and 609.

Not Offered Every Year
1 Course Unit

**SOCI 3250 Methods of Investigation**
In a time of abundant fake news and mis-information, it becomes ever important for students (for all, really!) to learn how to critically assess (and produce) robust empirical evidence to uncover patterns and trends about social life. The goal of this course is to do just that through the use of census microdata, video and photographs, with a focus on social inequality! Or, in other words…a first goal of this course is to introduce students to empirical work that will let them identify robust evidence on social inequality across a diverse set of topics and countries. A second goal of the course is to provide students with key analytical skills through working with microdata to uncover social inequality globally. Having exposure and hands-on experience with the correct tools to read (and produce) evidence on patterns and trends on social research is an important skill for students in any major. We will use publicly available census microdata on more than 100 countries from IPUMS and photographs from the Dollar Street Project. Students will work with a country, produce their own analysis and combine it with photographs and videos. As a Signature Course, a third key goal of the course is to teach students skills that will enable them to more easily read empirical work and write results more clearly and concisely. Students will practice reading academic research, do class exercises, write case studies, and complete a research paper/video/photo essay that will aid them in these goals.

1 Course Unit

**SOCI 3998 Independent Study**
Directed readings and research in areas of sociology. Permission of instructor needed.

Fall or Spring
1 Course Unit

**SOCI 3999 Senior Research**
Senior Research is for senior sociology majors only. Students are assigned Sociology advisors with assistance from Undergraduate Chair.

Fall or Spring
1 Course Unit
SOCI 4100 Thesis Workshop I
The purpose of this course is to guide senior sociology majors in writing a research proposal for a senior honors thesis. Students will learn about various research approaches, how to write a focused literature review, and kinds of data necessary to answer a wide variety of research questions, including their own. Throughout the course, students will work on designing a research question, generation researchable hypotheses, and coming up with a design for their proposed study. The final paper for this course will be a research proposal that is the basis for students’ independent research project. This course satisfies the research requirement for sociology majors and is designed primarily for seniors who are planning to write an honors thesis.
Spring
Prerequisite: SOCI 2000
0.5 Course Units

SOCI 4101 Thesis Workshop II
This is the second part of the Thesis Workshop course. Prerequisite: SOCI 4100. Permission must be granted by the department.
Fall or Spring
Prerequisite: SOCI 2000 AND SOCI 4100
0.5 Course Units

SOCI 4998 Honors Independent Study
Independent study section for senior Sociology majors working on an honors thesis. Students are assigned an advisor by the undergraduate chair.
Fall or Spring
1 Course Unit

SOCI 5200 Religion
How do the many religious institutions in our society differ, and what common qualities do they share? Why do some religious institutions adapt to modernity while others do not? In particular, why are the politics of sex and gender so fundamental to the current organization of the American religious landscape? These questions will be the central motivating questions for the semester. The course will begin with an introduction to current theories in the sociology of religion. We will then apply and critique those theories as we learn more about the histories, members, practices and beliefs of all the major religious groups in the US today, including Mainline, Fundamentalist and Evangelical Protestantism, Roman Catholicism, Judaism, and other groups such as the Seventh Day Adventists, Jehovah’s Witnesses and Mormons. Students will pick two religious groups (one liberal and one conservative) to observe over the course of the semester and will write papers comparing and contrasting the two groups.
Mutually Exclusive: SOCI 2200
1 Course Unit

SOCI 5240 Advanced Topics in Family Sociology
This course will focus on the intersection of family life and inequality. The course will cover theories and empirical research examining the ways in which the political economy of family life is implicated in sustaining and organizing inequalities by class, gender, sexuality, and race.
Fall or Spring
Also Offered As: DEMG 5240
Mutually Exclusive: SOCI 2290
1 Course Unit

SOCI 5300 Sociology of Race and Ethnicity
Race and ethnicity are, above all, both converge as system of ideas by which men and women imagine the human body and their relationships within society. In this course we will question the concept of race and ethnicity and their place in modern society (1500 - 2020). While the course reviews the pre-1500 literature our focus will be on the last 500 years. This course reviews the research that has contributed to the ideas about ethnicity and race in human society. The review covers the discourse on race in political propaganda, religious doctrine, philosophy, history, biology and other human sciences.
Also Offered As: AFRC 5330, DEMG 5330
1 Course Unit

SOCI 5350 Quantitative Methods I
This course is an introduction to the practice of statistics in social and behavioral sciences. It is open to beginning graduate students and—with the permission of the instructor—advanced undergraduates. Topics covered include the description of social science data, in graphical and non-graphical form; correlation and other forms of association, including cross-tabulation; bivariate regression; an introduction to probability theory; the logic of sampling; the logic of statistical inference and significance tests. There is a lecture twice weekly and a mandatory "lab."
Fall
Also Offered As: DEMG 5350
1 Course Unit

SOCI 5351 Quantitative Methods II
As the second part of a two-semester sequence, this graduate course focuses on regression analysis as used in social science research. In particular, we discuss features and assumptions of linear regression and logistic regression models. We learn how to apply regression models to real social science data using Stata and how to interpret the results.
Spring
Also Offered As: CRIM 6351, DEMG 5351
Prerequisite: SOCI 5350
1 Course Unit

SOCI 5400 Discourse Analysis
Discourse Analysis examines both verbal and non-verbal communication to explore the making of claims of meaning, truthfulness, and authority, in everything from political speech to advertising to scientific reports. The course presents a range of methods and theoretical frameworks for analyzing discourse in a wide variety of social contexts (journalistic, legal, political, medical, familial). Readings and exercises draw from theories of signs, symbols, gestures, and language to analyze communicative acts and events. The goal of the course is to provide a solid grounding in the theories of speech, writing, symbols, and images, and to survey a broad array of empirical studies that have grown out of these theoretical frameworks. The course is appropriate for graduate students and advanced undergraduates.
Also Offered As: COMM 5400
1 Course Unit
SOCI 5430 Climate, Environment, and Childhood in Low- and Middle-Income Countries

Climatic and environmental hazards and their implications for the health and welfare of children are a major global concern. In a recent press release, the United Nations Children's Fund (UNICEF) estimated that approximately one billion children are at extremely high risk of experiencing impacts of the climate crisis; many will experience multiple climate shocks combined with poor essential services such as water, sanitation, and healthcare. Children from poorer countries and those from economically, socially, and politically marginalized groups within countries may be particularly vulnerable to climate risks and environmental hazards. Focusing on low- and middle-income countries, this class will explore the question, how do global childhood inequalities, broadly defined, condition both the risks of experiencing climatic and environmental hazards and the impacts, once exposed. The course is appropriate for graduate students and advanced undergraduates.
1 Course Unit

SOCI 5440 Sociology of the Climate Emergency

This seminar will explore how sociologists and adjacent social scientists have investigated the intersections of the environment with inequalities of wealth and power, with a focus on a broad “climate change and society” field. The seminar will cover a) recent efforts to reframe the history of capitalism as the history of a socio-environmental system (and overlaps between that agenda and the “racial capitalism” framework); b) the genesis of US-based environmental justice scholarship; c) the global sociology of carbon emissions and international environmental movements; and, d) new trends in “climate change and society” studies.
Fall or Spring
1 Course Unit

SOCI 5450 Economic Development, Education, and Inequality in East Asia

Where are East Asian economies and education headed? Can a new model of East Asian economy and education be established to achieve economic sustainability and equity in rapidly changing global contexts? In this seminar, we will survey 1) evolution of the East Asian economic model, focusing on changes in economic development strategies, labor market structures, and relationships with global economies; and 2) features of East Asian educational systems, focusing on educational opportunities and learning outcomes. In reviewing East Asian economy and education, a central question is not only how productive East Asian economy and education is but also how equal economic and educational opportunities are in the region. In the final part of the seminar, students will come up with some policy recommendations for East Asian economy and education to better achieve economic sustainability and equity. This graduate-level course is also open to advanced undergraduate students.
Also Offered As: EALC 5702, EDUC 5450
1 Course Unit

SOCI 5500 The Sociology of Poverty

This seminar will provide a graduate-level overview of and training in the sociology of poverty. It takes a comparative perspective by examining poverty across different theoretical perspectives, dimensions, and substantive domains as well as across different time periods and place contexts. This course will cover a range of topics pertaining to poverty such as the conceptualization and measurement of poverty, poverty levels and trends, and disparities in poverty. We will study how poverty research has evolved, various theories of the causes of poverty, and the consequences of poverty for individuals and society. We will explore the link between poverty and place, including poverty within urban, suburban, and rural contexts and across different sub-national units (e.g. regions, states, neighborhoods). While we will focus much attention to poverty in the U.S., we will also examine poverty across rich democracies and in less developed countries to gain a better understanding of global poverty and its broader impact. We will also explore how poverty is produced and maintained through various domains such as the family, education, the labor market, housing, the criminal justice system, and the welfare state. Finally, we will assess the effectiveness of poverty policies as well as other anti-poverty strategies. Throughout the course, we will use an intersectional lens that considers the roles of race/ethnicity, gender, age, and other axes of inequality in the perpetuation of poverty. By the end of this course, students will be able to draw on different perspectives and methodological approaches to critically discuss poverty and issues pertaining to poverty.
Course requirements include weekly readings, class participation, critical responses, and a research paper.
1 Course Unit

SOCI 5530 Ethnography of Sociological Research

This course is designed to introduce graduate students to basic skills and concepts in ethnographic field research, including participant observation, interviewing, field documentation, and the scholarly presentation of qualitative data. Students will learn to apply these skills and concepts through an assigned set of exercises in concert with a semester-long project based on intensive fieldwork at a research site of their choosing. In addition, we will examine exemplars of published fieldwork in both classical and contemporary sociology.
Fall or Spring
1 Course Unit

SOCI 5550 Pro-Seminar in Sociological Research

In the non-credit seminar students will be introduce to key areas in sociological research, and a set of professional skills necessary to navigate graduate school and a successful academic career. Students will also be introduced to faculty and resources available at Penn. This course is required for all first-year graduate students in Sociology.
Fall
0 Course Units

SOCI 5560 Pro-Seminar in Sociological Research II

This graduate seminar for first-year graduate students will be a two-semester course covering the major subfields of sociology – their classical and contemporary theories, current methods and substance.
Fall or Spring
1 Course Unit
SOCI 5610 Cultural Sociology
Studies culture as values, scripts, practice, performance, and style in the contexts of everyday life, social class, and status groups, social movements, and changes of communication technologies. Approaches politics, society, institutions, identities, and social change as dynamic processes and complex interactions at both micro/meso and meso/macro levels. Examines the production, reception, circulation and effects of signs, symbols, and stories. Readings include both classic authors (Elias, Simmel, Bakhtin, Goffman, Foucault, Bourdieu, Raymond Williams, etc.) and contemporary works from sociology and communication studies.
Not Offered Every Year
Also Offered As: COMM 5610
1 Course Unit

SOCI 5620 Soci Movements & Poli Sc
This course explores the impact of systems of government on the collective call to action of populations, and vice versa. Through a local, national, and global lens, this course analyzes the tensions that are produced by the at-times divergent priorities of those in political power versus those who seek social progress and change.
1 Course Unit

SOCI 5630 Mechanisms for Perpetuating or Reducing Inequality by Class, Race and Gender
TBD
1 Course Unit

SOCI 5635 Sociology of Health and Illness
The sociology of health and illness is a broad field covering a range of substantive and empirical issues, including (but not limited to): the social production of health, illness, morbidity and mortality; inequalities in health, illness, and disease; medicalization; the experience of illness and the sick role; and the organization and delivery of health care. While we cannot cover everything, this course is designed to give students an overview of central topics and key debates in the field, with particular emphasis on the social, structural, political, economic, and cultural forces shaping the production of health and illness. Though the course will focus predominately in the U.S. context, we will also integrate global and comparative perspectives whenever possible. The course will emphasize active discussion, cooperative learning, and continuous improvement.
1 Course Unit

SOCI 5637 Gender and Health in Post-Socialist Society
In terms of gender and health arrangements, post-socialist societies have provided through the course of their history examples both of radical empowerment and of evident discrimination, rapid emancipation and conservative backlashes. Social policy researchers frequently refer to this as a sui generis social laboratory, where health and gender policy experiments have taken place. This course aims to examine the premises and societal outcomes of such ‘experiments’ both on the empirical and conceptual levels. The course pursues two interconnected goals (1) to explore the specificities of gender and health in post-socialist societies, i.e. to consider how these phenomena are grounded in and affected by the political and institutional transition from state socialism; (2) to explore theoretical insights that social studies of the post-socialist experience provide for our understanding of health and gender. The course is structured thematically and chronologically. By tracing transformations of socialist and post-socialist gender order the first part of the course introduces students to the political and institutional context of societies under consideration. The second part of the course discusses social science categories that are used to analyze gender and health (medical professionalism, medical knowledge, emotions in healthcare, etc.) and examines, how attention to socialist and post-socialist experience can enhance our conceptualizations. The third part is devoted to different dimensions of health and gender inequalities on post-socialist space. Empirical researches discussed in this part are mostly concerned with the case of Russia, but are not limited to it. Generally, the course builds into the discussion on what analytical results can be gained through comparing health and gender in post-socialist and ‘Western’ contexts, and what variations between and within post-socialist societies exist. This is an introductory level graduate course.
Not Offered Every Year
Also Offered As: REES 5637
1 Course Unit

SOCI 5640 Poverty, Race and Health
This course is designed to introduce students to current literature on race/ethnic difference in health and mortality in the United States, covering such topics as explanations for why some race/ethnic groups fare better than others, how inner city poverty and residential segregation may contribute to racial/ethnic differences in health outcomes, and health of immigrants versus native-born populations. Current policy debated and recent policy developments related to health are also briefly discussed. The course is organized as a seminar with a combination of lectures and class discussions.
Also Offered As: LALS 5640
1 Course Unit

SOCI 5670 Urban Sociology
This course will examine the urban structures and processes which characterize the social and cultural milieu of the contemporary American city. Specific course topics will include the social organization of local urban subcultures and neighborhood communities, the cultural consequences of gentrification and racial segregation, the reputation of cities in the public imagination, and the commodification of the urban landscape.
Also Offered As: URBS 5670
1 Course Unit
SOCI 5680 Contemporary Immigration in the U.S.
While this course will engage immigration issues more broadly, we will centrally focus on questions of immigrant incorporation and the effects of U.S immigration policy. We will start with the broad question of what should be done about the estimated 10.5 million undocumented immigrants living in the United States. Then, we will take a deeper look at the ways in which macro-level forces such as our laws and institutions shape the micro-level, everyday lives of undocumented immigrants and those living in mixed-status families. We will pay close attention to the circumstances of young people, including their experiences of exclusion and belonging across social and educational contexts. More specifically, we will examine how these factors might affect young people's development, schooling experiences, academic trajectories and aspirations, assimilation and ethnic identity, family dynamics, civic engagement, and employment.
Fall or Spring
Also Offered As: LALS 5680
Mutually Exclusive: LALS 2680, SOCI 2680
1 Course Unit

SOCI 5690 Current Issues in Contemporary Japan
In this course, we aim to understand what social issues in Japanese society exist and how they occur. Japan had experienced rapid industrial and economic developments until the 1980s. The Japanese systems of education, labor markets, and social security, which have continued until today, were established by this period approximately. Although people at that time were suffered from problems like harsh entrance examinations for secondary and higher educations, long working hours after they started a job, and gender inequality, they accepted these problems in exchange for their economic flourishment.
Mutually Exclusive: SOCI 2700
1 Course Unit

SOCI 5690 Current Issues in Contemporary Japan
In this course, we aim to understand what social issues in Japanese society exist and how they occur. Japan had experienced rapid industrial and economic developments until the 1980s. The Japanese systems of education, labor markets, and social security, which have continued until today, were established by this period approximately. Although people at that time were suffered from problems like harsh entrance examinations for secondary and higher educations, long working hours after they started a job, and gender inequality, they accepted these problems in exchange for their economic flourishment.
Mutually Exclusive: SOCI 2700
1 Course Unit

SOCI 5700 Oil to Diamonds: The Political Economy of Natural Resources in Africa
This course examines the ways in which the processes of the extraction, refining, sale and use of natural resources – including oil and diamond – in Africa produce complex regional and global dynamics. We explore how values are placed on resources, how such values, the regimes of valuation, commodification and the social formations that are (re)produced by these regimes lead to cooperation and conflict in the contemporary African state, including in the relationships of resource-rich African countries with global powers. Specific cases will be examined against the backdrop of theoretical insights to encourage comparative analyses beyond Africa. Some audio-visual materials will be used to enhance the understanding of the political economy and sociality of natural resources.
Fall
Also Offered As: AFRC 5700, ANTH 5700
Mutually Exclusive: AFRC 4500
1 Course Unit

SOCI 5710 Visualizing W.E.B.DU BOIS
This seminar will focus on a project that views history as a result of our contemporary society in which biographical truths are constantly shifting. So the historical biographers write about the way they remembered and visualize the past, and not about the way that it happened. We will take Du Bois’s biography in his own words and interrogate his narrative with the visual narratives of his life and influence produced by others. "Visualizing W.E.B Du Bois" focuses on photographic, film, and video representations intended to present some aspect of Du Bois’s reality, primarily for the purposes of instruction or maintaining a historical record. Such projects include photos, materials originally shot on film stock, and digital images that can be either displayed in a book or magazine, and moving images made into a film or video for a TV show or released for screening in cinemas, or other broadcast mediums like YouTube and Vimeo.
Not Offered Every Year
Also Offered As: AFRC 5710
1 Course Unit

SOCI 5960 Sociology of Education
This graduate seminar will introduce students to some of the key theoretical and empirical work in the sociology of education. We will examine how schools work to maintain or alleviate inequality, and focus on differences in educational achievement and attainment by race, ethnicity, immigrant status, class, and gender. We will review work on the educational experiences of youth from early childhood to young adulthood.
Not Offered Every Year
1 Course Unit
SOCI 5970 Demography of Education
The major topic of the course is the impacts of education, especially college education, on various kinds of family behavior such as dating, cohabitation, living arrangements, marriage, fertility, parenting, divorce, and remarriage. In many countries, some family behaviors, if not all, are increasingly differentiated between college-educated and non-college-educated. For instance, increase in divorce is more evident among the less educated than their more educated counterparts, while marriage decline is more substantial among the less educated. Although parents’ time and money investments in children's education have generally increased over time for both college-educated and non-college-educated parents, the increase is much more substantial among college-educated parents than their non-college-educated counterparts, leading to divergence. In such societies, college education has increasingly differentiated population with respect to family behavior, which has important implications for inequality of children’s well-being. Of course, such diverging family behavior is not observed every society. In some countries, educational differentiation in family behavior is minimal. In this course, students first will be able to have a global perspective on education and family behavior by reviewing empirical evidence of the relationship between education and various kinds of family behavior across a variety of countries. After learning how different measurements and methods are used to identify the relationship between education and family behavior, Students will be able to evaluate how empirical evidence is robust. Second, students will learn about different theories that explain why education has specific relationships with family behavior. Finally, students will have an opportunity to conduct their own research (in the format of either an empirical or a review paper) by choosing a specific context where they will first document the relationship between education and family behavior and apply theories to explain the relationship with explicit consideration of specific contextual factors. The proposed course will be open to undergraduate and graduate students with different assignments to each of undergraduate and graduate students.
Fall or Spring
Also Offered As: DEMG 5970
Mutually Exclusive: SOCI 2281
1 Course Unit

SOCI 6002 Criminal Justice Data Analytics
This course covers the tools and techniques to acquire, organize, link and visualize complex data in order to answer questions about crime and the criminal justice system. The course is organized around key questions about police shootings, victimization rates, identifying crime hotspots, calculating the cost of crime, and finding out what happens to crime when it rains. On the way to answer these questions, the course will cover topics including data sources, basic programming techniques, SQL, regular expressions, webscraping, and working with geographic data. The course will use R, an open-source, object oriented scripting language with a large set of available add-on packages.
Fall
Also Offered As: CRIM 6002
Mutually Exclusive: CRIM 4002
1 Course Unit

SOCI 6010 Contemporary Sociological Theory
This is a graduate-level course that will explore contemporary social theory with an emphasis on theories and theoretical orientations related to social interaction, identity, culture, and inequality. For example, we will discuss sociological theories from the last half century about race and racism, gender, social class, education, emotion, and violence. Importantly, we will consider theory in the context of its application to empirical social science research and real world concerns.
Not Offered Every Year
Also Offered As: COMM 6010
Mutually Exclusive: SOCI 3010
1 Course Unit

SOCI 6020 Proseminar in Classical Sociology
This course is designed to introduce graduate students to the classical foundations of sociology by drawing on canonical readings by Marx, Engels, Durkheim, Weber, Du Bois, Addams, Simmel, Park, and Goffman, among others. We will read these texts in the context of three major sociological themes: work and social inequality, culture and social structure, and urban interaction and culture in the city. Final papers will require students to draw on classical sociological works in their analyses of contemporary empirical research in sociology.
Fall or Spring
1 Course Unit

SOCI 6030 Master's Research in Sociology
This graduate course is intended to be helpful to students as they produce an MA thesis. The course is structured to provide social support and feedback as students move through the stages in the development of a project (i.e. data analysis, review of the literature, development of a thesis, and revision). Students should begin the semester with a data set in hand; additional data analysis will occur during the term. (In some cases, students may be finishing their data collection.) In addition, the course is intended to provided professional development opportunities for students by providing “insider” information about the publication process. Students will be given examples of journal review (including reviews that reject a paper), copies of papers as they move through the revision process, and guidelines for producing a publishable piece of work. The goal is for students to produce a manuscript that can be submitted for publication in the near future. This is a required course for second year graduate students in Sociology.
Fall or Spring
1 Course Unit

SOCI 6040 Methodology of Social Research
This course will give students familiarity with the common research methods social scientists use to conduct research. Ethnographic, interview, survey, experimental and historical/comparative research methods will be covered. Four themes will be explored: 1) the basics of solid research design, 2) the various advantages and disadvantages of each method, 3) when the use of a method is appropriate or inappropriate for the research question, and 4) how to evaluate researchers’ claims on the basis of the evidence they present. These themes will be explored by reading examples of and conducting exercises designed to give students hands-on experience in each of the methods. Students will conduct the exercises on a topic of their choice, which together will culminate in their final paper.
Fall or Spring
Also Offered As: DEMG 6040
1 Course Unit
SOCI 6050 Public-Use Data for Social Science Research
Public-use data are quantitative information obtained from surveys and other databases that are available for anyone to use at no cost. This course prepares students to work with public-use data to address social science research questions. Participants will become familiar with the origins, purpose, design, structure, and limitations of US and international public-use data to study individuals, families, neighborhoods, and institutions such as schools and state and national governments; acquire skills to design analytic samples and manage data for reproducibility and replicability; and apply a variety of quantitative methods to public-use data to answer illustrative research questions.
1 Course Unit

SOCI 6070 Introduction to Demography
A nontechnical introduction to fertility, mortality and migration and the interrelations of population with other social and economic factors.
Fall
Also Offered As: DEMG 6070
1 Course Unit

SOCI 6090 Basic Demographic Methods
The course is designed to introduce students to basic concepts of demographic measurement and modeling used to study changes in population size and composition. The course covers basic measures of mortality, fertility and migration; life table construction; multiple decrement life tables; stable populations; population projections; and age patterns of vital events. Students will learn to apply demographic methods through a series of weekly problem sets.
Fall or Spring
Also Offered As: DEMG 6090
1 Course Unit

SOCI 6110 Structural Equation Models
Statistical modeling with multiple equations and latent variables. The first part of the course will focus on linear models that could be estimated with any of the well-known SEM programs (e.g., LISREL, EQS, or Amos). Both Mplus and SAS will be used exclusively in this part of the course. The second part will focus on Mplus models for variables that are categorical, count, or censored. Maximum likelihood methods for missing data will also be covered.
Not Offered Every Year
1 Course Unit

SOCI 6120 Categorical Data Analysis
This course deals with techniques for analyzing multivariate data which the dependent variable is a set of categories (a dichotomy or polytomy). Topics will include linear probability models, logit (logistic) regression models, probit models, logit analysis of contingency tables, cumulative logit and probit (for ordinal data), multinomial logit, conditional logit (discrete choice), unobserved heterogeneity, log-linear models, square tables, response-based sampling, and repeated measures. Methods will be illustrated using the Stata System. There will be several assignments using Stata to analyze data provided by the instructor.
Not Offered Every Year
Also Offered As: DEMG 6120
1 Course Unit

SOCI 6130 Event History
An applications-oriented course on statistical methods for the analysis of longitudinal data on the occurrence of events, also known as survival analysis, failure-time analysis, hazard analysis or duration analysis. Emphasis on regression-like models in which the risk of event occurrence is a function of a set of explanatory variables. Topics include accelerated failure-time models, hazard models, censoring, Cox regression models, time-dependent covariates, competing risks, repeated events, unobserved heterogeneity, discrete-time methods.
Not Offered Every Year
Prerequisite: SOCI 5351
1 Course Unit

SOCI 6200 Sociological Research II
This course is intended to aid in the selection, framing, writing and revising of sociological dissertation proposals. It is also intended to provide a forum for the presentation of dissertation research in progress. The goal is to provide a forum for the acquisition of professional socialization in sociology. We will discuss the framing of research questions, the design of research strategies, and the writing of dissertation proposals. We will discuss the process of submitting manuscripts for conferences and journals, preparing a curriculum vitae, job search strategies, and preparing for effective colloquium presentations. We will also review articles currently under review at the American Sociological Review. It is expected that third year graduate students in Sociology will enroll in this class.
Fall or Spring
1 Course Unit

SOCI 6210 Health, Mortality and Aging
The course focuses on the description and explanation of health and mortality in human populations and their variability across several dimensions such as age, time, place, social class, race, etc. The course includes general theories of health, mortality and morbidity, investigations of mortality and related processes in developing and developed countries, and discussions of future mortality trends and their implications for individual lives and the society at large.
Not Offered Every Year
Also Offered As: DEMG 6210
1 Course Unit

SOCI 6220 Fertility
The biological, social and demographic factors explaining the levels, trends and differentials in human fertility. Data, measures, and methods used in the context of the more and the less developed countries, with an emphasis on the historical and current course of the fertility transition.
Not Offered Every Year
Also Offered As: DEMG 6220
1 Course Unit
SOCI 6280 Migration and Development
International migration is one of the most important phenomena driving urban, community, economic, and human development. This course focuses on the ways that migrants and community, government, and private institutions work to influence development around the world. We explore a range of large- and small-scale economic development, human and community development. After a brief introduction to histories and theories of migration and development, our major themes include: 1) the work of institutions, governments, and private sector firms in sending and receiving nations that influence migration and development; 2) diaspora-led transnational development, including remittances, hometown and country associations, and transnational advocacy and community organizing; and 3) local revitalization, labor and housing markets, workforce and enterprise development in migrant-receiving settings. Readings are drawn from a variety of social sciences, planning and development studies, including from academia and practice. Guests from local and transnational development organizations will visit the class. Assignments include short papers on the readings and a research paper or project designed by each student in consultation with the instructor. Ultimately, the course aims to help students develop: 1) a broad knowledge of migration and development in geographic and institutional settings around the world; 2) an in-depth understanding of community and economic development practices in migrant sending and receiving communities; and 3) familiarity with social science approaches to evaluating the dynamics and impacts of migration and development. Spring, even numbered years only
Also Offered As: CPLN 6280
1 Course Unit

SOCI 6320 Demography of Race
This course will examine demographic and statistical methods used to capture the impact of racial stratification in society. This course covers the skills and insights used by demographers and social statisticians in the study of racial data. A key challenge facing researchers is the interpretation of the vast amount of racial data generated by society. As these data do not directly answer important social questions, data analysis and statistics must be used to interpret them. The course will examine the logic used to communicate statistical results from racial data in various societies. We will question the scientific claims of social science methodology by extending the critical perspective to biases that may underlie research methods. We will discuss good and bad practices within the context of the historical developments of the methods.
Also Offered As: DEMG 6320
1 Course Unit

SOCI 6331 Population Processes II
Population Processes II is part of a two-course sequence designed to introduce students to the core areas of demography (fertility, mortality, and migration) and recent developments in the field. PP II is divided into two parts. The first focuses on family demography and the biological, social and demographic factors explaining levels, trends, and differentials in human fertility transition with an emphasis on the historical and current course of fertility transition in developed and developing countries. The second part of the course provides a comprehensive review of theories and research on international migration. Readings examine patterns and processes of global migration during the classic age from 1800-1914 as well as during the postwar period from 1945 to the present. The course also covers a history and evaluation of immigration policies around the world, and devotes significant attention to theoretical and empirical perspectives on immigrant adaptation, including the relationship between gender and migration.
Spring
1 Course Unit

SOCI 6430 Social Stratification
This is an advanced level graduate seminar where we will review contemporary research on social stratification and mobility. We will examine empirical and theoretical studies not only in the US but also in other countries to address how the pattern of social stratification varies across societies and over time. The main topics to be discussed are social mobility, occupational attainment, educational inequality, gender and race, and family processes and stratification. We will also examine studies that address how national contexts mediate social stratification. Advanced undergraduate students will be admitted with permission.
Not Offered Every Year
Also Offered As: DEMG 6430
1 Course Unit

SOCI 6490 A Course on Elites
Most of the studies of inequality look at poverty and the impact of poverty. This course will be a study of those at the top of the social stratification system. We will take a broad vision of elites to include the upper-middle-class as well as those in the top 1%. The course will examine the concentration of wealth in American society. It will examine elite families. It will also look at elite education. There will be a unit on the financial industry, the 2008 debacle, and the failure of the government to regulate this important industry. We will also study the influence of race by comparing the black upper-middle-class with white upper-middle-class families. Thus, we will also look at the power of elites in a number of spheres. Finally, we will also read theoretical perspectives including the work of C. Wright Mills, Marx, and Bourdieu. Thus, in addition to the focus on social stratification, this course cuts across sociology of the family, economic sociology, cultural sociology, and race and ethnic relations.
1 Course Unit

SOCI 6600 Exhibiting Black Bodies
This course concerns the exhibiting of Black Bodies in Museums and gallery spaces. We will trace the evolution of public history from the “Cabinets of Curiosity” in 18th and 19th Century Europe, through to the current institutional confirmation of the vindications traditions represented by Museu Afro Brasil (Sao Paulo, Brazil), National Museum of African American History and Culture (Washington,D.C.), and the Museum of Black Civilization (Dakar, Senegal). We will give particular attention to “why these representations at these times in these places?” In the process of addressing these questions we will give voice to the figures who conceived the curatorial content from those with the colonial mentality, to those with the abolitionist and nationalist and Pan-African visions.
Fall or Spring
Also Offered As: AFRC 6200
1 Course Unit

SOCI 6620 Panel Data Analysis
This course focuses on the ability to use, analyze, and understand panel data. Panel data contain repeated measurements of the dependent variable for the same individuals, and possibly repeated measurements of the predictor variables as well. Panel data offer important opportunities for controlling unobserved variables and for answering questions about causal ordering.
Also Offered As: DEMG 6620
1 Course Unit
SOCI 6670 Social Interaction
The dynamics of interpersonal interaction, especially in face-to-face encounters during limited short periods of time. Topics include: the theory of interaction rituals deriving from Durkheim, Goffman and their contemporary followers; conversation analysis; micro-ethnographic studies of non-verbal behavior and embodied interaction; sociology of emotions; symbolic interactionist theory and the social nature of mind, self, and inner dialogue; electronically mediated interaction and its effects on social ties; and the relationship between micro and macro sociology.
Not Offered Every Year
1 Course Unit

SOCI 6770 International Migration
A comprehensive review of theories and research on international migration. The course introduces the basic precepts of neoclassical economics, the new economics of labor migration, segmented labor market theory, world systems theory, social capital theory and the theory of cumulative causation. Readings examine patterns and processes of global migration during the classic age from 1800 to 1914 as well as during the postwar period from 1945 to the present. The course also covers a history and evaluation of immigration policies around the world, and devotes significiation attention to theoretical and empirical perspectives on immigrant adaptation. Within this larger topic, we will also discuss internal migration and urbanization; the relationship between gender and migration; the spatial distribution of immigrants within the United States, immigrant communities, and ethnic enclaves; and the undocumented population in the United States.
Not Offered Every Year
Also Offered As: LALS 6770
1 Course Unit

SOCI 7070 Second Year Research Seminar I
This course is intended to hone the skills and judgment in order to conduct independent research in sociology and demography. We will discuss the selection of intellectually strategic research questions and practical research designs. Students will get experience with proposal writing, the process of editing successive drafts of manuscripts, and the oral presentation of work in progress as well as finished research projects. The course is designed to be the context in which master's papers and second year research papers are written. This is a required course for second year graduate students in Demography. Others interested in enrolling in only one of the courses may do so with the permission of the Chair of the Graduate Group in Demography.
Fall
Also Offered As: DEMG 7070
1 Course Unit

SOCI 7071 Second Year Research Seminar II
This is the second part of a two-course sequence designed to introduce and familiarize second year students with current norms for academic research, presentation and publishing in the field of Demography. Students are expected to finalize the analyses and to complete their second year research paper. This is a required course for second year demography students. Others interested in enrolling in the course may do so with the permission of the Chair of the Graduate Group in Demography.
Spring
Also Offered As: DEMG 7071
1 Course Unit

SOCI 7310 Advanced Demographic Methods
This course considers a variety of procedures for measuring and modeling demographic processes. We will consider both deterministic (drawn from classic demographic methods, stable population theory, and the like) and stochastic (drawn from statistics) perspectives and methods, including their integration. Pre-requisites: DEMG 609 and SOCI 536 (or its equivalent).
Not Offered Every Year
Also Offered As: DEMG 7310
Prerequisite: SOCI 6090 AND SOCI 5351
1 Course Unit

SOCI 7468 Ethnographic Research Methods
A course in ethnographic participant observational research; its substantive orientation, literature, and methods. Emphasis is on the interpretive study of social organization and culture in educational settings, formal and informal. Methods of data collection and analysis, critical review of examples of ethnographic research reports, and research design and proposal preparation are among the topics and activities included in this course. Prerequisite: This course is designed to follow after Qualitative Modes of Inquiry (EDUC 682) and as such it is suggested that students have some background in qualitative methods before enrolling.
Not Offered Every Year
Also Offered As: EDUC 7468
1 Course Unit

SOCI 7960 Demographic, Economic, and Social Interrelations
The course investigates economic and social determinants of fertility, mortality, and migration, and it discusses the effects of population variables on economic and social conditions, including economic and social development. Topics discussed in the course include: How do economic changes affect marriage, divorce, and child bearing decisions? How do households make decisions about transfers and requests? How can economic and sociological approaches be combined in explanatory models of demography change? How does immigration to the US affect the ethnic composition of the population, the earnings of native workers, taxes on natives, and the macro-economy? What causes the aging of populations, and how will population aging affect the economies of industrial nations, and in particular, pension programs like Social Security? What accounts for the rise in women's participation in the wage labor force over the past century? How are family composition and poverty interrelated? Does rapid population growth slow economic development with low income countries? In addition to these topics, the course also covers selected methods not included in DEMG/SOCI 5350/5360 and 6090.
Not Offered Every Year
Also Offered As: DEMG 7960
1 Course Unit
SOCI 8810 The Performance Society: Readings in Social and Media Theories
Social action has a performative character - people act as if on a stage in response to audience expectations, whether offline or online. This seminar traces the history of this line of critical thought from Weber and Bakhtin through Goffman and Victor Turner to contemporary authors such as Judith Butler, Byung-Chul Han, Jon McKenzie, and Charles Tilly. Special attention will be devoted to the relationship between media and performance, examined through recent work by media scholars and sociologists such as Ben Agger, Jeffrey Alexander, Jeffrey Berry, Danah Boyd, Alice Marwick, and Sarah Sobieraj. A central issue concerns the will to perform. Why are individuals in modern society compelled to perform? What are the manifestations and forms of performance in institutional and non-institutional politics (such as revolutions and social movements)? How are performances related to emotion? How do the internet and digital media shape the forms and meanings of performance? What are the consequences of the performative imperative? A term paper is required.
Not Offered Every Year
Also Offered As: COMM 8810
1 Course Unit

SOCI 9320 Proseminar in Management in Qualitative Methods
This course is designed to provide students with an understanding of the methodological approaches we commonly think of as qualitative, with special emphasis on ethnography, semi-structured interviews, case studies, content analysis, and mixed-methods research. The course will cover the basic techniques for collecting, interpreting, and analyzing qualitative (i.e. non-numerical) data. In the spring quarter, the course will operate on two interrelated dimensions, one focused on the theoretical approaches to various types of qualitative research, the other focused on the practical techniques of data collection, such as identifying key informants, selecting respondents, collecting field notes and conducting interviews. In the fall semester, the course will operate on two interrelated dimensions, one focused on the theoretical approaches on building arguments and theory from qualitative data, the other focused on the practical techniques of data collection, such as analyzing data, writing, and presenting findings. Note: This class is part of a two-part sequence which focuses on qualitative data collection and analysis. The first of this course, offered in the Spring, focuses on data collection and the second half of the course, offered the following Fall, will focus on qualitative data analysis. Each course is seven weeks long. Students may take either class independently or consecutively.
Two Term Class, Student may enter either term; credit given for either
Also Offered As: MGMT 9320
0.5 Course Units

SOCI 9970 Independent Readings and Research
For advanced students who work with individual instructors upon permission. Intended to go beyond existing graduate courses in the study of specific problems or theories or to provide work opportunities in areas not covered by existing courses. One-term course offered either term.
1 Course Unit

SOCI 9980 Independent Readings and Research
For advanced students who work with individual instructors upon permission. Intended to go beyond existing graduate courses in the study of specific problems or theories or to provide work opportunities in areas not covered by existing courses. One-term course offered either term.
1 Course Unit

SOCI 9990 Directed Readings and Research
Primarily for advanced students who work with individual instructors upon permission. Intended to go beyond existing graduate courses in the study of specific problems or theories or to provide work opportunities in areas not covered by existing courses.
Fall or Spring
1 Course Unit

SOCI 9999 Independent readings and research
For advanced students who work with individual instructors upon permission. Intended to go beyond existing graduate courses in the study of specific problems or theories or to provide work opportunities in areas not covered by existing courses.
Fall or Spring
1 Course Unit

South Asia Studies (SAST)

SAST 0001 Introduction to Modern India
This introductory course will provide an outline of major events and themes in Indian history, from the Mughal Empire in the 16th century to the re-emergence of India as a global player in the 21st century. The course will discuss the following themes: society and economy in Mughal India; global trade between India and the West in the 17th century; the rise of the English East India Company's control over Indian subcontinent in the 18th century; its emergence and transformation of India into a colonial economy; social and religious reform movements in the 19th century; the emergence of elite and popular anti-colonial nationalisms; independence and the partition of the subcontinent; the emergence of the world's largest democracy; the making of an Indian middle class; and the nuclearization of South Asia.
Fall or Spring
Also Offered As: HIST 0850
1 Course Unit

SAST 0002 The City in South Asia
This interdisciplinary social science course examines key topics, themes, and analytic methods in the study of South Asia by focusing on significant South Asian cities. With one-fifth of the world's population, South Asia and its urban centers are playing an increasingly important role in recent global economic transformations, resulting in fundamental changes within both the subcontinent and the larger world. Drawing primarily on ethnographic studies of South Asia in the context of rapid historical change, the course also incorporates research drawn from urban studies, architecture, political science, and history, as well as fiction and film. Topics include globalization and new economic dynamics in South Asia; the formation of a new urban middle class; consumption and consumer culture; urban political formations, economic dynamics in South Asia; the formation of a new urban middle class; and the nuclearization of South Asia.

Fall or Spring
Also Offered As: ANTH 0002, URBS 0002
1 Course Unit

2023-24 Catalog | Generated 08/02/23
SAST 0003 History, Culture, and Religion in Early India
This course surveys the culture, religion and history of India from 2500 BCE to 1200 CE. The course examines the major cultural, religious and social factors that shaped the course of early Indian history. The following themes will be covered: the rise and fall of Harappan civilization, the "Aryan Invasion" and Vedic India, the rise of cities, states and the religions of Buddhism and Jainism, the historical context of the growth of classical Hinduism, including the Mahabharata, Ramayana and the development of the theistic temple cults of Saivism and Vaisnavism, processes of medieval agrarian expansion and cultic incorporation as well as the spread of early Indian cultural ideas in Southeast Asia. In addition to assigned secondary readings students will read select primary sources on the history of religion and culture of early India, including Vedic and Buddhist texts, Puranas and medieval temple inscriptions. Major objectives of the course will be to draw attention to India's early cultural and religious past and to assess contemporary concerns and ideologies in influencing our understanding and representation of that past.
Fall or Spring
Also Offered As: HIST 0755, RELS 0003
1 Course Unit

SAST 0004 India's Literature: Love, War, Wisdom and Humor
This course introduces students to the extraordinary quality of literary production during the past four millennia of South Asian civilization. We will read texts in translation from all parts of South Asia up to the sixteenth century. We will read selections from hymns, lyric poems, epics, wisdom literature, plays, political works, and religious texts.
Fall or Spring
Also Offered As: COML 0004
1 Course Unit

SAST 0005 Performing Arts of Modern South India
This course is a survey of selected traditions of theater, music, and dance in India and surrounding regions. Topics include ritual practices, theater, classical dance, classical music, devotional music, regional genres, and contemporary popular musics. Readings and lectures are supplemented by audio and visual materials and live performances. The aim of the course is to expose students to a variety of performance practices from this part of the world and to situate the performing arts in their social and cultural contexts. The course has no prerequisites.
Fall or Spring
1 Course Unit

SAST 0006 Hindu Mythology
Premodern India produced some of the world's greatest myths and stories: tales of gods, goddesses, heroes, princesses, kings and lovers that continue to capture the imaginations of millions of readers and hearers. In this course, we will look closely at some of these stories especially as found in Purana-s, great compendia composed in Sanskrit, including the chief stories of the central gods of Hinduism: Visnu, Siva, and the Goddess. We will also consider the relationship between these texts and the earlier myths of the Vedas and the Indian Epics, the diversity of the narrative and mythic materials within and across different texts, and the re-imagining of these stories in the modern world.
Fall or Spring
Also Offered As: COML 0006, RELS 0006
1 Course Unit

SAST 0007 Introduction to Modern South Asian Literatures
This course will provide a wide-ranging introduction to the literatures of South Asia from roughly 1500 to the present, as well as an exploration of their histories and impact on South Asian society today. How are literary movements and individual works - along with the attitudes towards religion, society, and culture associated with them - still influential in literature, film, and popular culture? How have writers across time and language engaged with questions of caste, gender, and identity? We will read from the rich archive of South Asian writing in translation - from languages that include Braj, Urdu, Bengali, and Tamil - to consider how these literatures depict their own society while continuing to resonate across time and space. Topics of discussion will include the Bhakti poetries of personal devotion, the literature of Dalits - formerly referred to as the Untouchables - and the ways in which literature addresses contemporary political and social problems. Students will leave this course with a sense of the contours of the literatures of South Asia as well as ways of exploring the role of these literatures in the larger world. No prior knowledge of South Asia is required; this course fulfills the cross-cultural analysis requirement, and the Arts and Letters sector requirement.
Fall or Spring
Also Offered As: COML 0007
1 Course Unit

SAST 0008 India: Culture and Society
What makes India INDIA? Religion and Philosophy? Architectural splendor? Kingdoms? Caste? The position of women? This course will introduce students to India by studying a range of social and cultural institutions that have historically assumed to be definitive India. Through primary texts, novels and historical sociological analysis, we will ask how these institutions have been reproduced and transformed, and assess their significance for contemporary Indian society.
Fall or Spring
Also Offered As: HIST 0851, RELS 0008
1 Course Unit

SAST 0009 Introduction to Hinduism
This course introduces students to the history, texts, philosophies and rituals of South Asia's oldest living religious traditions, represented today by the term "Hinduism." At the same time, it problematizes the idea of a monolithic "Hindu Tradition," in favor of an approach that recognizes several distinct, dynamic, yet symbiotic Hindu religious cultures. The course also places emphasis on the vitality of today's Hinduism(s), and the various historical, ritual, cultural, and social contexts that they represent and constitute. The course is organized around six modules: (1) Issues in the Academic Study of Hinduism; (2) Sanskrit (textual) tradition; (3) Philosophy; (4) Theology; (5) Ritual; and (6) Modernity and Contemporary Politics.
Fall or Spring
1 Course Unit
SAST 0012 Spices, Gunpowder, and Pagodas: A History of Southeast Asia
This undergraduate course introduces students to the history of Southeast Asia from the earliest centuries of the Common Era to c. 1950. It introduces students to Southeast Asia as religion, constituent historical societies of the region, and to the major academic literature and debates pertaining to the historical development of Southeast Asian societies and the region. Key themes explored include the origins and character of early civilizations, ideas and ideology about power and prowess, material culture, the transformation of ethnic, class, and gender relations, the impact of the arrival of world religions and early European expansion, and the nature of indigenous responses to the diffusion of new beliefs and ideas and intercultural contact.
Not Offered Every Year
1 Course Unit

SAST 0018 Climate Change and Community in Indonesia
Climate change isn’t fair. Countries and small island states that have contributed little to cause climate change are already confronting the worst impacts. This trend will continue. While wealthy countries in the Global North scramble to respond to sea level rise, drought, extreme weather, and other impacts with technological and infrastructural solutions, countries in the Global South know they won’t be able to protect their vulnerable populations in that way. For them, part of the answer lies in social resilience: the ability of a community or neighborhood in a city or region to withstand and recover from climate shocks and stresses. What are the ingredients that promote social resilience? In this first-year seminar, we will take Indonesia, the fourth most populous country in the world, as an example. Classified as a newly industrialized developing country, Indonesia has the capacity to mount some large projects such as the decision to move the government from Jakarta to a newly created capital city on the island of Borneo. At the same time, in Jakarta and all along the coasts of the thousands of islands that make up this archipelagic nation, vulnerable communities must foster resilience within themselves. Participants in this seminar will become acquainted with Indonesia’s colonial and recent history, learn about its deep cultural resources, and engage with its current efforts to mitigate emissions and adapt to climate change. Highlights include modules on the plan to protect Jakarta, designing the new capital city, and the use of the arts to increase community resilience in urban and rural kampongs in other parts of the country.
Not Offered Every Year
Also Offered As: GRMN 0018
1 Course Unit

SAST 0050 Introduction to Indian Philosophy
This course will take the student through the major topics of Indian philosophy by first introducing the fundamental concepts and terms that are necessary for a deeper understanding of themes that pervade the philosophical literature of India – arguments for and against the existence of God, for example, the ontological status of external objects, the means of valid knowledge, standards of proof, the discourse on the aims of life. The readings will emphasize classical Hindu, Buddhist, and Jain philosophical articulations (from 700 B.C.E to 16th century CE) but we will also supplement our study of these materials with contemporary or relatively recent philosophical writings in modern India.
Fall or Spring
Also Offered As: PHIL 1252, RELS 0055
1 Course Unit

SAST 0054 Religion and Resistance in South Asia
In this course, we focus on various medieval and contemporary devotional forms of Hinduism, Buddhism and Islam in South Asia. Several definitions try to tie the idea of devotion to classicism and traditionalism with a set of conservative ideas. However, this course introduces the students to a diverse and pluralistic understanding of Hinduism, Buddhism and Islam that also has a history of resistance and protest beginning with poets such as Kabir and others from the Bhakti movement, and Sufi devotional contexts in South Asia. We read about the histories of these rebellious poets and their interventions into the traditional practices of devotion. We also discuss about how these medieval trends find their way into contemporary times enriching the discourses of Dalit, Muslim and Feminist movements.
Not Offered Every Year
Mutually Exclusive: SAST 5554
1 Course Unit

SAST 0057 Planning to be Off-shore?
First-Year Seminar. In this course we will trace the economic development of India from 1947 to the present. Independent India started out as a centrally planned economy in 1949 but in 1991 decided to reduce its public sector and allow, indeed encourage, foreign investors to come in. The Planning Commission of India still exists but has lost much of its power. Many in the U.S. complain of American jobs draining off to India, call centers in India taking care of American customer complaints, American patient histories being documented in India, etc. At the same time, the U.S. government encourages highly trained Indians to be in the U.S. Students are expected to write four one-page response papers and one final paper. Twenty percent of the final grade will be based on class participation, 20 percent on the four response papers and 60 percent on the final paper.
Fall
1 Course Unit
SAST 0058 Doing Research: First-Year Seminar
This interdisciplinary course introduces students to qualitative research methods and frameworks in the social sciences and humanities. The goals of the semester will be for each student to develop their own research proposal for a specific project that they could imagine pursuing over the summer or later in their undergraduate career, and to develop a web-based exhibit of one Penn-based research collection of interest. Students will be introduced to a range of textual, archival and media collections and databases available at Penn, with particular attention to South Asia and other specific regions of interest to course participants. The class will visit the Penn Museum object collections and archives, the Art library, the Kislak Center for Rare Books and Manuscripts, Film Archives, and other special collections on campus, and meet with a representative from the Center for Undergraduate Research Funding (CURF). Students will learn how to frame an effective research question, situate it in relation to existing research, select the most appropriate methods for addressing the question, and develop an effective research plan. Each week students will be introduced to a new set of frameworks for analysis, see specific examples of their application drawn from anthropological, historical, and related scholarship and have opportunities to practice applying and evaluating the strengths and weaknesses of specific methodological tools. Students will also have the opportunity to identify sources of funding for summer research projects and prepare applications for these opportunities as part of the course. The course is ideal as an introduction to both the excellent libraries and research collections housed at Penn, and to a wide range of intellectual frameworks for engaging with these collections - a great way to kick off your undergraduate experience at Penn!
Not Offered Every Year
Also Offered As: ANTH 0058
1 Course Unit

Sugar and Spices. Tea and Coffee. Opium and Cocaine. Hop aboard the Indian Ocean dhows, Chinese junks, Dutch schooners, and British and American clipper ships that made possible the rise of global capitalism, new colonial relationships, and the intensified forms of cultural change. How have the desires to possess and consume particular commodities shaped cultures and the course of modern history? This class introduces students to the cultural history of the modern world through an interdisciplinary analysis of connections between East and West, South and North. Following the circulation of commodities and the development of modern capitalism, the course examines the impact of global exchange on interactions and relationships between regions, nations, cultures, and peoples and the influences on cultural practices and meanings. The role of slavery and labor migrations, colonial and imperial relations, and struggles for economic and political independence are also considered. From the role of spices in the formation of European joint stock companies circa 1600 to the contemporary cocaine trade, the course's use of both original primary sources and secondary readings written by historians and anthropologists will enable particular attention to the ways that global trade has impacted social, cultural, and political formations and practices throughout the world.
Fall or Spring
Also Offered As: ANTH 0063
1 Course Unit

SAST 0104 BeginningTabla I
An introduction to the tabla, the premier drum of north Indian and Pakistani classical music traditions.
Fall
1 Course Unit

SAST 0106 Beginning Sitar I
This course is an introduction to the repertoire and performance practices of the North Indian sitar. Fundamentals of sitar technique, composition, and improvisation are presented and practiced in class. Class lectures and discussions, audio and video material, and reading and listening assignments on selected topics supplement practice, to provide an overview of the social and historical context and the formal structures of North Indian music in general. There are no prerequisites for the course, but some experience with instrumental or vocal music is suggested. Each student is expected to put in two hours of individual practice per week, and complete reading, audio, and written assignments. The class gives a group performance at the end of the semester.
Fall
1 Course Unit

SAST 0107 Beginning Sitar II
This is the second semester of a performance course in the North Indian sitar. Students who have not taken the first semester but play any musical instrument are permitted to join. Principles of composition and improvisation will be explored in practice and supplemented by readings and listening. The class gives a group performance at the end of the semester.
Spring
1 Course Unit

SAST 0108 Intermediate Sitar I
This is a performance course open to students who have completed both semesters of Beginning Sitar, or to others by permission from the instructor. Students will work with right and left-hand techniques, study three ragas in depth, learn the contours of several other ragas, and work with concepts of tala, composition, and improvisation. Assigned readings and listenings will complement the performed material. A group performance will be given at the end of the semester.
Fall or Spring
1 Course Unit

SAST 0109 Intermediate Sitar II
This is a continuation of an intermediate performance course in the North Indian sitar. It is open to students by permission of the instructor. Students who play other instruments and have had at least a beginning level of training in Hindustani music may also join, with the permission of the instructor.
Spring
1 Course Unit

SAST 0110 Beginning Tabla II
A continuation of Tabla I, also open to beginning students.
Spring
1 Course Unit

SAST 0111 Beginning Hindi-Urdu Online (Startalk)
This introductory, proficiency-based course covers the core content of first-year Hindi-Urdu. It is designed for students with little or no prior exposure to Hindi or Urdu. The course covers all four language skills (speaking, listening, reading, and writing), but there is a special focus on developing speaking and listening skills. Students will also develop literacy skills in one script of their choice (Hindi or Urdu script). All written materials will be provided in both scripts. All classes are interactive and students acquire the language by using it in realistic contexts. Culture is introduced through various authentic materials including Bollywood songs. This program has a special application process. Please visit our website (https://www.southasiacenter.upenn.edu/startalk) for more information on the program and how to apply.
Summer Term
1 Course Unit
SAST 0519 Benjamin Franklin Seminar: Postcolonial Literature
This course explores an aspect of Postcolonial literature intensively. See the English Department’s website at www.english.upenn.edu for a description of the current offerings.
Not Offered Every Year
Also Offered As: ENGL 0519
1 Course Unit

SAST 0570 Colonial South Asia, 1700 - 1950
The East India Company established its first trading outpost in India in 1612 and by 1765, was granted the right to collect revenue in eastern India on behalf of the Mughal Emperor. By 1858, Queen Victoria was Empress of India and by 1947, two independent nation states had emerged upon decolonization, India and Pakistan. The course will familiarize students with the outlines of the history of colonial South Asia, while exploring the following themes: How do we know what we know as historians, about the colonial era? What new institutions emerged in India under the British and, more importantly, what older institutions did they replace or modify? What kinds of modernity did South Asians begin to embrace, and what was the role of colonial rule in shaping and constraining these changes? How did different groups of South Asians perceive and respond to colonial rule, and how did this shape the emergence of new political movements in the early twentieth century?
Also Offered As: HIST 0570
1 Course Unit

SAST 0690 Love and Hate
This course focuses on important constants of human life as they are grappled with across religious traditions. Drawing on data across a range of religious traditions (such as Christianity, Hinduism, Judaism, Islam, Buddhism and Mesoamerican Religion), we will explore topics such as sexual identity, politics, religion and the individual in contemporary life; and eroticism, sex and love as they are reflected in religious literature, art and history. Divine love and religious devotion will be examined in relation to acts of violence, including human sacrifice and self-sacrifice in the past as well as the present. Other important questions considered in this course include: how does the body function as the locus in which religion is enacted? What is the conflict between our agency over our bodies and socioreligious claims over individual autonomy? Is violence an integral part of religion? What are religious understandings of the relationship between our agency over our bodies and socioreligious claims over individual autonomy? Is violence an integral part of religion? What are religious understandings of the relationship between love and sex? What does it mean for human beings to love God?
Spring
Also Offered As: RELS 0690
1 Course Unit

SAST 1000 South Asians in the United States
This course investigates the everyday practices and customs of South Asians in America. Every immigrant group has its own history, customs, beliefs and values, making each unique while simultaneously a part of the "melting pot" or salad bowl of American society. Yet how do people define themselves and their ethnicities living in a diasporic context? By taking into account the burgeoning South Asian American population as our model, this course will explore the basic themes surrounding the lives that immigrants are living in America, and more specifically the identity which the second generation, born and/or raised in American, is developing. South Asians in the U.S. will be divided thematically covering the topics of ethnicity, marriage, gender, religion, and pop culture. Reading and assignments will discuss a variety of issues and viewpoints that are a part of the fabric of South Asia, but will focus on the interpretation of such expressive culture in the United States.
Fall
Also Offered As: ASAM 1000
1 Course Unit

SAST 1110 Media and South Asia
This course examines the historical development of media institutions across the Indian subcontinent, and how media texts have helped to shape post-colonial national/cultural/religious/social identities, nationalism, and geopolitical relations. The course looks at how the post-colonial State in South Asia (India, Pakistan, Bangladesh, Nepal, Bhutan, and Sri Lanka) has interacted with media industries, and the implications of this interaction.
Not Offered Every Year
Also Offered As: COMM 2140
1 Course Unit

SAST 1112 Religion and Cinema in India
This seminar examines key themes in the study of religion and Indian cinema. The aim of the seminar is to foreground discussions of performativity, visual culture, representation, and politics in the study of modern South Asian religions. Themes include mythological cinema, gender and sexuality, censorship and the state, and communalism and secularism. The films we will be deploying as case studies will be limited to those produced in Hindi, Telugu and Tamil (the three largest cinema cultures of India). No knowledge of any South Asian language is needed for this course however.
Not Offered Every Year
Also Offered As: CIMS 1112, RELS 1112
1 Course Unit
SAST 1115 American Race: A Philadelphia Story (SNF Paideia Program Course)
This course proposes an examination of race with a two-pronged approach: one that broadly links the study of race in the United States with a multi-disciplinary approach and also simultaneously situates specific conversations within the immediate location of Philadelphia, home to the University. The broad historical examination advances key concepts of race and racialization, explores key theoretical methodologies, and highlights major scholarly works. For example, students will engage with the study of race through Africana Studies, Asian American Studies, Urban Studies and through Latin American & Latinx Studies. Readings and methodologies will introduce students to critical issues in education, in literature, in sociology, and with methods in oral history, archival work, and ethnography. Most importantly, this extensive approach highlights the impact of race across multiple communities including Black Americans, immigrant populations, and communities that are marginalized to emphasize connections, relationships, and shared solidarity. Students are intellectually pushed to see the linkages and the impacts of racism across and among all Americans historically and presently. As each theme is introduced a direct example from Philadelphia will be discussed. The combination of the national discourse on race, with an intimate perspective from the City of Philadelphia, engages students both intellectually and civically. The course will be led by Fariha Khan and Fernando Chang-Muy but guest instructors with varied disciplinary backgrounds and guest speakers from local community organizations. Each instructor not only brings specific disciplinary expertise, but also varied community engagement experience.
Spring
Also Offered As: AFRC 1115, ANTH 1150, ASAM 0115, LALS 0115, SOCI 2976, URBS 1150
1 Course Unit

SAST 1116 Music Cultures of North India and Pakistan
A great variety of song and instrumental genres have thrived in the Hindu and Muslim milieus of North India and Pakistan. In this course we examine a selection of urban and rural musics, such as instrumental music in Baluchistan, qawwali in Delhi, the garba of Gujarat, ballad singing of Rajasthan and the urban music of Calcutta. We will explore the sounds, poetry, historical, and social contexts of chosen genres and trace aspects of continuity and adaptation in the changing environment of contemporary South Asia. Readings are supplemented by audio-visual material and live performances.
Not Offered Every Year
1 Course Unit

SAST 1117 Sounds of Power, Pleasure, and Resistance: Music, Media, and Performance in Modern South Asia
This undergraduate seminar will explore the interplay between music, media, and performance in the making of modern South Asia (c. 1750 to the present). We will study primary source materials including manuscripts, printed texts, sound recordings, films, and video-clips. What can the emergence of print and recorded sound on the subcontinent teach us about modernity? How did authors, entrepreneurs, politicians, and performers across time and space make use of new media and technologies? How did colonial rule and anti-colonial nationalism affect traditional methods of knowledge transmission and communities of hereditary performers? The class is organized along thematic fields that provide exposure to the content, history, and effects of various media and performance practices. Beginning with the function of music and dance at royal courts, we will familiarize ourselves with the transformation of North Indian Hindustani and South Indian Karnatak music under colonialism. We will pay particular attention to the multiple ways in which print, performance, and sound recording and transmission media played a role in the development of colonial institutions, nationalist mass movements, and cultural identities on the subcontinent. We will look at the realm of commerce and technology to explore the impact of lithographic print, the gramophone, the radio, and film on the development of knowledge and the shaping of colonial power and anti-colonial resistance. Finally, we will reflect on new modes of media consumption in the post-colonial nation states of India, Pakistan, Bangladesh, and Sri Lanka, and what they tell us about contemporary narratives of South Asian history.
Not Offered Every Year
1 Course Unit

SAST 1120 Community, Freedom, Violence: Writing the South Asian City
The South Asian city—as space, symbol, and memory—is the subject of this course. Through a range of readings in English and in translation, we will gain a sense for the history of the city and the ways in which it is a setting for protest and nostalgia, social transformation and solitary wandering. We will see reflections of the city in the detective novels sold in its train stations, the stories scribbled in its cafes, and films produced in its backlots. Readings will attempt to address urban spaces across South Asia through a range of works, which we will examine in the context of secondary readings, including histories and ethnological works that take up life in the modern city. Students will finish this course prepared to pursue projects dealing with the urban from multiple disciplinary perspectives. This course is suitable for anyone interested in the culture, society, or literature of South Asia, and assumes no background in South Asian languages.
Fall or Spring
Also Offered As: COML 1121, ENGL 1191, URBS 1120
1 Course Unit

SAST 1124 Narrative Across Cultures
The purpose of this course is to present a variety of narrative genres and to discuss and illustrate the modes whereby they can be analyzed. We will be looking at shorter types of narrative: short stories, novellas, and fables, and also some extracts from longer works such as autobiographies. While some works will come from the Anglo-American tradition, a larger number will be selected from European and non-Western cultural traditions and from earlier time-periods. The course will thus offer ample opportunity for the exploration of the translation of cultural values in a comparative perspective.
Fall or Spring
Also Offered As: COML 1025, ENGL 0039, NELC 1960, THAR 1025
1 Course Unit
SAST 1144 Modern Islam and Poetry
This course focuses on a basic question: How and why a modern poem turns into a narrative device to debate contemporary Islamic discourses? We begin exploring this question by taking note of how a 12th-century Persian poet Rumi became - as described by Time magazine - "the best-selling poet in the US today," and then introduces students to poems and various social, cultural and religious moments that were key in the making of modern Islam. Although the course primarily emphasizes the study of poetry produced and circulated among various Muslim communities world-wide, it also covers a diverse set of secondary readings from the field of religious studies, anthropology and literature to outline more clearly the contours of contemporary Islam. Readings begin with internationally famous Rumi and then include poets emerging from Arabic, Persian, Urdu, and several vernacular literary cultures in both Muslim and non-Muslim countries.
Not Offered Every Year
1 Course Unit

SAST 1160 Democracy and Development in India
This course introduces students to the complex issues surrounding questions of political and economic development in India, the world's largest democracy, and home to a large chunk of the globe's low-income population. Not surprisingly, the successes and failures of India are tremendously important to the study of democracy and development. The experiences of countries in this region have given rise to influential theories of development. The policy prescriptions these theories have produced have in turn been applied back onto India, with spectacular results - both positive and negative. Over the course of the semester, we will use the concrete experiences from the past seven decades in India to ask and answer fundamental questions about development, including: Does democratic politics help or hurt prospects for economic development? Why are some poor countries like India able to maintain democracies, while equally poor countries in the region, such as Pakistan, are not? How did British colonialism shape the nature of post-colonial development? Should the state or the market play a dominant role in the economies of newly independent nations? How can we best measure poverty, and what have been the challenges to reducing it in the developing world? What are the challenges and opportunities produced by rapid international migration to rich countries? The course is divided into four thematic units, which build upon one another. Within each theme, we draw from a wide array of source materials, reading scholarship in political science, economics, sociology, and anthropology, journalistic non-fiction, and even film. While empirically focusing on India, we will also read about the experiences of other countries in South Asia, and also from East Asia, Latin America, and sub-Saharan African in specific weeks. This will help students place the experiences of South Asian countries in broader comparative perspective.
Also Offered As: ANTH 1169
1 Course Unit

SAST 1169 Merchants, Saints, Slaves and Sojourners: the Worlds of the Indian Ocean
Do oceans serve to divide and demarcate distinct cultures and regions? Or do they facilitate exchange, connection and cosmopolitanism? This course will explore the manner in which the Indian Ocean has played both roles throughout history, and how the nature of those divisions and connections has changed over time from the ancient to the modern world. We will reconstruct the intertwined mercantile, religious and kinship networks that spanned the Indian Ocean world, across the Middle East, East Africa, South Asia, Southeast Asia and China, illuminating the histories of Hinduism, Buddhism and Islam, while also considering the role of successive imperial political formations, from Rome to Britain. Throughout the semester we will seek to understand the Indian Ocean through the people who lived and worked in its milieu - from consuls and military commanders, to traders, brokers, sailors, prisoners and slaves. Course materials will draw on a variety of disciplines (anthropology, archaeology, material culture, religious studies) to construct the cultural, economic, and environmental history of the Indian Ocean.
Not Offered Every Year
Also Offered As: ANTH 1169
1 Course Unit

SAST 1171 Devotion's New Market: Religion, Economics, and the City
This graduate and undergraduate level course introduces students to the new forms of devotion as circulated in various urban centers in South Asia with a focus on growing market economy and urbanization. This course will particularly discuss case studies of how different modes of Hinduism, Islam, Christianity and other minor religions operate in an urbanized middle-class and educated communities. We will read theoretical and ethnographical works of contemporary research in religious studies and anthropology that deal with the questions of modernity, reformism and economic developmentalism. Throughout the semester, we focus on 1) how does religious forms such as sainthood practices, private and public rituals, narrative modes and everyday life evolve in the background of growing politics of development; 2) we discuss the tensions between classical notions of devotion and their new transformations in the city life, and finally 3) theoretically, we analyze concepts such as reformism, fundamentalism, recent discourses on identity politics and gender implications as connected to urban religious life.
Not Offered Every Year
Also Offered As: ANTH 1171, RELS 1640
Mutually Exclusive: SAST 5571
1 Course Unit

SAST 1189 Islam and the West
How did Muslims and modern South Asia interact with the West? What Islamic idioms, orientations and movements emerged in the nineteenth and twentieth centuries? Was South Asia a prominent global center of Islam? What kinds of Islamic educational institutions developed in modern South Asia? How did Muslims appropriate technologies? What materials were printed by Muslims? Were Muslims part of the British army? What was jihad in modernity? How did Muslim ‘modernists’ and ‘traditionalists’ respond to the challenges of colonialism and modernity? What was the nature of Sufism in modern South Asia? What was the nature of politicalIslam in South Asia? How did some Muslims demand a Muslim State? What was the Partition? How has Muslim history been remembered in Bangladesh, India and Pakistan? This is an introductory course, and aims to introduce students to a facet of the long history of Islam, Muslims, and the West.
Not Offered Every Year
Also Offered As: RELS 1189
1 Course Unit
SAST 1400 Asian American Gender and Sexualities
This course explores the intersection of gender, sexuality, and race in Asian America. Through interdisciplinary and cultural texts, students will consider how Asian American gender and sexualities are constructed in relation to racism while learning theories on and methods to study gender, sex, and race. We will discuss masculinities, femininities, race-conscious feminisms, LGBTQ+ identities, interracial and intraracial relationships, and kinship structures.
Spring
Also Offered As: ASAM 1400, GSWS 1400
1 Course Unit

SAST 1410 Asian American Women: Nation, Self and Identity
This course examines the literary constructions of Asian American Women's identity in relation to the U.S. nation state. How have the figures of the tiger mother, the Asian nerd, the rice queen, the trafficked woman, the geisha, the war bride, emerged to represent Asian American women, and how have Asian American feminisms responded to these problematic racial stereotypes? How does the scholarship on such racialized representations illuminate historical and contemporary configurations of gender, sexuality, race, class, nation, citizenship, migration, empire, war, neoliberalism and globalization as they relate to the lives of Asian American women? In exploring these questions, this course examines Asian American histories, bodies, identities, diasporic communities, representations, and politics through multi- and interdisciplinary approaches, including social science research, literature, popular representations, film, poetry and art.
Spring
Also Offered As: ASAM 1410, GSWS 1410
1 Course Unit

SAST 1430 Introduction to Islam
This course is an introduction to Islam as a religion as it exists in societies of the past as well as the present. It explores the many ways in which Muslims have interpreted and put into practice the prophetic message of Muhammad through historical and social analyses of varying theological, philosophical, legal, political, mystical and literary writings, as well as through visual art and music. The aim of the course is to develop a framework for explaining the sources and symbols through which specific experiences and understandings have been signified as Islamic, both by Muslims and by other peoples with whom they have come into contact, with particular emphasis given to issues of gender, religious violence and changes in beliefs and behaviors which have special relevance for contemporary society.
Fall or Spring
Also Offered As: NELC 0550, RELS 1430
1 Course Unit

SAST 1615 Migration and the Middle East
This reading-and discussion-intensive seminar examines the phenomenon of migration into, out of, within, and across the Middle East and North Africa. We will focus on the period from the late nineteenth century to the present, and will emphasize the cultural (rather than economic) consequences of migration. Along the way we will trace connections between the Middle East and other regions— notably the Americas, sub-Saharan Africa, South Asia, the Caucasus, and Western Europe. Readings are interdisciplinary and include works of history, anthropology, sociology, medical research, literature, political science, geography, and human rights advocacy. As students develop final projects on topics of their choice, we will spend time throughout the semester discussing tactics for research and writing.
Not Offered Every Year
Also Offered As: ASAM 2010, NELC 1615
1 Course Unit

SAST 1730 Introduction to Buddhism
This course seeks to introduce students to the diversity of doctrines held and practices performed by Buddhists in Asia. By focusing on how specific beliefs and practices are tied to particular locations and particular times, we will be able to explore in detail the religious institutions, artistic, architectural, and musical traditions, textual production and legal and doctrinal developments of Buddhism over time and within its socio-historical context. Religion is never divorced from its place and its time. Furthermore, by geographically and historically grounding the study of these religions we will be able to examine how their individual ethic, cosmological and soteriological systems affect local history, economics, politics, and material culture. We will concentrate first on the person of the Buddha, his many biographies and how he has been followed and worshipped in a variety of ways from Lhasa, Tibet to Phrae, Thailand. From there we touch on the foundational teachings of the Buddha with an eye to how they have evolved and transformed over time. Finally, we focus on the practice of Buddhist ritual, magic and ethics in monasteries and among lay communities in Asia and even in the West. This section will confront the way Buddhists have thought of issues such as "Just-War" Women's Rights and Abortion. While no one quarter course could provide a detailed presentation of the beliefs and practices of Buddhism, my hope is that we will be able to look closely at certain aspects of these religions by focusing on how they are practiced in places like Nara, Japan or Vietnam, Laos.
Fall or Spring
Also Offered As: EALC 0501, RELS 1730
1 Course Unit
SAST 1770 1947-49: British Empire and the Partitions of South Asia and Palestine
The partitions of South Asia and Palestine marked the end of the British Empire in those regions. British colonial rule in India ended in 1947 with the emergence of not one, but two nation states, India and Pakistan. Decolonization was marked by mass migration and ethnic cleansing along their borders. An estimated million people died in the violence in less than a year, and 12.5 million people migrated from their homes. The British Empire also gave up its claims to Palestine in 1947, exhausted by the two nationalisms of Zionists and Palestinians. This partition set up the declaration of the state of Israel, and the War for Palestine. By 1949, almost a million Palestinians found themselves displaced over many borders, some also within the borders of Israel. This comparative course is organized around three themes - the prehistories of these cataclysmic events, the role of Empire in catalyzing them, and the afterlives of these events that continue to haunt us into the present, seventy-five years later. It explores the political history - and the collapse of politics - that led to violence on a scale that was without precedent in the history of the Indian subcontinent. It examines the political, social and cultural events that led to decades of war and exile, and shaped the lives of generations of Palestinians, Israelis and the wider Middle East. Primary sources will help to explore the perspectives of ordinary people whose lives were turned upside down in both places.
Also Offered As: HIST 1770, NELC 1650
1 Course Unit

SAST 1781 Silk Road: From the Mediterranean to the Pacific
A journey along the overland and sea routes that connected China, India, Iran, and Rome from 200-1000 CE and served as conduits for cultural exchange. Precursor and successor routes will also be taken into consideration. The lives of merchants, envoys, pilgrims, and travelers interacting in cosmopolitan communities will be examined. Exploration of long-known and newly discovered archaeological ruins, along with primary sources in translation, will be studied.
Also Offered As: EALC 1781
1 Course Unit

SAST 1800 Psychology of Asian Americans
Using a cultural perspective, this course is intended to provide knowledge of Asian American personality, identity, and its relationship to mental well being; analyze psycho-social research pertinent to Asian Americans; and develop critical thinking skills on Asian American issues through experiential learning/discussions.
Spring
Also Offered As: ASAM 1800
1 Course Unit

SAST 1999 Independent Study
Directed Study for Undergraduates
Fall or Spring
0.5-1.5 Course Unit

SAST 2120 Cities and Temples in Ancient India
The wooden architecture of ancient India’s cities is represented in relief carvings from Buddhist religious monuments of the early centuries A.D. and replicated in remarkable excavated cave cathedrals. This lecture course will trace that architectural tradition, its transformation into a symbolic vocabulary for a new structure, the Hindu temple, and the development of the temple in India from ca. 500-1500 A.D.
Not Offered Every Year
Also Offered As: ARTH 2120
1 Course Unit

SAST 2200 Creating New Worlds: The Modern Indian Novel
Lonely bureaucrats and love-struck students, Bollywood stars and wayward revolutionaries: this course introduces students to the worlds of the Indian novel. From the moment of its emergence in the 19th century, the novel in India grappled with issues of class and caste, colonialism and its aftermath, gender, and the family. Although the novel has a historical origin in early modern Europe, it developed as a unique form in colonial and post-colonial India, influenced by local literary and folk genres. How did the novel in India—and in its successor states after 1947—transform and shift in order to depict its world? How are novels shaped by the many languages in which they are written, including English? And how do we, as readers, engage with the Indian novel in its diversity? This course surveys works major and minor from the past 200 years of novel-writing in India—with surveys both into predecessors of the Indian novel and parallel forms such as the short story. Readings will include works in translation from languages such as Hindi, Bangla, Urdu, Telugu, and Malayalam, as well as works written originally in English. Students will leave this course with an understanding of the Indian novel, along with the social conditions underlaying it, especially those relating to caste and gender.
Not Offered Every Year
Also Offered As: COML 2200
1 Course Unit

SAST 2208 Doing Research: Qualitative Methods and Research Design
This interdisciplinary course introduces students to qualitative research methods and frameworks in the social sciences and humanities. Students will learn how to frame an effective research question, situate it in relation to existing research, select the most appropriate methods for addressing the question, and develop an effective research plan. Each week students will be introduced to a new set of frameworks for analysis, see specific examples of their application drawn from anthropological, historical, and related scholarship and have opportunities to practice applying and evaluating the strengths and weaknesses of specific methodological tools. The goals of the semester will be for each student to develop their own research proposal for a specific project. Students will be introduced to a range of textual, archival and media collections and databases available at Penn, with particular attention to South Asia and other specific regions of interest to course participants. Students will also have the opportunity to identify sources of funding for summer and/or thesis research projects, and submit applications for these opportunities as part of the course. The course is ideal for students considering summer research, an undergraduate thesis, or an application to the Fulbright or other research program. It may be taken by itself as a freestanding course, or may be sequenced with SAST 209, Writing Research, the following fall semester.
Not Offered Every Year
1 Course Unit
SAST 2211 Sex, Sexuality and Sexual Science in South Asia: Perspectives from the Past and Present
This course will introduce students to the problems of sex, sexuality and sexual science in South Asia over the centuries. Its central problem will be how sex, society and knowledge about sex have been transformed in South Asia under the conditions of colonial and postcolonial modernity. It will consider how a multitude of indigenous practices and knowledges, from the famous Kamasutra and its allied knowledges to the transgender communities, from the Lazzaat-un-Nisa to concubinage and the sexual norms of elite households, were framed and reframed during the nineteenth and twentieth centuries through the agency of a variety of institutions, groups and individuals. The course will also show how South Asia played a crucial role in the global evolution of sexual knowledge. Topics will include the varieties and functions of traditional sexual knowledges, colonial sexology, changing sexual identities and practices, the relation of psychiatry and medicine to sex, queer and transgender sexualities, and the complex and shifting role of the state and civil society to all of these topics.
Not Offered Every Year
Also Offered As: HSOC 2211
1 Course Unit

SAST 2217 CU in India - Topics Course
C.U. in India is a hybrid, domestic/overseas course series which provides students with the opportunity to have an applied learning and cultural experience in India or South East Asia where students participate in 1) 28 classroom hours in the Fall term 2) a 12-day trip to India or South East Asia with the instructor during the winter break visiting key sites and conducting original research (sites vary) 3) 28 classroom hours at Penn in the Spring term and 4) a research paper, due at the end of the Spring term. Course enrollment is limited to students admitted to the program. For more information and the program application go to http://sites.sas.upenn.edu/cuinindia This is a 2-CU yearlong course DEADLINE TO REGISTER IS MARCH 31st
Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: ARTH 3170, COML 2217, GSWS 2217
1 Course Unit

SAST 2218 Media and Culture in Contemporary Iran
This course offers a comprehensive introduction to the culture and media of modern Iran, with a critical perspective on issues such as identity formation, ethnicity, race, and nation-building. It focuses on how these issues relate to various aspects of modern Iranian culture -- such as religion, gender, sexuality, war, and migration -- through the lens of media, cinema, and literature.
Fall or Spring
1 Course Unit

SAST 2219 Social Inequalities: Caste and Race
This course introduces students to two systems of inequity, caste in South Asia, particularly in India, and race in the United States. It's main objective is to demonstrate how these modes of inequity, sometimes dismissed as outdated or irrelevant, continue to shape social and state institutions like family, law, and bureaucracy. The course will explore sociological literature on caste and race and examine how these systems existed in a range of historical contexts. It will examine how certain groups were recipients of economic, political, and social privilege, and how these groups othered communities such as Afro-Americans in the United States and Dalits in India. We will consider how privileged groups continue to represent modern institutions like state and law that fail to protect disadvantaged communities in both India and the United States. The course will also explore how privileged communities employ the tool of gendered violence of different kinds like physical violence against men and sexual violence against women of Afro-American communities and Dalit communities to maintain forms of social power and control. The final unit of the course will deal with the emerging and imagined solidarities between Afro-American social and political movements in the United States and Dalit movements in India.
Also Offered As: AFRC 2219, GSWS 2219, SOCI 2970
1 Course Unit

SAST 2225 Imagining New Futures: Science Fiction and the Fantastic in South Asian Literature
This course examines the many ways in which writers have imagined the future, the past, and the unreal in South Asia. Rather than view science fiction as an isolated, modern genre, we will situate it alongside a range of genres and approaches to the fantastic. Although literature called science fiction is today a dynamic genre across South Asian languages, with a literary history in the twentieth and nineteenth centuries, writers draw from a range of other South Asian literary and cultural traditions, including Hindu mythology, Persian Qissa story cycles, and Sanskrit literature. In this course, therefore, we will explore the many genealogies of contemporary South Asian literature. Science fiction, and fantastic literature more generally, often functions as a means to depict social and technological change, the perception of the larger world, and contemporary politics. How did writers use amazing stories of brilliant inventions, dreams of a woman-led utopia, or dark conspiracies of disease to explore a range of questions. We will also consider how popular literary genres, such as the detective story, intersect with these other genres. Students will leave this course with a knowledge of the dynamic history of South Asian science fiction as part of a long history of imaginative literature, as well as as well as a deeper understanding of genre and the social history of literature.
1 Course Unit

SAST 2229 Dalit and Black Literatures: Caste, Race and Representation
The aim of this course is to study the historical conversations and comparisons between caste and racial oppression and the forging of categories of caste and/as race in the Dalit and African American literatures. Beginning with a brief survey of the historical conversations between the Black Panthers and Dalit Panthers, the course introduces some selected scholarly and literary debates on caste and/as racial discrimination, history of Afro-Dalit solidarity, literary representation of identities of caste and race and themes of freedom and equality. Selections of seminal texts and debates from the Dalit and African literary and cultural movements are included for discussion and analysis.
Not Offered Every Year
Also Offered As: AFRC 2229
Mutually Exclusive: AFRC 5229, SAST 5229
1 Course Unit
SAST 2231 The Sanskrit Epics
Ancient India’s two epic poems, originally composed in Sanskrit and received in dozens of languages over the span of two thousand years, continue to shape the psychic, social, religious, and emotional worlds of millions of people around the world. The epic Mahabharata, which roughly translates to The Great Story of the Descendants of the Legendary King Bharata, is the longest single poem in the world (approximately 200,000 lines of Sanskrit verse in the 1966 Critical Edition) and tells the mythic history of dynastic power struggles in ancient India. An apocalyptic meditation on time, death, and the utter devastation brought upon the individual and the family unit through social disintegration, the epic also serves as sourcebook for social and political mores and contains one of the great religious works of the world, The Bhagavad Gita (translation: The Song of God), in the middle of its sprawling narrative. The other great epic, The Ramayana (Rama’s Journey), though essentially tragic and about the struggles for power in ancient India, offers a relatively brighter narrative in foregrounding King Rāma, an avatar of the supreme divinity Viṣṇu, who serves as an ideal for how human beings might successfully negotiate the challenges of worldly life. Perhaps the most important work of ancient Asia, the Rāmāyaṇa also provides a model of human social order that contrasts with dystopic polities governed by animals and demons. Our course will engage in close reading of selections from both of these epic poems (in English translation) and scholarship on the epic from the past century. We will explore the Sanskrit epic genre, its oral and textual forms in South Asia, and the numerous modes for interpreting it over the centuries. We will also look at the reception of these ancient works in modern forms of media, such as the novel, television, theater, cinema and the comic book/anime.
Also Offered As: COML 2231
Mutually Exclusive: COML 6631, SAST 6631
1 Course Unit

SAST 2239 Adivasis/Indigenous Peoples & British Colonialism in India
Modern Western colonialism impacted the world in many ways. However, each country and community has had a different encounter and experience with colonialism. For the Adivasis (indigenous peoples) of India, it was catastrophic and marked a new phase in their history. The pre-colonial symbolizes a period of freedom in the hills and forest, whereas the colonial era symbolizes state coercion, eviction from land and the end of free movement in the forest. The proposed course discusses Adivasis’ encounters with the British colonial state. The course examines Indian history from the perspectives of Adivasis and contrasts these with dominant paradigms of Indian history. In this way, the course allows students to understand India from a different perspective. Under British colonialism, the diverse ethnic self-governing communities were imagined as primitive, uncivilized, barbaric, violent, backward and childlike people. The course discusses how such constructions impacted Adivasi social life and development. It traces how the expansion of the colonial state in forests and hills put an end to self-rule and induced massive migration from the plains of India and asks how Adivasi areas were integrated into the colonial economy. How did the colonial state use revenue and forest policies and regulations to bring these areas under its control? How did commercialization of agriculture and forest conservation work to further marginalize Adivasis? The course also examines how Adivasi knowledge of cultivation and forest conservation were viewed by the colonial state and asks why the colonial state encouraged caste-Hindu peasant migration into Adivasi areas. Finally, it traces the ways that colonial intervention has resulted in a series of contestations, acts of resistance, and insurgencies by Adivasi groups? Tracing forms of Adivasi resistance, the course puts these into conversation with intellectual history, emphasizing the role of rumours, myths, and orality, which provided the basis for the new insurgent consciousness that spread throughout Adivasi communities. Adivasi resistance movements have been documented and analyzed by colonial rulers and anthropologists. Colonial discourses were successful in criminalizing Adivasi politics. Ironically, many colonial-era discourses concerning Adivasis have been perpetuated within the post-colonial academy. The anti-colonial struggles of Adivasis were constructed as sporadic, spontaneous, unorganized and apolitical. The inauguration of the Subaltern Studies Project has reversed such arguments and attempted to provide ideological integrity to Adivasi politics. Students will be introduced to important literature on Adivasi anti-colonial insurgent consciousness and will be encouraged to think critically about the concepts and theories of subaltern politics. Assigned readings include texts by James Scott, Ranajit Guha, David Arnold, David Hardiman, Ajay Skaria, Dhanagare, Ramachandra Guha, Biswamoy Pati, Alpa Shah, Crispin Bates, Jangkhomang Guite and Bangya Bhukya. One aim of the course is to sensitize the students to how the political and cultural mobilizations by subalterns have contributed to the shaping of democracy.
Spring
Also Offered As: ANTH 2109, HIST 0853, SOCI 2974
Mutually Exclusive: SAST 5239
1 Course Unit
SAST 2249 Re-enchanting Modernity: A Guide to Sufism in South Asia
This undergraduate level course introduces students to Sufism in modern South Asia, with a particular focus on how Muslim 'mystics' and their 'mystical' methods interacted with modernity, colonialism, technological developments and globalization. This course is divided into three parts. In the first part of this course, students are provided with an overview of the theological and historical background of the dominant expression of Islam that came to be identified as 'Sufism' or 'Islamic mysticism', the historical development of Sufi institutions and spaces in South Asia, and the historical emergence of South Asia as a prominent global center of Sufism. The second and main part of this course introduces students to a range of anthropological and historical works that are revelatory about how Sufi in modern South Asia were and remain intimately connected to modern political and technological developments. Providing students with an overview of Sufi re-enchantments of modernity from the 19th to 21st century, this section of the course focuses upon Sufi movements and masters who perpetuated or defended customary Islam through sophisticated appropriations of technologies and print networks, and negotiations with non-Muslim rulers and societies. Moreover, students will be introduced to anthropological and historical scholarship on religious worlds in modern South Asia that were and remain steeped in 'customary Islam' and Sufi performances and interpretations of Islam. These sources reveal how 'mystical' methods of performing Islam through ecstasy and spiritual restoration, and interpretations of dreams and visions, have regularly interacted with contemporaneous technologies. The third part of this course introduces students to the globalization of South Asian Sufism in North America, Europe and Southeast Asia. Herein, students will be encouraged to engage with anthropological and literary works pertaining to itinerant South Asian Sufi masters and their devotional cults, and introduced to active South Asian Sufi centers in Philadelphia. Not Offered Every Year
1 Course Unit

SAST 2250 History of Hinduism
This course will explore the history of the religion(s) designated by the term 'Hinduism' from their earliest articulations down to the rise of modern reforms in the nineteenth century. The study of Hinduism is perhaps unique among the scholarly traditions on world religions in that it has to date had no serious connected account of its historical development, as scholars have preferred to take structural, sociological, phenomenological, and doctrinal approaches to the religion. The course, after a brief review of scholarly approaches to Hinduism and their interpretive legacies, will seek to develop a historical sense of the religion through attention to shifts in liturgy, ritual, theology, doctrine, sacrality, kingship, and soteriology. The course will include the reading of primary sources relevant to understanding these changes a well as highlight both modern and premodern traditions of their interpretation. It will also consider and assess some of the key interpretive ideas in the study of Hinduism, including Sanskritization, Great and Little Traditions, cult formation, regional and popular religious movements, and canon formation. There will also be sustained consideration of the question of religion and socio-political power as well as relations between Hinduism and other religions like Buddhism and Islam. Not Offered Every Year
Also Offered As: RELS 2250
1 Course Unit

SAST 2251 Muslim Sainthood Practices
This course aims at introducing various classical, popular and modern Muslim saints in South Asia. We will read the life stories of these saints and focus on their contribution to various religions in South Asia. We will read the life stories of these saints and focus on their contribution to various religions in South Asia. We will learn about the major concepts initiated and circulated by these saints and their distinctive ways of dealing with spiritual aspects. While focusing on their sainthood practices, we also study the nature of the dialogue which addresses the questions such as pluralism, localism, and a new paradigm of spirituality that continually interacts with diverse modes of everyday life in South Asia. In order to understand their impact on visual and media cultures, we also watch two documentaries and compare these visual sources with sainthood literature and practices. Not Offered Every Year
1 Course Unit

SAST 2260 Women and the Making of Modern South Asia
This course on women in South Asian history has four objectives. 1. To acquaint ourselves with the historiography on South Asian women. 2. To gain an understanding of evolving institutions and practices shaping women's lives, such as the family, law and religious traditions. 3. To understand the impact of historical processes - the formation and breakdown of empire, colonialism, nationalism and decolonization - upon South Asian women between the sixteenth and twentieth centuries. 4. To become familiar with some of the significant texts written about and by women in this period. We will read a wide variety of primary sources including a Mughal princess' account, devotional verse authored by women, conduct books, tracts, autobiographies and novels. Spring
Also Offered As: GSWS 2601, HIST 3500
1 Course Unit

SAST 2262 The Making of Medieval India
This course will provide an in-depth understanding of South Asia in what is often called its 'medieval' period from the rise of the great temple kingdoms until the end of the Delhi Sultanate in the sixteenth century (c. 500 CE - c. 1500 CE). This millennium is arguably one of the most transformative in South Asia's history, a period when many of its most distinctive social and cultural features evolved. The course will provide both an overview of the period as well as an introduction to major interpretations and types of sources (textual, visual, and archaeological). The focus throughout the course will be on the heterogeneous development of states, societies and cultures with special attention to long-term processes of transformation. One set of themes explored will be largely social and economic, focusing on the development of agrarian and peasant societies, aristocracies and intellectuals, as well as the role of mercantile, pastoralist, nomadic and forest-living groups. Another set of themes will explore cultural transformation, including the development, transformation and interaction of religious practices, the emergence of cosmopolitan and regional literary cultures, and the rise of distinctive urban, courtly, and rural world views. Special themes of discussion may include violence and manners, material cultures, religious conflict, devotional religion and gender relations. Not Offered Every Year
Mutually Exclusive: SAST 6262
1 Course Unit
SAST 2293 Caste & Class in South Asia
This course will explore the reality of caste and class in South Asian society, and the theories, classical and modern, that attempt to explain it. We shall survey a wide sweep of sources, from the earliest evidence for a division into caste-classes in the Rig-Veda to reports in modern media of caste-related social problems; from orthodox Hindu normative texts justifying and upholding a rigid hierarchical division of society to voices, in Sanskrit and in vernaculars, criticizing the caste system. Our goal is to gain a nuanced and many-sided insight into a deeply pervasive phenomenon that has shaped South Asian society, culture, and religion in general (Muslim, Sikh, and Christian castes) from ancient time up to the twentieth century.
Not Offered Every Year
1 Course Unit

SAST 2324 Sanskrit Literature in Translation
This course will focus solely on the specific genres, themes, and aesthetics of Sanskrit literature (the hymn, the epic, the lyric, prose, drama, story literature, the sutra, etc.) and a study of the history and specific topics of Sanskrit poetics and dramaturgy. All readings will be in translation.
Not Offered Every Year
Also Offered As: COML 2324
1 Course Unit

SAST 2334 A Survey of Sanskrit, Pakrit, and Classical Tamil Literature in Translation
This course will cover most of the genres of literature in South Asia’s classical languages through close readings of selections of primary texts in English translation. Special focus will be given to epics, drama, lyrical poetry, satirical works, and religious literature.
Not Offered Every Year
Also Offered As: COML 2334
1 Course Unit

SAST 2350 Eastern Christianities
The history of Christianity is often told from the perspective of its spread westward from Israel to Rome. Yet, in the first millennium, there were more Christians living in the East, in places as far away as Persia, Yemen, India, China, and Mongolia, than in the West. Spread across the Asian continent, these Christians were actively involved in local and imperial politics, composed theological literature, and were deeply embedded in the cultural fabric of their host societies. This course traces the spread of Christianity eastward, paying particular attention to its regional developments, its negotiations with local political powers, and its contact with other religions, including Buddhism, Manichaeanism, and Islam. Readings will cover a broad range of sources, including selections from classical Syriac literature, Manichaean texts, Mesopotamian magic bowls, the so-called “Jesus Sutras,” and the Quran. All readings will be provided in English, and no background is presumed.
Not Offered Every Year
Also Offered As: NELC 3260, RELS 2350
1 Course Unit

SAST 2452 Urdu Literature in Translation
This course will look at Urdu-Hindi expressions of resistance to militant fundamentalism trends, as well as literature resisting the influence of liberal progressive thought. Through comparisons of these divergent trends, we will explore the real inersections, comfortable comprises and contradictions that are internalized by people on the ground in developing societies. The historical and linguistic roots of resistance poetry will be studied, contrasting South Asian Urdu-Hindi poetry and prose (original and translated) with resistance movements from other parts of the world. This course provides students with the opportunity to deepen their knowledge of Urdu culture, literature, and society while expanding and refining their Urdu language skills. We will explore various social, political, and cultural issues through authentic sources such as journalism and media, prose literature and poetry, and film and music. The course is designed to be flexible to address students’ needs and interests. It targets students with two years of Urdu study or the equivalent proficiency. Prerequisite: Intermediate reading, writing and speaking skills in Urdu are recommended but contact the instructor if you are unsure of your eligibility and want to discuss further.
Not Offered Every Year
1 Course Unit

SAST 2462 Urdu Topics Course
Urdu literature in translation. Topics vary by semester.
Not Offered Every Year
1 Course Unit

SAST 2550 Modern Southeast Asia
This first-year friendly course provides a broad introductory overview of modern Southeast Asia, surveying the region’s extraordinary diversity and ongoing social, economic, and political transformations. Centering on the nation-states that have emerged following the second World War, we will assess elements of Southeast Asian geography, history, language and literature, cosmologies, kinship systems, music, art and architecture, agriculture, industrialization and urbanization, politics, and economic change. We will remain particularly attentive to the ways Southeast Asians negotiate and contend with ongoing challenges with modernization, development, and globalization.
Also Offered As: ANTH 2550
1 Course Unit
SAST 2551 Media and Religion
This course will look at the ways that religion intersects with media in South Asia—exploring how the medium is the message. The class begins with a discussion of how it is difficult to define “religion” and “media” in the Global South, specifically in South Asia. We will analyze how religion and media are inextricable, and also how news media has gone about the business of turning religion into news. The class will familiarize students with a variety of media forms aside from the obvious sources of internet, TV and newspaper—these include traditional architecture, devotional texts, devotional poetry, music, visual-sensorial worship, modern film, recorded music, clothing, and live performance. We will conclude with a look at religion in forms of contemporary media, with particular attention to new media (TV, radio, internet). The course also offers students lectures providing a foundation of knowledge on a few of the primary religious traditions that will be central to the regions under discussion: Islam, Hinduism, Sikhism, Jainism, Zoroastrianism, and Christianity. There will be guest speakers and a visit to Penn Museum. While much of the course will be immersed in the history and the past, we will conclude by considering contemporary contexts, both globalized and local. There is no prerequisite for the course. All students are welcome.

Fall
Also Offered As: RELS 2550
1 Course Unit

SAST 2600 Asian American Food
You are what you eat. Asian American Food explores the history, politics, and ethnic identity of food through a cultural lens. Growing food, eating, and sharing meals serve as intimate expressions of self and community. By examining the production and consumption of food, the course investigates the ways that Asian Americans navigate traditions, gender norms, religious dietary laws, food habits, and employment as they create lives in the United States. The course overviews the history of Asian American foodways, but has a particular focus on Philadelphia’s Asian American communities.

Spring
Also Offered As: ASAM 2600, URBS 2600
1 Course Unit

SAST 2610 The Asian Caribbean
Although Asians have lived in the Americas for centuries, the Asian American community and experience tends to be defined by the post-1965 wave of immigration to the United States. In an effort to correct this narrative this course will explore the histories, experiences, and contributions of some of the forgotten Asians of the Americas. In particular, we will focus on the earlier labor migrations of Chinese and South Asian individuals to the Caribbean and the United States. The experiences of these individuals, who built railroads, cut sugarcane, and replaced African slave labor, complicate our understandings of race today. By examining the legal and social debates surrounding their labor in the 19th century and exploring how their experiences are forgotten and their descendants are rendered invisible today, we will complicate what is Asian America and consider how this history shapes immigration policies today.

Spring
Also Offered As: ASAM 2610, GSWS 2610, LALS 2601
1 Course Unit

SAST 2680 Art and Empire in India, 1750-1900
This course surveys transformations in visual culture between the Mughal and British empires in India from the mid-eighteenth through the nineteenth centuries. We shall consider changes in artistic production, patronage, publics, and viewing protocols in the contexts of the court and bazaar. We shall examine the emergence of new technologies and its impact on visual forms, media, and genres, focusing on the interplay of photography, print, and painting. We shall explore the role of institutions—the art school, the museum, and the archeological survey—and the professions and practices they engendered. We shall analyze how architecture and urban planning created new built environments and social relationships in colonial India. We shall view objects first-hand in the Penn Museum, Penn Libraries, and Philadelphia Museum of Art. This is a reading- and writing-intensive course. Students with a background in related disciplines such as literature, history, religion, anthropology, and South Asian Studies are welcome.

Also Offered As: ARTH 2680
Mutually Exclusive: ARTH 6680, SAST 6680
1 Course Unit

SAST 3120 Indian Art Seminar
This seminar addresses topics in the art of India from antiquity to the present emphasizing global connections and comparisons. Topics vary from year to year and might include the arts of the book in South Asia; Indian painting, 1100-now; history and theory of museums in the colony, 1750-1950; photography, cinema, and performance art in South Asia; and art, ecology, and environment in South Asia. We shall explore objects in area collections and incorporate special excursions and programs when possible. A background in South Asian studies or languages is not required. Students from related disciplines such history, anthropology, literary studies, religious studies, feminist studies, cinema and media studies, and architecture are welcome.

Fall
Also Offered As: ARTH 3120
1 Course Unit

SAST 3992 SAST Transfer Credit
This is a course number used to award transfer credit for South Asia Studies courses at the advanced level.

Fall or Spring
1 Course Unit

SAST 4998 UNDERGRADUATE THESIS
This course is required for all senior honors majors, and open to senior majors. Honors majors must, in addition, prepare a research paper.

Fall or Spring
1 Course Unit

SAST 5110 Topics in South Asian Art
This seminar engages topics in the history and theory of South Asian art from antiquity to the present emphasizing global connections and comparisons. Topics vary from year to year and might include the arts of the book in South Asia; Indian Ocean art worlds; and fragments, ruins, and traces in the art of South Asia. We shall explore objects in area collections and incorporate special excursions and programs when possible. A background in South Asian studies or languages is not required. Students from related disciplines such history, anthropology, literary studies, religious studies, feminist studies, cinema and media studies, and architecture are welcome.

Not Offered Every Year
Also Offered As: ARTH 5110
1 Course Unit
SAST 5111 Beginning Hindi-Urdu Online (Startalk)
This introductory, proficiency-based course covers the core content of first-year Hindi-Urdu. It is designed for students with little or no prior exposure to Hindi or Urdu. The course covers all four language skills (speaking, listening, reading, and writing), but there is a special focus on developing speaking and listening skills. Students will also develop literacy skills in one script of their choice (Hindi or Urdu script). All written materials will be provided in both scripts. All classes are interactive and students acquire the language by using it in realistic contexts. Culture is introduced through various authentic materials including Bollywood songs. This program has a special application process. Please visit our website (https://www.southasiacenter.upenn.edu/startalk) for more information on the program and how to apply.
Summer Term
1 Course Unit

SAST 5189 Islam and the West
How did Muslims and modern South Asia interact with the West? What Islamic idioms, orientations and movements emerged in the nineteenth and twentieth centuries? Was South Asia a prominent global center of Islam? What kinds of Islamic educational institutions developed in modern South Asia? How did Muslims appropriate technologies? What materials were printed by Muslims? Were Muslims part of the British army? What was jihad in modernity? How did Muslim 'modernists' and 'traditionalists' respond to the challenges of colonialism and modernity? What was the nature of Sufism in modern South Asia? What was the nature of political Islam in South Asia? How did some Muslims demand a Muslim State? What was the Partition? How has Muslim history been remembered in Bangladesh, India and Pakistan? This is an introductory course, and aims to introduce students to a facet of the long history of Islam, Muslims, and the West.
1 Course Unit

SAST 5229 Dalit and Black Literatures: Caste, Race, and Representation
The aim of this course is to study the historical conversations and comparisons between caste and racial oppression and the forging of categories of caste and/or race in the Dalit and African American literatures. Beginning with a brief survey of the historical conversations between the Black Panthers and Dalit Panthers, the course introduces some selected scholarly and literary debates on caste and/or racial discrimination, history of Afro-Dalit solidarity, literary representation of identities of caste and race and themes of freedom and equality. Selections of seminal texts and debates from the Dalit and African literary and cultural movements are included for discussion and analysis. Not Offered Every Year
Also Offered As: AFRC 5229
Mutually Exclusive: AFRC 2229, SAST 2229
1 Course Unit

SAST 5239 Adivasis/Indigenous Peoples & British Colonialism in India
Modern Western colonialism impacted the world in many ways. However, each country and community has had a different encounter and experience with colonialism. For the Adivasis (indigenous peoples) of India, it was catastrophic and marked a new phase in their history. The pre-colonial symbolizes a period of freedom in the hills and forest, whereas the colonial era symbolizes state coercion, eviction from land and the end of free movement in the forest. The proposed course discusses Adivasis’ encounters with the British colonial state. The course examines Indian history from the perspectives of Adivasis and contrasts these with dominant paradigms of Indian history. In this way, the course allows students to understand India from a different perspective. Under British colonialism, the diverse ethnic self-governing communities were imagined as primitive, uncivilized, barbaric, violent, backward and childlike people. The course discusses how such constructions impacted Adivasi social life and development. It traces how the expansion of the colonial state in forests and hills put an end to self-rule and induced massive migration from the plains of India and asks how Adivasi areas were integrated into the colonial economy. How did the colonial state use revenue and forest policies and regulations to bring these areas under its control? How did commercialization of agriculture and forest conservation work to further marginalize Adivasis? The course also examines how Adivasi knowledge of cultivation and forest conservation were viewed by the colonial state and asks why the colonial state encouraged caste-Hindu peasant migration into Adivasi areas. Finally, it traces the ways that colonial intervention has resulted in a series of contestations, acts of resistance, and insurgencies by Adivasi groups? Tracing forms of Adivasi resistance, the course puts these into conversation with intellectual history, emphasizing the role of rumours, myths, and orality, which provided the basis for the new insurgent consciousness that spread throughout Adivasi communities. Adivasi resistance movements have been documented and analyzed by colonial rulers and anthropologists. Colonial discourses were successful in criminalizing Adivasi politics. Ironically, many colonial-era discourses concerning Adivasis have been perpetuated within the post-colonial academy. The anti-colonial struggles of Adivasis were constructed as sporadic, spontaneous, unorganized and apolitical. The inauguration of the Subaltern Studies Project has reversed such arguments and attempted to provide ideological integrity to Adivasi politics. Students will be introduced to important literature on Adivasi anti-colonial insurgent consciousness and will be encouraged to think critically about the concepts and theories of subaltern politics. Assigned readings include texts by James Scott, Ranajit Guha, David Arnold, David Hardiman, Ajay Skaria, Dhanagare, Ramachandra Guha, Biswamoy Pati, Alpa Shah, Crispin Bates, Jangkhomang Guite and Bhangya Bhukya. One aim of the course is to sensitize the students to how the political and cultural mobilizations by subalterns have contributed to the shaping of democracy. Course Requirements: Short writing responses to readings In-class presentations on readings Midterm short essay Final research paper based on primary and secondary sources. (No exams) Instructor's Objectives: 1. Students will understand indigenous perspectives on Indian culture and history. 2. Students will be able to situate indigenous movements in relation to Subaltern Studies, dominant schools of historiography, and colonial and postcolonial ethnography. 3. Students will be able to analyze primary sources and identify different schools of thought within secondary literature. 4. Students will be able to analyze the impact of colonial practices and discourses on indigenous cultures, histories and practices, and the forms of resistance that indigenous groups have utilized.
Spring
Also Offered As: ANTH 5239
Mutually Exclusive: SAST 2239
1 Course Unit
SAST 5410 Religion and the Visual Image: Seeing is Believing

Seeing is Believing engages in a historical, theoretical, and cross-cultural analysis of the place of visuality in religion and of religion in visual culture. We will examine images, buildings, places, objects, performances and events. The geographical, cultural and historical scope of the material is broad, including subjects from Europe, the Islamic World, non-Muslim South Asia, the US and Latin America from the medieval period until the present. Theoretical works will be read in conjunction with representative examples to invite intellectual engagement in a socially and historically grounded way. Important issues to be covered include the relationship of visual to material culture; visual theories versus theories of vision; locating religion in human sensory experience; perception at individual and collective levels; authenticics, fakes and simulacra; iconoclasm and image veneration; aesthetics, use and utility, and things.

Not Offered Every Year
Also Offered As: NELC 6560, RELS 5410
1 Course Unit

SAST 5503 Historical Transitions in Early India

This course will focus on major historical transitions in the South Asian subcontinent until approximately AD 1200. It will focus on particularly on political, social and liturgical philosophical change. It will also introduce students to the major narratives and interpretations of the ancient and early medieval periods as they bear on these questions and will also familiarize students with the sources upon which this history has been based. It will review debates, critical perspectives and recent trends in this historiography with a view toward developing a sensitivity to the theoretical problems that attend the study of pre-modern India. Its persistent themes will be historical continuity and disjuncture in the history of religious practices and ideas, the emergence of political forms and the nature of the ‘state’ in precolonial India, transformations of society and economy, and the relationship between discursive production and relations of power. It will be of interest to students of history, literature, religion and archaeology.

Not Offered Every Year
1 Course Unit

SAST 5550 History of Hinduism

This course will explore the history of the religion(s) designated by the term 'Hinduism' from their earliest articulations down to the rise of modern reforms in the nineteenth century. The study of Hinduism is perhaps unique among the scholarly traditions on world religions in that it has to date had no serious connected account of its historical development, as scholars have preferred to take structural, sociological, phenomenological, and doctrinal approaches to the religion. The course, after a brief review of scholarly approaches to Hinduism and their interpretive legacies, will seek to develop a historical sense of the religion through attention to shifts in liturgy, ritual, theology, doctrine, sacral kingship, and soteriology. The course will include the reading of primary sources relevant to understanding these changes as well as highlight both modern and premodern traditions of their interpretation. It will also consider and assess some of the key interpretive ideas in the study of Hinduism, including Sanskritization, Great and Little Traditions, cult formation, regional and popular religious movements, and canon formation. There will also be sustained consideration of the question of religion and socio-political power as well as relations between Hinduism and other religions like Buddhism and Islam.

Not Offered Every Year
Also Offered As: RELS 5555
1 Course Unit

SAST 5552 MLA Proseminar: Philosophy East and West: An Introduction to Indian and Chinese Philosophy

This course will take the student through the major topics of Indian philosophy by first introducing the fundamental concepts and terms that are necessary for a deeper understanding of themes that pervade the philosophical literature of India -- arguments for and against the existence of God, for example, the ontological status of external objects, the means of valid knowledge, standards of proof, the discourse on the aims of life. The readings will emphasize classical Hindu, Buddhist, and Jain philosophical articulations (from 700 B.C.E. to 16th century CE) but we will also supplement our study of these materials with contemporary or relatively recent philosophical writings in modern India.

Fall or Spring
1 Course Unit

SAST 5554 Religion and Resistance in South Asia

In this course, we focus on various medieval and contemporary devotional forms of Hinduism, Buddhism and Islam in South Asia. Several definitions try to tie the idea of devotion to classicism and traditionalism with a set of conservative ideas. However, this course introduces the students to a diverse and pluralistic understanding of Hinduism, Buddhism and Islam that also has a history of resistance and protest beginning with poets such as Kabir and others from the Bhakti movement, and Sufi devotional contexts in South Asia. We read about the histories of these rebellious poets and their interventions into the traditional practices of devotion. We also discuss about how these medieval trends find their way into contemporary times enriching the discourses of Dalit, Muslim and Feminist movements.

Not Offered Every Year
Mutually Exclusive: SAST 0054
1 Course Unit

SAST 5560 Modern History of Pakistan

This course is designed as an introduction to the contemporary history of Afghanistan and Pakistan, with an emphasis on the intertwined history of both countries; their other regional neighbors; and global politics. The course focuses on global trends such as empire, nationalism, the Cold War, superpower competition, and transnational Islamism. At the same time, participants will explore how local people viewed their lives amidst these trends, and how local dynamics on this northwestern fringe of the Subcontinent changed the face of global politics. The readings supplement political and economic history with primary sources drawn from popular poetry, oral narrative, and memoir. Finally, we'll be following current events in the region, and placing them in their sociohistorical context. Therefore, there are two main goals for this course: (1) to introduce the specific history of Afghanistan and Pakistan up to present, and (2) to introduce typologies of social institutions and events, assisting class participants to develop their own frameworks for interpreting current events in the region after the end of the course.

Not Offered Every Year
1 Course Unit
SAST 5571 Devotion's New Market: Religion, Economics, and the City
This graduate and undergraduate level course introduces students to the new forms of devotion as circulated in various urban centers in South Asia with a focus on growing market economy and urbanization. This course will particularly discuss case studies of how different modes of Hinduism, Islam, Christianity and other minor religions operate in an urbanized middle-class and educated communities. We will read theoretical and ethnographical works of contemporary research in religious studies and anthropology that deal with the questions of modernity, reformism and economic developmentalism. Throughout the semester, we focus on 1) how does religious forms such as sainthood practices, private and public rituals, narrative modes and everyday life evolve in the background of growing politics of development; 2) we discuss the tensions between classical notions of devotion and their new transformations in the city life, and finally 3) theoretically, we analyze concepts such as reformism, fundamentalism, recent discourses on identity politics and gender implications as connected to urban religious life.
Not Offered Every Year
Mutually Exclusive: SAST 1171
1 Course Unit

SAST 5781 Silk Road: From the Mediterranean to the Pacific
A journey along the overland and sea routes that connected China, India, Iran, and Rome from 200-1000 CE and served as conduits for cultural exchange. Precursor and successor routes will also be taken into consideration. The lives of merchants, envoys, pilgrims, and travelers interacting in cosmopolitan communities will be examined. Exploration of long-known and newly discovered archaeological ruins, along with primary sources in translation, will be studied.
Also Offered As: EALC 5781
1 Course Unit

SAST 5860 History of Islam in Asia
This class is designed to structure reflection on Islam and Islamic culture in South Asia—Indonesia, Pakistan, India, and Bangladesh. Contrary to the popular perception that the Middle East defines Islam, Asian countries not only host the most Muslims in the world but have been the source of some of Islam’s most important social and reform movements in the last three hundred years. This class looks at the history of Muslim societies across Asia not just as a religious community but also as a social and cultural bloc (a distinctive part of what Marshall Hodgson called the ‘Islamicate’ world, but also an area that challenges some of Hodgson’s assumptions about the Islamicate world). This course allows for the study of the Muslim world between the years 1700 to present. The class will allow students to compare and contrast Muslim societies over the last three centuries, examine points of confluence for geographically- or culturally-distinct Muslim peoples in the last three centuries, and in their writing assignments focus on the history of one society in a wider Islamicate context. In the process students will gain a more nuanced awareness of how Islam has made an impact in Asian countries, and how Asian countries have in turn impacted Islam.
Fall or Spring
Also Offered As: RELS 5860
1 Course Unit

SAST 5999 Independent Study
Directed Study for Graduate students only
Fall or Spring
1 Course Unit

SAST 6120 Cities and Temples in Ancient India
The wooden architecture of ancient India’s cities is represented in relief carvings from Buddhist religious monuments of the early centuries A.D. and replicated in remarkable excavated cave cathedrals. This lecture course will trace that architectural tradition, its transformation into a symbolic vocabulary for a new structure, the Hindu temple, and the development of the temple in India from ca. 500-1500 A.D.
Not Offered Every Year
Also Offered As: ARTH 6120
1 Course Unit

SAST 6200 SAST Proseminar: History, Methods, and Theories of South Asian Studies
This course aims to provide students with the methodological tools and disciplinary perspectives necessary for the contemporary study of South Asia, while situating that study in the larger history of Area Studies as an interdisciplinary field of study. The course will include both in-depth discussion of the theory and history of Area Studies in the United States and the relation of area-specific study to nineteenth-century fields of philology and orientalism, as well as orientations and case studies in the major fields associated with South Asian Studies. Alongside these thematic concerns, studies will practice skills necessary for further study, including working with sources and archives, field-standard citation practices, and developing familiarity with new methodologies in the digital humanities. Relatedly, this course will deal with the major genres of academic writing associated with South Asian studies, including both departmental milestones such as the proposal and the dissertation, as well as journal articles and grant applications. The course will culminate in a student project which will work with one of these genres to present their own research interests. Completion of this course will prepare students to engage in the diverse conversations that make up contemporary South Asian Studies.
Spring
1 Course Unit

SAST 6217 CU In India - Topics Course
C.U. in India is a hybrid, domestic/overseas course series which provides students with the opportunity to have an applied learning and cultural experience in India or South East Asia where students participate in 1) 28 classroom hours in the Fall term 2) a 12-day trip to India or South East Asia with the instructor during the winter break visiting key sites and conducting original research (sites vary) 3) 28 classroom hours at Penn in the Spring term and 4) a research paper, due at the end of the Spring term. Course enrollment is limited to students admitted to the program. For more information and the program application go to http://sites.sas.upenn.edu/cuinindia This is a 2-CU yearlong course DEADLINE TO REGISTER IS MARCH 31st
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit
SAST 6251 Muslim Sainthood Practices
This course aims at introducing various classical, popular and modern Muslim saints in South Asia. We will read the life stories of these saints and focus on their contribution to various religions in South Asia. We will read the life stories of these saints and focus on their contribution to various religions in South Asia. We will learn about the major concepts initiated and circulated by these saints and their distinctive ways of dealing with spiritual aspects. While focusing on their sainthood practices, we also study the nature of the dialogue which addresses the questions such as pluralism, localism, and a new paradigm of spirituality that continually interacts with diverse modes of everyday life in South Asia. In order to understand their impact on visual and media cultures, we also watch two documentaries and compare these visual sources with sainthood literature and practices.
Not Offered Every Year
1 Course Unit

SAST 6262 The Making of Medieval India
This course will provide an in-depth understanding of South Asia in what is often called its 'medieval' period—from the rise of the great temple kingdoms until the end of the Delhi Sultanate in the sixteenth century (c. 500 CE - c. 1500 CE). This millennium is arguably one of the most transformative in South Asia’s history, a period when many of its most distinctive social and cultural features evolved. The course will provide both an overview of the period as well as an introduction to major interpretations and types of sources (textual, visual, and archaeological). The focus throughout the course will be on the heterogeneous development of states, societies, and cultures with special attention to long-term processes of transformation. One set of themes explored will be largely social and economic, focusing on the development of agrarian and peasant societies, aristocracies and intellectuals, as well as the role of mercantile, pastoralist, nomadic, and forest-living groups. Another set of themes will explore cultural transformation, including the development, transformation and interaction of religious practices, the emergence of cosmopolitan and regional literary cultures, and the rise of distinctive urban, courtly, and rural world views. Special themes of discussion may include violence and manners, material cultures, religious conflict, devotional religion and gender relations.
Not Offered Every Year
Mutually Exclusive: SAST 2262
1 Course Unit

SAST 6293 Caste & Class in South Asia
This course will explore the reality of caste and class in South Asian society, and the theories, classical and modern, that attempt to explain it. We shall survey a wide sweep of sources, from the earliest evidence for a division into caste-classes in the Rig-Veda to reports in modern media of caste-related social problems; from orthodox Hindu normative texts justifying and upholding a rigid hierarchical division of society to voices, in Sanskrit and in vernaculars, criticizing the caste system. Our goal is to gain a nuanced and many-sided insight into a deeply pervasive phenomenon that has shaped South Asian society, culture, and religion in general (Muslim, Sikh, and Christian castes) from ancient time up to the twentieth century.
Not Offered Every Year
1 Course Unit

SAST 6324 Sanskrit Literature in Translation
This course will focus solely on the specific genres, themes, and aesthetics of Sanskrit literature (the hymn, the epic, the lyric, prose, drama, story literature, the sutra, etc.) and a study of the history and specific topics of Sanskrit poetics and dramaturgy. All readings will be in translation.
Not Offered Every Year
1 Course Unit

SAST 6334 A Survey of Sanskrit, Pakrit, and Classical Tamil Literature in Translation
This course will cover most of the genres of literature in South Asia’s classical languages through close readings of selections of primary texts in English translation. Special focus will be given to epics, drama, lyric poetry, satirical works, and religious literature.
Not Offered Every Year
1 Course Unit

SAST 6604 Neoliberalism and the City
Over fifty percent of the world’s population now lives in cities. Neoliberalism—the ideology and accompanying policies and practices that champion the shifting of political decision making from the public sector to the private sector—has been widely recognized as having shown dramatic growth worldwide since the 1970s. It has also been widely regarded as a product of globalization. This course traces the history of neo-liberalism in global context with particular attention to neoliberalism’s relationship to cities, and examines the role that urban growth has played in spurring neoliberal policies and practices. It asks how policy makers, voters, and private interest worldwide have responded to the growth of urban poverty and slums, challenges with urban public education, unequal resource distribution, environmental pressures experienced within urban sanitation and waste disposal systems, and increased demands for municipal services like water, electricity, and transport infrastructures, and examined the rise of public-private partnerships, gated communities, initiatives to privatized education and municipal services, and efforts to relocate slum-dwellers and beautify cities as explicit strategies for attracting “global capital”. The course also asks how the recent rise of neoliberal policies and practices differs from earlier market-driven and private sector-led forms of political governance. The British and Dutch East India Companies are two famous examples of joint stock companies that assumed administrative and political roles over their colonies. How did the rise of these colonial relationships differ from current neoliberal shifts? Readings will draw heavily from ethnographic and urban studies, scholarship on South Asia, as well as Latin America, South Africa, the Middle East, Europe, and North America, exploring what each of these specific contexts has to teach us more generally about the relationship between urbanization, global capitalism, public and private sectors, and political processes and decision making. The course also asks how the recent rise of neoliberal policies and practices differs from earlier market-driven and private sector-led forms of political governance. The British and Dutch East India Companies are two famous examples of joint stock companies that assumed administrative and political roles over their colonies. How did the rise of these colonial relationships differ from current neoliberal shifts? Readings will draw heavily from ethnographic and urban studies, scholarship on South Asia, as well as Latin America, South Africa, the Middle East, Europe, and North America, exploring what each of these specific contexts has to teach us more generally about the relationship between urbanization, global capitalism, public and private sectors, and political processes and decision making.
Not Offered Every Year
Also Offered As: URBS 6604
1 Course Unit
SAST 6611 Sex, Sexuality and Sexual Science in South Asia: Perspectives from the Past and Present
This course will introduce students to the problems of sex, sexuality and sexual science in South Asia over the centuries. Its central problem will be how sex, society and knowledge about sex have been transformed in South Asia under the conditions of colonial and postcolonial modernity. It will consider how a multitude of indigenous practices and knowledges, from the famous Kamasutra and its allied knowledges to the transgender communities, from the Lazzat-un-Nisa to concubinage and the sexual norms of elite households, were framed and reframed during the nineteenth and twentieth centuries through the agency of a variety of institutions, groups and individuals. The course will also show how South Asia played a crucial role in the global evolution of sexual knowledge. Topics will include the varieties and functions of traditional sexual knowledges, colonial sexology, changing sexual identities and practices, the relation of psychiatry and medicine to sex, queer and transgender sexualities, and the complex and shifting role of the state and civil society to all of these topics.
1 Course Unit

SAST 6617 Readings in Modern Indian History
This course will introduce students to the major themes and debates of modern Indian historiography. Though the course will not provide a survey outline of events, it will be organized around themes that have a broad chronological sequence. It will touch on key topical themes like the transition to colonialism, the development of the colonial economy, the evolution and significance of colonial knowledge systems, the impact and shape of religious and social reform, the rise of nationalism and communalism, and peasant, labour and subaltern history. The goal of the course will be to provide students with an understanding of the significance of debates around key themes in modern Indian history and a familiarity with the different 'schools' or 'traditions' of historical interpretation, including Nationalist, Marxist, the so-called 'Chicago', and 'Cambridge' schools, as well as the Subaltern collective and post-Subaltern historiography.
Not Offered Every Year
1 Course Unit

SAST 6623 Literary History and Aesthetics in South Asia
This seminar surveys the multiple components of literary culture in South Asia. Students will engage critically with selected studies of literary history and aesthetics from the past two millennia. In order to introduce students to specific literary cultures (classical, regional, contemporary) and to the scholarly practices that situate literature in broader contexts of culture and society, the course will focus both on the literary theories - especially from the nineteenth and twentieth centuries - that position South Asia’s literary cultures within broader disciplinary frameworks that use literary documents to inform social, historical and cultural research projects. The aim is to open up contexts whereby students can develop their own research projects using literary sources.
Not Offered Every Year
Also Offered As: COML 6623
1 Course Unit

SAST 6625 PHILOLOGY AND HISTORY: READING SOUTH ASIAN TEXTS
This course provides students with an overview of how South Asian texts have been treated historically and, specifically, the methods employed to read, interpret, and historicize these texts, the mechanics of their production and reception, literary and philological criticism, performance, and overarching theoretical perspectives from classical South Asia and contemporary critical theory. Topics and themes covered include: an overview of the languages of South Asia, trends and debates in South Asian literary history, issues of translation studies and vernacularization, the politics and poetics of language and hermeneutics, the process of making a critical edition, translation and theories of translation, and the use of literary materials by historians in research contexts.
1 Course Unit

SAST 6627 South Asia Literature as Comparative Literature
This course takes up the question of reading South Asian Literature both as a collection of diverse literary cultures, as well as the basis for a methodology of reading that takes language, region, and history into account. It takes as a starting point recent work that foregrounds the importance of South Asian language literatures, and their complex interactions, to an understanding of South Asian literary history, as well as critiques of the concept of world literature that question its underlying assumptions and frequent reliance on cosmopolitan languages such as English. In what ways can we describe the many complex interactions between literary cultures in South Asia, rooted in specific historical contexts, reading practices, and cultural expectations, while maintaining attention to language and literary form? How, in turn, can we begin to think of these literatures in interaction with larger conversations in the world? With these considerations in mind, we will examine works of criticism dealing with both modern and pre-modern literatures, primarily but not exclusively focused on South Asia. Topics will include the concept of the cosmopolis in literary and cultural history, the role of translation, the transformations of literature under colonialism, and twentieth century literary movements such as realism and Dalit literature. Readings may include works by Erich Auerbach, Frederic Jameson, Aijaz Ahmad, Gayatri Spivak, Aamir Mufti, Sheldon Pollack, David Shulman, Yigal Bronner, Shamshur Rahman Faruqi, Francesca Orsini, Subramanian Shankar, Sharankumar Kimbale, and Torlae Jatin Gajarawala. We will also examine selected works, in English and in translation, as case studies for discussion. This course is intended both for students who intend to specialize in the study of South Asia, as well as for those who focus on questions of comparative literature more broadly.
Fall or Spring
Also Offered As: COML 6627
1 Course Unit
SAST 6631 The Sanskrit Epics

Ancient India's two epic poems, originally composed in Sanskrit and received in dozens of languages over the span of two thousand years, continue to shape the psychic, social, religious, and emotional worlds of millions of people around the world. The epic Mahabharata, which roughly translates to The Great Story of the Descendants of the Legendary King Bharata, is the longest single poem in the world (approximately 200,000 lines of Sanskrit verse in the 1966 Critical Edition) and tells the mythic history of dynastic power struggles in ancient India. An apocalyptic meditation on time, death, and the utter devastation brought upon the individual and the family unit through social disintegration, the epic also serves as sourcebook for social and political mores and contains one of the great religious works of the world, The Bhagavad Gita (translation: The Song of God), in the middle of its sprawling narrative. The other great epic, The Ramayana (Rama's Journey), though essentially tragic and about the struggles for power in ancient India, offers a relatively brighter narrative in foregrounding King Rama, an avatar of the supreme divinity Viṣṇu, who serves as an ideal for how human beings might successfully negotiate the challenges of worldly life. Perhaps the most important work of ancient Asia, the Rāmāyaṇa also provides a model of human social order that contrasts with dystopic polities governed by animals and demons. Our course will engage in close reading of selections from both of these epic poems (in English translation) and scholarship on the epic from the past century. We will explore the Sanskrit epic genre, its oral and textual forms in South Asia, and the numerous modes for interpreting it over the centuries. We will also look at the reception of these ancient works in modern forms of media, such as the novel, television, theater, cinema and the comic book/ anime.

Not Offered Every Year
Also Offered As: COML 6631
Mutually Exclusive: COML 2231, SAST 2231
1 Course Unit

SAST 6632 Hinduism and Colonial Modernity

This seminar deals with the question of modernity in South Asia, with a specific focus on the construction, dissemination, and politicization of Hinduism in nineteenth and twentieth century India. It focuses on three central heuristic lenses—namely those of European imperialism, Orientalism, and nationalism—to study modernity and its discontents. What was at stake in the encounter between colonial modernity and India's religions in nineteenth and early twentieth centuries? How did colonial and native discourses on "reform" and "revival" shape Indian religions as we understand them today? How is modern "Hinduism" inextricably hinged to early forms of cultural transnationalism, Orientalism, and incipient forms of nationalism? This seminar approaches questions such as these and others, with an eye to understanding how nineteenth and early twentieth century discourses continue to shape contemporary understandings of Hinduism in deep and highly politicized ways.

Not Offered Every Year
Also Offered As: RELS 6632
1 Course Unit

SAST 6634 Realism and South Asian Literature

This course examines problems of realism as a concept in relation to South Asian literature in the 19th and 20th centuries. Realism, both in its broadest sense as mimetic depictions in literature, as well as specific instantiations in art history, literature, and politics, has had a decisive impact on South Asian literary history. Yet as a topic realism presents several unique challenges, not unlike its twin in twentieth-century literature, the equally-protean modernism. In part this may stem from its conceptual and disciplinary range, pulling together problems in the history of science, the politics of art, and aesthetics. With these caveats in mind, we will examine a range of texts, both those specifically dealing with South Asian literature, as well as those considered foundational to understandings of realism at play. Readings in criticism may include Hegel, Marx, Ian Watt, Rabindranath Tagore, Gyorgy Lukacs, Bertold Brecht, Raymond Williams, Frederic Jameson, Theodor Adorno Walter Benjamin, Namwar Singh, Ram Vilas Sharma, WRRC, Michael Lowy, and Meenakshi Mukherjee, along with fiction and poetry by Nazeer Ahmed, Tagore, Munshi Premchand, Sa'adat Hasan Manto, Ismat Chughtai, O.V. Vijayan, and Uday Prakash. We will also discuss, when relevant topics relating to art history and cinema studies. This course will be suitable both for those students who wish to investigate realism in South Asian history, as well as those who want a thorough grounding in the theory and literary historiography of realism more generally.

Not Offered Every Year
1 Course Unit

SAST 6635 Marxist Concepts and Historical Writing

This course will introduce students to the main topics in Marxist historical analysis, with the aim of helping students understand the themes, concepts and debates that have animated Marxist historiography of different kinds. It will focus primarily on writing available in English, but will include work on both Europe and the wider world, particularly the colonial and postcolonial world. It will outline basic analytical traditions within Marxism and their relations to historical writing. Concepts will include economy and society, mode of production, surplus value, bourgeois revolution, imperialism, primitive accumulation, ideology, and hegemony. Themes and debates will include the agrarian and commercial contexts in the rise of capitalism, global dynamics of finance/late capitalism, peasant and worker histories, including class formation and rebellion and resistance. Readings may include excerpts from Marx's writing itself as well as Marxist thinkers like Lenin, Trotsky, Gramsci, Althusser, Adorno, Thompson, Banaji, and Harvey.

1 Course Unit

SAST 6645 Religion in Modern South Asia

This core seminar introduces graduate students to key themes in the study of religion in modern South Asia, with a focus on debates related to Hinduism, Islam, and Christianity in India from the nineteenth century to the present. Drawing upon a range of methodological and theoretical approaches, the seminar covers themes such as colonial and missionary constructions of religious categories, Orientalism and textual authority, social and religious "reform" movements, questions of caste and gender, and debates about religious nationalisms, democracy, and secularism.

Not Offered Every Year
Also Offered As: RELS 6560
1 Course Unit
SAST 6646 Performance, Politics, and Power in Modern India
This course locates performance in modern India – understood here as music, theatre, and dance – in the context of its social production and the production of its value. On the one hand, the course builds on perspectives drawn from Marx, Bourdieu, and others, and on the other, it examines themes of social hierarchy, taste habits, labor and corporeal exertion, and caste to think about the braiding of the arts and politics in modern India. A primary objective of the course is to de-center earlier nationalist-inflected histories about the arts in modern India, and bridge new thinking on performance across diverse forms of knowledge and critical methods. The course revolves around a number of significant questions for the study of culture in modern India. How does the modern Indian nation-state mediate and mold taste-habits and hierarchies? How do we historicize the making of the hierarchy of so-called “classical” and “folk” performance in modern India? How can we think of the arts as commodities of exchange and vessels of capital in the context of the majoritarian state? To what extent do late nineteenth and early twentieth-century “reform” and projects of cultural reinvention undergird the contemporary practice of these arts, particularly in the age of the majoritarian Hindu state? How do Dalit-Bahujan and minority religious communities claim their pasts and engage in articulatory practices that stage new modes of identity and resistance?
Fall
1 Course Unit

SAST 6680 Art and Empire in India, 1750-1900
This course surveys transformations in visual culture between the Mughal and British empires in India from the mid-eighteenth through the nineteenth centuries. We shall consider changes in artistic production, patronage, publics, and viewing protocols in the contexts of the court and bazaar. We shall examine the emergence of new technologies and its impact on visual forms, media, and genres, focusing on the interplay of photography, print, and painting. We shall explore the role of institutions -the art school, the museum, and the archeological survey- and the professions and practices they engendered. We shall analyze how architecture and urban planning created new built environments and social relationships in colonial India. We shall view objects first-hand in the Penn Museum, Penn Libraries, and Philadelphia Museum of Art. This is a reading- and writing-intensive course. Students with a background in related disciplines such as literature, history, religion, anthropology, and South Asian Studies are welcome.
Also Offered As: ARTH 6680
Mutually Exclusive: ARTH 2680, SAST 2680
1 Course Unit

SAST 7110 Indian Art Seminar
This course focuses on art in India. Open to graduate students only.
Not Offered Every Year
Also Offered As: ARTH 7110
1 Course Unit

SAST 7307 Intellectual Histories of South Asia in Global Context: Genealogies of the Present
This graduate seminar explores intellectual histories of contemporary South Asia. Readings will trace selected literary, cultural, political, religious, and linguistic genealogies that have shaped present-day understandings, practices, alliances and categories of thought in South Asia. Particular attention will be placed on 19th and 20th century global influences and interactions, including with England, Ireland, Germany, the Soviet Union/Russia, Turkey and the Arab World, East and Southeast Asia, the United States, and Africa. Topics will including histories of mapping and census efforts, publishing projects (including those funded by the Soviet Union and the United States), international conferences (e.g., the 1893 World’s Parliament of Religions at the World’s Fair in Chicago, 1955 Bandung Conference, the 2009 Durban Conference), technological influences and exchanges, and educational institutions and practices. The course will also include discussions of methods for carrying out intellectual history projects and would therefore be of use for students conducting research in other regions of the world.
Not Offered Every Year
Also Offered As: ANTH 7307
1 Course Unit

SAST 7701 Methodology Seminar: Topics
Topics vary
Fall or Spring
Also Offered As: ANTH 7701
1 Course Unit

SAST 7704 State, Society, and Culture in South Asia
This interdisciplinary course introduces graduate students to both classic and more recent theoretical frameworks used in understanding and analyzing society, culture, and the state, with particular reference to South Asia. Topics include bureaucracy and the state; power and performance; hierarchy and individualism; caste, community, and domination; money and markets; credit and debt; globalization and consumption; economic liberalization and political transformations; local and trans-local contexts of meaning; the environment, politics, and urban and rural ecologies; and culture and the changing shape of politics. Particular emphasis will be placed on the ways in which recent ethnographic and historical monographs have positioned their interventions in relation to broader debates and scholarship, both within scholarship on South Asia and more generally.
Not Offered Every Year
Also Offered As: ANTH 7704
1 Course Unit
SAST 7717 Literature in Translation: South Asia and the World
This course primarily introduces how to critically read literature in light of major global developments in contemporary literary theory and aesthetics from the past century (including structuralism, semiotics, reception theory, deconstruction, Marxist approaches to literature, feminist readings of texts, translation theory, etc.). It also draws attention to scholastic practices of textual criticism, paleography, and the preparation of critical editions. In doing so, the course emphasizes specific texts and essays related to South Asian literature, literary theory, and aesthetics from the past two millennia as case studies in order to: a) supplement students' knowledge of South Asian cultural production, b) frame social and historical questions related to art and aesthetics in contexts that have been otherwise under-explored, and c) to inspire debate about the extent to which analytical models and approaches developed within a given cultural setting are translatable to literary materials produced elsewhere. Students will develop their own projects, workshop what they have already begun, or explore new directions for studying literature and literary culture. Comparative approaches with other literary traditions are welcome and no background in South Asian languages or history is required.
Not Offered Every Year
1 Course Unit

SAST 7730 Southeast Asian Manuscript Traditions
This is an advanced PhD seminar in which the students will need advanced proficiency in Pali and at least one Southeast Asian Language (Burmese, Thai, Khmer, Lao, Leu, Khoen, Shan, and/or Lanna). Original manuscripts from Penn's collection of Southeast Asian religious, medical, botanical, historical, art, and literary archives will be examined and discussed.
Not Offered Every Year
Also Offered As: EALC 7590, RELS 7730
1 Course Unit

SAST 7762 Women in South Asia
This course on women in South Asian history has several objectives. To comprehend the genres of narratives in which South Asian women between the sixteenth and twentieth centuries have spoken and have been spoken about. To gain an understanding of evolving institutions and practices shaping women's lives, such as the family, law and religious traditions. To understand the impact of historical processes – the formation and breakdown of empire, colonialism, nationalism and decolonization – upon South Asian women between the sixteenth and twentieth centuries. We will read primary sources in addition to familiarizing ourselves with the historiography of women in South Asia.
Not Offered Every Year
Also Offered As: GSWS 7762
1 Course Unit

Spanish (SPAN)

SPAN 0091 Sustainable Development and Culture in Latin America
This interdisciplinary course exposes students to the three dimensions of sustainable development - environmental, economic, and social - through an examination of three products - peyote, coca, and coffee - that are crucial in shaping modern identity in areas of Latin America. The course integrates this analysis of sustainable development in relation to cultural sustainability and cultural practices associated with peyote, coca, and coffee and their rich, traditional heritage and place in literature, film, and the arts.
Fall, even numbered years only
Also Offered As: ANTH 0091, ENVS 0053, LALS 0091
1 Course Unit

SPAN 0092 Corona Capitalism: Crisis and Inequality Across the Americas
The coronavirus pandemic has exacerbated existing social inequalities. It has also accelerated the pace of history so sharply that the course of events has become nearly impossible to predict. This CWIC critical speaking seminar takes as its starting point our shared participation in the experience of uncertainty. At the same time, in looking to Latin America and the US, it articulates the fact that COVID-19 is anything but a "great equalizer": its impact varies widely and decisively across race, class, and gender. As the world confronts multiple layers of wreckage, not only biological but also ecological and economic, how can we frame and communicate both uncertainty and truth in a thoughtful way? We will examine social problems that have been laid bare by the pandemic and have since become sites of ethical and political reevaluation, namely health disparities, ecological racism, the distribution of labor, and criminal justice. This seminar's aim is to collaboratively assess one fundamental question: How can we understand COVID-19 not as an exceptional moment in history, but as a crisis of racial capitalism? By studying media, activism, policy, and scholarship produced during the pandemic alongside foundational critical theory, students will gain the analytical tools to contextualize its disproportionate global impact on poor communities and people of color, and to envision a just post-pandemic recovery. We will engage Marxist, feminist, and anti-racist theoretical approaches, and while familiarity with these methods is not necessary, an openness to them is. Self-examination is crucial to the success of the course, which requires students reflect on their own political, intellectual, and emotional investments in racialized inequality. This is a speaking intensive seminar intended to improve students' oral communication and listening skills through class discussions, prepared presentations, and mixed-media communication projects. Conducted in English.
Fall or Spring
Also Offered As: LALS 0092
1 Course Unit
SPAN 0093 Latinx Environmental Justice
This course explores the involvement of the Latinx environmental justice movement since the 1960s. It addresses theories and concepts of environmental racism and environmental justice, underscoring how Latinx have challenged, expanded, and contributed to the environmental justice discourse. In this course, students will explore national case studies of environmental and racial injustice as they bear on Latinx communities both in rural areas and in urban barrios throughout the United States. The course will analyze these case studies through the lens of Latinx artistic and literary texts (essays, paintings, short stories, documentaries, and short films) as they provide a unique historic and multicultural perspective of the Latinx experience with environmental injustice and of how Latinxs imagine alternative transitions and responses to environmental marginalization. In addition, the works of Latinx artists and writers will serve as case studies to deconstruct racial stereotypes of Latinxs as unconcerned about environmental issues, shedding light on how they share a broad engagement with environmental ideas. The case studies analyzed in this course emphasize race and class differences between farmworkers and urban barrio residents and how they affect their respective struggles. The unit on farmworkers will focus on workplace health issues such as toxic chemicals and collective bargaining contracts. The unit on urban barrios will focus on gentrification, affordable housing, and toxic substances in the home. We will also review current and past programs that have been organized to address the aforementioned problems. This is an Academically Based Community Service Course (ABCS course) through which students will learn from and provide support to a Latinx-serving organization in the City of Philadelphia on preventing exposure to hazardous substances, thus bridging the information gap on environmental justice issues in the Latinx community in Philadelphia. Information dissemination and education efforts will be conducted by collaborating with Esperanza Academy Charter School in Philadelphia to implement lessons on preventing exposure to hazardous substances. Studying environmental justice and pairing it with community service will heighten students' awareness of the complexities of culture, race, gender, and class while providing them with an invaluable experience of cross-cultural understanding.

Spring
Also Offered As: ANTH 0930, ENVS 0054, LALS 0093, URBS 0093
1 Course Unit

SPAN 0100 Elementary Spanish I
This course is a first-semester language course that emphasizes the development of foundational listening, speaking, reading and writing skills while exploring the rich cultural mosaic of the Spanish-speaking world. Through listening activities and videotaped interviews with native speakers, your aural and oral abilities will improve at the same time that you will become familiarized with different varieties of standard spoken Spanish. You will be given ample opportunities to practice orally and in writing so that you can reinforce newly acquired vocabulary and grammatical structures. Reading strategies will facilitate your comprehension of the texts included in the course syllabus. Readings focused on a specific country or region, visual items (such as maps, photos, films) and a class project will advance your knowledge of Hispanic cultural practices and products while increasing your intercultural competence. Conducted entirely in Spanish, this class will provide you with guided practice before moving to more independent and spontaneous language production. Working in small groups and in pairs, you will participate in class activities that simulate real-life situations that will help you gain confidence communicating in Spanish. Goals: By the end of this course you can expect to handle a variety of day-to-day situations in a Spanish-speaking setting: 1) Greet and introduce people, invite people to events, accept or reject invitations, ask for directions, tell time, shop and order meals in a restaurant. 2) Talk about yourself, family, and friends regarding physical and emotional states, daily routines, leisure, preferences and plans. 3) Use the cultural information learned in class as an icebreaker to find common ground with a wide variety of Spanish speakers. Pre-requisite: Score below 380 on the SAT II or; below 285 on the online placement examination
Fall
1 Course Unit

SPAN 0103 Spanish for the Medical Professions, Elementary I
This course is a first-semester elementary Medical Spanish Language course and the first in the Spanish for Medical Professions sequence. It is designed for students with no prior coursework in Spanish. This course teaches beginning students the fundamentals of practical Spanish with an emphasis on medical situations and basic medical terminology. In this course, particular attention will be given to developing speaking and listening skills, as well as cultural awareness. It incorporates activities, vocabulary, and readings of particular interest to healthcare practitioners, while adhering to the goals and scope of Spanish 0100, the first-semester Spanish language course. Students who have already taken Spanish 0100 will not receive credit for Spanish 0105. Although these courses have different numbers, they are at the same level. Students who have already fulfilled the language requirement (AP, SAT II, etc.) or have taken courses at the 1000 and 3000 level, may not take basic-level language courses in the same language. They will not receive credit for this course (Spanish 0105). Prerequisite: Offered through the Penn Language Center.
Fall or Spring
1 Course Unit
SPAN 0120 Elementary Spanish I and II: Accelerated
This course is an intensive course designed for students who have already satisfied the language requirement in another language and have not previously studied Spanish. By combining the curriculum of Spanish 0100 and 0200, Spanish 0120 seeks to develop students’ foundational listening, speaking, reading, and writing skills while exploring the rich cultural mosaic of the Spanish-speaking world. Through listening activities and mini documentaries shown in class, students will develop their aural and oral skills at the same time that they will become familiarized with different varieties of standard spoken Spanish. Students will be given ample opportunities to practice orally and in writing so that they can reinforce newly acquired vocabulary and linguistic structures. Readings focused on a specific country or region, visual items (such as maps, photos, and films) and a class project will advance students’ knowledge of Hispanic cultural practices and products while increasing their intercultural competence. Goals: By the end of this course students can expect to handle a variety of day-to-day situations in a Spanish-speaking setting such as: 1) Introduce themselves, use greetings, describe people, places and things, give instructions, tell time, go shopping, order meals in a restaurant, and make travel plans. 2) Talk about themselves, families, and friends regarding academic life, daily routines, health, work, leisure, and preferences (using the present and past tenses). 3) Use the cultural information learned in class as an icebreaker to find common ground with a wide variety of Spanish speakers. Permit required from the course coordinator
Fall
2 Course Units

SPAN 0200 Elementary Spanish II
The continuation of Spanish 0100, Spanish 0200 is a second-semester elementary language course. See the description of Spanish 0100.
Spring
1 Course Unit

SPAN 0205 Spanish for the Medical Professions, Elementary II
The continuation of Spanish 0105, Spanish 0205 is a second-semester Elementary Medical Spanish 0105 course. Note: offered through the Penn Language Center. Pre-requisite: successful completion of Spanish 0100 or 0105 or a score of 380-440 on the SAT II or 285-383 on the online placement examination.
Fall or Spring
1 Course Unit

SPAN 0210 Elementary Spanish I and II: Advanced Beginners
This course is designed for students who have some prior experience in Spanish. It is an intensive elementary-level language course that in one semester covers the material studied over two semesters in our Spanish 0100 and Spanish 0200. The course provides a quick-paced review of material normally covered in a first-semester Spanish course and then proceeds to introduce new material so students will be prepared to take Spanish 0300 during the subsequent semester. As in other Spanish courses, Spanish 0210 emphasizes the development of foundational listening, speaking, reading, and writing skills while exploring the rich cultural mosaic of the Spanish-speaking world. Through listening activities and mini documentaries shown in class, students will develop their aural and oral skills at the same time that they will become familiarized with different varieties of standard spoken Spanish. Students will be given ample opportunities to practice orally and in writing so that they can reinforce newly acquired vocabulary and linguistic structures. Readings focused on a specific country or region, visual items (such as maps, photos and films) and a class project will advance students’ knowledge of Hispanic cultural practices and products while increasing their intercultural competence. Conducted entirely in Spanish, this class will provide you with guided practice before moving to more independent and spontaneous language production. You will participate in paired, small-group and whole-class activities that simulate real-life situations that will help you gain confidence communicating in Spanish. Goals: By the end of this course students can expect to handle a variety of day-to-day situations in a Spanish-speaking setting such as: 1) Introduce themselves, use greetings, describe people, places and things, give instructions, tell time, go shopping, order meals in a restaurant, and make travel plans. 2) Talk about themselves, families, and friends regarding academic life, daily routines, health, work, leisure, and preferences (using the present and past tenses). 3) Use the cultural information learned in class as an icebreaker to find common ground with a wide variety of Spanish speakers.
Fall or Spring
1 Course Unit

SPAN 0215 Spanish for Health Care Professionals I and II
Spanish 0215 Elementary Medical Spanish I and II is an accelerated elementary-level language course that covers in one semester the material studied over two semesters in Spanish 0215 and 0205 (first and second semester elementary Medical Spanish). Designed for students who have some prior experience with the language, this course teaches the fundamentals of Spanish with an emphasis on medical situations and basic medical terminology. Particular attention is given to developing speaking and listening skills, as well as cultural awareness. Course activities, vocabulary, and materials are selected to be of particular relevance to healthcare practitioners. After successful completion of this course, students will be prepared to enroll in either SPAN 0300 or 0305. Prerequisite: A score between 380 and 440 on the SAT II or the written departmental exam; a score between 285 and 383 on the online placement examination, or permission of the instructor.
Summer Term
1 Course Unit
SPAN 0300 Intermediate Spanish I 
This course, a first-semester intermediate-level course, emphasizes students' acquisition of new vocabulary and linguistic structures in a cultural and communicative context while building on their previous speaking, reading, listening and writing skills. A substantial amount of the course is devoted to learning and using the past tenses. As in other Spanish courses, students will take part in a wide range of activities, including role-plays, film viewings, listening to music and class discussions of current social and cultural topics. Goals: By the end of the course students can expect to handle a variety of common situations in a Spanish-speaking setting such as: 1) Narrate past actions, ranging from personal anecdotes to historical events 2) Give advice, recommendations, and commands to people 3) Express their feelings and doubts when reacting to what others have said 4) Talk about their future expectations and wishes 5) Demonstrate their knowledge and understanding of Hispanic cultural practices and products.
Fall or Spring 
1 Course Unit

SPAN 0305 Spanish for the Medical Professions: Intermediate I 
This course is a first-semester intermediate-level language course that emphasizes the development of the four basic skills (reading, writing, listening, and speaking), and the acquisition of medical terminology. Students will be expected to participate in classroom activities such as role-plays based on everyday situations that they may encounter at work settings such as doctors' offices, clinics, hospitals, and emergency rooms in order to develop meaningful and accurate communication skills in the target language. Students will also review and acquire other essential tools of communication in the target language applicable both within and outside the medical field. Major course goals include: the acquisition of intermediate-level vocabulary, the controlled use of the past tense, and the development of writing skills at a paragraph level with transitions. Students who have already taken Spanish 0300 will not receive credit for Spanish 0305. Although these courses have different numbers, they are at the same level. Students who have already fulfilled the language requirement (AP, SAT II, etc.) or have taken courses at the 1000-3000 level may not take basic-level language courses in the same language. They will not receive credit for this course (Spanish 0305). Note: Offered through the Penn Language Center.
Fall or Spring 
1 Course Unit

SPAN 0340 Intermediate Spanish I and II: Accelerated 
This course is limited to those students who have satisfied the language requirement in another language. Spanish 0340 is an intensive intermediate-level language course that covers the material presented in Spanish 0300 and Spanish 0400. The course emphasizes the development of the four canonical skills (reading, writing, listening and speaking) within a culturally based context. Class time will focus on communicative activities that combine grammatical concepts, relevant vocabulary, and cultural themes. Students will participate in pair, small-group and whole-class activities to practice linguistic skills in a meaningful context. Major course goals include: the acquisition of intermediate-level vocabulary, the controlled use of the past tense and major uses of the subjunctive, and the development of writing skills. Students who have already fulfilled the language requirement in Spanish may not take basic level language courses (0100-0405) in the same language. Any questions about placement should be addressed to the Director of the Spanish Language Program.
Spring 
2 Course Units

SPAN 0400 Intermediate Spanish II 
This course is a fourth-semester language course that both reinforces and enhances the communicative skills (listening, speaking, reading and writing) previously acquired while exploring the rich cultural mosaic of the Spanish-speaking world. Class activities are designed so that students can build up these four skills in order to function at an intermediate language level. Readings focused on contemporary social and political issues of the Hispanic world will advance your knowledge of Hispanic and cultural practices while increasing your intercultural competence. Unique to this course is the preparation of an oral presentation on a topic related to the Hispanic world throughout the semester and presented during the last days of classes. The purpose of this task is to help students develop their presentational competence in Spanish. Conducted entirely in Spanish, this class will provide students with ample opportunities to work in small groups and in pairs while gaining confidence communicating in Spanish. This course satisfies the language requirement at Penn. Goals: By the end of this course, students can expect to handle a variety of situations in a Spanish-speaking setting, such as: 1) Express their opinions on a variety of contemporary events and issues 2) Defend their position when presented with a hypothetical situation 3) Deliver short presentations on a chosen subject after thorough preparation 4) Demonstrate their knowledge and understanding of Hispanic cultural practices and products.
Fall or Spring 
1 Course Unit

SPAN 0405 Spanish for the Medical Professions: Intermediate II 
Spanish 0405, the continuation of Spanish 0305, is an intermediate-level integrated skills language course. It emphasizes the development of reading, writing, listening, and speaking abilities. Students will be expected to participate actively in classroom activities such as communicative activities, role-playing based on typical doctor/patient interactions as well as other medical situations. Students will also review and learn other essential tools of communication applicable both inside and outside the medical field. Students who have already taken Spanish 0400 will not receive credit for Spanish 0405. Although these courses have different numbers, they are at the same level. Students who have already fulfilled the language requirement (AP, SAT II, etc.) or have taken courses at the 1000-3000 level may not take basic level language courses in the same language. They will not receive credit for this course (Spanish 0405). This course satisfies the language requirement in Spanish. Note: Course is offered through the Penn Language Center. Pre-requisite: successful completion of Spanish 0300 or 0305 or a score of 550-640 on the SAT II or 454-546 on the online placement examination.
Fall or Spring 
1 Course Unit

SPAN 0800 Spanish Conversation 
SPAN 0800 is a half-credit conversation course. This course is restricted to residents of the Modern Language College House. This course can be taken twice for credit.
Two Term Class, Student must enter first term; credit given after both terms are complete 
0.5 Course Units
**SPAN 1000 Advanced Spanish**
The purpose of this course is twofold: (a) to develop students’ communicative abilities in Spanish, that is, speaking, listening, reading and writing, and (b) to increase their awareness and understanding of Hispanic cultures and societies. Homework and classroom activities are designed to help students build their oral proficiency, expand and perfect their knowledge of vocabulary and grammatical structures, improve their reading and writing skills, and develop their critical thinking abilities. The material for this class includes short stories, newspaper articles, poems, songs, cartoons, video clips and a novel, such as Cesar Aira’s La villa. At the completion of this course, students will feel confident discussing and debating a variety of contemporary issues (cultural and religious practices, family relationships, gender stereotypes, political events, immigration to the USA, etc.). Any questions about placement should be addressed to the Director of the Spanish Language Program.

Fall or Spring
Prerequisite: SPAN 0400
1 Course Unit

**SPAN 1005 Advanced Spanish for the Medical Professions**
The goal of this course is to provide advanced practice in Spanish to those students who are interested in pursuing careers in the medical and health care fields. Through readings and authentic materials on contemporary health issues, for example, i.e., H1N1 influenza, comparative healthcare systems, obesity, “chagas” disease, etc., students will acquire the vocabulary and grammatical structures needed to discuss a wide array of topics pertaining to the health-related professions. Students will also gain awareness of those health care issues affecting the Hispanic/Latino patient. Oral and written presentations will complement topics covered in class.

Spring
Prerequisite: SPAN 0400 OR SPAN 0405
1 Course Unit

**SPAN 1010 Business Spanish I**
Spanish for Business I provides advanced-level language students with technical vocabulary and oral communicative skills by studying business concepts as they apply to the corporate dynamics of the Spanish-speaking world, with an emphasis on the startup ecosystem. Students also analyze the business environment in a number of countries in Latin America and Spain taking into consideration local economies and markets in light of their recent history as well as current events.

Fall or Spring
Prerequisite: SPAN 0400
1 Course Unit

**SPAN 1110 Business Spanish II**
This course is specifically designed for advanced speakers of Spanish (i.e., native speakers, high-level heritage speakers, and students who have studied in a Spanish-speaking country for at least one semester). Through the study of entrepreneurship case studies in Latin America, students will take an in-depth look at the business dynamics and practices in a number of countries in the region. Students will also enhance their business and language skills through the creation of an entrepreneurial project that culminates in a final business pitch.

Fall
1 Course Unit

**SPAN 1200 Advanced Spanish II: Grammar and Composition**
This course is an advanced-level language course that emphasizes the acquisition of the tools necessary for successful written expression in Spanish. These tools include a solid knowledge of the major points of Spanish grammar, ample vocabulary, control of the mechanics of the language (spelling, punctuation, etc.), and a thorough understanding of the writing process. Throughout the semester, students will use these tools to analyze authentic texts and to produce a variety of written assignments. By the end of the course, students will have developed their awareness of the norms of standard Spanish and learned to incorporate these features into their own writing. The class will be conducted in Spanish and students are expected to speak in Spanish at all times. Any questions about placement should be addressed to the directors of the Spanish language program.

Fall or Spring
Prerequisite: SPAN 1000
1 Course Unit

**SPAN 1210 Spanish for the Professions**
Spanish for the Professions is designed to provide advanced-level language students with a wide-ranging technical vocabulary and the enhancement of solid communicative skills within the cultural context of several developing Latin American countries. Focusing on topics such as politics, economy, society, health, environment, education, science and technology, the class will explore the realities and underlying challenges facing Latin America. Through essays, papers, articles, research, discussions, case studies, and videotapes, we shall take an in-depth look at the dynamics of Latin American societies. The course will focus on--but not be restricted to--Mexico, Cuba and Argentina. Any questions about placement should be addressed to the Director of the Spanish Language Program.

Spring
Prerequisite: SPAN 1000
1 Course Unit

**SPAN 1300 Foundations of Spanish Culture and Civilization**
A general introduction to the study of Spanish culture, this course is designed to help students understand the historical foundations of contemporary Spanish society, its values and its institutions. The focus is on the main events of Spanish history and the origins and continuity of social and political institutions from pre-modern Spain up to the beginning of the modern era. This course is offered in the Penn-in-Madrid summer program.

Summer Term
1 Course Unit

**SPAN 1800 Contexts of Hispanic Culture and Civilization**
The primary aim of this course is to develop students’ knowledge of the geographical, historical and cultural contexts in those regions where Spanish is used. At the same time that they are introduced to research techniques and materials available in Spanish, students strengthen their language skills through readings, class discussions, and frequent writing assignments. This course is designed to give students a broad understanding of Hispanic culture that will prepare them for upper-level course work and study abroad.

Fall or Spring
Prerequisite: SPAN 1000 OR SPAN 1200
1 Course Unit
SPAN 1900 Introduction to Literary Analysis
By helping students develop skills to carefully read and analyze Spanish literary works, Spanish 1900 prepares them for upper-level courses and study abroad. After reviewing the main elements and conventions of the most popular genres (narrative, poetry, theater and essay), students become familiarized with current theoretical approaches to the study of literature with the purpose of applying them to their own analytical writing. The last weeks of the semester are devoted to the reading of a well-crafted detective novel and the examination of both its formal features and its ideological underpinnings. Throughout the course, students will have ample opportunities to hone their skills through the close reading and class discussion of varied and stimulating literary works produced by canonical and non-canonical Hispanic authors. Fall or Spring
Prerequisite: SPAN 1000 AND SPAN 1200
1 Course Unit

SPAN 3110 Introduction to Hispanic Linguistics
This course is an introduction to Hispanic linguistics, with special emphasis on the Spanish sound system (phonetics and phonology) and Spanish word-formation (morphology). Topics to be covered include articulatory phonetics, use of the phonetic alphabet, English and Spanish contrastive phonology, regional and social variations of Spanish pronunciation, word formation (derivation and composition), and the structure of the Spanish verb (inflection). We also explore basic notions of morphosyntax. Evaluation will be based on participation and homework, periodic quizzes, mid-term exam, and a final examination during finals week. Students will be required to write a linguistic autobiography.
Not Offered Every Year
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

SPAN 3120 History of the Spanish Language
The course will explore three main issues: (1) The external history of the Spanish language: How do linguists read history? What cultural and historical events are important for the development of the Spanish language? As linguistic historians, we shall follow a canonical chronology that will examine pre-Roman influences, the spread of Latin, the linguistic fragmentation of the Peninsula, medieval attempts at standardization, trans-Atlantic expansion, the rise of the Academia, and the linguistic revival of the Autonomías. (2) The internal history of the Spanish language. Just when did Latin become Spanish? Why are some linguistic changes predictable while others aren’t? Why don’t Spanish speakers say “festivo” or “dueremimos”? But what about “cuentista”? Why do some Spanish speakers say “hablastes”, “sientensen” and “la di el libro a María”? And what about that lisping king? (3) What did the earliest Spanish texts look like? No prior knowledge of Latin or linguistics is necessary, but having an unquenchable curiosity about language is a definite advantage.
Not Offered Every Year
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

SPAN 3130 Spanish-English Translation
This course is designed for students who already have a solid foundation in Spanish and English grammar. It provides an introduction to the theory and practice of translating between English and Spanish, addressing important topics such as discourse strategies, register and mood, dialect, genre, and cultural norms linked to written and oral communication. This is a very writing-intensive class, both in and out of the classroom. There are assigned readings from the textbooks and/or assignments online for every class meeting, which will be used to discuss both the practicalities and the cultural implications of translation. Class meetings will consist of class discussions about translation in general, and critiques of your own translation efforts in particular, combined with small group or pair work on translation exercises. While there will necessarily be some use of English, the class is conducted primarily in Spanish.
Not Offered Every Year
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

SPAN 3200 Studies in the Spanish Middle Ages
This course treats the major works of the Spanish Middle Ages in light of their cultural and historical context. Course content may vary. Please see the department website for current course offerings: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies
Not Offered Every Year
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

SPAN 3300 Studies in Golden Age and Early Modern Spanish Literature and Culture
A study of the major literary and cultural achievements of the Spanish Golden Age and early modern period. Course content may vary. Please see the department website for current course offerings: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies
Not Offered Every Year
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

SPAN 3350 Don Quijote
A study of Miguel de Cervantes’ Don Quijote. Special attention will be paid to this masterpiece’s cultural and historical context, as well as to its reception.
Not Offered Every Year
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

SPAN 3400 Studies in Spanish Literature and Culture: 1700-Present
Studies in Spanish Literature and Culture from the early Enlightenment through the present (1700 onward). Course content may vary. Please see the department website for current course offerings: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies
Not Offered Every Year
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit
SPAN 3402 The Evolution of the Don Juan Myth in the Western Literary Tradition
In this course, we will study the appearance and evolution of the Don Juan myth in Spain and in the Western literary tradition. We will start with Tirso de Molina’s Don Juan in his El Burlador de Sevilla and move from the Baroque and Romantic periods up to the modern day. In addition to studying the myth in its social and historical context, we will analyze the different dramatic and literary strategies used by authors in their construction of Don Juan. Finally, we will see how filmmakers have interpreted and deviated from the original myth.
Not Offered Every Year
1 Course Unit

SPAN 3404 The Spanish Short Story
In this course, we study the development and evolution of the Spanish short story from its origins to the present. Students learn to analyze and recognize different points of view, voices and narrative strategies in the readings, thus becoming more aware of their active role as readers in the text.
Not Offered Every Year
1 Course Unit

SPAN 3406 The Gothic Tradition in Spanish Literature
This course examines how the Gothic tradition is manifested in Spain by reading and analyzing the works of different Spanish writers from the Romantic period to the present. Although this is a course on Spanish literature, film and literary works from other national traditions will be incorporated in order to compare the different uses of the Gothic genre. By the end of the semester, students will have gained a better understanding of what the Gothic tradition is and how it manifests itself in different cultures.
Not Offered Every Year
1 Course Unit

SPAN 3430 Studies in Modern and Contemporary Spanish Literature
A study of the major literary works of modern and contemporary Spain. Course content may vary. Please see the department website for current course offerings: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies
Not Offered Every Year
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

SPAN 3432 The Generation of 1898
"The Generation of ’98" is the name used to bring together a group of Spanish writers, essayists, and poets that were profoundly affected by the moral, social and political crisis in Spain caused by the military defeat by the US and the subsequent loss of its last overseas colonies. The shock of Spain's defeat in the war, which left it stripped of its last vestiges of empire and international prestige, provided an impetus for many writers and thinkers to embark on a period of self-searching and an analysis of Spain’s problems and its destiny. Novelists, poets, essayists, playwrights and thinkers such as Miguel de Unamuno, Antonio Machado, Azorín, Ramiro de Maeztu, Valle-Inclán, Gavíet, and Pío Baroja reinvented Spanish letters and restored Spain to a position of intellectual and literary prominence that it had not held for centuries. Some of the topics covered in this course may include Spanish nationalism and the identification of Spain with Castile, regionalisms, the crisis of Spain, tradition and reform, religion, the perception and position of Spain in the world, etc.
Not Offered Every Year
1 Course Unit

SPAN 3434 Spanish Post-Franco Narrative by Women
Since the final years of the Francoist dictatorship, women writers started to abandon the subterfuge strategies through which they had avoided the regime’s censorship. Soon they began to explicitly state issues that had been dangerous to mention previously, such as sex and female bodily experience, national and individual identity, collective and personal memory, and surrounding changing realities like consumerism, media, migration, counter cultural movements, globalization, and human (in)communication. Using journalistic collaborations and literary prizes, they wrote their way up to the editorial market and the Royal Academy of Language, becoming prominent figures in the aesthetic and gender debates of a new canon in the making. In this course we will analyze women’s writing in post-Franco Spain from a variety of perspectives and theoretical positions to explore what it means to be a woman writer: to be feminine, to be queer, to be oneself, to be a part of, to be free.
Not Offered Every Year
1 Course Unit

SPAN 3450 The Spanish Avant-Garde
A study of the Spanish avant-garde including the poetry of García Lorca, the films of Luis Buñuel, and the paintings of Salvador Dalí. We will explore the reception of the avant-garde and of Surrealism in Spain followed by the transformation of the avant-garde into two politically rival ideologies.
Fall or Spring
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

SPAN 3502 Studies in Spanish, Latin American and Latinx Cinema
This course explores fundamental aspects of Spanish, Latin American, and Latinx cinema. Course content may vary. Please see the department website for current course offerings: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies
Fall or Spring
Also Offered As: CIMS 3600
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit
SPAN 3602 Cyborgs, Robots, Gadgets: Technologies in Contemporary Hispanic Cinema
Contemporary Latin American and Spanish Cinema offer a great reflection on the role that new technologies have in the film industry, and in our lives, in the digital era. Often, we find that technologies are used in an original way to overcome financial shortages in times of crisis, or when resources are limited. In this context, sometimes it is actually thanks to the new technologies that the work of new directors can be produced or distributed. Some recent Latin American and Spanish sci-fi movies find genuine ways to bring about social and political commentary through the use of technological narratives. Reflections on technology are often found in many other film genres too. Our aim in this course will be to explore the use of technology in film in the present and in the past, as well as to study narratives that place technology at the center. We will focus our study on films where technology is a key factor and will reflect on the impact of technologies in our experience as spectators as well.

Fall or Spring
Also Offered As: CIMS 3602, LALS 3602
1 Course Unit

SPAN 3620 Contemporary Spanish Cinema
A survey of Spanish cinema from the 1940's to the present. Special attention will be paid to the political, cultural, and social discourses that the films reproduce, adapt or question. This will allow an understanding of the implicit or explicit social dialogues that shaped cinematographic production in Spain from the post-civil war years, through Franco’s dictatorship, the advent of the democratic state in the 1970’s, and the economic and political crisis of the 21st century. At the same time films will be analyzed from the standpoint of their rhetorical construction, examining the specificity of cinematic language and its particular case.

Fall or Spring
Also Offered As: CIMS 3620
1 Course Unit

SPAN 3622 Spanish Non-Fictional Film
This course will explore the flourishing of the genre of documentary and non-fiction film in the last decades in Spain. We will study poetic, experimental, and social documentaries in their socio-historical context. For this we will need to engage not only films and film theory texts, but also historical recounts of contemporary Spain. We will also analyze the limits between non-fiction and fiction film, focusing on some recent works that have critically blurred the distinction between both genres.

Fall or Spring
Also Offered As: CIMS 3622
1 Course Unit

SPAN 3624 Crossing Borders in Spanish Cinema
Through the lens of border crossing, we will explore various current topics in Contemporary Spanish Cinema, such as immigration and emigration narratives in times of globalization and economic crisis, cinematic transgressions, and the emergence of glocal vs. national films. A fluid conceptualization of the border will guide our exploration on how Contemporary Spanish Cinema talks about gender, race, nationalisms, migration, history, and psychology.

Fall or Spring
Also Offered As: CIMS 3624
1 Course Unit

SPAN 3626 The Films of Pedro Almodóvar
One of the most acclaimed filmmakers of the world, Almodóvar is unquestionably the most international of today’s Spanish filmmakers. The aim of the course is to familiarize students with Pedro Almodóvar’s films and to shed some light to the intrincacies of its themes, cultural background, and visual style. Together with primary and secondary texts, we will offer an overview of Almodóvar’s career from his early iconoclastic Post Franco films of the late 1970’s and early 1980’s to his most recent work that has gained him a reputation as an international auteur. Some of the topics covered will include questions of national identity, gender, sexuality, as well as Almodóvar’s original use of genre, visual style, and the director’s relationship to the postmodern concepts of performance and parody.

Fall or Spring
Also Offered As: CIMS 3626
1 Course Unit

SPAN 3650 Latin American Cinema
This course aims to familiarize students with the major achievements and cultural moments of Latin American cinematography. We will cover a broad set of themes, nations and time periods employing multiple theoretical positions.

Fall or Spring
Also Offered As: CIMS 3650, LALS 3650
1 Course Unit

SPAN 3652 Crossing Borders in Latin American Cinema
Through the lens of border crossing this course will explore various current topics in Contemporary Latin American Cinema such as immigration, exile and travel narratives, gender crossing, social and political transgressions, transnationalism, and co-productions. The concept of the border will be fluid and central to the course, and through it we will reflect upon what separates and unites people at an individual, sexual, social, cultural, political, national, and geographical level. This focus will help us explore a wide variety of “movements”, negotiations, and transgressions taking place in the Latin American Cinema of the last three decades.

Fall or Spring
Also Offered As: CIMS 3652, LALS 3652
1 Course Unit

SPAN 3680 Studies in Hispanic Theater
This course offers students the chance to explore the rich theatrical traditions of Spain and Latin America as well as works by new Latinx writers. Course content may vary. Please see the department website for current course offerings: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies

Not Offered Every Year
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit
SPAN 3682 Staging Gender in Latin America
This course is based on an understanding of theater as a social space and a cultural practice that allows a collectivity—in its most concrete sense, the audience—to think in public about itself and about the fundamental forces facing and shaping it. In this course, we will mainly read contemporary Latin American and Latinx theatrical texts produced by women and queer authors. Our focus will be to discuss how, in the last approximately four decades, the stage as space and performance as practice have been used in Latin America as vehicles to represent and discuss issues related to gender and sexuality, to reconfigure the parameters of these debates, to examine and question existing social structures and attitudes, to propose and rehearse alternative solutions to the problems faced by marginalized subjects, and overall to explore the transformative capabilities of theater. We will also examine how conceptions and representations of gender and sexuality intersect with other identitarian coordinates, such as race, class, and nationality.
Not Offered Every Year
Also Offered As: LALS 3682
1 Course Unit

SPAN 3684 Theatrical Modernity and Postmodernity in Latin America
This course will focus on the theatrical tradition of Latin America during the twentieth and twenty-first centuries. In addition to reading some of the most influential playwrights of the region, we will discuss the aesthetic theories and sociohistorical contexts that have shaped contemporary Latin American and Latino theater and performance practices. We will also explore how the stage has served as a space in which to represent, debate, negotiate, and complicate issues related to national, gender, political, and ethnic communities and identities.
Not Offered Every Year
Also Offered As: LALS 3684
1 Course Unit

SPAN 3686 Spanish Theater: Text and Representation
This course treats multiple aspects of Spanish theater from the Golden Age (16th and 17th centuries) to the present through the reading of some of the main dramatists of the Spanish literary canon, such as Lope de Vega, Cervantes, and Lorca. We will focus on textual analysis and performance as two fundamental elements in the understanding and appreciation of Spanish theater. Students will thus gain an understanding of how to interpret the theatrical text, whether for meaning or performance.
Not Offered Every Year
Also Offered As: LALS 3686
1 Course Unit

SPAN 3700 Studies in Colonial Latin American Literature and Culture
The colonial period in Latin America spans more than 400 years. In this course, we study the culture of the Spanish-speaking Americas from the moment Christopher Columbus arrived in the Caribbean to the Latin American wars of independence during the 19th century. We analyze the role that religion and race played in the emergence of colonial societies and the development of national revolutionary discourses. We reflect on the tensions between indigenous populations and Spanish settlers and study the literary culture that developed in the New World. Course content may vary. Please see the department website for current course offerings: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies
Not Offered Every Year
Also Offered As: LALS 3701
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

SPAN 3702 There Will Be Blood: The Spanish Conquistador in Latin America
Who was the Spanish conquistador? A brave soldier, a devoted religious man or a voracious murderer? An enemy or a benefactor? This course will study the Spanish “conquest” of the so-called New World through the analysis of a variety of cultural artifacts, from early modern chronicles, poems, and paintings, to contemporary literature and film. We will also reflect on the many forms in which Spanish colonialism is still visible in the present in Latin America and the United States.
Not Offered Every Year
Also Offered As: LALS 3704
1 Course Unit

SPAN 3730 Studies in Modern and Contemporary Latin American and Latinx Literature
Studies in Modern and Contemporary Latin American and Latinx Literature is an upper-division seminar taking a literary-studies approach to Latin American cultural production of the 19-21st centuries. Traditions covered may include Spanish American, Brazilian, and U.S. Latinx literature. Course content may vary. Please see the department website for current course offerings: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies
Not Offered Every Year
Also Offered As: LALS 3730
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

SPAN 3732 New Women's Writing in Latin America
Something unprecedented has been happening lately in the Latin American literary market and scene. Women writers in great numbers have been publishing without encountering major constraints or pressures, and their fictional work has been receiving more awards and critical accolades than ever before. Hence, the assertion made by a critic in El País that “the other Latin American Boom is female” (“El otro ‘boom’ latinoamericano es femenino”) merits to be considered and unpacked. For example, compared to their literary precursors, have the 21st-century female authors presented the customary topics of family, motherhood, sexuality, illness, etc. in a radical new way? Which are the social, political, economic, and aesthetic conditions that have given rise to this proliferation of female authors and the wide acceptance of their fictional worlds? How do these conditions differ from the Latin American literary Boom of the 20th century? These are among the questions we will explore.
Not Offered Every Year
Also Offered As: LALS 3732
1 Course Unit

SPAN 3734 The Boom in Latin American Literature
Why has Latin American literature of the 1960s and 70s enjoyed such popular and critical success? What distinguishes this literature from that which was written earlier or later outside Latin America? Who were the major writers of the boom generation, and what unites or separates them? In this course we will consider these questions as we read important works of fiction by authors such as Cortázar, Donoso, Fuentes, GarcÃ­a MArquez, and Vargas Llosa as well as criticism that sheds light on the phenomenon of the boom.
Not Offered Every Year
Also Offered As: LALS 3734
1 Course Unit
SPAN 3736 Gabriel Garcia Marquez and Contemporary Latin American Literature
The publication of Cien años de soledad in 1967 was one of the highest moments in 20th century Latin American literature. Behind this masterpiece was the arduous and tireless work of a writer that had been searching for a personal style during almost a decade. This search also has a continental dimension. In García Marquez’s work, readers find the main topics, aesthetic quests, and political conflicts that hold the Latin American imagination, from the “crónicas de conquista” to the artistic vanguard adventures of the middle of the century. His narrative brings together early discussions about magical realism and the literary boom, anthropological inquiries rooted in transculturation and critical regionalism, as well as questions on class, race, and gender. In this course we will read different moments of his work, from his early short stories to some of his major novels. In addition, we will compare his writing to some of their contemporaries’, in order to have a comprehensive idea about the formation of the Latin American contemporary canon.
Not Offered Every Year
Also Offered As: LALS 3736
1 Course Unit

SPAN 3738 Coming of Age in Latin America
This course examines contemporary narratives of childhood and adolescence from Latin America. These stories critique the forces that shape young people as they attempt to define themselves in societies marked by racial, ethnic, gender, and class divisions. Texts for the course will be drawn from different geographical regions and will include novels, short stories, and films from the second half of the twentieth century through the present.
Not Offered Every Year
Also Offered As: LALS 3738
1 Course Unit

SPAN 3740 Latin American Non-Fiction
Non-fiction is a narrative mode that presents an account of a subject as fact, but it is a label that began to be used to describe narratives dealing with real events and real people fairly recently. This course studies the boundaries and tensions between facts and fiction in Latin America from a historical perspective. We start by analyzing early modern writing by the Spanish conquistadors: cannibals, human sacrifices, sirens, sea monsters, and El Dorado are just a few subjects that 16th-century "non-fiction" presents as facts. We move then to discuss 19th-century journalism about cosmopolitanism and urban modernization. Technological innovations blur the boundaries between fact and fiction, something that film, narrative journalism, and literary chronicles would exploit throughout the 20th century. Finally, we study non-fictional narratives in contemporary podcasts and social media.
Not Offered Every Year
Also Offered As: LALS 3740
1 Course Unit

SPAN 3742 Detectives, Criminals, and Writers in Latin American Fiction
Born as a sub-genre, crime fiction (a denomination which encompasses a wide number of texts: classical detective stories, hard-boiled, true-crimes and the non investigative crime novel) has become one of the most attractive literary forms for writers, and one of the favorites for readers. Because it is built around topics like the crime and the law, the search of the truth and the unstable identity of the subject in mass societies, it has become an ideal vehicle for the expression of the anxieties and fears that dominate the contemporary culture. Its versatility has been used by many Latin-American authors to express the social and political conflicts of the continent, as well as to explore its literary possibilities through formal searches, characterized by parody, meta-literary and auto referential games. The aims of this course are, on the one hand, to offer a panoramic vision of the crime fiction in Latin America through the reading of some representative authors; and, on the other, to explore how they can be read from different theoretical approaches.
Not Offered Every Year
Also Offered As: LALS 3742
1 Course Unit

SPAN 3800 Studies in Modern and Contemporary Latin American and Latinx Culture
Studies in Modern and Contemporary Latin American and Latinx Culture is an upper-division seminars focusing on significant issues or historical moments in Latin American and Latinx culture. Course content may vary. Please see specific Section Details.
Not Offered Every Year
Also Offered As: LALS 3800
Prerequisite: SPAN 1800 OR SPAN 1900
1 Course Unit

SPAN 3802 Rural Modernity in Latin America
This course focuses on literary representations of rural Latin America in the 19th and 20th centuries. While it remains common to understand rural societies as traditional or backward in contrast with the city (considered the true center of modernity), this course approaches rural social orders as sites of modernity and modernization in their own right. We will be primarily concerned with examining how works Latin American literature and film created rural visions of modernity, particularly in relation to land reform, political revolution, and capitalist agriculture. While our principal focus will be literature, we will also consider how other forms such painting, film, and political documents envisioned rural transitions.
Not Offered Every Year
Also Offered As: LALS 3802
1 Course Unit

SPAN 3804 Mexico: Revolution and Culture
Studies the central role played by cultural production in forging and imagining national revolutionary projects, from the 1910s to the 1970s. Focusing on literature, photography, painting, and film, we will examine the works of figures such as Diego Rivera, JosÃ© Vasconcellos, Tina Modotti, Sergei Eisenstein, Octavio Paz, Juan Rulfo, Rosario Castellanos, Nellie Campobello, JosÃ© Emilio Pacheco, and Carlos MonsivÃ¡s, among others.
Not Offered Every Year
Also Offered As: LALS 3804
1 Course Unit
SPAN 3806 Representations of Dictatorship in Latin America
This course explores the phenomenon of Latin American dictatorship through literature, film, graphic novels, and visual and public art, asking how these different media and genres depict and respond to state violence, censorship, and trauma. Not Offered Every Year Also Offered As: CIMS 3806, LALS 3806 1 Course Unit

SPAN 3808 Urban Life in Latin American Literature
Cities exist not just in their geography, but in their spirit, and that spirit is captured in literature. In this course we will read compelling works from Mexico City, Lima, and Buenos Aires that represent life in these Latin American capitals at different points between 1950 and the present. As we explore fiction and non-fiction writing by both established authors and emerging writers, we will learn about the forces and events that have shaped narratives of the urban experience in Latin America. Not Offered Every Year Also Offered As: LALS 3808 1 Course Unit

SPAN 3810 Jungle Narratives: la selva
The Amazon evokes opposing images. It has been described alternately as paradise lost and green hell, a place to retreat from the restraints of civilization or to be devoured by savage men and beasts, a land of natural abundance and environmental degradation. Our objective in this course is not to determine which of these descriptions is most accurate, but to understand how these opposing visions were created and what they aim to communicate. As we explore the Amazon through works of fiction we will gain an appreciation of the problems and promise of the region as well as greater knowledge of important authors, themes, and techniques of Latin American literature. Not Offered Every Year Also Offered As: LALS 3810 1 Course Unit

SPAN 3812 Afro-Latin America: Culture, History, and Society.
A transnational and interdisciplinary examination of the black experience in Latin America and the Spanish, French and English-speaking Caribbean, since slavery to the present. Combining cultural analysis with the study of fundamental theoretical works on race and racialization, students will gain a thorough comprehension of historical, political and sociocultural processes shaping the existence of Afro-descendants in the Americas. The scrutiny of systemic racial exclusion and marginalization will allow the understanding of how these dividing practices condition cultural production. Fall or Spring Also Offered As: AFRC 3812, LALS 3812 1 Course Unit

SPAN 3814 The Caribbean and Its Diaspora: Culture, History, and Society
A thorough panorama of contemporary Caribbean societies and their diasporic communities, this course enhances the students' knowledge of the region's main historical, political, and sociocultural trends. We will examine Caribbean multiple narratives of survival and resilience within a global context, through the study of 20th and 21st-centuries literary, cinematographic, musical, visual and performative works. The cultural analysis will be supported by a theoretical framework encompassing critical Caribbean theories on identity and identification. Fall or Spring Also Offered As: AFRC 3814, LALS 3814 1 Course Unit

SPAN 3800 New Hispanisms and Latin Americanisms
This course engages students with current theoretical trends and approaches to Spanish and/or Latin American literatures and cultures. Course content may vary. Please see the department website for current course offerings: https://www.sas.upenn.edu/hispanic-portuguese-studies/undergraduate/hispanic-studies Not Offered Every Year Prerequisite: SPAN 1800 OR SPAN 1900 1 Course Unit

SPAN 3902 What Is Mexico? Questioning Mexican Icons
This course studies Mexico through many lenses. From history to art, from anthropology to pop culture, from literature to film, our primary objective is to question current and past iconicity to develop a more complex and nuanced understanding of Mexican history and culture. Not Offered Every Year Also Offered As: LALS 3902 1 Course Unit

SPAN 3904 Latin American Marxisms
This course examines Marxist thought in Latin America, from the early twentieth century to the present. We will study a range of materials from across Spanish America, including essays, novels, films and speeches. We will ask after the specificities of Latin American Marxist thought (on the land and indigenous questions, dependency, guerrilla warfare, etc), at the same time as we contextualize those specificities within a wider Marxist tradition. We will also inquire into the waning and resurgence of Marxism in recent decades in the region. Not Offered Every Year Also Offered As: LALS 3904 1 Course Unit

SPAN 3906 The Ethnographer in Latin American Literature and Film
This course asks students to read ethnographic accounts as literature and to read literature in light of interdisciplinary concerns surrounding representation and cultural difference. The course is transhistorical and transatlantic but with a strong focus on Latin America. Not Offered Every Year Also Offered As: LALS 3906 1 Course Unit

SPAN 3908 Body and Soul: Hispanic Perspectives on Health, Illness, and Healthcare
TBD Not Offered Every Year Also Offered As: LALS 3908 1 Course Unit

SPAN 3910 Sustainable Development And Culture in Latin America
This interdisciplinary course exposes students to the three dimensions of sustainable development -environmental, economic, and social- through an examination of three products -peyote, coca, and coffee- that are crucial in shaping modern identity in areas of Latin America. The course integrates this analysis of sustainable development in relation to cultural sustainability and cultural practices associated with peyote, cocoa, and coffee and their rich, traditional heritage and place in literature, film, and the arts. This is an upper level seminar open to majors and minors of Spanish and those who have completed Pre-requisite SPAN 1800 or SPAN 1900 or permission of the Undergraduate Chair. Fall, even numbered years only Also Offered As: ENV 3053, LALS 3910 Prerequisite: SPAN 1800 OR SPAN 1900 1 Course Unit
SPAN 3912 Labor in Contemporary Latin American Literature and Film
This course studies different forms of cultural production (film, novel, short story, critical essay) as entry-points into new settings and conditions for work in Latin America, in four sectors that have become especially salient in the region: services, finance, agro-industry and the informal economy (particularly drug trafficking). We will pay particular attention to how cultural production allows us to envision the coordinates of the larger, indeed global, economy into which workers are inserted. We will examine how cultural production allows us to map shifting class structures; we will also track how gender and race shape national and international divisions of labor.
Not Offered Every Year
Also Offered As: CIMS 3912, LALS 3912
1 Course Unit

SPAN 3914 Madness and Women in Contemporary Hispanic Culture
The first goal of this course is to examine different “cases” of mental disturbances suffered by women in Hispanic cultures as they have been depicted in novels, short stories and films in the last 50 years. We will study “cases” of female madness precipitated by maternity, domesticity, sexuality, creativity, historical events, and biculturalism. Secondly, we will focus on the “causes” psychoanalysts, authors and literary critics have proposed for those mental illnesses. Additional readings on a wide range of disciplines—feminism, literary theory, psychology and psychoanalysis—will enhance our understanding of the works selected for the course and will help us identify their political and ideological underpinnings.
Not Offered Every Year
Also Offered As: LALS 3914
1 Course Unit

SPAN 3916 Contemporary Latin American and Latinx Cultural Production
This course provides an insightful understanding of the main aesthetic, socioeconomic, political and cultural dynamics at play in the 20th and 21st centuries Latin American societies and Latinx communities in the United States. Combining the analysis of literary, cinematic, musical, visual and performative works with theoretical readings, students will discuss issues on national, racial, gender and sexual identifications; pervasive inequalities, the impact of globalization and new technologies; migration, violence, terror, revolutions, dictatorships, the Cold War, and the implementation and effects of Neoliberalism.
Not Offered Every Year
Also Offered As: LALS 3916
1 Course Unit

SPAN 3930 Latinx Environmental Justice
This course explores the involvement of the Latinx environmental justice movement since the 1960s. It addresses theories and concepts of environmental racism and environmental justice, underscoring how Latinx have challenged, expanded, and contributed to the environmental justice discourse. In this course, students will explore national case studies of environmental and racial injustice as they bear on Latinx communities both in rural areas and in urban barrios throughout the United States. The course will analyze these case studies through the lens of Latinx artistic and literary texts (essays, paintings, short stories, documentaries, and short films) as they provide a unique historic and multicultural perspective of the Latinx experience with environmental injustice and of how Latinxs imagine alternative transitions and responses to environmental marginalization. In addition, the works of Latinx artists and writers will serve as case studies to deconstruct racial stereotypes of Latinx as unconcerned about environmental issues, shedding light on how they share a broad engagement with environmental ideas. The case studies analyzed in this course emphasize race and class differences between farmworkers and urban barrio residents and how they affect their respective struggles. The unit on farmworkers will focus on workplace health issues such as toxic chemicals and collective bargaining contracts. The unit on urban barrios will focus on gentrification, affordable housing, and toxic substances in the home. We will also review current and past programs that have been organized to address the aforementioned problems. This is an Academically Based Community Service Course (ABCS course) through which students will learn from and provide support to a Latinx-serving organization in the City of Philadelphia on preventing exposure to hazardous substances, thus bridging the information gap on environmental justice issues in the Latinx community in Philadelphia. Information dissemination and education efforts will be conducted by collaborating with Esperanza Academy Charter School in Philadelphia to implement lessons on preventing exposure to hazardous substances. Studying environmental justice and pairing it with community service will heighten students’ awareness of the complexities of culture, race, gender, and class while providing them with an invaluable experience of cross-cultural understanding.
Spring
Also Offered As: ANTH 3930, ENVS 3445, LALS 3930, URBS 3930
Prerequisite: SPAN 1800 AND SPAN 1900
1 Course Unit

SPAN 3999 Independent Study
Independent research under the supervision of a department faculty member. Research topic is determined in consultation with the supervising faculty member.
Fall or Spring
Prerequisite: SPAN 1800
1 Course Unit

SPAN 4000 Honors Thesis
Honors thesis in Hispanic Studies. This course is open to undergraduate majors by permit only.
Not Offered Every Year
Prerequisite: SPAN 1800
1 Course Unit
SPAN 5010 Norte, Desierto, Frontera: Countertopographies of the NAFTA Era
Analyzing Mexican, Central American, and Chicano cultural production, this course examines the uneven reconfiguration of the U.S.-Mexico borderland in the era of the North American Free Trade Agreement. Drawing from critical geography, migration and border studies, and the environmental humanities, we consider how different cultural artifacts have imagined, projected, and challenged the political and socioeconomic boundaries of the Americas. Likewise, we consider how trans-border bodies, spaces and species can help us interrogate the history of the nation-state as well as the social, emotional, and economic toll experienced on both sides of the border from the early 1990s onward. Interdisciplinary in methods and scope, this course strives to develop an understanding of how cultural production responds to and, at the same time, participates in the process of the production of social space. Particularly, we consider how the production of desert and border as sites of socio-ecological devastation prefigures a new paradigm in the relationship between the environment, migration, and the global circulation of capital. Special attention is given to demographic trends and new patterns of forced migration that arose in the aftermath of the so-called Mexican "War on Drugs" (2006). Assignments include presentations, discussion facilitation, and a seminar paper. Alongside readings and class discussions, students will work as a group on a digital timeline/story map using a platform of their choosing (StoryMapJS, ArcGIS StoryMaps, etc.) The goal is to create an annotated cartography of North America's recent history. The class is structured around four units, each refers to a particular concept that specifies the relation between spatial literary studies and the regional integration of North America: 1. North. Focusing on the entanglements between industrial agriculture and the rise of the maquila industry, we ask how labor and labor relations across the U.S.-Mexico border evolved during the last decade of the 20th century. We consider how urbanization and patterns of residential differentiation affected populations on both sides of the border, while allowing for the consolidation of Northern Mexican and Chicano identities. 2. Desert. Moving beyond the city as a spatial referent, we consider how the representation of the desert biome in contemporary Mexican and Central American narratives refracts the increased use of violence as a stabilizing agent for capital accumulation. We consider the novel's ecological imagination and the valences of form to think through the ecological crisis associated with the urban climatic. 3. Border. Studying how neoeextrativism intersects with new patterns of international forced migration, we analyze changes in public space, gender, and ethnic identities derived from the contemporary proliferation of borders (political, economic, geographical). We consider the role cultural production plays in the changing border and migration regimes across the Americas. 4. Countertopographies. Finally, we study how memorialization, nostalgia, and loss in contemporary Mexican, Central American, and Chicano cultural production become spatial vectors that extend the sense of belonging in geographical form. We consider how literary form delineates a countertopography to NAFTA's ideal of globalization.
Fall
Also Offered As: LALS 5010
1 Course Unit

SPAN 5230 Modern Novel
Topics vary. Please see the Spanish Department's website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
1 Course Unit

SPAN 5280 Modern Spain and Hispanic America
Topics vary. Please see the Spanish Department's website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
1 Course Unit

SPAN 5430 Environmental Humanities: Theory, Method, Practice
Environmental Humanities: Theory, Methods, Practice is a seminar-style course designed to introduce students to the trans- and interdisciplinary field of environmental humanities. Weekly readings and discussions will be complemented by guest speakers from a range of disciplines including ecology, atmospheric science, computing, history of science, medicine, anthropology, literature, and the visual arts. Participants will develop their own research questions and a final project, with special consideration given to building the multi-disciplinary collaborative teams research in the environmental humanities often requires.
Not Offered Every Year
Also Offered As: COML 5430, ENGL 5430, ENVS 5410, GRMN 5430
1 Course Unit

SPAN 5450 Pedagogy Across the Spanish Curriculum
The aim of this seminar is to prepare graduate students in Hispanic Studies to teach a wide range of courses typically offered at North American universities and colleges—from the elementary Spanish language level to upper-division seminars—while familiarizing themselves with current approaches and methodological trends in foreign language instruction. By designing a content-based syllabus, including selecting and sequencing of reading materials and choosing the appropriate teaching in an effective and professional manner.
Fall
1 Course Unit

SPAN 5600 Pedagogy Across the Spanish Curriculum
The aim of this seminar is to prepare graduate students in Hispanic Studies to teach a wide range of courses typically offered at North American universities and colleges—from the elementary Spanish language level to upper-division seminars—while familiarizing themselves with current approaches and methodological trends in foreign language instruction. By designing a content-based syllabus, including selecting and sequencing of reading materials and choosing the appropriate learning outcomes and assessment methods, graduate students will gain a greater awareness of curricular planning and development and acquire skills that will significantly ease their future teaching endeavors such as using a backward design model, incorporating their own research interests into their lessons and courses, or taking advantage of the resources available to language learners on campus. By the end of the course, graduate students will be able to talk about and reflect on their teaching in an effective and professional manner.
Fall
1 Course Unit

SPAN 6060 Studies in the Spanish Middle Ages
Topics vary. Please see the Spanish Department's website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
Also Offered As: COML 6301
1 Course Unit

SPAN 6480 Don Quijote
Topics vary. Please see the Spanish Department's website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
1 Course Unit

SPAN 6500 Golden Age Literature
Topics vary. Please see the Spanish Department's website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
1 Course Unit
SPAN 6820 Seminar on Literary Theory
Topics vary. See the Spanish Department's website for the current offerings. https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Fall
Also Offered As: COML 6820
1 Course Unit

SPAN 6840 La Novela Realista
Topics vary. Please see the Spanish Department's website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
1 Course Unit

SPAN 6860 Studies in Spanish Culture
Topics vary. Please see the Spanish Department's website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
1 Course Unit

SPAN 6900 Studies in 19th- and 20th-Century Spanish American Literature
Topics vary. Please see the Spanish Department's website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
Also Offered As: LALS 6900
1 Course Unit

SPAN 6920 Colonial Literature of Spanish America
Topics vary. Please see the Spanish Department's website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
Also Offered As: LALS 6920
1 Course Unit

SPAN 6930 Vanguardias culturales hispanoamericanas
Topics vary. Please see the Spanish Department's website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
1 Course Unit

SPAN 6940 Spanish and Latin American Cinema
Topics vary. Please see the Spanish Department's website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
Also Offered As: LALS 6940
1 Course Unit

SPAN 6942 Impossible Innocence: the Films of Luis Buñuel
This seminar provides an overview and introduction to the cinema of Luis Buñuel with a particular focus on the Spanish filmmaker's engagement with Surrealism. Drawing on the expertise of Professors Ignacio Javier López and Michael Solomon, each seminar session will unfold in two parts: first, Solomon will offer a general introductory lecture and discussion covering various aspects of Buñuel's filmography including technical and formal analyses that touch on cinematic form, montage, and adaptation, and a contextualization of Buñuel's cinema within the Spanish, Mexican, Latin American, and European (inter) national cinemas and cinematic movements; second, López will offer a close examination of individual films focusing on Buñuel's longstanding ties with (the ideas of) Surrealism from the movement's initial moment of scandal and provocation—understood by its participants as a new philosophy, a new way of seeing in an endless process of discovery—to a second moment in which Surrealism admits its failure to enact its revolutionary goals. Films covered in the seminar include Buñuel's Un Chien Andalou (1929), L'Age d'or (1930) Menjant garotes, Las Hurdes/Terre sans pain (1933/36) Los Olvidados (1950) Susana (1951) Ensayo de un crimen (1955), Death in the Garden (1956), Nazarín (1959), Viridiana (1961) The Exterminating Angel (1962), Belle de jour (1967), Tristana (1970), and Obscure Object of Desire (1977). Students will start working early on a final project (seminar paper), reworking the draft several times during the semester.
Fall or Spring
Also Offered As: CIMS 6942, COML 6942
1 Course Unit

SPAN 6970 Studies in Latin American Culture
Topics vary. Please see the Spanish Department's website for the current course description: https://www.sas.upenn.edu/hispanic-portuguese-studies/pc
Not Offered Every Year
Also Offered As: LALS 6970
1 Course Unit

SPAN 6971 Afro-Latin America
In-depth analysis of the black experience in Latin America and the Spanish, French and English-speaking Caribbean, since slavery to the present. The course opens with a general examination of the existence of Afro-descendants in the Americas, through the study of fundamental historical, political and sociocultural processes. This panoramic view provides the basic tools for the scrutiny of a broad selection of literary, musical, visual, performance, and cinematic works, which leads to the comprehension of the different ethical-aesthetic strategies used to express the Afro-diasporic experience. Essential concepts such as negritude, creolite, and mestizaje, as well as the most relevant theories on identity and identification in Latin America and the Caribbean, will be thoroughly examined, in articulation with the interpretation of artistic works. Power, nationalism, citizenship, violence, religious beliefs, family and community structures, migration, motherhood and fatherhood, national and gender identities, eroticism, and sexuality are some of the main issues discussed in this seminar.
Not Offered Every Year
Also Offered As: AFRC 6971, ENGL 7971, LALS 6971
1 Course Unit
SPAN 6980 Workshop on Scholarly Writing
This course aims to develop awareness about what constitutes effective scholarly prose in Spanish. It proposes to hone the student's handling of writing as a vehicle for the expression of intellectual thought, but also to develop a consciousness of the rhetorical strategies that can be used to advance a critical argument effectively. Extensive writing exercises will be assigned; these will be followed by intense and multiple redactions of the work originally produced. The ultimate goal is for students to develop precision, correctness, and elegance in their written work. Students will also work on a class paper written previously, with a view to learning the process of transforming a short, limited expression of an argument into a publishable article.
Not Offered Every Year
1 Course Unit

SPAN 8000 Field Exam
PhD Exam Preparation
Not Offered Every Year
1-3 Course Units

SPAN 9990 Independent Study
Independent research under the supervision of a department faculty member. Research topic is determined in consultation with the supervising faculty member.
Fall or Spring
1 Course Unit

Spanish and Portuguese (SPPO)
Statistics and Data Science (STAT)

STAT 0001 Introduction to Statistics and Data Science
In this course, we will learn introductory statistics using R with a focus on the application of statistical thinking to business problems. We will learn basic statistical concepts such as mean, variance, quantiles, and hypothesis testing, and basic R programming for data management and analysis. We will work with traditional R's data, frame structure as well as the modern tibbles structure. Prerequisite: Percentages, average, powers, exponential, linear equation of a line, polynomials.
0.5 Course Units

STAT 0002 Introduction to Statistics and Data Science
Continuation of STAT 0001. In this course, we will learn basic statistical inference procedures of estimation, confidence intervals, and hypothesis testing. We will also cover statistical inference of bivariate data, including correlation and simple linear regression models. Prerequisite: STAT 0001 or equivalent coursework. Basic R knowledge.
0.5 Course Units

STAT 1010 Introductory Business Statistics
Data summaries and descriptive statistics; introduction to a statistical computer package; Probability: distributions, expectation, variance, covariance, portfolios, central limit theorem; statistical inference of univariate data; Statistical inference for bivariate data: inference for intrinsically linear simple regression models. This course will have a business focus, but is not inappropriate for students in the college. This course may be taken concurrently with the prerequisite with instructor permission.
Fall or Spring
Mutually Exclusive: STAT 1018, STAT 1110
Prerequisite: MATH 1070 OR MATH 1400 OR MATH 1100
1 Course Unit

STAT 1018 Introductory Business Statistics
The STAT 1018 honors section, which fulfills the STAT 1010 requirement, will cover the fundamentals of statistics through the lens of a skeptical statistician. Students will be introduced to the R language, used widely in industry as well as in upper-level statistics and data science courses. Using real-world examples from current events, we will critically examine both well-accepted and controversial claims. We will cover the basics of probability and statistics (using a textbook costing less than $20), in order that you can use data to answer the following four questions:
1. What are the chances? 2. What's the best estimate? 3. Is there a difference? 4. How are these things related? This course is recommended for those considering a statistics and data science concentration or minor, as well as anyone interested in a more challenging introductory approach to statistical concepts. STAT Minors, and STAT Concentrators are strongly encouraged to take 1018 and 1028. No prior knowledge of programming, probability or statistics is required for this course.
Fall
Mutually Exclusive: STAT 1010, STAT 1110
Prerequisite: MATH 1070 OR MATH 1400 OR MATH 1100
1 Course Unit

STAT 1020 Introductory Business Statistics
Continuation of STAT 1010 or STAT 1018. A thorough treatment of multiple regression, model selection, analysis of variance, linear logistic regression; introduction to time series. Business applications. This course may be taken concurrently with the prerequisite with instructor permission.
Fall or Spring
Mutually Exclusive: STAT 1028, STAT 1120, STAT 4310
Prerequisite: STAT 1010 OR STAT 1018
1 Course Unit

STAT 1028 Introductory Business Statistics
Honors continuation of STAT 1010 or STAT 1018. A thorough treatment of multiple regression, model selection, analysis of variance, linear logistic regression; introduction to time series. Business applications. This course may be taken concurrently with the prerequisite with instructor permission.
Mutually Exclusive: STAT 1020, STAT 1120, STAT 4310
Prerequisite: STAT 1010 OR STAT 1018
1 Course Unit

STAT 1110 Introductory Statistics
Introduction to concepts in probability. Basic statistical inference procedures of estimation, confidence intervals and hypothesis testing directed towards applications in science and medicine. The use of the JMP statistical package. Knowledge of high school algebra is required for this course.
Fall or Spring
Mutually Exclusive: STAT 1010
Prerequisite: STAT 1010 OR STAT 1018
1 Course Unit

STAT 1120 Introductory Statistics
Further development of the material in STAT 1110, in particular the analysis of variance, multiple regression, non-parametric procedures and the analysis of categorical data. Data analysis via statistical packages. This course may be taken concurrently with the prerequisite with instructor permission.
Fall or Spring
Mutually Exclusive: STAT 1020
Prerequisite: STAT 1110
1 Course Unit
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Course Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 3990</td>
<td>Independent Study</td>
<td>Written permission of instructor and the department course coordinator required to enroll in this course. Fall or Spring 0.5-1 Course Units</td>
</tr>
<tr>
<td>STAT 4010</td>
<td>Sports Analytics: A Capstone Course</td>
<td>This course would introduce undergraduate students to the growing field of sports analytics, while allowing them to implement and integrate their knowledge base by exploring real sports data sets to solve real problems. While the context will be sports related, the skills and techniques gained will be widely applicable and generalizable with applications in diverse areas. Prerequisites: Mutually exclusive with STAT 7050. Permission from the Instructor is required. Interest in sports is highly recommended. Prerequisite: WH 1010 AND WH 2010 AND MGMT 3010 0.5 Course Units</td>
</tr>
<tr>
<td>STAT 4020</td>
<td>Communicating Quantitative Analyses: A Capstone Course</td>
<td>This seminar-based capstone course provides an opportunity for students to hone their data science and statistical modeling skills, together with an emphasis on communicating quantitative results. This is not a &quot;theoretical class&quot;, but rather, experiential. It allows students to bring their existing knowledge from different disciplines to bear on new problems. Four real-life datasets will be analyzed during the quarter, and students will be expected to create and deliver in-class presentations for each analysis. The course will be suitable for anyone who wants more opportunities to analyze data, continue developing their programming skills and those who want to gain experience and confidence in presenting results and conclusions to an audience. Prerequisites: The course presumes that students have taken a sequence of stat courses such as STAT 1010/1020, or 4300/4310 and so are familiar with multiple regression analysis. In addition, they should have been exposed to more advanced techniques such as logistic regression and tree-based methods as taught in classes like STAT 4220/4230/4710. Finally, it will be assumed that students have knowledge of a programming language such as R or Python and an IDE such as R-Studio or Jupyter notebooks. Classes such as STAT 4050/4700 would meet this requirement. Prerequisite: (STAT 1010 OR STAT 1018 OR STAT 1020 OR STAT 1028 OR STAT 4300 OR STAT 4310) AND (STAT 4050 OR STAT 4700 OR STAT 4710) AND WH 1010 AND WH 2010 AND MGMT 3010 0.5 Course Units</td>
</tr>
<tr>
<td>STAT 4050</td>
<td>Statistical Computing with R</td>
<td>The goal of this course is to introduce students to the R programming language and related eco-system. This course will provide a skill-set that is in demand in both the research and business environments. In addition, R is a platform that is used and required in other advanced classes taught at Wharton, so that this class will prepare students for these higher level classes and electives. Fall or Spring Mutually Exclusive: STAT 7050 Prerequisite: STAT 1020 OR STAT 1120 OR STAT 4300 0.5 Course Units</td>
</tr>
<tr>
<td>STAT 4100</td>
<td>Data Collection and Acquisition: Strategies and Platforms</td>
<td>This course will give students a solid grasp of different data collection strategies and when and how they can be applied in practice. At the same time, important current ideas such as data confidentiality and ethical considerations will be addressed. The students will have designed and fielded a sample survey and designed and fielded an online experiment (A/B test). Students will collect data through web scraping activities and/or using an API. Students will summarize their collected data and subsequent inferences, culminating in an in-class presentation. The course is structured in two parts. The first part is a &quot;Strategies&quot; component that addresses different data collection strategies. It will discuss sample designs, experimentation, and observational studies. The second part of the course is about &quot;Platforms&quot; and goes into the practicalities of the implementation of the different strategies. Given the data science perspective of this course, this is focused on web enabled approaches. Familiarity with either R or Python is expected and specifically the R-Studio or Jupyter notebooks platforms. Courses such as Stat 4050 or Stat 4770 would meet this requirement. Statistics, through the level of multiple regression is required. This requirement may be fulfilled with undergraduate courses such as Stat 1020 or Stat 1120. Mutually Exclusive: STAT 7100 0.5 Course Units</td>
</tr>
<tr>
<td>STAT 4220</td>
<td>Predictive Analytics for Business</td>
<td>This course follows from the introductory regression classes, STAT 1020, STAT 1120, and STAT 4310 for undergraduates and STAT 6130 for MBAs. It extends the ideas from regression modeling, focusing on the core business task of predictive analytics as applied to realistic business related data sets. In particular it introduces automated model selection tools, such as stepwise regression and various current model selection criteria such as AIC and BIC. It delves into classification methodologies such as logistic regression. It also introduces classification and regression trees (CART) and the popular predictive methodologies known as random forest and boosted trees. By the end of the course the student will be familiar with and have applied these concepts and will be ready to use them in a work setting. The methodologies are implemented in a variety of software packages. Applications in JMP emphasize concepts and key modeling decisions. This course may be taken concurrently with the prerequisite with instructor permission. Fall or Spring Mutually Exclusive: STAT 4230, STAT 7220, STAT 7230 Prerequisite: STAT 1020 OR STAT 1120 OR STAT 4310 0.5-1 Course Unit</td>
</tr>
<tr>
<td>STAT 4230</td>
<td>Applied Machine Learning in Business</td>
<td>This course introduces students to machine learning techniques used in business applications. The main topics include: cross validation, variable selection procedures, shrinkage methods such as lasso, logistic regression, k-nearest neighbors, ROC curves and confusion matrix, trees, kernel based learning, resampling techniques, random forests, boosting, neural networks &amp; deep learning, matrix methods including singular value decomposition (SVD) and its application in principal component analysis (PCA), and some unsupervised methods such as k-means and density based clustering. Students will learn to apply these methods in a wide range of settings such as marketing and finance, and will gain hands-on experience through class assignments and competitions. This course may be taken concurrently with the prerequisite with instructor permission. Mutually Exclusive: STAT 4220, STAT 7220, STAT 7230 Prerequisite: STAT 1020 OR STAT 1120 OR STAT 4310 1 Course Unit</td>
</tr>
</tbody>
</table>
STAT 4240 Text Analytics
This course introduces modern text analytics, and the tools of natural language processing. Text and language are powerful repositories of knowledge and information, but the semi-structured nature of language makes deriving insights from text challenging. Modern analytic techniques introduced in this course make it significantly easier even for non-specialists to use text and language data to drive deep insights. The course will use several examples from real world applications in different industries such as ecommerce, healthcare and finance to illustrate these techniques. Students should be familiar with regression models at the level of Stat 6130 or Stat 1020, and the Python language at the level of Stat 4770 or Stat 7770. Familiarity with the Jupyter notebook development environment is presumed, as well as common Python packages such as pandas, NLTK and SpaCy. Those with more knowledge of Statistics, such as from Stat 7220/4220, or computing skills will benefit. The predominant software used in the course is Jupyter notebooks that use a Python interpreter. Familiarity with basic probability models is helpful but not presumed.
Fall or Spring
Mutually Exclusive: STAT 7240
0.5 Course Units

STAT 4300 Probability
Discrete and continuous sample spaces and probability; random variables, distributions, independence; expectation and generating functions; Markov chains and recurrence theory.
Fall or Spring
Mutually Exclusive: STAT 5100
Prerequisite: MATH 1080 OR MATH 1410 OR MATH 1510
1 Course Unit

STAT 4310 Statistical Inference
Graphical displays; one- and two-sample confidence intervals; one- and two-sample hypothesis tests; one- and two-way ANOVA; simple and multiple linear least-squares regression; nonlinear regression; variable selection; logistic regression; categorical data analysis; goodness-of-fit tests. A methodology course. This course does not have business applications but has significant overlap with STAT 1010 and 1020. This course may be taken concurrently with the prerequisite with instructor permission.
Fall or Spring
Mutually Exclusive: STAT 5100
Prerequisite: STAT 4300
1 Course Unit

STAT 4320 Mathematical Statistics
An introduction to the mathematical theory of statistics. Estimation, with a focus on properties of sufficient statistics and maximum likelihood estimators. Hypothesis testing, with a focus on likelihood ratio tests and the consequent development of "t" tests and hypothesis tests in regression and ANOVA. Nonparametric procedures. This course may be taken concurrently with the prerequisite with instructor permission.
Spring
Mutually Exclusive: STAT 5120
Prerequisite: STAT 4300 OR STAT 5100
1 Course Unit

STAT 4330 Stochastic Processes
An introduction to Stochastic Processes. The primary focus is on Markov Chains, Martingales and Gaussian Processes. We will discuss many interesting applications from physics to economics. Topics may include: simulations of path functions, game theory and linear programming, stochastic optimization, Brownian Motion and Black-Scholes.
Fall or Spring
Mutually Exclusive: STAT 5330
Prerequisite: STAT 4300 AND (MATH 2400 OR MATH 3120 OR MATH 3140)
1 Course Unit

STAT 4350 Forecasting Methods for Management
This course provides an introduction to the wide range of techniques available for statistical modelling and forecasting of time series. Regression methods for decomposition models, trends and seasonality, spectral analysis, distributed lag models, autoregressive-moving average modelling, forecasting, exponential smoothing, and ARCH and GARCH models will be surveyed. The emphasis will be on applications, rather than technical foundations and derivations. The techniques will be studied critically, with examination of their usefulness and limitations. This course may be taken concurrently with the prerequisite with instructor permission.
Fall or Spring
1 Course Unit

STAT 4420 Introduction to Bayesian Data Analysis
The course will introduce data analysis from the Bayesian perspective to undergraduate students. We will cover important concepts in Bayesian probability modeling as well as estimation using both optimization and simulation-based strategies. Key topics covered in the course include hierarchical models, mixture models, hidden Markov models and Markov Chain Monte Carlo. A course in probability (STAT 4300 or equivalent); a course in statistical inference (STAT 1020, STAT 1120, STAT 4310 or equivalent); and experience with the statistical software R (at the level of STAT 4050 or STAT 4700) are recommended.
Spring
1 Course Unit

STAT 4700 Data Analytics and Statistical Computing
This course will introduce a high-level programming language, called R, that is widely used for statistical data analysis. Using R, we will study and practice the following methodologies: data cleaning, feature extraction; web scrubbing, text analysis; data visualization; fitting statistical models; simulation of probability distributions and statistical models; statistical inference methods that use simulations (bootstrap, permutation tests). Prerequisite: Waiving the Statistics Core completely if prerequisites are not met. This course may be taken concurrently with the prerequisite with instructor permission.
Fall or Spring
Prerequisite: (STAT 1010 AND STAT 1020) OR (STAT 1110 AND STAT 1120) OR STAT 4310 OR (ECON 2300 AND ECON 2310)
1 Course Unit
STAT 4710 Modern Data Mining
With the advent of the internet age, data are being collected at unprecedented scale in almost all realms of life, including business, science, politics, and healthcare. Data mining—the automated extraction of actionable insights from data—has revolutionized each of these realms in the 21st century. The objective of the course is to teach students the core data mining skills of exploratory data analysis, selecting an appropriate statistical methodology, applying the methodology to the data, and interpreting the results. The course will cover a variety of data mining methods including linear and logistic regression, penalized regression (including lasso and ridge regression), tree-based methods (including random forests and boosting), and deep learning. Students will learn the conceptual basis of these methods as well as how to apply them to real data using the programming language R. This course may be taken concurrently with the prerequisite with instructor permission.
Fall or Spring
Prerequisite: STAT 1020 OR STAT 1120 OR STAT 4310
1 Course Unit

STAT 4740 Modern Regression for the Social, Behavioral and Biological Sciences
Function estimation and data exploration using extensions of regression analysis: smoothers, semiparametric and nonparametric regression, and supervised machine learning. Conceptual foundations are addressed as well as hands-on use for data analysis. This course may be taken concurrently with the prerequisite with instructor permission.
Spring
Also Offered As: CRIM 4740
Prerequisite: STAT 1020 OR STAT 1120
1 Course Unit

STAT 4750 Sample Survey Design
This course will cover the design and analysis of sample surveys. Topics include simple sampling, stratified sampling, cluster sampling, graphics, regression analysis using complex surveys and methods for handling nonresponse bias. This course may be taken concurrently with the prerequisite with instructor permission.
Not Offered Every Year
Prerequisite: STAT 1020 OR STAT 1120 OR STAT 4310
1 Course Unit

STAT 4760 Applied Probability Models in Marketing
This course will expose students to the theoretical and empirical "building blocks" that will allow them to construct, estimate, and interpret powerful models of consumer behavior. Over the years, researchers and practitioners have used these models for a wide variety of applications, such as new product sales, forecasting, analyses of media usage, and targeted marketing programs. Other disciplines have seen equally broad utilization of these techniques. The course will be entirely lecture-based with a strong emphasis on real-time problem solving. Most sessions will feature sophisticated numerical investigations using Microsoft Excel. Much of the material is highly technical.
Spring
Also Offered As: MKTG 4760
1 Course Unit

STAT 4770 Introduction to Python for Data Science
The goal of this course is to introduce the Python programming language within the context of the closely related areas of statistics and data science. Students will develop a solid grasp of Python programming basics, as they are exposed to the entire data science workflow, starting from interacting with SQL databases to query and retrieve data, through data wrangling, reshaping, summarizing, analyzing and ultimately reporting their results. Competency in Python is a critical skill for students interested in data science. Prerequisites: No prior programming experience is expected, but statistics, through the level of multiple regression is required. This requirement may be fulfilled with Undergraduate courses such as Stat 1020, Stat 1120.
Also Offered As: OIDD 4770
Mutually Exclusive: PHYS 1100
0.5-1 Course Unit

STAT 4800 Advanced Statistical Computing
This course will build on the fundamental concepts introduced in the prerequisite courses to allow students to acquire knowledge and programming skills in large-scale data analysis, data visualization, and stochastic simulation. Prerequisite: STAT 7700 or 7050 or equivalent background acquired through a combination of online courses that teach the R language and practical experience. This course may be taken concurrently with the prerequisite with instructor permission.
Spring
Prerequisite: STAT 4050 OR STAT 4700
1 Course Unit

STAT 4900 Causal Inference
Questions about cause are at the heart of many everyday decisions and public policies. Does eating an egg every day cause people to live longer or shorter or have no effect? Do gun control laws cause more or less murders or have no effect? Causal inference is the subfield of statistics that considers how we should make inferences about such questions. This course will cover the key concepts and methods of causal inference rigorously. The course is intended for statistics concentrators and minors. Knowledge of R such as that covered in STAT 4050 or STAT 4700 is recommended.
Spring
Mutually Exclusive: STAT 5900
Prerequisite: STAT 4300 AND (STAT 1020 OR STAT 1120 OR STAT 4310)
1 Course Unit

STAT 5000 Applied Regression and Analysis of Variance
An applied graduate level course in multiple regression and analysis of variance for students who have completed an undergraduate course in basic statistical methods. Emphasis is on practical methods of data analysis and their interpretation. Covers model building, general linear hypothesis, residual analysis, leverage and influence, one-way anova, two-way anova, factorial anova. Primarily for doctoral students in the managerial, behavioral, social and health sciences. Permission of instructor required to enroll.
Fall
Also Offered As: BSTA 5500, PSYC 6110
1 Course Unit
STAT 5010 Introduction to Nonparametric Methods and Log-linear Models
An applied graduate level course for students who have completed an undergraduate course in basic statistical methods. Covers two unrelated topics: log-linear and logit models for discrete data and nonparametric methods for nonnormal data. Emphasis is on practical methods of data analysis and their interpretation. Primarily for doctoral students in the managerial, behavioral, social and health sciences. Permission of instructor required to enroll.
Spring
Also Offered As: PSYC 6120
1 Course Unit

STAT 5030 Data Analytics and Statistical Computing
This course will introduce a high-level programming language, called R, that is widely used for statistical data analysis. Using R, we will study and practice the following methodologies: data cleaning, feature extraction; web scrubbing, text analysis; data visualization; fitting statistical models; simulation of probability distributions and statistical models; statistical inference methods that use simulations (bootstrap, permutation tests).
Prerequisite: Two courses at the statistics 4000 or 5000 level.
Fall or Spring
1 Course Unit

STAT 5100 Probability
Fall or Spring
Mutually Exclusive: STAT 4300
1 Course Unit

STAT 5110 Statistical Inference
Graphical displays; one- and two-sample confidence intervals; one- and two-sample hypothesis tests; one- and two-way ANOVA; simple and multiple linear least-squares regression; nonlinear regression; variable selection; logistic regression; categorical data analysis; goodness-of-fit tests. A methodology course.
Fall or Spring
Mutually Exclusive: STAT 1020, STAT 4310
Prerequisite: STAT 5100
1 Course Unit

STAT 5120 Mathematical Statistics
An introduction to the mathematical theory of statistics. Estimation, with a focus on properties of sufficient statistics and maximum likelihood estimators. Hypothesis testing, with a focus on likelihood ratio tests and the consequent development of "t" tests and hypothesis tests in regression and ANOVA. Nonparametric procedures.
Spring
Mutually Exclusive: STAT 4320
Prerequisite: STAT 4300 OR STAT 5100
1 Course Unit

STAT 5150 Advanced Statistical Inference I
STAT 5150 is aimed at first-year Ph.D. students and builds a good foundation in statistical inference from the first principles of probability.
Fall
Prerequisite: STAT 4300 AND STAT 4310 AND MATH 2400
1 Course Unit

STAT 5160 Advanced Statistical Inference II
STAT 5160 is a natural continuation of STAT 5150, and the main focus is on asymptotic evaluations and regression models. Time permitting, it also discusses some basic nonparametric statistical methods.
Spring
Prerequisite: STAT 5150
1 Course Unit

STAT 5200 Applied Econometrics I
This is a course in econometrics for graduate students. The goal is to prepare students for empirical research by studying econometric methodology and its theoretical foundations. Students taking the course should be familiar with elementary statistical methodology and basic linear algebra, and should have some programming experience. Topics include conditional expectation and linear projection, asymptotic statistical theory, ordinary least squares estimation, the bootstrap and jackknife, instrumental variables and two-stage least squares, specification tests, systems of equations, generalized least squares, and introduction to use of linear panel data models.
Fall
Prerequisite: (MATH 1080 OR MATH 1410) AND MATH 3120
1 Course Unit

STAT 5210 Applied Econometrics II
Topics include system estimation with instrumental variables, fixed effects and random effects estimation, M-estimation, nonlinear regression, quantile regression, maximum likelihood estimation, generalized method of moments estimation, minimum distance estimation, and binary and multinomial response models. Both theory and applications will be stressed.
Spring
Prerequisite: STAT 5200
1 Course Unit

STAT 5330 Stochastic Processes
An introduction to Stochastic Processes. The primary focus is on Markov Chains, Martingales and Gaussian Processes. We will discuss many interesting applications from physics to economics. Topics may include: simulations of path functions, game theory and linear programming, stochastic optimization, Brownian Motion and Black-Scholes.
Fall or Spring
Mutually Exclusive: STAT 4330
Prerequisite: STAT 5100
1 Course Unit

STAT 5350 Forecasting Methods for Management
This course provides an introduction to the wide range of techniques available for statistical modelling and forecasting of time series. Regression methods for decomposition models, trends and seasonality, spectral analysis, distributed lag models, autoregressive-moving average modeling, forecasting, exponential smoothing, and ARCH and GARCH models will be surveyed. The emphasis will be on applications, rather than technical foundations and derivations. The techniques will be studied critically, with examination of their usefulness and limitations.
Fall or Spring
1 Course Unit

STAT 5420 Bayesian Methods and Computation
Sophisticated tools for probability modeling and data analysis from the Bayesian perspective. Hierarchical models, mixture models and Monte Carlo simulation techniques.
Spring
Prerequisite: STAT 4300 OR STAT 5100
1 Course Unit
STAT 5710 Modern Data Mining
Modern Data Mining: Statistics or Data Science has been evolving rapidly to keep up with the modern world. While classical multiple regression and logistic regression technique continue to be the major tools we go beyond to include methods built on top of linear models such as LASSO and Ridge regression. Contemporary methods such as KNN (K nearest neighbor), Random Forest, Support Vector Machines, Principal Component Analyses (PCA), the bootstrap and others are also covered. Text mining especially through PCA is another topic of the course. While learning all the techniques, we keep in mind that our goal is to tackle real problems. Not only do we go through a large collection of interesting, challenging real-life data sets but we also learn how to use the free, powerful software “R” in connection with each of the methods exposed in the class. Prerequisite: two courses at the statistics 4000 or 5000 level or permission from instructor.
Fall or Spring
1 Course Unit

STAT 5800 Advanced Statistical Computing
This course will build on the fundamental concepts introduced in the prerequisite courses to allow students to acquire knowledge and programming skills in large-scale data analysis, data visualization, and stochastic simulation. Prerequisite: STAT 5030, 7050, or 7700 or equivalent background acquired through a combination of online courses that teach the R language and practical experience.
Spring
Prerequisite: STAT 5030 OR STAT 7050 OR STAT 7700
1 Course Unit

STAT 5900 Causal Inference
Questions about cause are at the heart of many everyday decisions and public policies. Does eating an egg every day cause people to live longer or shorter or have no effect? Do gun control laws cause more or less murders or have no effect? Causal inference is the subfield of statistics that considers how we should make inferences about such questions. This course will cover the key concepts and methods of causal inference rigorously. Background in probability and statistics; some knowledge of R is recommended.
Spring
Mutually Exclusive: STAT 4900
1 Course Unit

STAT 6130 Regression Analysis for Business
This course provides the fundamental methods of statistical analysis, the art and science if extracting information from data. The course will begin with a focus on the basic elements of exploratory data analysis, probability theory and statistical inference. With this as a foundation, it will proceed to explore the use of the key statistical methodology known as regression analysis for solving business problems, such as the prediction of future sales and the response of the market to price changes. The use of regression diagnostics and various graphical displays supplement the basic numerical summaries and provides insight into the validity of the models. Specific important topics covered include least squares estimation, residuals and outliers, tests and confidence intervals, correlation and autocorrelation, collinearity, and randomization. The presentation relies upon computer software for most of the needed calculations, and the resulting style focuses on construction of models, interpretation of results, and critical evaluation of assumptions.
Fall
Prerequisite: STAT 6110
1 Course Unit

STAT 6210 Accelerated Regression Analysis for Business
STAT 6210 is intended for students with recent, practical knowledge of the use of regression analysis in the context of business applications. This course covers the material of STAT 6130, but omits the foundations to focus on regression modeling. The course reviews statistical hypothesis testing and confidence intervals for the sake of standardizing terminology and introducing software, and then moves into regression modeling. The pace presumes recent exposure to both the theory and practice of regression and will not be accommodating to students who have not seen or used these methods previously. The interpretation of regression models within the context of applications will be stressed, presuming knowledge of the underlying assumptions and derivations. The scope of regression modeling that is covered includes multiple regression analysis with categorical effects, regression diagnostic procedures, interactions, and time series structure. The presentation of the course relies on computer software that will be introduced in the initial lectures. Recent exposure to the theory and practice of regression modeling is recommended.
Fall
0.5 Course Units

STAT 7010 Modern Data Mining
Modern Data Mining: Statistics or Data Science has been evolving rapidly to keep up with the modern world. While classical multiple regression and logistic regression technique continue to be the major tools we go beyond to include methods built on top of linear models such as LASSO and Ridge regression. Contemporary methods such as KNN (K nearest neighbor), Random Forest, Support Vector Machines, Principal Component Analyses (PCA), the bootstrap and others are also covered. Text mining especially through PCA is another topic of the course. While learning all the techniques, we keep in mind that our goal is to tackle real problems. Not only do we go through a large collection of interesting, challenging real-life data sets but we also learn how to use the free, powerful software “R” in connection with each of the methods exposed in the class. Prerequisite: two courses at the statistics 4000 or 5000 level or permission from instructor.
Fall or Spring
1 Course Unit

STAT 7050 Statistical Computing with R
The goal of this course is to introduce students to the R programming language and related eco-system. This course will provide a skill-set that is in demand in both the research and business environments. In addition, R is a platform that is used and required in other advanced classes taught at Wharton, so that this class will prepare students for these higher level classes and electives.
Fall or Spring
Mutually Exclusive: STAT 4050
Prerequisite: STAT 6130 OR STAT 6210
0.5 Course Units

STAT 7070 Modern Data Mining
0.5 Course Units
**STAT 7100 Data Collection and Acquisition: Strategies and Platforms**
This course will give students a solid grasp of different data collection strategies and when and how they can be applied in practice. At the same time, important current ideas such as data confidentiality and ethical considerations will be addressed. The students will have designed and fielded a sample survey and designed and fielded an online experiment (A/B test). Student will collect data through web scraping activities and/or using an API. Students will summarize their collected data and subsequent inferences, culminating with an in-class presentation. The course is structured in two parts. The first part is a "Strategies" component that addresses different data collection strategies. It will discuss sample designs, experimentation, and observational studies. The second part of the course is about "Platforms" and goes into the practicalities of the implementation of the different strategies. Given the data science perspective of this course, this is focused on web enabled approaches. Familiarity with either R or Python is expected and specifically the R-Studio or Jupyter notebooks platforms. Courses such as Stat 7050 or Stat 7770 would meet this requirement. Statistics, through the level of multiple regression is required. This requirement may be fulfilled with MBA courses such as Stat 6130/6210, or by waiving MBA statistics.
Mutually Exclusive: STAT 4100
0.5 Course Units

**STAT 7110 Forecasting Methods for Management**
This course provides an introduction to the wide range of techniques available for statistical modelling and forecasting of time series. Regression methods for decomposition models, trends and seasonality, spectral analysis, distributed lag models, autoregressive-moving average modeling, forecasting, exponential smoothing, and ARCH and GARCH models will be surveyed. The emphasis will be on applications, rather than technical foundations and derivations. The techniques will be studied critically, with examination of their usefulness and limitations. This course may be taken concurrently with the prerequisite with instructor permission.
Fall or Spring
Prerequisite: STAT 6130 OR STAT 6210
1 Course Unit

**STAT 7220 Predictive Analytics for Business**
This course follows from the introductory regression classes, STAT 1020, STAT 1120, and STAT 4310 for undergraduates and STAT 6130 for MBAs. It extends the ideas from regression modeling, focusing on the core business task of predictive analytics as applied to realistic business related data sets. In particular it introduces automated model selection tools, such as stepwise regression and various current model selection criteria such as AIC and BIC. It delves into classification methodologies such as logistic regression. It also introduces classification and regression trees (CART) and the popular predictive methodologies known as random forest and boosted trees. By the end of the course the student will be familiar with and have applied these concepts and will be ready to use them in a work setting. The methodologies are implemented in a variety of software packages. Applications in JMP emphasize concepts and key modeling decisions. This course is formerly STAT 6220.
Fall or Spring
Mutually Exclusive: STAT 4220, STAT 4230, STAT 7230
Prerequisite: STAT 6130 OR STAT 6210
0.5-1 Course Unit

**STAT 7230 Applied Machine Learning in Business**
This course introduces students to machine learning techniques used in business applications. The main topics include: cross validation, variable selection procedures, shrinkage methods such as lasso, logistic regression, k-nearest neighbors, ROC curves and confusion matrix, trees, kernel based learning, resampling techniques, random forests, boosting, neural networks & deep learning, matrix methods including singular value decomposition (SVD) and its application in principal component analysis (PCA), and some unsupervised methods such as k-means and density based clustering. Students will learn to apply these methods in a wide range of settings such as marketing and finance, and will gain hands-on experience through class assignments and competitions.
Mutually Exclusive: STAT 4220, STAT 4230, STAT 7220
Prerequisite: STAT 6130 OR STAT 6210
1 Course Unit

**STAT 7240 Text Analytics**
This course introduces modern text analytics, and the tools of natural language processing. Text and language are powerful repositories of knowledge and information, but the semi-structured nature of language makes deriving insights from text challenging. Modern analytic techniques introduced in this course make it significantly easier even for non-specialists to use text and language data to drive deep insights. The course will use several examples from real world applications in different industries such as ecommerce, healthcare and finance to illustrate these techniques. Students should be familiar with regression models at the level of Stat 6130 or Stat 1020, and the Python language at the level of Stat 4770 or Stat 7770. Familiarity with the Jupyter notebook development environment is presumed, as well as common Python packages such as pandas, NLTK and SpaCy. Those with more knowledge of Statistics, such as from Stat 7220/4220, or computing skills will benefit. The predominant software used in the course is Jupyter notebooks that use a Python interpreter. Familiarity with basic probability models is helpful but not presumed.
Fall or Spring
Mutually Exclusive: STAT 4240
0.5 Course Units

**STAT 7700 Data Analytics and Statistical Computing**
This course will introduce a high-level programming language, called R, that is widely used for statistical data analysis. Using R, we will study and practice the following methodologies: data cleaning, feature extraction; web scrubbing, text analysis; data visualization; fitting statistical models; simulation of probability distributions and statistical models; statistical inference methods that use simulations (bootstrap, permutation tests).
Prerequisite: Two courses at the statistics 4000 or 5000 level.
Fall or Spring
1 Course Unit

**STAT 7760 Applied Probability Models in Marketing**
This course will expose students to the theoretical and empirical "building blocks" that will allow them to construct, estimate, and interpret powerful models of consumer behavior. Over the years, researchers and practitioners have used these models for a wide variety of applications, such as new product sales, forecasting, analyses of media usage, and targeted marketing programs. Other disciplines have seen equally broad utilization of these techniques. The course will be entirely lecture-based with a strong emphasis on real-time problem solving. Most sessions will feature sophisticated numerical investigations using Microsoft Excel.
Much of the material is highly technical.
Spring
Also Offered As: MKTG 7760
1 Course Unit
STAT 7770 Introduction to Python for Data Science
The goal of this course is to introduce the Python programming language within the context of the closely related areas of statistics and data science. Students will develop a solid grasp of Python programming basics, as they are exposed to the entire data science workflow, starting from interacting with SQL databases to query and retrieve data, through data wrangling, reshaping, summarizing, analyzing and ultimately reporting their results. Competency in Python is a critical skill for students interested in data science. Prerequisites: No prior programming experience is expected, but statistics, through the level of multiple regression is required. This requirement may be fulfilled with MBA courses such as STAT 6130/6210; or by waiving MBA statistics. Also Offered As: OIDD 7770
0.5-1 Course Unit

STAT 7800 Advanced Statistical Computing
This course will build on the fundamental concepts introduced in the prerequisite courses to allow students to acquire knowledge and programming skills in large-scale data analysis, data visualization, and stochastic simulation. Prerequisite: STAT 5030, 7050, or 7700 or equivalent background acquired through a combination of online courses that teach the R language and practical experience.
Spring
Prerequisite: STAT 5030 OR STAT 7050 OR STAT 7700
1 Course Unit

STAT 8990 Independent Study
Written permission of instructor, the department MBA advisor and course coordinator required to enroll.
Fall or Spring
0.5-1 Course Unit

STAT 9150 Nonparametric Inference
Statistical inference when the functional form of the distribution is not specified. Nonparametric function estimation, density estimation, survival analysis, contingency tables, association, and efficiency.
Not Offered Every Year
Prerequisite: STAT 5200
1 Course Unit

STAT 9200 Sample Survey Methods
This course will cover the design and analysis of sample surveys. Topics include simple random sampling, stratified sampling, cluster sampling, graphics, regression analysis using complex surveys and methods for handling nonresponse bias.
Not Offered Every Year
Prerequisite: STAT 5200 OR STAT 9610 OR STAT 9700
1 Course Unit

STAT 9210 Observational Studies
This course will cover statistical methods for the design and analysis of observational studies. Topics will include the potential outcomes framework for causal inference; randomized experiments; matching and propensity score methods for controlling confounding in observational studies; tests of hidden bias; sensitivity analysis; and instrumental variables.
Fall or Spring
Prerequisite: STAT 5200 OR STAT 9610 OR STAT 9700
1 Course Unit

STAT 9250 Multivariate Analysis: Theory
This is a course that prepares PhD students in statistics for research in multivariate statistics and high dimensional statistical inference. Topics from classical multivariate statistics include the multivariate normal distribution and the Wishart distribution; estimation and hypothesis testing of mean vectors and covariance matrices; principal component analysis, canonical correlation analysis and discriminant analysis; etc. Topics from modern multivariate statistics include the Marcenko-Pastur law, the Tracy-Widom law, nonparametric estimation and hypothesis testing of high-dimensional covariance matrices, high-dimensional principal component analysis, etc.
Not Offered Every Year
Prerequisite: STAT 9300 OR STAT 9700 OR STAT 9720
1 Course Unit

STAT 9260 Multivariate Analysis: Methodology
This is a course that prepares PhD students in statistics for research in multivariate statistics and data visualization. The emphasis will be on a deep conceptual understanding of multivariate methods to the point where students will propose variations and extensions to existing methods or whole new approaches to problems previously solved by classical methods. Topics include: principal component analysis, canonical correlation analysis, generalized canonical analysis; nonlinear extensions of multivariate methods based on optimal transformations of quantitative variables and optimal scaling of categorical variables; shrinkage- and sparsity-based extensions to classical methods; clustering methods of the k-means and hierarchical varieties; multidimensional scaling, graph drawing, and manifold estimation.
Not Offered Every Year
Prerequisite: STAT 9610
1 Course Unit

STAT 9270 Bayesian Statistical Theory and Methods
This graduate course will cover the modeling and computation required to perform advanced data analysis from the Bayesian perspective. We will cover fundamental topics in Bayesian probability modeling and implementation, including recent advances in both optimization and simulation-based estimation strategies. Key topics covered in the course include hierarchical and mixture models, Markov Chain Monte Carlo, hidden Markov and dynamic linear models, tree models, Gaussian processes and nonparametric Bayesian strategies.
Not Offered Every Year
Prerequisite: STAT 4300 OR STAT 5100
1 Course Unit

STAT 9280 Statistical Learning Theory
Statistical learning theory studies the statistical aspects of machine learning and automated reasoning, through the use of (sampled) data. In particular, the focus is on characterizing the generalization ability of learning algorithms in terms of how well they perform on "new" data when trained on some given data set. The focus of the course is on: providing the fundamental tools used in this analysis; understanding the performance of widely used learning algorithms; understanding the "art" of designing good algorithms, both in terms of statistical and computational properties. Potential topics include: empirical process theory; online learning; stochastic optimization; margin based algorithms; feature selection; concentration of measure. Background in probability and linear algebra recommended.
Spring
1 Course Unit
STAT 9300 Probability Theory
Measure theoretic foundations, laws of large numbers, large deviations, distributional limit theorems, Poisson processes, random walks, stopping times.
Fall
Also Offered As: AMCS 6481, MATH 6480
Prerequisite: STAT 4300 OR STAT 5100 OR MATH 6080
1 Course Unit

STAT 9310 Stochastic Processes
Continuation of MATH 6480/STAT 9300, the 2nd part of Probability Theory for Ph.D. students in the math or statistics department. The main topics include Brownian motion, martingales, Ito’s formula, and their applications to random walk and PDE.
Not Offered Every Year
Also Offered As: AMCS 6491, MATH 6490
1 Course Unit

STAT 9550 Stochastic Calculus and Financial Applications
Selected topics in the theory of probability and stochastic processes.
Fall
Prerequisite: STAT 9300
1 Course Unit

STAT 9600 Statistical Algorithms and Computation
This course aims to prepare students for graduate work in the design, analysis, and implementation of statistical algorithms. The target audience is Ph.D. students in statistics or in adjacent fields, such as computer science, mathematics, electrical engineering, computational biology, economics, and marketing. We will take a fundamental approach and focus on classes of algorithms of primary importance in statistics and statistical machine learning. Some meta-classes of algorithms that may receive significant attention are optimization, sampling, and numerical linear algebra. I aim to make the content complementary rather than overlapping with other courses at Penn, such as ESE6050, CIS6770, and the CIS7000 series. While there may be some overlap in the portions of the course that cover optimization, the sampling (Monte Carlo and related) aspects of the course are, to my knowledge, hard to find elsewhere at Penn. The course is fast paced and I expect a certain degree of mathematical preparation. Most students in the above mentioned programs will have the requisite mathematics background. I also expect familiarity with an appropriate programming language such as R, python, or matlab. The course will be mostly language agnostic. However, I may at times give example code in one of these languages, and you will be expected to be able to read the code even if it is not in your “primary” language. We may make use of various open-source toolboxes and packages for these environments, such as the Stan probabilistic programming language (best used with R) and the cvx toolbox for convex programming (available for multiple platforms but perhaps best used with matlab).
Spring
1 Course Unit

STAT 9610 Statistical Methodology
This is a course that prepares 1st year PhD students in statistics for a research career. This is not an applied statistics course. Topics covered include: linear models and their high-dimensional geometry, statistical inference illustrated with linear models, diagnostics for linear models, bootstrap and permutation inference, principal component analysis, smoothing and cross-validation.
Fall
Prerequisite: STAT 4310 OR STAT 5200
1 Course Unit

STAT 9620 Advanced Methods for Applied Statistics
This course is designed for Ph.D. students in statistics and will cover various advanced methods and models that are useful in applied statistics. Topics for the course will include missing data, measurement error, nonlinear and generalized linear regression models, survival analysis, experimental design, longitudinal studies, building R packages and reproducible research.
Spring
Prerequisite: STAT 9610
1 Course Unit

STAT 9700 Mathematical Statistics
Decision theory and statistical optimality criteria, sufficiency, point estimation and hypothesis testing methods and theory.
Fall
Prerequisite: STAT 4310 OR STAT 5200
1 Course Unit

STAT 9710 Introduction to Linear Statistical Models
Spring
Prerequisite: STAT 9700
1 Course Unit

STAT 9720 Advanced Topics in Mathematical Statistics
A continuation of STAT 9700.
Fall or Spring
Prerequisite: STAT 9700 AND STAT 9710
1 Course Unit

STAT 9740 Modern Regression for the Social, Behavioral and Biological Sciences
Function estimation and data exploration using extensions of regression analysis: smoothers, semiparametric and nonparametric regression, and supervised machine learning. Conceptual foundations are addressed as well as hands-on use for data analysis.
Spring
Prerequisite: STAT 1020 OR STAT 1120
1 Course Unit

STAT 9770 Seminar in Advanced Application of Statistics
This seminar will be taken by doctoral candidates after the completion of most of their coursework. Topics vary from year to year and are chosen from advanced probability, statistical inference, robust methods, and decision theory with principal emphasis on applications.
Fall or Spring
0.5-1 Course Unit

STAT 9910 Seminar in Advanced Application of Statistics
Written permission of instructor and the department course coordinator required to enroll.
Fall or Spring
0-2 Course Units

STAT 9950 Dissertation
Fall or Spring
0 Course Units

STAT 9990 Independent Study
Fall or Spring
0 Course Units
**Sudanese Arabic (SARB)**

**SARB 0100 Sudanese Arabic**
Sudan is a country with a rich history and diverse cultures and people. Sudan is surrounded by nine countries. Two of Sudan’s neighbors have Arabic as their official language (Egypt & Libya). While in neighboring Chad and Eritrea, Arabic is widely spoken. The only barrier that divides Sudan from Arabia is the Red Sea. Arabic is the official language of the Sudan, and Sudanese pidgin Arabic (Juba Arabic) is widely used in the southern part of the country. Sudanese colloquial Arabic has close resemblance to Egyptian Colloqui Arabic and to Classical Arabic. Sudanese colloquial Arabic is also spoken and is intelligible in Eritrea, Chad, Nigeria and many places in West Africa. This course will focus on speaking, listening, reading, & writing Sudanese Arabic through the followings: 1- Speaking: Conversing in Sudanese Arabic in various settings. 2- Reading & Writing: Reading and writing of Sudanese Arabic Texts. 3- Listening: Listening to various audio recordings of Sudanese Arabic in different forms and settings.

Not Offered Every Year
1 Course Unit

**SARB 0200 Sudanese Arabic II**
Continuation of SARB 0100
Spring
1 Course Unit

---

**Swahili (SWAH)**

**SWAH 0100 Elementary Swahili I**
The Elementary Swahili I course can be taken to fulfill a language requirement, or for linguistic preparation to do research on East Africa/Africa-related topics. The course emphasizes communicative competence to enable the students to acquire linguistic and extra-linguistic skills in Swahili. The content of the course is selected from various everyday life situations to enable the students to communicate in predictable common daily settings. Culture, as it relates to language use, is also part of the course content. Students will acquire the speaking, listening, reading, and writing skills at the mid-high novice level, based on the ACTFL scale. The mid-high level proficiency skills that the students will acquire constitute threshold capabilities of the second semester range of proficiency to prepare students for Elementary Swahili II course materials.

Fall
1 Course Unit

**SWAH 0111 TEST**

1 Course Unit

**SWAH 0200 Elementary Swahili II**
This course continues to introduce basic grammar, vocabulary, and the reading and writing of Swahili to new speakers. During this term, folktales, other texts, and film selections are used to help introduce important aspects of Swahili culture and the use of the language in wide areas of Africa.

Spring
Prerequisite: SWAH 0100
1 Course Unit

**SWAH 0300 Intermediate Swahili I**
The objectives of this course are: to strengthen students’ knowledge of speaking, listening, reading, and writing Swahili and to compare it with the language of the students; to learn more about the cultures of East Africa and to compare it with the culture(s) of the students; to consider the relationship between that knowledge and the knowledge of other disciplines; and using that knowledge, to unite students with communities outside of class.

Fall
1 Course Unit

**SWAH 0400 Intermediate Swahili II**
At the end of the course students will be at Level 2 on the ILR (Interagency Language Roundtable) scale.

Spring
Prerequisite: SWAH 0300
1 Course Unit

**SWAH 1100 Advanced Swahili I**
This is an advanced Kiswahili course which will engage learners in extended spoken and written discourse. Advanced learners of Kiswahili will listen to, read about, write and speak on authentic video materials, contemporary novels, and newspapers. They will also participate in various discussions on cultural and political issues.

Fall
Prerequisite: SWAH 0300
1 Course Unit

**SWAH 1200 Advanced Swahili II**
The objectives are to continue to strengthen students’ knowledge of speaking, listening, reading, and writing Swahili and to compare it with the language of the students; to continue learning about the cultures of East Africa and to continue making comparisons with the culture(s) of the students; to continue to consider the relationship between that knowledge and the knowledge of other disciplines; and using that knowledge, to continue to unite students with communities outside of class. Level 3 on the ILR (Interagency Language Roundtable) scale.

Spring
Also Offered As: AFRC 2851
1 Course Unit

**SWAH 1300 Swahili Lang/Culture I**
This course taught in Swahili will focus on reading/writing skills and speaking/listening skills as well as structural and cultural information. The course will be structured around three thematic units: History, Politics, and Education. The course will provide background on the Swahili-speaking world: Who were the first Swahili speakers and what varieties of the language did they speak? How did Swahili spread from the coast to other Swahili-speaking areas as far inland as Uganda, Rwanda, and Congo? Swahili is a lingua franca and has importance in the spread of religion and trade movements. Influences of other languages on Swahili and influences of Swahili on local languages will be discussed. Political and educational systems will be discussed as well.

Not Offered Every Year
Prerequisite: SWAH 1100 AND SWAH 1200
1 Course Unit

**SWAH 1400 Swahili Lang/Culture II**
Continuation of Swahili Language & Culture I. Course is taught in Swahili and focuses on reading/writing skills and speaking/listening skills, as well as structural and cultural information. The course is structured around three thematic units: History, Politics, and Education.

Not Offered Every Year
1 Course Unit
SWAH 5100 Intermediate Swahili I
The objectives of this course are: to strengthen students' knowledge of speaking, listening, reading, and writing Swahili and to compare it with the language of the students; to learn more about the cultures of East Africa and to compare it with the culture(s) of the students; to consider the relationship between that knowledge and the knowledge of other disciplines; and using that knowledge, to unite students with communities outside of class. Prerequisite: Offered through Penn Language Center
Fall
1 Course Unit

SWAH 5200 Intermediate Swahili II
This is part II of the Intermediate Swahili sequence I/II. The objectives of this course are: to strengthen students' knowledge of speaking, listening, reading, and writing Swahili and to compare it with the language of the students; to learn more about the cultures of East Africa and to compare it with the culture(s) of the students; to consider the relationship between that knowledge and the knowledge of other disciplines; and using that knowledge, to unite students with communities outside of class. At the end of the course students will be at Level 2 on the ILR (Interagency Language Roundtable) scale. Offered through the Penn Language Center
Spring
1 Course Unit

SWAH 5300 Advanced Swahili I
This is an advanced Kiswahili course which will engage learners in extended spoken and written discourse. Advanced learners of Kiswahili will listen to, read about, write and speak on authentic video materials, contemporary novels, and newspapers. They will also participate in various discussions on cultural and political issues. Prerequisite: Offered through Penn Language Center.
Fall
1 Course Unit

SWAH 5400 Advanced Swahili II
The objectives are to continue to strengthen students' knowledge of speaking, listening, reading, and writing Swahili and to compare it with the language of the students; to continue learning about the cultures of East Africa and to continue making comparisons with the culture(s) of the students; to continue to consider the relationship between that knowledge and the knowledge of other disciplines; and using that knowledge, to continue to unite students with communities outside of class. Level 3 on the ILR (Interagency Language Roundtable) scale. Offered through Penn Language Center.
Spring
1 Course Unit

Swedish (SWED)

SWED 0100 Elementary Swedish I
Elementary Swedish I
1 Course Unit

SWED 0200 Elementary Swedish II
Part two of the elementary level Swedish course. Authentic texts and media will be introduced, as well as opportunities to communicate with native speakers. By the end of the spring semester you will be able to handle a range of practical situations, such as ordering in restaurants and cafes, shopping, talking about family, holidays, plans, daily routines, health, sports/hobbies, jobs and studies. You will work on expressing your opinions and intentions, likes and dislikes, and understanding basic authentic source media, spoken language, etc. You will also learn about Sweden in an international context.
Spring, odd numbered years only
Prerequisite: SWED 0100
1 Course Unit

SWED 0300 Intermediate Swedish I
In part one of the intermediate year, students will research and explore a broad range of topics using authentic sources and course materials to gain greater fluency and familiarity with language and culture. You will meet native Swedish speakers and visit Swedish organizations in the Philadelphia area. Projects and assignments will give you ample opportunity to explore areas that are of special interest to you from academic, professional, and personal perspectives. We will learn about Swedish innovation, business, socio-economic and political structures, geography, tourism, migration, history, and about what it is like to live in Sweden today.
Fall, even numbered years only
Prerequisite: SWED 0200
1 Course Unit

SWED 0400 Intermediate Swedish II
Part two of the intermediate level Swedish course. Through in- and out-of-class interactions, you will continue to engage with your peers and native or fluent Swedish speakers. We will look at Swedish products, practices and perspectives, and we will discuss how Swedish culture and society are adapting to a rapidly changing world. We will complement the course literature with relevant authentic sources, such as online media, films, newspapers, etc. With a small class size, we have the flexibility to adapt the content to individual interests, and you will have plenty of opportunity to contribute to the total learning experience while elevating your Swedish vocabulary, grammar and communication skills.
Spring, even numbered years only
Prerequisite: SWED 0300
1 Course Unit

SWED 5010 Elementary Swedish I
Elementary Swedish I
1 Course Unit

SWED 5020 Elementary Swedish II
Part two of the elementary level Swedish course. Authentic texts and media will be introduced, as well as opportunities to communicate with native speakers. By the end of the spring semester you will be able to handle a range of practical situations, such as ordering in restaurants and cafes, shopping, talking about family, holidays, plans, daily routines, health, sports/hobbies, jobs and studies. You will work on expressing your opinions and intentions, likes and dislikes, and understanding basic authentic source media, spoken language, etc. You will also learn about Sweden in an international context.
Spring, odd numbered years only
Prerequisite: SWED 5010
1 Course Unit
SWED 5030 Intermediate Swedish I
In part one of the intermediate year, students will research and explore a broad range of topics using authentic sources and course materials to gain greater fluency and familiarity with language and culture. You will meet native Swedish speakers and visit Swedish organizations in the Philadelphia area. Projects and assignments will give you ample opportunity to explore areas that are of special interest to you from academic, professional, and personal perspectives. We will learn about Swedish innovation, business, socio-economic and political structures, geography, tourism, migration, history, and about what it is like to live in Sweden today.
Fall, even numbered years only
Prerequisite: SWED 5020
1 Course Unit

SWED 5040 Intermediate Swedish II
Part two of the intermediate level Swedish course. Through in- and out-of-class interactions, you will continue to engage with your peers and native or fluent Swedish speakers. We will look at Swedish products, practices and perspectives, and we will discuss how Swedish culture and society are adapting to a rapidly changing world. We will complement the course literature with relevant authentic sources, such as online media, films, newspapers, etc. With a small class size, we have the flexibility to adapt the content to individual interests, and you will have plenty of opportunity to contribute to the total learning experience while elevating your Swedish vocabulary, grammar and communication skills.
Spring, even numbered years only
Prerequisite: SWED 5030
1 Course Unit

Tamil (TAML)

TAML 0100 Beginning Tamil Part I
This course introduces students to colloquial Tamil and formal written Tamil. A balance between production skills, namely writing and speaking, and comprehension skills, namely reading and listening, will be maintained throughout the course. Reading materials will introduce students to customs and habits of the Tamil speakers in Tamil Nadu, Sri Lanka, Malaysia, and Singapore. Lessons in the class will be based on a set of Tamil learning lessons and videos made available at http://www.southasia.upenn.edu/tamil and the book by the Instructor titled "Tamil Language in Context", information available at http://www.thetamillanguage.com. By the end of the semester, students will have a working knowledge in reading Tamil text with a basic skill to write and speak the language at ACTFL's Beginner mid level.
Fall
1 Course Unit

TAML 0200 Beginning Tamil Part II
This course is a continuation of the Beginner Tamil TAML406. It continues to teach grammar and spoken sill from semester I. Lessons in the class will be based on a set of Tamil learning lessons and videos made available at http://www.southasia.upenn.edu/tamil and the book by the Instructor titled "Tamil Language in Context", information available at http://www.thetamillanguage.com. By the end of the semester, students will have a working knowledge in reading Tamil text with a basic skill to write and speak the language at ACTFL's Beginner High level.
Spring
Prerequisite: TAML 0100 OR TAML 5100
1 Course Unit

TAML 0300 Intermediate Tamil Part I
This course develops the skills obtained either from the Beginning Tamil course or from students' prior exposure to Tamil by other means. Basic knowledge of Tamil script, reading and writing in Tamil is required to take this course. Heavy emphasis will be made on using the language in actual environments both in spoken medium and in written medium. Multimedia materials such as audio and video facilities from the book and the website Tamil Language in Context (http://www.southasia.upenn.edu/tamil) will be used extensively to provide students an exposure to the Tamil culture and customs as followed in Tamil Nadu, India. Besides improving their speech and writing, students will also be introduced gradually to Tamil literature, which has two thousand years of Literary history. The learning process in this course will be facilitated by the lessons and videos as provided in the website and the book. By the end of this course, students will have ACTFL's intermediate mid level proficiency in Tamil.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

TAML 0400 Intermediate Tamil Part II
This course is a continuation of Intermediate Tamil I (TAML426) and it continue to develop the skills obtained either from the Beginning Tamil course or from students' prior exposure to Tamil by other means. The emphasis will be on using the language in actual environments both in spoken medium and in written medium. Multimedia materials such as audio and videos as provided in the website http://www.southasia.upenn.edu/tamil or http://www.thetamillanguage.com will be extensively used to provide students an exposure to the Tamil culture and customs as authentic as possible. Besides improving their speech and writing, students will also be introduced gradually to Tamil literature, which has two thousand years of literary history. By the end of this course, students will have ACTFL's intermediate high proficiency level.
1 Course Unit

TAML 1500 Advanced Tamil
This course is a continuation of the Advance Tamil Course I and its primary focus is to concentrate particularly on any one of the genres of the Tamil language namely Sangam, medieval or modern Tamil, which span a vast variety of texts from Aham, Puram, religious poems along with a whole array of Tamil inscriptions. The familiarity from Advanced Tamil I course will be adequately used to master in any aspect of these three genres of the Tamil language. Based on the general interests of the students who are enrolled in this course specific variety of the text to concentrate upon will be selected. In the past, we have read poems from the Sangam genre Puranaranu, Ahananuru, Silappatikaram, Manimekalai etc., along with the parallel religious poems from Tirumurai, Malayira Divyaprabandam and so on. We have also read as part of this course texts from Islam literature, Tamil inscriptions and other related kinds. Text from the instructors book (to be published), "ilakkiyap payaNangkaL" will be used to give a birds eye view to students about Tamil literature and the transitions that took place from Sangam, medieval and modern period. This course will train students to have a near-native proficiency in Tamil along with a professional skill in any particular variety of the Tamil language.
Spring
1 Course Unit
TAML 5100 Beginning Tamil Part I
This course introduces students to colloquial Tamil and formal written Tamil. A balance between production skills, namely writing and speaking, and comprehension skills, namely reading and listening, will be maintained throughout the course. Reading materials will introduce students to customs and habits of the Tamil speakers in Tamil Nadu, Sri Lanka, Malaysia, and Singapore. Lessons in the class will be based on a set of Tamil learning lessons and videos made available at http://www.southasia.upenn.edu/tamil and the book by the Instructor titled "Tamil Language in Context", information available at http://www.thetamillanguage.com. By the end of the semester, students will have a working knowledge in reading Tamil text with a basic skill to write and speak the language at ACTFL's Beginner mid level.
Fall 1 Course Unit

TAML 5200 Beginning Tamil Part II
This course is a continuation of the Beginner Tamil TAML406. It continues to teach grammar and spoken sill from semester I. Lessons in the class will be based on a set of Tamil learning lessons and videos made available at http://www.southasia.upenn.edu/tamil and the book by the Instructor titled "Tamil Language in Context", information available at http://www.thetamillanguage.com. By the end of the semester, students will have a working knowledge in reading Tamil text with a basic skill to write and speak the language at ACTFL's Beginner High level.
Spring 1 Course Unit

TAML 5300 Intermediate Tamil Part I
This course develops the skills obtained either from the Beginning Tamil course or from students’ prior exposure to Tamil by some other means. Basic knowledge of Tamil script, reading and writing in Tamil is required to take this course. Heavy emphasis will be made on using the language in actual environments both in spoken medium and in written medium. Multimedia materials such as audio and video facilities from the book and the website Tamil Language in Context (http://www.southasia.upenn.edu/tamil) will be used extensively to provide students an exposure to the Tamil culture and customs as authentic as possible. Besides improving their speech and writing, students will also be introduced gradually to Tamil literature, which has two thousand years of literary history. By the end of this course, students will have ACTFL's intermediate mid level proficiency in Tamil.
Two Term Class, Student must enter first term; credit given after both terms are complete 1 Course Unit

TAML 5400 Intermediate Tamil Part II
This course is a continuation of Intermediate Tamil I (TAML426) and it continue to develop the skills obtained either from the Beginning Tamil course or from students' prior exposure to Tamil by other means. The emphasis will be on using the language in actual environments both in spoken medium and in written medium. Multimedia materials such as audio and videos as provided in the website http://www.southasia.upenn.edu/tamil or http://www.thetamillanguage.com will be extensively used to provide students an exposure to the Tamil culture and customs as authentic as possible. Besides improving their speech and writing, students will also be introduced gradually to Tamil literature, which has two thousand years of literary history. By the end of this course, students will have ACTFL's intermediate high proficiency level.
Spring 1 Course Unit

TAML 5500 Advanced Tamil
This course is a continuation of the Advance Tamil Course I and its primary focus is to concentrate particularly on any one of the genres of the Tamil language namely Sangam, medieval or modern Tamil, which span a vast variety of texts from Aham, Puram, religious poems along with a whole array of Tamil inscriptions. The familiarity from Advanced Tamil I course will be adequately used to master in any aspect of these three genres of the Tamil language. Based on the general interests of the students who are enrolled in this course specific variety of the text to concentrate upon will be selected. In the past, we have read poems from the Sangam genre Purananuru, Ahananuru, Silappatikaram, Manimekalai etc., along with the parallel religious poems from Tirumurai, Nalayira Divyaprabandam and so on. We have also read as part of this course texts from Islam literature, Tamil inscriptions and other related kinds. Text from the instructors book (to be published), "Ilakkiyap payaNangkaL" will be used to give a birds eye view to students about Tamil literature and the transitions that took place from Sangam, medieval and modern period. This course will train students to have a near-native proficiency in Tamil along with a professional skill in any particular variety of the Tamil language.
Spring 1 Course Unit

Telugu (TELU)

TELU 0100 Beginning Telugu Part I
This course introduces students to the basic Telugu language skills, with an emphasis on practice for listening comprehension, and speaking Telugu. Combined with exposure to Andhra culture, the classroom and online work in this course will enable interested students to pursue further language study in Telugu at the intermediate level, to carry out field research in Andhra Pradesh, or to prepare them to advanced work in Telugu Studies. An introduction to Telugu like this will also be useful for students who just want to acquire basic Telugu language skills for learning a new language or being able to communicate with Telugu speaking family and friends or to enjoy Telugu music and films.
Fall 1 Course Unit
TELU 0200 Beginning Telugu Part II
This course continues students to the basic Telugu language skills, with an emphasis on practice for listening comprehension, and speaking Telugu. Combined with exposure to Andhra culture, the classroom and online work in this course will enable interested students to pursue further language study in Telugu at the intermediate level, to carry out field research in Andhra Pradesh, or to prepare them to advanced work in Telugu Studies. An introduction to Telugu like this will also be useful for students who just want to acquire basic Telugu language skills for learning a new language or being able to communicate with Telugu speaking family and friends or to enjoy Telugu music and films.
Spring
Prerequisite: TELU 0100 OR TELU 5100
1 Course Unit

TELU 0300 Intermediate Telugu Part I
This course is designed to expand the students' basic language skills in Telugu in order to allow them to function adequately in a Telugu-speaking environment, to immerse themselves in the rich Andhra culture, and to accomplish a more advanced competency in an interesting foreign language. This course is also aimed at students planning to conduct scholarly research in Telugu history, literature or society, or humanities or social science fieldwork in Telugu speaking areas.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: TELU 0200 OR TELU 5200
1 Course Unit

TELU 0400 Intermediate Telugu Part II
This course is designed to expand the students’ basic language skills in Telugu in order to allow them to function adequately in a Telugu-speaking environment, to immerse themselves in the rich Andhra culture, and to accomplish a more advanced competency in an interesting foreign language. This course is also aimed at students planning to conduct scholarly research in Telugu history, literature or society, or humanities or social science fieldwork in Telugu speaking areas.
Prerequisite: TELU 0300 OR TELU 5300
1 Course Unit

TELU 1500 Advanced Telugu
This is a course designed for students who have completed four semesters of Telugu.
Fall or Spring
Mutually Exclusive: TELU 5500
Prerequisite: TELU 0400
1 Course Unit

TELU 5100 Beginning Telugu Part I
This course introduces students to the basic Telugu language skills, with an emphasis on practice for listening comprehension, and speaking Telugu. Combined with exposure to Andhra culture, the classroom and online work in this course will enable interested students to pursue further language study in Telugu at the intermediate level, to carry out field research in Andhra Pradesh, or to prepare them to advanced work in Telugu Studies. An introduction to Telugu like this will also be useful for students who just want to acquire basic Telugu language skills for learning a new language or being able to communicate with Telugu speaking family and friends or to enjoy Telugu music and films.
Fall
1 Course Unit

TELU 5200 Beginning Telugu Part II
This course continues students to the basic Telugu language skills, with an emphasis on practice for listening comprehension, and speaking Telugu. Combined with exposure to Andhra culture, the classroom and online work in this course will enable interested students to pursue further language study in Telugu at the intermediate level, to carry out field research in Andhra Pradesh, or to prepare them to advanced work in Telugu Studies. An introduction to Telugu like this will also be useful for students who just want to acquire basic Telugu language skills for learning a new language or being able to communicate with Telugu speaking family and friends or to enjoy Telugu music and films.
Spring
1 Course Unit

TELU 5300 Intermediate Telugu Part I
This course is designed to expand the students' basic language skills in Telugu in order to allow them to function adequately in a Telugu-speaking environment, to immerse themselves in the rich Andhra culture, and to accomplish a more advanced competency in an interesting foreign language. This course is also aimed at students planning to conduct scholarly research in Telugu history, literature or society, or humanities or social science fieldwork in Telugu speaking areas.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

TELU 5400 Intermediate Telugu Part II
This course is designed to expand the students’ basic language skills in Telugu in order to allow them to function adequately in a Telugu-speaking environment, to immerse themselves in the rich Andhra culture, and to accomplish a more advanced competency in an interesting foreign language. This course is also aimed at students planning to conduct scholarly research in Telugu history, literature or society, or humanities or social science fieldwork in Telugu speaking areas.
1 Course Unit

TELU 5500 Advanced Telugu
This is a course designed for students who have completed four semesters of Telugu.
Fall or Spring
Mutually Exclusive: TELU 1500
1 Course Unit

Thai (THAI)

THAI 0100 Beginning Thai I
An introduction to the spoken and written Thai language. Beginning Thai will explain the fundamentals of the modern Tibetan language in its literary and spoken forms. Students will develop the ability to read the Tibetan script and identify and analyze Tibetan grammatical forms. Students will also learn conversational Tibetan, and be introduced to the structure of spoken grammar and its pronunciation. This class will provide a foundation for reading Tibetan literature, both classical and modern, and for speaking Tibetan.
Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit
THAI 0200 Beginning Thai II
Beginning Tibetan II will develop fundamentals of the modern Tibetan language in its literary and spoken forms. Students will continue learning to read Tibetan and analyze Tibetan grammatical forms. Students will also continue learning conversational Tibetan, and increase familiarity with the structures of spoken grammar and pronunciation. This course will provide a foundation for reading Tibetan literature, both classical and modern, and for speaking Tibetan. The rich and colorful culture of Tibet will be part of the curriculum.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: THAI 0100
1 Course Unit

THAI 0300 Intermediate Thai I
A continuation of Beginning Thai II, the spoken and written Thai language.
Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: THAI 0200
1 Course Unit

THAI 0400 Intermediate Thai II
A continuation of Intermediate Thai I, this class builds on the speaking and writing skills learned in that class.
1 Course Unit

Theatre Arts (THAR)

THAR 0020 Fundamentals of Acting: First-Year Seminar
Rooted in the system devised by Constantine Stanislavsky, but incorporating a wide variety of approaches, including improvisation, this course takes students step by step through the practical work an actor must do to live and behave truthfully on-stage. Beginning with relaxation and physical exercise, interactive games, and ensemble building, students then learn and put into practice basic acting techniques, including sensory work, the principles of action, objectives, given circumstances, etc. The semester culminates in the performance of a scene or scenes, most often from a play from the Realist tradition. This course strongly stresses a commitment to actor work and responsibility to one's fellow actors. Practical work is supplemented by readings from Stanislavsky and a variety of other acting theorists that may include Uta Hagen, Robert Cohen, Stella Adler, among others. Students are required to submit short essays over the course of the semester in response to the readings and in preparation for their final scene project. This First-Year Seminar covers the same material as THAR0120 Introduction to Acting, and a student may not receive credit for both courses.
Mutually Exclusive: THAR 0120
1 Course Unit

THAR 0076 Theatre in Philadelphia
What *is* the role of theatre in our always-on-screen American culture? More specifically, what is the role of theatre in the life of Philadelphia? And in our own lives? Is it for “special occasions” only? Or might it play an important part in the intellectual, social, and political fabric of our society—and within our own world views? The focus of this course will be on the subject of its title: Theatre in Philadelphia. Each week, we will travel together across our city, encountering a wide array of plays, performances, and places, analyzing live theatre as both an art form and a cultural experience. These theatrical events will be examined in their entirety, as we consider: performance spaces; audiences; production elements such as directing, acting, and design; as well as the text of the plays themselves. Our readings will provide historical and theoretical contexts for our viewing; we will also examine the scripts of some of the plays we see, as well as critical commentary about them, and about theatre in Philadelphia. The course will include tours of local theatres, and discussions with professional artists.
Not Offered Every Year
1 Course Unit

THAR 0100 Introduction to Theatre Arts
This course is an introduction to theatre as a unique art form, in which we will pursue the following questions. What is theatre? For whom—and by whom—is it created and performed? What does it take to “make theatre?” What is the role of theatre in society and in our culture(s)? We will learn to read plays as scripts designed for performance, and one of our key goals will be to discover how to interpret and assess the experience of live performance itself. Among the things we will consider are the distinct roles of actors, directors, designers, playwrights, producers, spectators, and critics; we will also visit a variety of performance spaces in Philadelphia, where we will view live theatre together. The class will feature visits from professional artists, and may present opportunities for creative as well as analytical work.
Fall or Spring
1 Course Unit

THAR 0101 Theatre, History, Culture I: From Classical to the Middle Classes
This course investigates the history of theatre practice in Europe and Asia from Fifth-Century Athens to roughly the end of the Eighteenth Century. In addition to analyzing major dramatic works, this course examines the evolution of production methods—scenography, acting, costuming, theatre architecture—across cultures and key socio-historical moments. Readings will be drawn from historical research, theoretical writings, plays and contemporary social documents. A particular focus will be on the integral role that the theatre plays as a cultural institution in the ongoing civic life of major cities. The course approaches theatre as broadly interdisciplinary and examines its intersection with religious practice, political developments, national identity, geography, the visual arts and the urban landscape.
1 Course Unit
THAR 0102 Theatre, History, Culture II: Romantics, Realists and Revolutionaries
This course investigates the history of theatre practice from the end of the Eighteenth-Century to the present, with an emphasis on interplay of mainstream practices with the newly emerging aesthetics of acting, scenography, and theatrical theory, and the interplay of popular entertainment and audiences with the self-defined aesthetic elitism of the Avant Garde. Among the aesthetics and phenomena we will examine are romanticism and melodrama; bourgeois realism and revolutionary naturalism; emotional-realist acting; the reaction against realism; political theatre; physical theatre; theatre and media; non-dramatic theatre; and theatre that challenges long-standing categories of national identity, empire, gender, and sexuality. Also Offered As: ENGL 1875
1 Course Unit

THAR 0103 The Play: Structure, Style, Meaning
How does one read a play? Theatre, as a discipline, focuses on the traditions of live performance. In those traditions, the play text must be read not only as a piece of literature, but as a kind of "blueprint" from which productions are built. This course will introduce students to a variety of approaches to reading plays and performance pieces. Drawing on a wide range of dramatic texts from different periods and places, we will examine how plays are made, considering issues such as structure, genre, style, character, and language, as well as the use of time, space, and theatrical effects. Although the course is devoted to the reading and analysis of plays, we will also view selected live and/or filmed versions of several of the scripts we study, assessing their translation from page to stage. Fall or Spring
Also Offered As: COML 1859, ENGL 1859
1 Course Unit

THAR 0104 On the Stage and in the Streets: An Introduction to Performance Studies
What do Hamilton, RuPaul's Drag Race, political protest, TikTok Ratatouille, and Queen Elizabeth's funeral have in common? They all compose repertoires of performance. From artistic performances in theatres, galleries, and concert halls to an individual's comportment in everyday life, to sporting events, celebrations, courtroom proceedings, performance studies explores what happens when embodied activities are repeatable and given to be seen. In this course we ask: what is performance? How do we describe, analyze, and interpret it? What do theatre and everyday life have in common? How does performance legitimize or challenge the exercise of power? How has social media shifted our understanding of the relationship of our daily lives to performance? How does culture shape what is considered to be performance and how it functions? What isn't performance? Throughout the semester students will apply key readings in performance theory to case studies drawn from global repertoires of contemporary and historical performance. In addition to analyzing artistic performances, we will also consider sporting events, celebrations, political events, and the performance of everyday life. We will attend to the challenges provoked by performance's embodied, ephemeral, affective, effective, relational, and contingent aspects. Coursework will include discussion posts, class facilitation, and the opportunity to choose between a research paper or creative project for the final assessment. Also Offered As: ANTH 1104, COML 0104, ENGL 1890
1 Course Unit

THAR 0114 Playwriting Workshop
This course is designed as a hands-on workshop in the art and craft of dramatic writing. It involves the study of new plays, the systematic exploration of such elements as storymaking, plot, structure, theme, character, dialogue, setting, etc.; and most importantly, the development of students' own short plays through a series of written assignments and in-class exercises. Since a great deal of this work takes place in class - through lectures, discussions, spontaneous writing exercises, and the reading of student work - weekly attendance and active participation is crucial. At the end of the semester, students' plays are read in a staged reading environment by professional actors. Spring
Also Offered As: ENGL 3604
1 Course Unit

THAR 0115 Self-Scripting: Writing through Body and Space
Students in Self-Scripting will write through a variety of exercises and activities that put text into play with the body and space. Over the course of the semester, students will actively engage space and composition as they develop and explore scriptwriting for performance. This course aims to expand on techniques for writing plays, poetry, and experimental biography. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
Also Offered As: ENGL 3650
1 Course Unit

THAR 0120 Introduction to Acting
Rooted in the system devised by Constantine Stanislavsky, but incorporating a wide variety of approaches, including improvisation, this course takes students step by step through the practical work an actor must do to live and behave truthfully on-stage. Beginning with relaxation and physical exercise, interactive games, and ensemble building, students then learn and put into practice basic acting techniques, including sensory work, the principles of action, objectives, given circumstances, etc. The semester culminates in the performance of a scene or scenes, most often from a play from the Realist tradition. This course strongly stresses a commitment to actor work and responsibility to one's fellow actors. Practical work is supplemented by readings from Stanislavsky and a variety of other acting theorists that may include Uta Hagen, Robert Cohen, Stella Adler, among others. Students are required to submit short essays over the course of the semester in response to the readings and in preparation for their final scene project. Fall or Spring
Mutually Exclusive: THAR 0020
1 Course Unit

THAR 0121 Introduction to Directing
This class will introduce the basic principals of stage directing, beginning with the fundamentals of three-dimensional storytelling in script and character analysis. The aim of this course is to provide students with a basic knowledge of directing through an introduction to the functional tools of the craft. Classes provide lectures and practical work in dealing with topics such as the function of the director, analyzing a script, visual composition, blocking, stage business, and working with actors. This course is a prerequisite for Advanced Directing. Fall or Spring
1 Course Unit
THAR 0130 Introduction to Light, Set, and Costume Design
Design for theatre (and all of the performing arts) is a dynamic, collaborative process that engages both intellect and emotion in staging the dramatic moment. The personal vision of the designer must navigate the often-uncharted waters of the production process, from the earliest, personal moments of design inspiration to the opening night performance. Design flows from creativity, is structured by research and theory, and is realized in living form by collaboration in the dynamic process of theatre-making. This class will integrate history, theory and practice of stage design in the interactive setting of the Collaborative Classroom in Van Pelt Library in this special interdisciplinary, active-learning course offering open to all Penn students. Group and individual projects, field visits, practical projects and guest speakers will be featured in this newly-revised course.
Fall or Spring
1 Course Unit

THAR 0170 Voice for the Actor
This introductory course is designed to help the actor find new freedom and range of expression with their voice and to connect their voice to their impulse. Our focus on relaxation, sensitivity and awareness, using Fitzmaurice Voicework techniques inspired by yoga and meditation, help the student access and develop their own authentic sound. They will learn how to support their voice in a healthy way, with a view to longevity, spontaneity and flexibility of use. In this course, these kinds of vocal exercises will be applied to short, character monologues, in order to foster sensitivity to our voices and breath and to the habits and tensions we have formed around speaking in public. For an actor, reconnecting with their authentic voice is essential for an honest, connected and compelling performance. This training is also useful for anyone who wants to speak in public with confidence, sincerity and ease.
Fall
Prerequisite: THAR 0120
1 Course Unit

THAR 0171 Movement for the Actor
The study of the art of bodily expression throughout history in theory and practice, from Classical and Oriental, African and Latin forms of dance and movement theater to the contemporary dance and theater, including mime, modern dance, post modern dance, physical theater, film, and performance art.
Spring
1 Course Unit

THAR 0180 Acting for the Camera
This class focuses on teaching students the creative and technical skills needed to excel in on-camera acting. Beginning by exploring theatre techniques to investigate character, relationship and conflict, this class will then focus on identifying the parameters of film & TV scripts of the last five years. Students will learn to identify the primary function of their character within that structure, and to imagine, create, and make playful choices that foster the story being told. By exploring acting techniques that bridge stage and screen, students will gain experience with producing professional self-tapes that reflect current industry standards, understanding the complexity of framing, vocal quality and eyelines in Zoom callbacks, and experimenting with the use of digital media in theatre.
Also Offered As: CIMS 0180
1 Course Unit

THAR 0785 Queer Archives, Aesthetics, and Performance
This course focuses on questions of how to represent the queer past, which it approaches from several angles: through training in archival methods and in scholarly debates about historiographical ethics (or, in the words of David Halperin, "how to do the history of homosexuality"); through engagement with the work of artists who make archives central to their practice; and through lab-based training that aims to represent encounters with queer history through embodied performance. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Fall, odd numbered years only
Also Offered As: ENGL 0785
1 Course Unit

THAR 1025 Narrative Across Cultures
The purpose of this course is to present a variety of narrative genres and to discuss and illustrate the modes whereby they can be analyzed. We will be looking at shorter types of narrative: short stories, novellas, and fables, and also some extracts from longer works such as autobiographies. While some works will come from the Anglo-American tradition, a larger number will be selected from European and non-Western cultural traditions and from earlier time-periods. The course will thus offer ample opportunity for the exploration of the translation of cultural values in a comparative perspective.
Fall or Spring
Also Offered As: COML 1025, ENGL 0039, NELC 1960, SAST 1124
1 Course Unit

THAR 1114 Advanced Playwriting
This course is intended to reinforce and build upon the areas covered in Level 1 Playwriting (THAR 0114) so that students can refine the skills they've acquired and take them to the next level. Topics covered will include techniques for approaching the first draft, in-depth characterization, dramatic structure, conflict, shaping the action, language/dialogue (incl. subtext, rhythm, imagery, exposition etc), how to analyse your own work as a playwright, dealing with feedback, the drafting process, techniques for rewriting, collaboration (with directors, actors etc) and the 'business of the art' - working with theatres, agents, dramaturgs etc. Students will undertake to write their own one-act plays over the course. The classes will be a mixture of lecture, discussion, study of dramatic texts, writing exercises and in-class analysis of students' work.
Not Offered Every Year
Also Offered As: ENGL 3605
Prerequisite: THAR 0114
1 Course Unit

THAR 1115 Adaptation
This course is designed to explore the techniques and practices of adaptation in order to transform stories not originally written for the stage into plays. We will reimagine material from other media, considering how the original author's intent intersects with a student's own artistic voice. Through reading and writing exercises, we will focus on themes, characters, setting, as well as theatricality, and better understand the value of transferring ideas from the page to the stage. Students will investigate what makes a story stage worthy as they work to create a short play from source material of their choosing.
Also Offered As: ENGL 3607
1 Course Unit
THAR 1117 Plague Lab: Writing through Infection and Affliction
How do we write through a plague? In this creative writing class we will begin with the question of how plagues make and disrupt meaning. In addition to canonical examples, we’ll explore off-center, anti-colonial, and non-Western literary and popular culture works. Students will then produce across a number of genres including poetry, fiction, memoir, zines, double-blind studies, sculpture, installation, performance, or found object scavenging. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
Also Offered As: ENGL 3517, FNAR 3517
1 Course Unit

THAR 1120 Advanced Acting
This course continues the work begun in the Introduction to Acting class. The specific focus of the course will be on helping students to connect more deeply and truthfully with each other on stage, freeing up the body of the actor to fulfill the physical demands of characterization, and analyzing the dramatic text to clarify objectives and focus action through unit breakdown. Attention will also be given to helping students work through specific problems and personal, creative obstacles. The basis of the course will be scene work taken from the twentieth-century repertoire (realist and non-realist plays), a classical monologue, and exercises taken from a variety of performance traditions. The course also includes readings from modern theorists and practitioners.
Not Offered Every Year
Prerequisite: THAR 0120
1 Course Unit

THAR 1131 Concepts of Lighting
In this course we will cover the basic concepts of the art and craft of Stage Lighting Design. As a craft we will examine mechanics and technology of lighting design including light sources, power distribution, optics, and control. As an art we will explore how lighting ties together all the visual elements of a production and helps create an appropriate atmosphere that heightens the audience’s understanding and enjoyment of the play. Topics include: what light is, what it does, and how light influences our perception and understanding of what we see. Exercises will help the student learn how to see and to understand how light shapes and affects the appearance people and objects on stage and in everyday life. Projects work will emphasize design theory and practice (design methods, script analysis, and drafting skills). Lighting design has it roots in the theatre. The theatre continues to be a prime training ground for lighting designers, no matter what their field.
Fall
1 Course Unit

THAR 1132 Concepts of Stage Design
In this course we will cover the basic concepts of Scenic Design for the stage. Scene Design is about the look or physical appearance of the stage for a play. It reflects the way that the stage is composed artistically in regard to props, actors, shapes and color. We will explore Scene Design and the Theatre (story telling, place and local, time and period, society and culture), Scene Design as a Visual Art (principals of design and composition, style, use of space, expression of concept) and examine how it ties together all the visual elements of a production to create an appropriate atmosphere that heightens the audience’s understanding and enjoyment of the play. Topics will include: Script Analysis, Technical Production, Period Decor and Ornament; Drawing, Drafting, Model Making; and Scene Painting.
Fall
1 Course Unit

THAR 1133 Costume
Costume history and design provides a framework for organized study and practice in this particular facet of theatre production. It is a one-semester course, scheduled to meet once a week for a three hour session.
Spring
1 Course Unit

THAR 1135 Theatrical Collaboration: Directors and Designers
This course aims to teach students the art and craft of theatrical collaboration between directors and designers. Through the study of effective collaborative practices and the examination of production case studies, students will learn theory they can put into practice not only in this course, but also in endeavors beyond the classroom. During the course’s three major projects, students will bring the independent work of script analysis, dramaturgical research, and creative inspiration to the collective work of conceptual synthesis, design visualization, and project proposal. Individually and together, students will learn and practice how to create the world of the play through physical space, character-defining costumes, visual representation, and styles of performance. While rotating through the roles of director, scenic designer, and costume designer, students will learn new technologies to foster expression and comprehension between and among team members, whether in-person or remote. The four plays examined in this course will require an exploration of the politics, social issues, and cultures of the period in which they are each written.
Not Offered Every Year
1 Course Unit

THAR 1271 American Musical Theatre
The American musical is an unapologetically popular art form, but many of the works that come from this tradition have advanced and contributed to the canon of theatre as a whole. In this course we will focus on both music and texts to explore ways in which the musical builds on existing theatrical traditions, as well as alters and reshapes them. Finally, it is precisely because the musical is a popular theatrical form that we can discuss changing public tastes, and the financial pressures inherent in mounting a production. Beginning with early roots in operetta, we will survey the works of prominent writers in the American musical theatre, including Kern, Berlin, Gershwin, Porter, Rodgers, Hart, Hammerstein, Bernstein, Sondheim and others. Class lecture/discussions will be illustrated with recorded examples.
Not Offered Every Year
Also Offered As: CIMS 1271, ENGL 1271
Mutually Exclusive: THAR 0271
1 Course Unit
THAR 1272 Broadway Musicals in the 21st Century
Wicked, Spring Awakening, Dear Evan Hansen, Hadestown. And of course, Hamilton. The innovations we see in Broadway musicals since 2000 are particularly fascinating in that they, so to speak, boldly go where no musicals have gone before—while at the same time honoring and building on the long-standing traditions of this beloved form. From the powerfully romantic Light in the Piazza, which nods to roots in European operetta, to the boundary-defying Black queerness of A Strange Loop... and everything in between. In this course, we will go year by year through musical theater from the quarter-century, to see where the form has gone recently... and where it’s headed. In addition to the works already mentioned, we’ll look at Caroline or Change, The Color Purple, In the Heights, Fun Home, and more. This course will also consider some recent “revisals,” like director Daniel Fish’s Oklahoma!, and Marianne Elliott’s gender-reassigned Company: reinterpretations of classic American musicals that imagine them in more contemporary light.
Also Offered As: CIMS 1275, ENGL 1891
1 Course Unit

THAR 1273 Dark Comedy in Theatre and Film
This course will examine the “troublesome genre” of dark comedy by looking at the ways in which theatre and film use comic and tragic structures and traditions to explore concepts and stories seemingly at odds with those traditions. Although not always organized chronologically in time, we will examine the formal and structural characteristics of tragicomedy by tracing its development, from some of its earliest roots in Roman comedy, to its manifestation in contemporary films and plays. Aside from close readings of plays and analysis of films, we will read selected critical essays and theory to enhance our understanding of how dark comedies subvert categories and expectations. We will look at how dark comedies affect audiences and read sections of plays aloud in class. Issues to be considered include comparing the way the genre translates across theatre and film (adaptation) and examining the unique placement of the genre at the heart of contemporary American culture. Students will have the opportunity to experiment with creating tragicomic effect through performance in their presentations. The class is a seminar, with required participation in discussions. Other assignments include an 8-10 page paper and a presentation. We will read plays by authors as diverse as Plautus, Anton Chekhov, and Lynn Nottage, and filmmakers including Charlie Chaplin, Sofia Coppola, and Bong Joon-ho.
Also Offered As: CIMS 1273, ENGL 1273
1 Course Unit

THAR 1274 The Musical Theatre of Stephen Sondheim
Just days before Stephen Sondheim died in November 2021, he attended a revival of Assassins at Classic Stage Company, as well as a radical rethinking of Company that had transferred from London to New York. A few days later, a public performance of the song “Sunday” was organized in Duffy Square by Lin-Manuel Miranda. A new production of Into the Woods is currently on Broadway, and another of Sweeney Todd is planned for February 2023. Though it’s been nearly 15 years since Sondheim’s final new musical, he is very much part of our theatrical present—through his own works, which continue to be produced internationally, and through his influence on several generations of composers, lyricists, and more. Still today, among theatre critics and a large sector of the public, Sondheim is generally considered the most significant composer and lyricist in the contemporary theatre; he is, in fact, accorded the kind of serious consideration generally reserved for “legitimate” playwrights. In this seminar, we will examine in detail Stephen Sondheim’s writing over six decades. We’ll begin with Sondheim’s earliest work as a lyricist, collaborating with composers Jule Styne (Gypsy), Leonard Bernstein (West Side Story), and later, Richard Rodgers (Do I Hear a Waltz?). Beginning in 1970, Sondheim – now both composer and lyricist – in partnership with director Harold Prince produced a series of musicals (including Company, Follies and Sweeney Todd,) still thought to be among the most innovative and substantial in the history of the genre. We will also focus on Sondheim’s musicals after his 1981 break with Prince. These later works, created with writers and directors including James Lapine (Sunday in the Park with George, Into the Woods, Passion), Jerry Zaks (Assassins), and John Doyle (Road Show) are often smaller in scale, intensely personal, and incorporate elements of performance art and popular culture. Finally, we will consider revival productions of Sondheim’s work, which often are reconceived from their original form, often with Sondheim’s involvement and occasional rewriting. This course is open to all students interested in theatre and musical theatre. The ability to read music is not required.
Also Offered As: CIMS 1274, ENGL 2874
1 Course Unit

THAR 1275 Advanced Topics in Theatre
This course will combine an intensive practical and intellectual investigation of some area of the making of theatre: performance techniques, theatrical styles, a particular period of theatre history. Please visit the Theatre Arts Program website for current topics for Thar 275 and other Theatre Arts Courses and special topics: https://theatre.sas.upenn.edu Please visit the Theatre Arts Program website each semester for information on the available THAR 275 special topics courses: https://theatre.sas.upenn.edu
Not Offered Every Year
1 Course Unit
THAR 1279 Women in Theatre and Performance
What is feminist theatre? How do artists use live performance to provoke not only thought and feeling, but also social, personal, and political change? This course will examine a wide array of plays and performances by and about women; these pieces are, in turn, serious, hilarious, outrageous, poignant--and always provocative. Our focus will be on English-language works from the late 20th century to the present (#metoo) moment. We will read these performance texts and/or view them on stage/screen; we will also read essays that provide contextual background on feminist theatre theory and history. Throughout the semester, we will engage diverse perspectives on women and race, ethnicity, class, sexuality, and gender identity; the issues we encounter will also include marriage and motherhood, career and community, feminism and friendship, and patriarchy and power. The class will take full advantage of any related events occurring on campus or in the city, and will feature visits with guest speakers. Students will have the opportunity to pursue research on their own areas of interest (some recent examples are "women in comedy," trans performance, drag kings, feminist directing, etc.).
Not Offered Every Year
Also Offered As: ENGL 1279, GSWS 1279
1 Course Unit

THAR 1880 African American Drama: From the 1920's to the present
This course will introduce students to Pulitzer-prize winning plays such as Lynn Nottage's Sweat, groundbreaking plays such as Ntozake Shange's For Colored Girls, as well as less known plays that show the wide range of form and themes in 20th and 21st century African American drama. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Fall or Spring
Also Offered As: AFRC 1880, ENGL 1880
1 Course Unit

THAR 2236 Acting Shakespeare
All the world's a stage and Shakespeare's plays were written to be performed on it. In this open-level acting course we'll explore the performance of three of Shakespeare's greatest dramatic works (Hamlet, Twelfth Night, and Romeo and Juliet). We'll dive deep into the language, verse, rhetoric, and dramaturgy of Shakespeare's texts to create performances that are passionate, spontaneous, and real. Through acting exercises, text analysis, scene study, and vocal training, we will develop the skills needed to bring Shakespeare's dramatic works to their most impactful life. Students will leave the course not only with techniques to perform and appreciate Shakespeare's work, but with expressive tools that will serve them in all kinds of performance or public speaking.
Not Offered Every Year
Also Offered As: ENGL 2879
1 Course Unit

THAR 2240 Advanced Topics in Theatre History
The purpose of this course is to introduce students to the basic materials and methods of theatre history and historiography, as applied to a particular topic, organized around a specific period, national group, or aesthetic issue. This course is concerned with methodological questions: how the history of theatre can be documented; how primary documents, secondary accounts, and historical and critical analyses can be synthesized; how the various components of the theatrical event--acting, scenography, playhouse architecture, audience composition, the financial and structural organization of the theatre industry, etc.--relate to one another; and how the theatre is socially and culturally constructed as an art form in relation to the politics and culture of a society in a particular time and place.
Fall or Spring
1 Course Unit

THAR 2325 August Wilson and Beyond
"The people need to know the story. See how they fit into it. See what part they play?"- August Wilson, King Hedley II If you want to get to know community members from West Philadelphia, collaborate deeply with classmates, gain deeper and more nuanced understandings of African American history and culture, engage in a wide range of learning methods, and explore some of the most treasured plays in the American theatre, then this is the course for you. No previous experience required, just curiosity and willingness to engage. In this intergenerational seminar, Penn students together with older community members read groundbreaking playwright August Wilson's American Century Cycle: ten plays that form an iconic picture of African American traditions, traumas, and triumphs through the decades, nearly all told through the lens of Pittsburgh's Hill District neighborhood. (Two of Wilson's plays are receiving fresh attention with recent acclaimed film versions: Fences with Denzel Washington and Viola Davis; Ma Rainey's Black Bottom with Davis and Chadwick Boseman.) Class participants develop relationships with one another while exploring the history and culture that shaped these powerful plays. As an Academically Based Community Service (ABCS) course, the class plans and hosts events for a multigenerational, West Philadelphia-focused audience with community partners West Philadelphia Cultural Alliance / Paul Robeson House & Museum, and Theatre in the X. Class members come to a deeper understanding of Black life in Philadelphia through stories community members share in oral history interviews. These stories form the basis for an original performance the class creates, presented at an end-of-semester gathering. Wilson's plays provide the bridge between class members from various generations and backgrounds. The group embodies collaborative service through the art and connection-building conversations it offers to the community.
Fall
Also Offered As: AFRC 2325, ENGL 2222
1 Course Unit

THAR 2500 Theatre Workshop
This course will examine a specific aspect of theatrical practice, taught by a visiting professional theatre artist. The course, with different topics, may be repeated for credit. Recent topics have included performance art, Jacques LeCoq technique, Suzuki, and Viewpoints.
Not Offered Every Year
1 Course Unit
THAR 2520 Collaborative Practices: Staging Projects Together
Collaborative Practices is an ABCS course in which Penn students will build and hone their stage practices in collaboration with young artists and performers in Philadelphia. Collaborative Practices offers models for staging original works in collaboration from start to finish and interrogates assumptions about collaboration inside a hands-on mentorship relationship. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Also Offered As: ENGL 3653
1 Course Unit

THAR 2720 American Theatre and Performance
This course examines the development of the modern American theatre from the turn of the century to the present day. Progressing decade by decade the course investigates the work of playwrights such as Eugene O’Neill, Arthur Miller, Tennessee Williams, Edward Albee, David Mamet, August Wilson and Tony Kushner, theatre companies such as the Provincetown Players and the Group Theatre, directors, actors, and designers. Some focus will also be given to major theatrical movements such as the Federal Theatre Project, Off-Broadway, regional theatre, experimental theatre of the Sixties, and feminist theatre.
Not Offered Every Year
Also Offered As: ENGL 2888
1 Course Unit

THAR 2740 Dramaturgy
This course will examine the functions and methods of the dramaturg—the person in the theatrical process who advises the artistic collaborators on (among other things) new play development, the structure of the script, the playwright’s biography and other writings, the play’s first production and its subsequent production history, and the historical and regional details of the period depicted in the plays action. We will study the history of the dramaturg in the American theatre and discuss contemporary issues relating to the dramaturg’s contribution to the theatrical production (including the legal debates about the dramaturg’s contribution to the creation of RENT). And, in creative teams, the class will create dramaturgical portfolios for a season of imaginary (and, potentially, a few actual) theatrical productions.
Not Offered Every Year
Also Offered As: ENGL 2899
1 Course Unit

THAR 2800 Improvisation: History, Theory, Practice
With roots in Vaudeville, Commedia dell’Arte, and beyond, improvisatory theatre has a rich tradition of political, social and artistic subversions. In this course, we will both explore the history and theory of improvisation, and experiment with it in practice. Some classes will be devoted mainly to discussion of assigned readings and viewings, and some mainly to the practice of improvisation (there can be overlap between discussion and practice in any given class). Students are required to write a paragraph about all assigned readings on Canvas. Students are expected to come to each session fully prepared to discuss all assigned materials, and to participate in all exercises and improvisations. (Participants need to wear comfortable clothing that allows for freedom of movement.) Additional assignments are listed separately. Classes may occasionally deviate from the syllabus; in this case, advance notice will be given. The course features class visits from professional theatre artists with an expertise in improvisation and devised theatre, from whom students will learn a rich variety of traditions and techniques.
Not Offered Every Year
1 Course Unit

THAR 2810 Method Acting: From Self to Stage and Screen
What, exactly, is “method acting”? Jeremy Strong became notorious on television’s Succession for “staying in character” while filming, to the great irritation of his castmates. Jared Leto “transformed” himself by gaining sixty pounds for a role in Chapter 27, then losing another thirty for a role in Dallas Buyer’s Club. Are such approaches really “method” acting? Are they healthy and sustainable? And do they produce truly compelling performances? This course aims to demystify “the method” through a combination of historical inquiry and hands-on acting work. We will explore the cultural phenomenon of “the method” by tracing its historical, theatrical roots, from the core theories and practices of Russian actor-director Konstantin Stanislavsky through the American Group Theatre experiments of the 1930s, the heyday of New York’s Actors Studio in the 1950s, and its culmination in iconic stage and film performances. (One prime example is Marlon Brando’s famed portrayal of Stanley in Tennessee Williams’s A Streetcar Named Desire, as directed by Elia Kazan). Our studies will involve reading historical, theoretical, and dramatic texts, viewing selected films, and practicing acting exercises. Course assessment will comprise participation, facilitation, short responses, and a final project that can take the form of a research paper, presentation, or performance.
Also Offered As: CIMS 2810, ENGL 2882
1 Course Unit

THAR 2820 Theatre and Politics
This course will examine the relationship between theatre and politics in the twentieth and twenty-first centuries. How do theatre artists navigate their artistic and political aims? How do we distinguish between art and propaganda? Throughout the semester we will ask how the unique components of theatre—its poetic structure, engagement with spectators, aesthetics of representation, relationship to reality, and rehearsal process—contribute to its political capacity. Students will read a variety of plays drawn from late twentieth century and contemporary global theatre practice alongside political and aesthetic theory to interrogate the relationship between artistic production, power, and resistance. We will conclude with a consideration of the ways politics is itself a performance, considering how power is supported by theatrical means and how performance functions in resistance movements.
Also Offered As: COML 2820, ENGL 2880, LALS 2820
1 Course Unit
THAR 2825 The Threat of Climate Change and Theatre
Can theatre save the world? In the face of the climate crisis, this question feels especially urgent. This course will consider the relationship of theatre to the environment and climate change, looking at how we got to this point, and where we might go from here. We will consider how ideas about the environment have been spread through classic texts such as Shakespeare's The Tempest and Ibsen's Enemy of the People. We'll compare how non-western performances offer different relationships with the environment. And we'll analyze how performance has responded to climate anxiety; through visions of dystopia and an end of the world, as in Caryl Churchill's The Skriker and Anne Washburn's Mr. Burns, A Post-Electric Play; through arts activism; and through experimental performance like environmental and immersive theatre. This course is for anyone who is concerned about climate change and interested in how the arts could respond. Most sessions will function as seminar, with short lectures and in-depth discussion about artistic and theoretical texts. We will also workshop different ideas on their feet. The aim is for students to become comfortable enough with this artistic and theoretical mode that they can critique performances across genres from this perspective, articulate their own relationship to it, and see how it might inform their own work.
Also Offered As: ENGL 2881
1 Course Unit

THAR 2830 Backstage Drama in Theatre and Film
Inviting audiences into a special relationship with illusion, backstage dramas (whether on film or on stage) and within-plays reach beyond and alongside traditional plot-driven narratives, to reflect on the process of representation itself. Drawing from classical debates about the relationship between reality, illusion, representation, and imitation (mimesis), we will examine a variety of plays and films as we articulate the complex network of responses and underlying assumptions (whether cultural, political, or social), about art and life, that these works engage.
Fall, odd numbered years only
Also Offered As: CIMS 2830, ENGL 1896
1 Course Unit

THAR 2840 Icons in Performance: Actors and Others Who Have Shaped the Arts
Many talented performers bring works to life on a stage or in film. But a select few artists are so distinctive they become icons, defining for audiences-often for many years beyond their careers-the art they serve. Marlon Brando defined a new kind of American acting. Sidney Poitier broke the color barrier for leading black movie stars. Maria Callas showed that opera was equal parts theatre and music. Greta Garbo helped us understand the visual power of a film image. This seminar will focus on iconic performers, directors and others, and the roles they play in defining their art forms. It is part analysis (interpreting in detail what it is these artists do) and part cultural study (why it matters, and also seeking to understand the larger circumstances at play in forging an icon). In addition to the performers mentioned above, we'll also study Mae West, Fred Astaire, Marilyn Monroe, Elvis Presley, Judy Garland, Frank Sinatra, and more. We will also look at a handful of iconic directors-including Alfred Hitchcock, Douglas Sirk, and others-whose style makes a definitive mark on American film and theater. And we will also look at how critics (in addition to popular audiences) assess performers through comparisons, and by understanding the evolution and tradition of the art. To support our work, we will use film, audio recordings, scripts, criticism and analytical essays, biography, and more.
Also Offered As: CIMS 2840, ENGL 2890
1 Course Unit

THAR 2850 The Black Arts Movement: Theatre and Performance
This course examines the Theatre and Performance practices of the Black Arts Movement from the mid-1960s to mid-1970s. The Black Arts Movement (BAM) emerges in New York, New Jersey, Chicago, Los Angeles, San Francisco, and Philadelphia among other locations, as a cultural component of the Black Power Movement, and its legacy continues to this day. BAM artists, poets, playwrights, musicians, dancers, producers, directors, and teachers, shared a goal to develop an alternative theatre based in Africanist and Black aesthetics combining poetry, music, and dance in a non-linear fashion allowing stories to emerge through alternative and abstract structures that are activist in nature. We will ground our examination of the period in a growing global black consciousness, as well as the relationship between black aesthetics and self-determination. The course will explore a breadth of mid twentieth century Black experimental theatre ranging from Jean Genet’s The Blacks and Imamu Amiri Baraka’s Black Arts Repertory Theater and School, to Ntozake Shange’s Choreopoems, and the performance poetry Jayne Cortez. The course culminates in the work of present-day performance artists that have taken up and evolved the form. The course is designed to incorporate theory and practice through play and poetry readings, movement investigations, student presentations of Theatre/Performance Artists, and viewing performances either virtually or in person. Students will develop either a choreopoem of their own or curate an imagined Black Arts Movement theatre festival or season.
Also Offered As: AFRC 2852, ENGL 2850
1 Course Unit

THAR 2860 Latin American and Latinx Theatre and Performance
This course will examine contemporary Latin American and Latinx theatre and performance from a hemispheric perspective. In particular, we will study how Latin American and Latinx artists engage with notions of identity, nation, and geo-political and geo-cultural borders, asking how we might study "national" theatres in an age of transnational globalization. Our consideration of plays, performances, and theoretical texts will situate Latin American and Latinx theatre and performance within the context of its politics, culture, and history.
Also Offered As: COML 2086, ENGL 0490, LALS 2860
1 Course Unit

THAR 3000 Acting & Directing Lab
This course operates as a continuation of both Introduction to Acting (THAR120) and Introduction to Directing (THAR121). Students can take the course as actors, directors, or both. Each semester the course covers a unique topic of exploration for actors and directors. This is a studio class with a focus on scene work within various genres, styles and concentrations of theatrical practices. Some special topics might include: Japanese Theatre, Theatre as Event, Experimental Theatre, and Feminism and Form.
Spring
Prerequisite: THAR 0120 OR THAR 0121
1 Course Unit
THAR 3120 Scene Study
Scene Study is an advanced acting class that combines intensive script analysis with performance of scenes; material to be explored will be chosen specifically for the members enrolled in class. Open to students who have successfully completed Introduction to Acting, this course continues with greater emphasis on the actor’s work with the text. We will study several plays together as a group, conducting Stanislavskian table work. We will then workshop and perform scenes from these plays in subsequent class sessions. In consultation with the instructor, students will identify individual goals, building on discoveries made in other Theatre Arts courses and/or prior stage work, exploring roles and plays that present actors with new challenges and expand their range. Depending on the number of students enrolled in the class, we are likely to perform at least three scenes and a monologue. Plays will be read alongside key theoretical texts, and class work will be complemented by attendance at selected live productions on campus and in Philadelphia. Fall
Prerequisite: THAR 0120
1 Course Unit

THAR 3355 Japanese Theater
Japan has one of the richest and most varied theatrical traditions in the world. In this course, we will examine Japanese theater in historical and comparative contexts. The readings and discussions will cover all areas of the theatrical experience (script, acting, stage design, costumes, music, and audience). Audio-visual material will be used whenever appropriate and possible. The class will be conducted in English, with all English materials. Fall or Spring
Also Offered As: COML 3555, EALC 3355
1 Course Unit

THAR 3500 Rehearsal and Performance
Theatre Rehearsal and Performance provides students with deep intellectual and artistic immersion in the theatrical process through intensive research, rehearsal, and performance of a full-length stage piece. Students may enroll in this course as actors (by audition only) or as assistant directors, stage managers, dramaturgs, or designers (by permission of the instructor). Each semester, the play will be featured in the Theatre Arts Program production season. This course does not follow a typical meeting pattern. Please see Section Details for production-specific details including meeting times and audition/permit information. Fall or Spring
1 Course Unit

THAR 3512 Italian Performance Studies
Taught in Italian. Topics vary. Please check the department’s website for a course description at: http://www.sas.upenn.edu/italians/courses
Not Offered Every Year
Also Offered As: ITAL 3512
1 Course Unit

THAR 3500 Rehearsal and Performance
Theatre Rehearsal and Performance provides students with deep intellectual and artistic immersion in the theatrical process through intensive research, rehearsal, and performance of a full-length stage piece. Students may enroll in this course as actors (by audition only) or as assistant directors, stage managers, dramaturgs, or designers (by permission of the instructor). Each semester, the play will be featured in the Theatre Arts Program production season. This course does not follow a typical meeting pattern. Please see Section Details for production-specific details including meeting times and audition/permit information. Fall or Spring
1 Course Unit

THAR 3600 The Planets in my Pen: Experiments in Writing, Visual Art & Performance
The Planets in my Pen is a multi-genre creative arts workshop constellation around experimentation. We will be looking at innovative writing, visual art and film as models for the making of poetry, fiction, memoir, drawing, painting, sculpture, installation, plays and performance. The genres, techniques and movements of science fiction, surrealism, performance art and the political essay will be key with an emphasis on feminist, queer, left and anticolonial models of art and world making. The works of William S. Burroughs, John Rechy, Nelly Santiago, Jean Genet, Ntozake Shange, Octavia Butler, Adrienne Kennedy, Lucrecia Martel, Aimé Césaire, Jamaica Kincaid, Regina Jose Galindo, Raul Ruiz, Josefa Baez, Zadie Smith and Cherrie Moraga will be among those read, viewed and studied. As their final project students will submit a final manuscript, performance and/or art object as well as participate in a public reading/viewing/screening.
Also Offered As: ENGL 3608, GSWS 3600, LALS 3600
1 Course Unit

THAR 3606 Experimental Playwriting
A course on writing for theater and performance. Students will take cues from myriad experimental playwrights and performance artists who have challenged conventional ideas of what a script should look and sound like, how narrative is constructed, how characters are built, and what a setting can be. This class will push beyond the formal structures of the well-made play script and address how writers explore and reinvent form and language as a means for radical change. To learn more about this course, visit the Creative Writing Program at https://creative.writing.upenn.edu.
Not Offered Every Year
Also Offered As: ENGL 3606
1 Course Unit

THAR 5279 Provocative Performance
What is feminist theatre? How do artists use live performance to provoke not only thought and feeling, but also social, personal, and political change? This course will examine a wide array of plays and performances by and about women; these pieces are, in turn, serious, hilarious, outrageous, poignant—and always provocative. Our focus will be on English-language works from the late 20th century to the present (#metoo) moment. We will read these performance texts and/or view them on stage/screen; we will also read essays that provide contextual background on feminist theatre theory and history. Throughout the semester, we will engage diverse perspectives on women and race, ethnicity, class, sexuality, and gender identity; the issues we encounter will also include marriage and motherhood, career and community, feminism and friendship, and patriarchy and power. The class will take full advantage of any related events occurring on campus or in the city, and will feature visits with guest speakers. Students will have the opportunity to pursue research on their own areas of interest (some recent examples are “women in comedy,” trans performance, drag kings, feminist directing, etc.).
Not Offered Every Year
1 Course Unit
TIBT 0600 Advanced Tibetan II
In Advanced Tibetan II, students will be exposed to reading several different genres of Tibetan literature, while continuing to develop their understanding of the fundamentals of the Tibetan language in its literary and spoken forms. Students will further expand their vocabulary while refining their knowledge of both literary and colloquial Tibetan. In class we will read selections from both classical and modern texts, including folk stories. We will also continue to work toward proficiency in writing Tibetan, to develop reading, writing, speaking, and listening skills in parallel. Students will also be introduced to Tibetan cultural traditions while gaining fluency with conversational skills in daily drills of speaking and listening comprehension.
Not Offered Every Year
1 Course Unit
**Tigrinya (TIGR)**

**TIGR 0100 Elementary Tigrinya I**
This course will focus on developing interpersonal and interpretive skills to enable students to acquire Level 1+ on the Interagency Language Roundtable (ILR) scale. Students will be able to initiate and maintain predictable face-to-face conversations and satisfy limited social demands in the language. They may, however, have little understanding of the social conventions of conversation. Range and control of the language will be limited. Speech will largely consist of a series of short, discrete utterances. For example, students will be able to satisfy most travel and accommodation needs and a limited range of social demands beyond exchange of skeletal biographic information. Speaking ability may extend beyond immediate survival needs. Accuracy in basic grammatical relations will be evident, although not consistent. May exhibit the more common forms of verb tenses, for example, but may make frequent errors in formation and selection. While some structures are established, errors occur in more complex patterns. The individual typically cannot sustain coherent structures in longer utterances or unfamiliar situations. Ability to describe and give precise information is limited.

Fall or Spring
1 Course Unit

**TIGR 0200 Elementary Tigrinya II**
Continuation of AFST 490.
Fall or Spring
1 Course Unit

**TIGR 0300 Intermediate Tigrinya I**
Intermediate level courses in a variety of African languages: Igbo, Shona, Wolof, Malagasy, Chichewa, Setswana, Manding, Afrikaans, Setswana. Focus on oral proficiency and productive language skills. All course are language specific and follow ACTFL proficiency guidelines.

Fall
1 Course Unit

**TIGR 0400 Intermediate Tigrinya II**
Continuation of AFST 492.
Spring
1 Course Unit

**TIGR 1100 Advanced Tigrinya I**
Language specific sections for students interested in doing country-specific research in a target language. Courses cover project-based skills for AFST research.

Fall
1 Course Unit

**TIGR 1200 Advanced Tigrinya II**
Continuation of AFST 494.
Spring
1 Course Unit

**TIGR 1300 Tigrinya Language and Culture**
Aspects of the targeted language's history, language, and culture.

Fall
1 Course Unit

**TIGR 1400 Tigrinya Language and Culture II**
Aspects of the targeted language's history, language, and culture. This course is the second part of Tigrinya Language and Culture sequence.

Spring
1 Course Unit

---

**Turkish (TURK)**

**TURK 0100 Elementary Turkish I**
This is a course for beginners who have no previous knowledge of Turkish. Using a communicative approach, Elementary Turkish introduces basic vocabulary and grammar rules and focuses on building language competencies in listening, reading, speaking and writing. By the end of the course, students will be able to participate in simple conversations, to know daily expressions, and will understand simple dialogues in day-to-day context and will be able to count and tell time. Will be able to speak about events that happened in the past and express plans for the future. Students will also develop writing strategies that will allow them to write simple letters and fill in commonly-used forms.

Fall
1 Course Unit

**TURK 0150 Introduction to the Languages of Central Asia**
This is a survey course that introduces students to the main languages spoken in Central Asia. Various Turkic languages would be introduced in this course: Kazakh, Uzbek, Kyrgyz or Azeri. Students will be able to start their introduction to the languages that support the study of Central Asian region. The language study will facilitate student research in topics like politics, history, and cultural events. This course aims at generating interest in the languages and studies of Central Asia spanning different periods of its history, with main focus is on the linguistic forms and the cultural activities.

Fall
1 Course Unit

**TURK 0200 Elementary Turkish II**
This course is a continuation of Elementary Turkish I and is designed to strengthen and extend students' listening, speaking, reading and writing competence and to deepen an understanding of Turkish people in Turkey. By the end of this course, students will be able to handle a variety of day to day needs in Turkish-speaking settings and engage in simple conversations. Students can expect to be able to order food and drinks, purchase things, and to be able to be familiar with current social topics. Students will be able to talk about all tenses, present, future, past, past continuous, make comparisons, describe people and things in detail, make travel plans, make reservations in hotels and holiday resorts, write complaint letters. By the end of the course, students will be able to talk about their studies and their plans for the future. Also, students will develop reading strategies that should allow them to understand the general meaning of articles, and short literary texts. Students will learn practical life in Turkey and will explore Turkish culture on the internet.

Spring
Prerequisite: TURK 0100
1 Course Unit
TURK 0250 Elementary Uzbek II
Continuation of Elementary Uzbek I. Designed to cover beginning college levels of language instruction, Uzbek: An Elementary Textbook provides learners and instructors with a wide selection of materials and task-oriented activities to facilitate the development of language learning. It offers a thematically organized and integrative approach to the Uzbek language and its culture, including a functional approach to grammar; an emphasis on integrated skills development, and the use of authentic materials such as videos filmed in various regions of Uzbekistan. Uzbek: An Elementary Textbook contains one CD-ROM that includes authentic audio and video materials to accompany the text and integrated, interactive exercises and games, all in Flash format and all of which are keyed to the textbook. It includes a supplementary Cyrillic reader, an extensive glossary, and four-color illustrations and photographs throughout.
Spring 1 Course Unit

TURK 0300 Intermediate Turkish I
A continuation of elementary Turkish, with emphasis on grammar and reading. This course is for students who have previous knowledge of Turkish or students who have completed Elementary Turkish I and II. This course is designed to improve students' writing and speaking competence, to increase vocabulary, to deepen grammar usage and to help develop effective reading and listening strategies in Turkish. Students' Turkish language proficiency and cultural awareness and knowledge will increase by exposing to authentic materials and coursework. In order, give them cultural knowledge, students are exposed to authentic materials.
Fall
Prerequisite: TURK 0200

TURK 0400 Intermediate Turkish II
Expands students writing and speaking competence in Turkish, increases vocabulary, and helps students' practice effective reading and listening strategies. Our In-class discussions are based on role-plays and weekly readings and news reports from TV and newspapers. We create Discussion wil take place in this course and let them and students will communicate through, threaded discussions, chat rooms and skype. The review of grammar will not be the primary focus of the course. Students' will, expand and deepen their knowledge of grammar will be extended through specific grammar exercises. They Students will have the opportunity to practice and read about the cultural and historical issues and get prepared for an advanced level Turkish.
Spring 1 Course Unit

TURK 1000 Advanced Modern Turkish I
The study of modern Turkish at the advanced level; emphasis on grammar and reading, focusing on Business Turkish. Interviews with professionals from different business groups will take place, such as, education, medicine, business law and political science. The study of modern Turkish at the advanced level; emphasis on conversational fluency and on increased ability reading and comprehending texts, including newspaper prose and Turkish cultural materials. Grammar and reading, focusing on Business Turkish. Interviews with professionals from different business groups will take place, such as, education, medicine, business law and political science.
Fall
Prerequisite: TURK 0400
1 Course Unit

TURK 4000 Advanced Spoken Turkish and Cinema I
In this course, we will look at differing degrees of interaction between literature and the films it inspires. Discussions of each novel will be followed by screening the related film, allowing us to explore themes such as the different forms of banditry (old school vs. organized), honor killings, the use of books in films, the problems of artistic representation. This course will give students the opportunity to improve significantly written and spoken discourse strategies and raise language competence to an academic register. Students work across Turkish Language, literary genres and media as they interpret and analyze cultural, political and historical moments in Turkish movies. Students will attempt to understand how political shifts over the past 20 years have impacted the current situation and cultural conception, religious and cultural norms and traditions. Contemporary Turkish authors' books will be analyzed and discussed in this course. We'll have sessions in Penn Museum related to exhibitions from Turkey and the region.
Fall 1 Course Unit

TURK 4100 Advanced Spoken Turkish and Cinema II
This course offers students the opportunity to improve significantly written and spoken discourse strategies and raise language competence in advance level. Students work across media and movies as they interprit and analyze cultural, political and historical moments in Turkish movies. Special attention will be given to the development of an academic discourse style during in-class discussions, threaded discussions and, written compositions. Interviews and discussions will take place in this course. There will bein class movie screenings and course concludes with an in-class presentation of the collaborative creative project and the final Spring

TURK 4200 Advanced Turkish Culture & Media I
This course is for students who are from all different levels of Turkish knowledge. They are expected to write and talk about Turkish movies, culture, politics according to their own level and pace. They will talk to Turkish visitors and interview them. Turkish movies will be the part of the course and once a month, students will watch a Turkish movie and analyze it. Discussions will take place and students will write essays about the movie. This course is designed with a technology-rich, project based approach. The materials will go beyond instruction in grammar and vocabulary to support the acquisition of socio-cultural pragmatics, and intercultural learning.
Fall 1 Course Unit

TURK 4300 Advanced Turkish Culture & Media II
This course will give students the opportunity to improve significantly written and spoken discourse strategies and raise language competence to an advanced level. Students work across Turkish Language, literary genres and media as they interpret and analyze cultural, political and historical moments in Turkish movies. Students will attempt to understand how political shifts over the past 20 years have impacted the current situation and cultural conception, religious and cultural norms and traditions. Contemporary Turkish authors' books will be analyzed and discussed in this course. We'll have sessions in Penn Museum related to exhibitions from Turkey and the region.
Fall
1 Course Unit

TURK 4000 Advanced Spoken Turkish and Cinema I
In this course, we will look at differing degrees of interaction between literature and the films it inspires. Discussions of each novel will be followed by screening the related film, allowing us to explore themes such as the different forms of banditry (old school vs. organized), honor killings, the use of books in films, the problems of artistic representation. This course will give students the opportunity to improve significantly written and spoken discourse strategies and raise language competence to an academic register. Students work across Turkish Language, literary genres and media as they interpret and analyze cultural, political and historical moments in Turkish movies. Students will attempt to understand how political shifts over the past 20 years have impacted the current situation and cultural conception, religious and cultural norms and traditions. Contemporary Turkish authors' books will be analyzed and discussed in this course. We'll have sessions in Penn Museum related to exhibitions from Turkey and the region.
Fall 1 Course Unit

TURK 4100 Advanced Spoken Turkish and Cinema II
This course offers students the opportunity to improve significantly written and spoken discourse strategies and raise language competence in advance level. Students work across media and movies as they interprit and analyze cultural, political and historical moments in Turkish movies. Special attention will be given to the development of an academic discourse style during in-class discussions, threaded discussions and, written compositions. Interviews and discussions will take place in this course. There will bein class movie screenings and course concludes with an in-class presentation of the collaborative creative project and the final Spring

TURK 4200 Advanced Turkish Culture & Media I
This course is for students who are from all different levels of Turkish knowledge. They are expected to write and talk about Turkish movies, culture, politics according to their own level and pace. They will talk to Turkish visitors and interview them. Turkish movies will be the part of the course and once a month, students will watch a Turkish movie and analyze it. Discussions will take place and students will write essays about the movie. This course is designed with a technology-rich, project based approach. The materials will go beyond instruction in grammar and vocabulary to support the acquisition of socio-cultural pragmatics, and intercultural learning.
Fall 1 Course Unit

TURK 4300 Advanced Turkish Culture & Media II
This course will give students the opportunity to improve significantly written and spoken discourse strategies and raise language competence to an advanced level. Students work across Turkish Language, literary genres and media as they interpret and analyze cultural, political and historical moments in Turkish movies. Students will attempt to understand how political shifts over the past 20 years have impacted the current situation and cultural conception, religious and cultural norms and traditions. Contemporary Turkish authors' books will be analyzed and discussed in this course. We'll have sessions in Penn Museum related to exhibitions from Turkey and the region.
Fall 1 Course Unit
TURK 4500 Ottoman Turkish I
This course is an introduction to Ottoman Turkish with basic characteristics. Ottoman Turkish through readings in printed selections will be exercised with different techniques. Students will learn Persian and Arabic effects on Ottoman Turkish. They will be able to read simple texts at the end of this course. General information on Ottoman Turkish will be given to students during this course. This course will be offered one semester during the school year. Not open to auditors
Not Offered Every Year
1 Course Unit

TURK 4600 Advanced Readings Ottoman Texts
Students will build on the skills learned in Ottoman Turkish by studying selections in the original language.
Not Offered Every Year
1 Course Unit

TURK 5100 Elementary Turkish I
This is a course for graduate students who have no previous knowledge of Turkish. Using a communicative approach, Elementary Turkish introduces basic vocabulary and grammar rules and focuses on building language competencies in listening, reading, speaking and writing. By the end of the course, students will be able to participate in simple conversations, to know daily expressions, and will understand simple dialogues in day-to-day context and will be able to count and tell time. Will be able to speak about events that happened in the past and express plans for the future. Students will also develop writing strategies that will allow them to write simple letters and fill in commonly-used forms.
Fall
1 Course Unit

TURK 5200 Elementary Turkish II
This course is a continuation of Elementary Turkish I and is designed to strengthen and extend students' listening, speaking, reading and writing competence and to deepen an understanding of Turkish people in Turkey. By the end of this course, students will be able to handle a variety of day to day needs in Turkish-speaking settings and engage in simple conversations. Students can expect to be able to order food and drinks, purchase things, and to be able to be familiar with current social topics. Students will be able to talk about all tenses, present, future, past, past continuous, make comparisons, describe people and things in detail, make travel plans, make reservations in hotels and holiday resorts, write complaint letters. By the end of the course, students will be able to talk about their studies and their plans for the future. Also, students will develop reading strategies that should allow them to understand the general meaning of articles, and short literary texts. Students will learn practical life in Turkey and will explore Turkish culture on the internet. Graduate students will have additional assignments.
Spring
Prerequisite: TURK 5100
1 Course Unit

TURK 5300 Intermediate Turkish I
A continuation of elementary Turkish, with emphasis on grammar and reading. This course is for students who have previous knowledge of Turkish or students who have completed Elementary Turkish I and II. This course is designed to improve students' writing and speaking competence, to increase vocabulary, to deepen grammar usage and to help develop effective reading and listening strategies in Turkish. Students' Turkish language proficiency and cultural awareness and knowledge will increase by exposing to authentic materials and coursework. and in order give them cultural knowledge, students are exposed to authentic materials.
Fall
Prerequisite: TURK 5200
1 Course Unit

TURK 5400 Intermediate Turkish II
Expands students writing and speaking competence in Turkish, increases vocabulary, and helps students' practice effective reading and listening strategies. Our in-class discussions are based on role-plays and weekly readings and news reports from TV and newspapers. We create Discussion will take place in this course and let them and students will communicate through, threaded discussions, chat rooms and skype. The review of grammar will not be the primary focus of the course. Students' will, expand and deepen their knowledge of grammar will be extended through specific grammar exercises. They Students will have the opportunity to practice and read about the cultural and historical issues and get prepared for an advanced level Turkish.
Spring
Prerequisite: TURK 5300
1 Course Unit

TURK 5500 Advanced Spoken Turkish and Cinema I
In this course, we will look at differing degrees of interaction between literature and the films it inspires. Discussions of each novel will be followed by screening the related film, allowing us to explore themes such as the different forms of banditry (old school vs. organized), honor killings, the use of books in films, the problems of artistic representation. This course will give students the opportunity to improve significantly written and spoken discourse strategies and raise language competence to an academic register. Students work across Turkish Language, literary genres and media as they interpret and analyze cultural, political and historical moments in Turkish movies. Students will attempt to understand how political shifts over the past 20 years have impacted the current situation and cultural conception, religious and cultural norms and traditions. Contemporary Turkish authors' books will be analyzed and discussed in this course. We'll have sessions in Penn Museum related to exhibitions from Turkey and the region.
Fall
1 Course Unit

TURK 5600 Advanced Spoken Turkish and Cinema II
This course is for students who are from all different levels of Turkish knowledge. They are expected to write and talk about Turkish movies, culture, politics according to their own level and pace. They will talk to Turkish visitors and interview them. Turkish movies will be the part of the course and once a month, students will watch a Turkish movie and analyze it. Discussions will take place and students will write essays about the movie. This course is designed with a technology-rich, project based approach. The materials will go beyond instruction in grammar and vocabulary to support the acquisition of socio-cultural pragmatics, and intercultural learning.
Fall
1 Course Unit

TURK 5700 Advanced Turkish Culture & Media I
This course is for students who are from all different levels of Turkish knowledge. They are expected to write and talk about Turkish movies, culture, politics according to their own level and pace. They will talk to Turkish visitors and interview them. Turkish movies will be the part of the course and once a month, students will watch a Turkish movie and analyze it. Discussions will take place and students will write essays about the movie. This course is designed with a technology-rich, project based approach. The materials will go beyond instruction in grammar and vocabulary to support the acquisition of socio-cultural pragmatics, and intercultural learning.
Fall
1 Course Unit
TURK 5900 Advanced Turkish Culture & Media II
Similar to Advanced Turkish Culture & Media I, in this course students also will have exposure to social Turkish clubs and to establish their own. They will arrange their Turkish tea parties and learn about Turkish cuisine. Expose Turkish daily news and media will be discussed in class. Students will have chance to interview interview Turkish businessman, writer, journalists in class and/or skype or zoom people in Turkish. Team spirit or ethics with those of the United States. Students will present and prepare a drama. Mainly students will create and decide their activities and discussions. and the instructor will just monitor them most of the time. They will continue watching Turkish movies and expose to Turkish culture through these films. After each movie discussions and essay writings will be expected.
Spring
1 Course Unit

TURK 6200 Advanced Modern Turkish I
The study of modern Turkish at the advanced level; emphasis on grammar and reading, focusing on business Turkish. Interviews with professionals from different business groups will take place, such as, education, medicine, business, law, and political science. This Graduate students will have additional assignments.
Fall
Prerequisite: TURK 0400
1 Course Unit

TURK 6500 Elementary Uzbek I
Designed to cover beginning college levels of language instruction, Uzbek: An Elementary Textbook provides learners and instructors with a wide selection of materials and task-oriented activities to facilitate the development of language learning. It offers a thematically organized and integrative approach to the Uzbek language and its culture, including a functional approach to grammar, an emphasis on integrated skills development, and the use of authentic materials such as videos filmed in various regions of Uzbekistan.Uzbek: An Elementary Textbook contains one CD-ROM that includes authentic audio and video materials to accompany the text and integrated, interactive exercises and games, all in Flash format and all of which are keyed to the textbook. It includes a supplementary Cyrillic reader, an extensive glossary, and four-color illustrations and photographs throughout.
Fall
1 Course Unit

TURK 6550 Elementary Uzbek II
A continuation of Elementary Uzbek I, it is designed to cover beginning college levels of language instruction, Uzbek: An Elementary Textbook provides learners and instructors with a wide selection of materials and task-oriented activities to facilitate the development of language learning. It offers a thematically organized and integrative approach to the Uzbek language and its culture, including a functional approach to grammar, an emphasis on integrated skills development, and the use of authentic materials such as videos filmed in various regions of Uzbekistan.Uzbek: An Elementary Textbook contains one CD-ROM that includes authentic audio and video materials to accompany the text and integrated, interactive exercises and games, all in Flash format and all of which are keyed to the textbook. It includes a supplementary Cyrillic reader, an extensive glossary, and four-color illustrations and photographs throughout. Graduate students may have additional assignments.
Spring
1 Course Unit

TURK 6600 Advanced Readings Ottoman Texts
Students will build on the skills learned in Ottoman Turkish by studying selections in the original language. Graduate students may have additional assignments.
1 Course Unit

TURK 6700 Ottoman Turkish I
This course is an introduction to Ottoman Turkish with basic characteristics. Ottoman Turkish through readings in printed selections will be exercised with different techniques. Students will learn Persian and Arabic effects on Ottoman Turkish. They will be able to read simple texts at the end of this course. General information on Ottoman Turkish will be given to students during this course. This course will be offered one semester during the school year. Not open to auditors
Not Offered Every Year
1 Course Unit

Twi (TWI)

TWI 0100 Elementary Twi I
The Elementary Twi I course can be taken to fulfill a language requirement, or for linguistic preparation to do research on Ghana/Africa-related topics. The course emphasizes communicative competence to enable the students to acquire linguistic and extra-linguistic skills in Twi. The content of the course is selected from various everyday life situations to enable the students to communicate in predictable common daily settings. Culture, as it relates to language use, is also a part of the course content. Students will acquire the speaking, listening, reading and writing skills at the mid-high novice level, based on the ACTFL scale. The mid-high novice level proficiency skills that the students will acquire constitute threshold capabilities of the second semester range of proficiency to prepare students for Elementary Twi II course materials.
Fall
1 Course Unit

TWI 0200 Elementary Twi II
This course will focus on developing interpersonal and interpretive skills to enable students to acquire Level 1+ on the Interagency Language Roundtable (ILR) scale. Students will be able to initiate and maintain predictable face-to-face conversations and satisfy limited social demands in the language. They may, however, have little understanding of the social conventions of conversation. Range and control of the language will be limited. Speech will largely consist of a series of short, discrete utterances. For example, students will able to satisfy most travel and accommodation needs and a limited range of social demands beyond exchange of skeletal biographic information. Speaking ability may extend beyond immediate survival needs. Accuracy in basic grammatical relations will be evident, although not consistent. May exhibit the more common forms of verb tenses, for example, but may make frequent errors in formation and selection. While some structures are established, errors occur in more complex patterns. The individual typically cannot sustain coherent structures in longer utterances or unfamiliar situations. Ability to describe and give precise information is limited.
Spring
1 Course Unit
TWI 0300 Intermediate Twi I
This course will engage students in interpersonal and interpretive activities to enable them to satisfy most work requirements with language usage that is often, but not always, acceptable and effective. They will be able to handle with confidence, but not with facility, most normal, high-frequency social conversational situations including extensive, but casual conversations about current events, as well as work, family, and autobiographical information. Students can get the gist of most everyday conversations but have some difficulty understanding native speakers in situations that require specialized or sophisticated knowledge. Students will show considerable ability to communicate effectively on topics relating to particular interests and special fields of competence. Often, they will show a high degree of fluency and ease of speech, yet when under tension or pressure, the ability to use the language effectively may deteriorate. Comprehension of normal native speech is typically nearly complete. Typically, students with this proficiency level can participate in most social, formal, and informal interactions, but limitations either in range of contexts, types of tasks or level of accuracy hinder effectiveness.

Fall
1 Course Unit

TWI 0400 Intermediate Twi II
Prerequisite: Offered through the Penn Language Center
Spring
1 Course Unit

TWI 1100 Advanced Twi I
Students will engage in interpersonal and interpretive tasks to develop productive skills to use the language with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations in practical, social and professional topics. Discourse will be cohesive. Students will use the language acceptably, but with some noticeable imperfections; yet, errors will never interfere with understanding and will rarely disturb the native speaker. Students will effectively combine structure and vocabulary to convey their meaning accurately, speaking readily and filling pauses suitably. In face-to-face conversation with natives speaking the standard dialect at a normal rate of speech, comprehension will be quite complete. Students can typically discuss particular interests and special fields of competence with reasonable ease. Can use the language as part of normal professional duties such as answering objections, clarifying points, justifying decisions, understanding the essence of challenges, stating and defending policy, conducting meetings, delivering briefings, or other extended and elaborate informative monologues. Can reliably elicit information and informed opinion from native speakers. Use of structural devices is flexible and elaborate. Without searching for words or phrases, students use the language clearly and relatively naturally to elaborate concepts freely and make ideas easily understandable to native speakers. Errors occur in low-frequency and highly complex structures

Fall
1 Course Unit

TWI 1200 Advanced Twi II
Prerequisite: Offered through the Penn Language Center.
Spring
1 Course Unit

TWI 1300 Twi Language & Culture I
Students will engage in interpersonal and interpretive communicative modes of language use to satisfy professional needs in a wide range of sophisticated and demanding tasks. While students will be able to demonstrate obvious strengths, they may exhibit some hesitancy, uncertainty, effort or errors which limit the range of language-use tasks that can be reliably performed. Occasional patterned errors may occur in low frequency and highly-complex structures. Typically, there will be particular strength in fluency and one or more, but not all, of the following: breadth of lexicon, structural precision, discourse competence in a wide range of contexts and tasks often matching a native speaker's strategic and organizational abilities and expectations.
1 Course Unit

TWI 1400 Twi Language & Culture II
Continuation of Language & Culture I course: Level 3+ (General Professional Proficiency, Plus)
1 Course Unit

Ukrainian (UKRN)

UKRN 0100 Ukrainian I
This course is the first in a series of first-year courses, intended for students with no previous background in Ukrainian. The course develops competence in speaking, reading, writing, and understanding contemporary Ukrainian. It will also introduce you to Ukrainian culture through exciting authentic materials, including songs, videos, and short stories. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Ukrainian. By the end of the course, you will be able to engage in simple conversations in Ukrainian on topics concerning your daily life. You will also be able to write short personalized messages in Ukrainian.

Two Term Class, Student may enter either term; credit given for either
1 Course Unit

UKRN 0200 Ukrainian II
This course is the second in a series of first-year courses, continuation of Ukrainian I. The course continues to develop competence in speaking, reading, writing, and understanding contemporary Ukrainian. We will continue the exploration of Ukrainian culture through exciting authentic materials, including songs, videos, and short stories. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Ukrainian. By the end of the course, you will be able to engage in simple conversations in Ukrainian on many topics in informal and some formal contexts concerning your daily life. You will also be able to write longer personalized messages in Ukrainian.

Two Term Class, Student may enter either term; credit given for either
Prerequisite: UKRN 0100
1 Course Unit
UKRN 0300 Ukrainian III
This course is the first in a series of second-year courses, continuation of Ukrainian II. The course will strengthen students' competence in speaking, reading, writing, and understanding contemporary Ukrainian and will expand students' active and passive vocabulary on a variety of topics. We will continue the exploration of Ukrainian culture through exciting authentic materials, including Ukrainian newspaper articles on current events in business, education, politics, science, sports, and other topics. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Ukrainian. By the end of the course, you will be able to engage in increasingly complex conversations in Ukrainian on many topics in informal and formal contexts concerning your daily life, significant personal and cultural events and situations, important cultural figures. You will be able to write longer messages in a variety of informal and formal contexts.
Two Term Class, Student may enter either term; credit given for either
Prerequisite: UKRN 0200
1 Course Unit

UKRN 0400 Ukrainian IV
This course is the second in a series of second-year courses, continuation of Ukrainian III. The course will continue strengthening and expanding students' competence in speaking, reading, writing, and understanding contemporary Ukrainian and increasing active and passive vocabulary on a variety of topics. We will continue the exploration of Ukrainian culture through exciting authentic materials, including Ukrainian newspaper articles on a variety of cultural themes and current events. Class work emphasizes development of communicative competence in real-life situations, spontaneous interactions, pair and group work and is conducted almost entirely in Ukrainian. By the end of the course, you will be able to engage in increasingly complex conversations in Ukrainian on many topics in informal and formal contexts concerning your daily life, significant personal and cultural events, attitudes and perspectives. You will be able to write longer messages in a variety of informal and formal contexts. Satisfies Penn Language Requirement.
Two Term Class, Student may enter either term; credit given for either
Prerequisite: UKRN 0300
1 Course Unit

UKRN 1100 Advanced Ukrainian I
This course is the first in a series of third-year courses, continuation of Ukrainian IV. The course is designed to strengthen and expand students' competence in speaking, reading, writing, and understanding contemporary Ukrainian and increase students' active and passive vocabulary on a wide range of topics. The course also aims to solidify the knowledge of the basic structure of Ukrainian students acquired in previous courses and focuses on more advanced grammatical concepts. Students will continue the exploration of Ukrainian literature, history, and modern life through the authentic materials, newspapers, literature excerpts and plays. This course provides a solid foundation for doing research in Ukrainian or working or studying in Ukraine. The course is conducted almost entirely in Ukrainian.
Two Term Class, Student may enter either term; credit given for either
Prerequisite: UKRN 1100
1 Course Unit

Urban Studies (URBS)

URBS 0002 The City in South Asia
This interdisciplinary social science course examines key topics, themes, and analytic methods in the study of South Asia by focusing on significant South Asian cities. With one-fifth of the world's population, South Asia and its urban centers are playing an increasingly important role in recent global economic transformations, resulting in fundamental changes within both the subcontinent and the larger world. Drawing primarily on ethnographic studies of South Asia in the context of rapid historical change, the course also incorporates research drawn from urban studies, architecture, political science, and history, as well as fiction and film. Topics include globalization and new economic dynamics in South Asia; the formation of a new urban middle class; consumption and consumer culture; urban political formations, democratic institutions, and practices; criminality & the underworld; population growth, changes in the built environment, and demographic shifts; everyday life in South Asia and ethnic, cultural, and linguistic identities, differences, and violence in South Asia’s urban environments. This is an introductory level course appropriate for students with no background in South Asia or for those seeking to better understand South Asia’s urban environments in the context of recent globalization and rapid historical changes. No prerequisites. Fulfills College sector requirement in Society and foundational approach in Cross-Cultural Analysis.
Fall or Spring
Also Offered As: ANTH 0002, SAST 0002
1 Course Unit

URBS 0003 Origin and Culture of Cities
The UN estimates that 2.9 of the world’s 6.1 billion people live in cities and that this percentage is rapidly increasing in many parts of the world. This course examines urban life and urban problems by providing anthropological perspectives on this distinctive form of human association and land use. First we will examine the "origin" of cities, focusing on several of the places where cities first developed, including Mesopotamia and the Valley of Mexico. We will then investigate the internal structure of non-industrial cities by looking at case studies from around the world and from connections between the cities of the past and the city in which we live and work today.
Fall
Also Offered As: ANTH 0103, NELC 0003
1 Course Unit
URBS 0005 Poverty and Inequality
What does it mean to live in poverty in the "land of plenty" and experience inequality in the "land of opportunity?" This First-Year Seminar explores these questions and others related to poverty and inequality in contemporary America. The first part of this course focuses on poverty. We will examine topics such as poverty perceptions and measurement, poverty trends, causes of poverty, poverty-related outcomes, and anti-poverty policy. The second part of this course focuses on inequality more broadly. We will examine how inequality is defined and what it looks like in the U.S. We will compare the "Haves" and the "Have Nots" and discuss social class, mobility, wealth, and privilege. Lastly, we will explore how different domains (e.g. education, the labor market, health, the justice system) produce, maintain, and reproduce inequalities. Throughout the semester, we will consider the roles of race/ethnicity, gender, age, and place, and how they help deepen our understanding of poverty and inequality.
Fall or Spring
Also Offered As: SOCI 0001
1 Course Unit

URBS 0010 Homelessness & Urban Inequality
This first-year seminar examines the homelessness problem from a variety of scientific and policy perspectives. Contemporary homelessness differs significantly from related conditions of destitute poverty during other eras of our nation's history. Advocates, researchers and policymakers have all played key roles in defining the current problem, measuring its prevalence, and designing interventions to reduce it. The first section of this course examines the definitional and measurement issues, and how they affect our understanding of the scale and composition of the problem. Explanations for homelessness have also been varied, and the second part of the course focuses on examining the merits of some of those explanations, and in particular, the role of the affordable housing crisis. The third section of the course focuses on the dynamics of homelessness, combining evidence from ethnographic studies of how people become homeless and experience homelessness, with quantitative research on the patterns of entry and exit from the condition. The final section of the course turns to the approaches taken by policymakers and advocates to address the problem, and considers the efficacy and quandaries associated with various policy strategies. The course concludes by contemplating the future of homelessness research and public policy.
Fall
Also Offered As: AFRC 0010, SOCI 2940
1 Course Unit

URBS 0050 Ancient Civilizations of the World
This course explores the archaeology (material culture) of early complex societies or civilizations in Egypt, Mesopotamia, and the Aegean. According to the traditional paradigm, civilization first emerged during the fourth millennium BCE in Egypt and Mesopotamia. In the Mediterranean, state-level societies first appeared in Crete and mainland Greece in the early second millennium BCE. This course investigates how and why these civilizations developed, as well as their appearance and structure in the early historic (or literate) phases of their existence. A comparative perspective will illustrate what these early civilizations have in common and the ways in which they are unique. This course will consist largely of lectures which will outline classic archaeological and anthropological theories on state formation, before turning to examine the available archaeological (and textual) data on emerging complexity in Egypt, Mesopotamia, and the Aegean. This course does not presuppose any knowledge of archaeology or ancient languages; the instructor will provide any background necessary. Because this is a course on material culture, some of the class periods will be spent at the Penn Museum of Archaeology and Anthropology. These will consist of a guided tour of a relevant gallery, as well as a hands-on object-based lab with archaeological materials selected by the instructor.
Spring, odd numbered years only
Also Offered As: ANTH 0105, NELC 0050
1 Course Unit
URBS 0093 Latinx Environmental Justice
This course explores the involvement of the Latinx environmental justice movement since the 1960s. It addresses theories and concepts of environmental racism and environmental justice, underscoring how Latinxs have challenged, expanded, and contributed to the environmental justice discourse. In this course, students will explore national case studies of environmental and racial injustice as they bear on Latinx communities both in rural areas and in urban barrios throughout the United States. The course will analyze these case studies through the lens of Latinx artistic and literary texts (essays, paintings, short stories, documentaries, and short films) as they provide a unique historic and multicultural perspective of the Latinx experience with environmental injustice and of how Latinxs imagine alternative transitions and responses to environmental marginalization. In addition, the works of Latinx artists and writers will serve as case studies to deconstruct racial stereotypes of Latinxs as unconcerned about environmental issues, shedding light on how they share a broad engagement with environmental ideas. The case studies analyzed in this course emphasize race and class differences between farmworkers and urban barrio residents and how they affect their respective struggles. The unit on farmworkers will focus on workplace health issues such as toxic chemicals and collective bargaining contracts. The unit on urban barrios will focus on gentrification, affordable housing, and toxic substances in the home. We will also review current and past programs that have been organized to address the aforementioned problems. This is an Academically Based Community Service Course (ABCS course) through which students will learn from and provide support to a Latinx-serving organization in the City of Philadelphia on preventing exposure to hazardous substances, thus bridging the information gap on environmental justice issues in the Latinx community in Philadelphia. Information dissemination and education efforts will be conducted by collaborating with Esperanza Academy Charter School in Philadelphia to implement lessons on preventing exposure to hazardous substances. Studying environmental justice and pairing it with community service will heighten students’ awareness of the complexities of culture, race, gender, and class while providing them with an invaluable experience of cross-cultural understanding.

Spring
Also Offered As: ANTH 0930, ENVS 0054, LALS 0093, SPAN 0093
1 Course Unit

URBS 0101 Asian American Communities
Who is Asian American and how and where do we recognize Asian America? This interdisciplinary course explores the multiple factors that define Asian American identity and community. In order to provide a sketch of the multifaceted experience of this growing minority group, we will discuss a wide variety of texts from scholarly, artistic, and popular (film, cinematic) sources that mark key moments in the cultural history of Asia America. The course will address major themes of community life including migration history, Asian American as model minority, race, class, and transnational scope of Asian America. In combination with the readings, this class will foster and promote independent research based on site visits to various Asian American communities in Philadelphia and will host community leaders as guest lecturers.

Fall or Spring
Also Offered As: ASAM 0101
1 Course Unit

URBS 0171 The Socialist City
This course will explore the ideology and politics of the socialist city in the Soviet Union, East Europe, and the Second World. We will focus on how design professionals, politicians, and residents realized utopian socialist values in the face of national design traditions, local politics, and limited resources. Beginning with the Soviet case, the course will consider how planners and architects addressed modernization, multi-family housing, and neighborhood units in new city plans. We will consider capitals, like Moscow, as well as less well-known regional centers that had strong local identities, such as Tashkent, Belgrade, and Prague. We will examine the state’s use of public spaces for commemorations and preservationists’ reinterpretation of existing historic sites. In addition, we will consider how everyday residents experienced the socialist city, such as multi-family housing, shopping centers, and subway systems. We will address how citizens circumvented official state channels to obtain state housing and illegally build homes for themselves, sometimes in a folk style. The course will center on Soviet and East European cities, but also address socialist cities in Cuba and Africa whose design was influenced by transnational exchanges. Most broadly, this course explores the question, what was the socialist city? How did its planners, architects, and politicians understand it, and what did they intend to construct? And, what resulted? In the past fifteen years, North American scholars have begun to take seriously the study of the socialist city, and this course draws on the emerging scholarship on this exciting, cross-disciplinary topic. How do scholars understand the socialist city today? We will examine the shared legacies that socialist cities across East Europe shared with their Western European counterparts, as well as the particularities of design that have sparked North American scholars’ debates on what distinguished the socialist city from ones that emerged in a capitalist context. In our discussions, we will seek to understand how socialist design professionals understood their work and the emerging cities at the time, as well as how North American scholars view the socialist city today. Disciplinarily, the focus of the call will fall at the intersection of architectural history and politics.

Not Offered Every Year
Also Offered As: REES 0171
1 Course Unit
URBS 0180A Music in Urban Spaces
Music in Urban Spaces is a year-long experience that explores the ways in which individuals use music in their everyday lives and how music is used to construct larger social and economic networks that we call culture. We will read the work of musicologists, cultural theorists, urban geographers, sociologists and educators who work to define urban space and the role of music and sound in urban environments, including through music education. While the readings make up our study of the sociology of urban space and the way we use music in everyday life to inform our conversations and the questions we ask, it is within the context of our personal experiences working with music programs in public neighborhood schools serving economically disadvantaged students, that we will begin to formulate our theories of the contested musical micro-cultures of West Philadelphia. This course is over two-semesters where students register for .5 cus each term (for a total of 1 cu over the entire academic year) and is tied to the Music and Social Change Residential Program in Fisher Hassenfeld College House which will sponsor field trips around the city and a final concert for youth to perform here at Penn, if possible. Students are expected to volunteer in music and drama programs in Philadelphia neighborhood public schools throughout the course experience.
Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: MUSC 0180A
0.5 Course Units

URBS 0180B Music in Urban Spaces
Music in Urban Spaces is a year-long experience that explores the ways in which individuals use music in their everyday lives and how music is used to construct larger social and economic networks that we call culture. We will read the work of musicologists, cultural theorists, urban geographers, sociologists and educators who work to define urban space and the role of music and sound in urban environments, including through music education. While the readings make up our study of the sociology of urban space and the way we use music in everyday life to inform our conversations and the questions we ask, it is within the context of our personal experiences working with music programs in public neighborhood schools serving economically disadvantaged students, that we will begin to formulate our theories of the contested musical micro-cultures of West Philadelphia. This course is over two-semesters where students register for .5 cus each term (for a total of 1 cu over the entire academic year) and is tied to the Music and Social Change Residential Program in Fisher Hassenfeld College House which will sponsor field trips around the city and a final concert for youth to perform here at Penn, if possible. Students are expected to volunteer in music and drama programs in Philadelphia neighborhood public schools throughout the course experience.
Two Term Class, Student must enter first term; credit given after both terms are complete
Also Offered As: MUSC 0180B
0.5 Course Units

URBS 0248 The Urban Food Chain
This class explores the social, economic, ecological, and cultural dynamics of metropolitan and community food systems in U.S. cities. Field trips and assignments immerse students in various forms of experiential learning - including farming and gardening, cooking, eating, and more. After a broad introduction to global, regional, and urban food systems in our first three weeks, across most of the semester we follow the food chain (or cycle), from production to processing, distribution, cooking, consumption, and waste. Specific topics include urban agriculture, community kitchens, grocery, hunger and food assistance, restaurants, neighborhoods, food cultures, food justice, and community food security. Students will gain broad literacies in: metropolitan and neighborhood food environments; food production, processing, distribution, access, and preparation; and the relationships between food, culture, and society. Students taking this class should be open to trying new things, getting hands dirty, and working with others in various settings and activities.
Fall
1 Course Unit

URBS 0270 The Immigrant City
This course focuses on immigrant communities in United States cities and suburbs. We survey migration and community experiences among a broad range of ethnic groups in different city and suburban neighborhoods. Class readings, discussions, and visits to Philadelphia neighborhoods explore themes including labor markets, commerce, housing, civil society, racial and ethnic relations, integration, refugee resettlement, and local, state, and national immigration policies. The class introduces students to a variety of social science approaches to studying social groups and neighborhoods, including readings in sociology, geography, anthropology, social history, and political science. Ultimately, the class aims to help students develop: 1) a broad knowledge of immigration and its impacts on U.S. cities and regions; 2) a comparative understanding of diverse migrant and receiving communities; and 3) familiarity with policies and institutions that seek to influence immigration and immigrant communities.
Spring
Also Offered As: LALS 0270, SOCI 0270
1 Course Unit

URBS 0335 Investigating the Old 7th Ward
The great scholar and civil rights leader, W.E.B. Du Bois, came to Philadelphia in 1896 to research the Black population of the Seventh Ward. The University of Pennsylvania published his study in 1899 as The Philadelphia Negro. Together, we will study the impact of Du Bois’ work and the relevance to understanding racism, violence, and inequity in Philadelphia today. Taking inspiration from Du Bois’ mixture of research methods and data sources, the course will focus on a range of historical research and digital humanities methods, including oral history, geographic information systems mapping, podcasts, and video. Students will develop new materials for teaching about Du Bois and the Old Seventh Ward and support Philadelphia public school teachers developing and implementing related lessons in K-12 schools.
Fall
1 Course Unit

URBS 0210 The City
Course will focus on Baltimore using The Wire and its sequel, We Own This City, as core texts. Following the trajectory of The Wire, the course will explore the history and development of the city and its institutions with a thematic focus on the impacts of the War on Drugs and policing on Baltimore’s African American community, urban revitalization, violence and community trauma, and the role of the carceral state in American cities.
Spring
Also Offered As: HIST 0810
1 Course Unit
URBS 1020 Iraq: Ancient Cities and Empires
Iraq: Ancient Cities and Empires is a chronological survey of the ancient civilization that existed in the drainage basin of the Tigris and Euphrates Rivers from the early settled village farming communities of the 7th millennium BCE to the middle of the 1st millennium BCE, when Nebuchadnezzar II ruled Babylon and much of the Middle East. Though organized period by period, NELC 241 explores various social, political, economic, and ideological topics, exposing students to various strands of evidence, including settlement survey data, excavated architectural remains, artifacts, and documentary sources, as well as an eclectic mix of theoretical perspectives. The course aims to provide students with a strong foundation for the further study of the ancient and pre-modern Middle East.
Not Offered Every Year
Also Offered As: ANTH 1020, NELC 1000
1 Course Unit

URBS 1030 Industrial Metropolis
Although we no longer think of most U.S. cities as industrial cities, metropolitan areas today are all products of industrial economies, technologies, and social systems. This course explores the industrialization and deindustrialization of American cities within their evolving global context from the era of European colonization to the present. It includes weekly readings and discussion, regular response papers and walking tours, in-class exercises, and a research paper using primary sources. Themes include energy and ecology, labor and production, inner city and suburban development, globalization, and economic restructuring. Ultimately, the class aims to give students a broad knowledge of 1) the history of industrial capitalism, 2) its effects on cities and regions over the past three centuries, and 3) analytical tools for understanding the past, present, and future of metropolitan economies, geography, and society.
Fall
1 Course Unit

URBS 1050 Metropolis: Culture of the City
An exploration of modern discourses on and of the city. Topics include: the city as site of avant-garde experimentation; technology and culture; the city as embodiment of social order and disorder; traffic and speed; ways of seeing the city; the crowd; city figures such as the detective; the criminal, the flaneur, the dandy; films as the new medium of the city. Special emphasis on Berlin. Readings by, among others, Dickens, Poe, Baudelaire, Rilke, Doeblin, Marx, Engels, Benjamin, Kracauer. Films include Fritz Lang's Metropolis and Tom Tykwer's Run Lola Run.
Not Offered Every Year
Also Offered As: CIMS 1050, GRMN 1050
1 Course Unit

URBS 1051 The City in Literature and Film
This course focuses on the central place of the city through the history of cinema. The city in question may change depending on the term this course is being offered. See the English Department's website at www.english.upenn.edu for a description of the current offerings.
Also Offered As: CIMS 1051, ENGL 1951
1 Course Unit

URBS 1060 Race and Ethnic Relations
The course will focus on race and ethnicity in the United States. We begin with a brief history of racial categorization and immigration to the U.S. The course continues by examining a number of topics including racial and ethnic identity, interracial and interethnic friendships and marriage, racial attitudes, mass media images, residential segregation, educational stratification, and labor market outcomes. The course will include discussions of African Americans, Whites, Hispanics, Asian Americans and multiracials.
Fall or Spring
Also Offered As: AFRC 1060, ASAM 1510, LALS 1060, SOCI 1060
1 Course Unit

URBS 1070 Berlin: History, Politics, Culture
What do you know about Berlin's history, architecture, culture, and political life? The present course will offer a survey of the history of Prussia, beginning with the seventeenth century, and the unification of the small towns of Berlin and Koeln to establish a new capital for this country. It will tell the story of Berlin's rising political prominence in the eighteenth century, and its position as a center of the German and Jewish Enlightenment. It will follow Berlin's transformation into an industrial city in the nineteenth century, its rise to metropolis in the early twentieth century, its history during the Third Reich, and the post-war cold war period. The course will conclude its historical survey with a consideration of Berlin's position as a capital in reunified Germany. The historical survey will be supplemented by a study of Berlin's urban structure, its significant architecture from the eighteenth century (i.e. Schinkel) to the nineteenth (new worker's housing, garden suburbs) and twentieth centuries (Bauhaus, Speer designs, postwar rebuilding, GDR housing projects, post-unification building boom). In addition, we will read literary texts about the city, and consider the visual art and music created in and about Berlin, and focus on Berlin's Jewish history. The course will be interdisciplinary with the fields of German Studies, history, history of art, urban studies, and German-Jewish studies. It is also designed as a preparation for undergraduate students who are considering spending a junior semester with the Penn Abroad Program in Berlin.
Not Offered Every Year
Also Offered As: ARTH 2370, COML 1040, GRMN 1040, HIST 0821
1 Course Unit

URBS 1090 Urban Sociology
This course is a comprehensive introduction to the sociological study of urban areas. This includes more general topics as the rise of cities and theories urbanism, as well as more specific areas of inquiry, including American urbanism, segregation, urban poverty, suburbanization and sprawl, neighborhoods and crime, and immigrant ghettos. The course will also devote significant attention to globalization and the process of urbanization in less developed counties.
Not Offered Every Year
Also Offered As: AFRC 1090, LALS 1090, SOCI 1090
1 Course Unit
URBS 1110 The Big Picture: Mural Arts in Philadelphia
The history and practice of the contemporary mural movement couples step by step analysis of the process of designing with painting a mural. In addition students will learn to see mural art as a tool for social change. This course combines theory with practice. Students will design and paint a large outdoor mural in West Philadelphia in collaboration with Philadelphia high school students and community groups. The class is co-taught by Jane Golden, director of the Mural Arts Program in Philadelphia, and Shira Walinsky, a mural arts painter and founder of Southeast by Southeast project, a community center for Burmese refugees in South Philadelphia.
Fall or Spring
Also Offered As: FNAR 1110, VLST 3220
1 Course Unit

URBS 1120 Community, Freedom, Violence: Writing the South Asian City
The South Asian city—as space, symbol, and memory—is the subject of this course. Through a range of readings in English and in translation, we will gain a sense for the history of the city and the ways in which it is a setting for protest and nostalgia, social transformation and solitary wandering. We will see reflections of the city in the detective novels sold in its train stations, the stories scribbled in its cafes, and films produced in its backlots. Readings will attempt to address urban spaces across South Asia through a range of works, which we will examine in the context of secondary readings, including histories and ethnological works that take up life in the modern city. Students will finish this course prepared to pursue projects dealing with the urban from multiple disciplinary perspectives. This course is suitable for anyone interested in the culture, society, or literature of South Asia, and assumes no background in South Asian languages.
Fall or Spring
Also Offered As: COML 1121, ENGL 1191, SAST 1120
1 Course Unit

URBS 1150 American Race: A Philadelphia Story (SNF Paideia Program Course)
This course proposes an examination of race with a two-pronged approach: one that broadly links the study of race in the United States with a multi-disciplinary approach and also simultaneously situates specific conversations within the immediate location of Philadelphia, home to the University. The broad historical examination advances key concepts of race and racialization, explores key theoretical methodologies, and highlights major scholarly works. For example, students will engage with the study of race through Africana Studies, Asian American Studies, Urban Studies and through Latin American & Latinx Studies. Readings and methodologies will introduce students to critical issues in education, in literature, in sociology, and with methods in oral history, archival work, and ethnography. Most importantly, this extensive approach highlights the impact of race across multiple communities including Black Americans, immigrant populations, and communities that are marginalized to emphasize connections, relationships, and shared solidarity. Students are intellectually pushed to see the linkages and the impacts of racism across and among all Americans historically and presently. As each theme is introduced a direct example from Philadelphia will be discussed. The combination of the national discourse on race, with an intimate perspective from the City of Philadelphia, engages students both intellectually and civically. The course will be led by Fariha Khan and Fernando Chang-Muy but guest instructors with varied disciplinary backgrounds and guest speakers from local community organizations. Each instructor not only brings specific disciplinary expertise, but also varied community engagement experience.
Spring
Also Offered As: AFRC 1115, ANTH 1150, ASAM 0115, LALS 0115, SAST 1115, SOCI 2976
1 Course Unit
URBS 1151 Comparative Cultures of Resilience and Sustainability in the Netherlands and the United States
Coastal and riverside cities worldwide are under increasing pressure from sea level rise and other effects of climate change. Resilience and sustainability are paradigmatic concepts for the ways in which cities address the effects associated with global warming: sea level rise, extreme weather, changing climate, and their impacts on water, food, energy, and housing. This course focuses on the cultural side of resilience and sustainability in four signature cities: Rotterdam (with areas 6 meters below sea level), Nijmegen (which has devised a new way to live with a major river), New York City (which was devastated by Hurricane Sandy), and New Orleans (one of the most vulnerable American cities). Of course, other cities (Amsterdam, Arnhem, Boston, The Hague, Houston, Miami, etc.) will also come into play. In deeply uncertain times, cities such as these confront an array of interconnected choices that involve not only infrastructural solutions, but priorities, values, and cultural predispositions. Ideally, the strategies that cities devise are generated through inclusive processes based on the understanding that resilience and sustainability should be grounded in the cultural life of their communities. When this is the case, resilience and sustainability can become unique and motivating narratives about how cities and their residents co-develop the kinds of hard, soft, and social infrastructure the climate emergency requires. With this in mind, we will analyze the cities’ climate action plans and resilience strategies; explore their cultural histories relative to flooding events; and consult with Dutch and American experts in climate adaptation, governance, community development, and design. The highlight of the course will be travel to the Netherlands during spring break for site visits and discussions with experts. Spring
Also Offered As: GRMN 1151
1 Course Unit

URBS 1153 Transformations of Urban America: Making the Unequal Metropolis, 1945 to Today
The course traces the economic, social, and political history of American cities after World War II. It focuses on how the economic problems of the industrial city were compounded by the racial conflicts of the 1950s and 1960s and the fiscal crises of the 1970s. The last part of the course examines the forces that have led to the revitalization and stark inequality of cities in recent years. Fall or Spring
Also Offered As: HIST 1153
1 Course Unit

URBS 1154 Philadelphia, 1700-2000
Using Philadelphia as a lens, this course will examine the transformation of American cities from the colonial period to the present. Through readings, lectures, and tours, we will consider urbanization and suburbanization, race, class, and ethnicity, economic development, poverty and inequality, housing and neighborhood change, urban institutions, and politics and public policy. Fall or Spring
Also Offered As: HIST 1154
1 Course Unit

URBS 1155 Fair Housing, Segregation and the Law
This course introduces students to the variegated roles of housing in society and has three broad aims. First, the roles of housing as shelter, locus of community, financial asset, and determinant of political power and representation will be described and explored in detail. Second, the way the different functions of housing serve to create and reinforce social stratification is explored. Finally, the function and role of public policy in housing will also be examined. Spring
Also Offered As: SOCI 1150
1 Course Unit

URBS 1170 Media and Popular Culture
This course relies on a variety of sociological perspectives to examine the role of media and popular culture in society, with a particular emphasis on the power of the mass media industry, the relationship between cultural consumption and status, and the social organization of leisure activities from sports to shopping. Fall or Spring
Also Offered As: SOCI 1070
1 Course Unit

URBS 1310 Small Business Anthropology
With a focus on minority-owned small businesses in the City of Philadelphia, this class will introduce students to the work of anthropologists who have made their careers in the business world using the tools they acquired through training in anthropology. By bringing anthropological perspectives into the workplace, business anthropologists seek to promote well-being for employees and owners, as well as consumers and the communities in which businesses operate. The class will also introduce students to Philadelphia from the point of view of minority owned small businesses. One of the two class days each week will focus on business anthropology as a profession and include readings on organizational culture, design anthropology, and the role of anthropologists in marketing and advertising, as well as in globalization processes and entrepreneurship. The second of the two days each week will focus on the city of Philadelphia and the role of small businesses within it. We will study the spatial layout of the city, the kinds of small businesses that are operative within the city and where they are located, the relationship of business to ethnicity, gentrification and its impact on small business, and the role of government and community groups in relationship to small businesses and their owners and employees. As part of the class, students will engage in guided research on specific small businesses, with the aim of developing an ethnographic understanding of the experiences of owners and employees, the opportunities they have seized upon and the problems they have confronted. We hope in the course of the semester to provide an ethnographic profile of a sampling of small businesses from different industries, which can in turn contribute to understanding larger social and cultural patterns within Philadelphia. Through a class blog or other means, we hope as well to contribute to the ability of minority small business owners to voice their experiences, as well as their fears and hopes for the future, to members of the University community and beyond. Spring
Also Offered As: ANTH 1310
1 Course Unit
URBS 1400 Inequity and Empowerment: Urban Financial Literacy
This course provides students with a rich look at the historical and contemporary factors that have shaped America's wealth gaps. By studying the economic impacts of systemic forces such as discriminatory housing, predatory lending, and unbanking, students will develop a deep financial understanding of today's urban communities. Students will also explore their own financial awareness and exposure, creating personalized financial histories and empowerment plans.
By breaking the silence on topics such as credit scores, auto purchases, renting vs. owning a home, insurance, retirement plans, debt management, and investing, Urban Financial Literacy will prepare students for a financially healthy life at Penn and beyond. The course will also explore larger financial examples and case studies, including endowment funds and major foundations, the promises and perils of sports and entertainment, start-ups and the gig economy, and more.
In contrasting the opportunity and excess that is possible, with the debilitating realities of intergenerational poverty in America, the idea is that students will end the course with a robust appreciation for financial literacy, a portfolio of practical strategies, and a commitment to create new possibilities for financial wellness.
Fall
1 Course Unit

URBS 1780 Faculty-Student Collaborative Action Seminar in Urban University-Community Rln
This seminar helps students develop their capacity to solve strategic, real-world problems by working collaboratively in the classroom, on campus, and in the West Philadelphia community. Students develop proposals that demonstrate how a Penn undergraduate education might better empower students to produce, not simply "consume," societally-useful knowledge, as well as to function as caring, contributing citizens of a democratic society. Their proposals help contribute to the improvement of education on campus and in the community, as well as to the improvement of university-community relations. Additionally, students provide college access support at Paul Robeson High School for one hour each week.
Fall or Spring
Also Offered As: AFRC 1780, HIST 0811
1 Course Unit

URBS 2000 Introduction to Urban Research
This course will examine different ways of undertaking urban research. The goal will be to link substantive research questions to appropriate data and research methods. Computer-based quantitative methods, demographic techniques, mapping / GIS and qualitative approaches will be covered in this course. Student assignments will focus on constructing a neighborhood case study of a community experiencing rapid neighborhood change.
Fall or Spring
1 Course Unit

URBS 2020 Urban Education
This seminar focuses on two main questions: 1) How have US schools and urban ones in particular continued to reproduce inequalities rather than ameliorating them? 2) In the informational age, how do the systems affecting education need to change to create more successful and equitable outcomes? The course is designed to bridge the divide between theory and practice. Each class session looks at issues of equity in relation to an area of practice (e.g. lesson design, curriculum planning, fostering positive student identities, classroom management, school funding, policy planning...), while bringing theoretical frames to bear from the fields of education, sociology, anthropology and psychology.
Fall or Spring
1 Course Unit

URBS 2030 Introduction to City Planning: Planning Urban Spaces
This course will provide a general introduction to the concepts and practice of city planning. Topics to be discussed include: the process and nature of planning - theories, methods and roles as manifested in practice; history and trends in city planning; functional planning practice; planning within constraints—a field project; planning in the international arena; present crisis in planning.
Summer Term
1 Course Unit

URBS 2040 Urban Law
This course will focus on selected aspects of urban law that are particularly relevant to areas of high population density. After an introduction to the American judicial system, it will examine the legal issues that arise in the management of land development and use, with special attention to constitutional questions involving equal protection, due process, and the " takings" clause, and routine run-of-the-mill zoning challenges. This course meets the Cultural Diversity requirement.
Fall
1 Course Unit

URBS 2050 People and Design
The built environment of a city is more than a mere backdrop; the design can actually affect people's experiences. Environmental design primarily focuses on the relationship between people and the built environment. It also looks at how the built environment interacts with the natural one (and the potential for greater sustainability). This course will allow students to gain a deeper understanding of how people create, perceive, and use the designed environment. We'll approach these concepts by analyzing design at a variety of scales, from products to interior design to architecture. Finally, using that knowledge, we'll conclude by analyzing urban spaces of the city.
Spring
1 Course Unit

URBS 2060 Public Environment of Cities: An Introduction to the Urban Landscape
This course will explore the role of public spaces - streets, boulevards, parks and squares - in cities and their social uses. With the University of Pennsylvania campus and the City of Philadelphia serving as our laboratory, we will critically examine the evolution of the movement of corridors, open space and buildings of the urban landscape and their changing uses. Following the flaneur tradition of Baudelaire and Benjamin, we will walk the city to experience and understand the myriad environments and neighborhoods that comprise it.
Spring
1 Course Unit
URBS 2090 Neighborhood Dynamics of Crime
Crime varies in time, space and populations as it reflects ecological structures and the routine social interactions that occur in daily life. Concentrations of crime can be found among locations, with antisocial activities like assaults and theft occurring at higher rates because of the demographic makeup of people (e.g. adolescents) or conflicts (e.g. competing gangs), for reasons examined by ecological criminology. Variation in socio-demographic structures (age, education ratios, and the concentration of poverty) and the physical environment (housing segregation, density of bars, street lighting) predicts variations between neighborhoods in the level of crime and disorder. Both ethnographic and quantitative research methods are used to explore the connections between the social and physical environment of areas and antisocial behavior.
Spring
Also Offered As: CRIM 2080
1 Course Unit

URBS 2160 Social Entrepreneurship
Amidst perceptions that public sector and philanthropic support for local communities is increasingly scarce, many community development practitioners are turning to social enterprise as a means to improve social and economic conditions in their neighborhoods. This course will do a deep dive into the segment of social enterprises addressing workforce development and job creation challenges, especially as they relate to returning citizens and other vulnerable adults, including several planned field visits. Building on their understanding of these fields, students will then divide into groups for a hands-on course project.
Not Offered Every Year
1 Course Unit

URBS 2190 The Heart of Social Change
The Heart of Social Change: Experiments in Urban Development, Activism, and Social Entrepreneurship will seek to challenge those who desire to work for social change to consider how they may not only employ their heads and their hands, but also their hearts as they work to improve the aspects of contemporary society that mean the most to them. This seminar-based class will examine past and contemporary examples of heart-based activism, urban development and social entrepreneurship yet it will also be a space where students will be asked to experiment with ways that they too may be change agents.
Not Offered Every Year
1 Course Unit

URBS 2410 Metropolitan Growth and Poverty
This course analyzes the role of metropolitan regions in the U.S. and global economies, including the sources of metropolitan productivity, the ways that metropolitan structures affect residents, and analyses of public policy in metropolitan areas. The economic, political, and social forces that have shaped World War II urban and regional development are explored, including technology, demography, and government. Special attention is paid to how metropolitan change affects residents by income and race. Topics include: gentrification, schools, suburbanization, sprawl, metropolitan fragmentation, concentration of poverty, race, and various economic revitalization initiatives.
Fall or Spring
Also Offered As: SOCI 2410
1 Course Unit

URBS 2445 Civil Dialogue Seminar: Civic Engagement In A Divided Nation
The goal of this course is to help students develop concepts, tools, dispositions, and skills that will help them engage productively in the ongoing experiment of American democracy. This nation’s founders created a governmental structure that sets up an ongoing and expansive conversation about how to manage the tensions and tradeoffs between competing values and notions of the public good. These tensions can never be fully resolved or eliminated; they are intrinsic to the American experiment. Every generation must struggle to find its own balance, in no small part because in every era people who previously had been unjustly excluded from the conversation find a way to be heard. That inevitably introduces new values and changes how enduring ones get interpreted. The challenge of each generation is to develop that capacity to its fullest. The goal of this course is to equip you to engage fully in your generation’s renewal of the conversation. Class sessions will use a variety of modalities: lecture, discussion, case studies, opportunities to experiment with the tools and techniques of civil dialogue and writing. Each session will include some theory or historical context, a case study, exploration of a key concept of civic dialogue with a related tool or technique, and an interactive exercise. This course is part of a larger effort by the university (called the Paideia program) to help Penn students build these skills.
Fall or Spring
Also Offered As: COMM 2445, EDUC 2445
1 Course Unit

URBS 2450 Poverty, Race and Health
This course is designed to introduce students to current literature on race/ethnic difference in health and mortality in the United States, covering such topics as explanations for why some race/ethnic groups fare better than others, how inner city poverty and residential segregation may contribute to racial/ethnic differences in health outcomes, and health of immigrants versus native-born populations. Current policy debated and recent policy developments related to health are also briefly discussed. The course is organized as a seminar with a combination of lectures and class discussions.
Not Offered Every Year
Also Offered As: SOCI 2450
1 Course Unit

URBS 2500 Urban Public Policy: Philadelphia -- A Case Study
An introduction to a broad range of substantive policy areas affecting the city, and an exploration into the complexities of policy formulation and implementation in a large and pluralistic metropolitan setting. The course subtitle, "Philadelphia -- A Case Study," describes our approach. Donna Cooper leads the region’s foremost child advocacy organization focused on poverty, child welfare and education issues, she formerly served as the Deputy Mayor for Policy for the City of Philadelphia, and Secretary of Policy of the Commonwealth of Pennsylvania.
Fall or Spring
1 Course Unit
URBS 2501 Cities in Chinese History
This seminar will study the development of Chinese cities over the past two millennia with respect to their spatial structure, social constitution, economic system, political functions, and cultural representation (including cityscape paintings, maps, and films). As China transitioned from a collection of city-states to a united empire to nation state, Chinese urbanism underwent transformations as drastic as those of the country itself. Cities, which serve as a critical mechanism for the operation of a vast agrarian empire/nation like China, offer a unique vantage point for us to observe and analyze the continuities and discontinuities between dynastic empires as well as the radical transition from empire to modern nation state. Topics include: the city-state system in ancient China; the creation and evolution of imperial capitals; the medieval urban revolution and the subsequent collapse of classic city plans; the development of urban public sphere/public space in late imperial China; the rise of commercial power in urban politics; the negotiation of urban class and gender relations via cultural consumption; the role of cities in the building of a modern Chinese nation state; the anti-city experiment under the communist regime; urban citizenship in the reform era; as well as the expanding urbanization and shifting urbanism of Greater China as reflected in cinematic representations of Shanghai, Hongkong, and Taipei.
Fall or Spring
Also Offered As: EALC 2722, HIST 2501
1 Course Unit

URBS 2520 Urban Journalism
Powerful forces are rocking journalism. Newspapers and networks are battling financial woes along with blizzards of misinformation and mistrust. But it’s an exciting time, too. Independent news outlets are blossoming. Newsrooms are heeding calls for diversity and inclusion. And one teenager’s video not only broke news -- it changed history. This course will examine some of those forces and offer direct experience in urban journalism. Students will report and write stories about Philadelphians’ lives. Involvement in The Daily Pennsylvanian or other news outlets is encouraged -- let’s get you published! The course is taught by Dan Biddle, a journalist and author whose investigative reporting for The Philadelphia Inquirer won a Pulitzer Prize.
Spring
1 Course Unit

URBS 2530 Cities, Suburbs, Regions
This course will explore the political, economic, social, and demographic forces impacting development patterns in metropolitan areas, with a particular focus on Philadelphia. We will examine the government policies, economic forces, and social attitudes that affect the way a region grows, and the impact of these forces on poverty, equity and segregation. Specific topics to be discussed include the factors that make a region competitive, the city’s changing role in the region, the impact place has on opportunity, and approaches to revitalizing and improving communities.
Spring, odd numbered years only
Also Offered As: SOCI 2942
1 Course Unit

URBS 2580 Global Urban Education
This course examines the demographic, social, and economic trends impacting the growth of global cities—providing the context for global urban education. Through the dual lens of globalization and local urban culture, we explore relationships between urban education and economic development, democratic citizenship, social movements, social inclusion, equity, and quality of urban life. We consider key historical legacies (e.g., Colonialism), informal settlements and “slums,” the rise of the “knowledge economy”, and the role of international aid. Additional topics include: early childhood; gender equity; youth culture; impacts of crisis and war; urban refugees; teacher training and identity; accountability & governance; information & computer technology; religion, indigenous cultures, and language identity; & the role of the private sector and school choice. We focus on cities like Sao Paolo, Mexico City, Shanghai, Hong Kong, Ho Chi Minh City, Johannesburg, Lagos, Nairobi, Jakarta, Mumbai, Lahore, Tehran, and Cairo, and draw comparisons to cities like New York, London, Paris and Tokyo.
Not Offered Every Year
Also Offered As: SOCI 2943
1 Course Unit

URBS 2590 Nutritional Anthropology
The course is an introduction to nutritional anthropology, an area of anthropology concerned with human nutrition and food systems in social, cultural and historical contexts. On the one hand, nutritional anthropologists study the significance of the food quest in terms of survival and health. On the other hand, they also know that people eat food for a variety of reasons that may have little, if anything, to do with nutrition, health, or survival. While the availability of food is dependent upon the physical environment, food production systems, and economic resources, food choice and the strategies human groups employ to gain access to and distribute food are deeply embedded in specific cultural patterns, social relationships, and political and economic systems. Thus, nutritional anthropology represents the interface between anthropology and the nutritional sciences, and as such, can provide powerful insights into the interactions of social and biological factors in the context of the nutritional health of individuals and populations. Because food and nutrition are quintessential biocultural issues, the course takes a biocultural approach drawing on perspectives from biological, socio-cultural and political-economic anthropology. Course content will include: a discussion of approaches to nutritional anthropology; basics of human nutrition; food systems, food behaviors and ideas; methods of dietary and nutritional assessment; and a series of case studies addressing causes and consequences to nutritional problems across the world.
Not Offered Every Year
Also Offered As: ANTH 2590, LALS 2590
1 Course Unit

URBS 2600 Asian American Food
You are what you eat. Asian American Food explores the history, politics, and ethnic identity of food through a cultural lens. Growing food, eating, and sharing meals serve as intimate expressions of self and community. By examining the production and consumption of food, the course investigates the ways that Asian Americans navigate traditions, gender norms, religious dietary laws, food habits, and employment as they create lives in the United States. The course overviews the history of Asian American foodways, but has a particular focus on Philadelphia’s Asian American communities.
Spring
Also Offered As: ASAM 2600, SAST 2600
1 Course Unit
URBS 2760 The Modern City
A study of the European and American city in the eighteenth, nineteenth, and twentieth centuries. Emphasis is placed on the history of architecture and urban design; political, sociological, and economic factors also receive attention. The class considers the development of London, St. Petersburg, Washington, Boston, Paris, Vienna and Philadelphia.
Not Offered Every Year
Also Offered As: ARTH 2700
1 Course Unit

URBS 2770 Gender, Sex & Urban Life
Is urban space gendered? Do we change how it is gendered as we move through it? Does it change us? This course explores gender and sexuality in the contemporary global city through the study of urban spaces. We will consider feminist, queer, and transgender theories of the city, as we investigate how practices of using and making space are gendered and sexualized. Each week of the course will be organized around a type of space, including subway, school, and birthing center, nightclub, suburb, and park. Assignments will include an auto-ethnography, a short critical essay, and a final assignment that asks you to propose an additional type of space in which to study the intersections of sex, gender, and the urban built environment. In each space, we will conduct an interdisciplinary exploration, drawing from sociology, anthropology, geography, city planning history, feminist and queer theory, as well as from fiction, poetry, music videos, photography, and documentary film.
Spring
Also Offered As: GSWS 2770
1 Course Unit

URBS 2810 The US Criminal Justice System in Urban Context
With over two million Americans behind bars and over seven million under some form of state supervision, the United States leads the world in incarceration. From an interdisciplinary perspective, this course will examine the special attention given to how penal issues— including the recent prison boom and the privatization of prison, white supremacy and the racial disparity of the inmate population, juvenile criminal justice, alternative sentencing, prisoner health, and the punishment of military veterans, immigrants, and women in prisons— impact urban communities and contexts. Students will hear from guest speakers who were formerly incarcerated, and attend a field trip to a facility to see first-hand examples of the criminal justice system.
Spring
1 Course Unit

URBS 2850 Health on the urban margins: The experience of health in American cities
In this course we will investigate the social and spatial determinants of health in contemporary urban American. We will study how cities are impacted by healthcare delivery systems and social policy in the United States, with special attention toward understanding the relationship between health disparities and structures of urban inequality related to racial discrimination, extreme poverty, and the stigma of a criminal record. We will also explore how a variety of marginalized populations from war veterans to parolees to the homeless cope with mental illness and violence-related trauma in the urban environment.
Not Offered Every Year
1 Course Unit

URBS 2900 Metropolitan Nature
In order to understand the complex and often skewed relationship between the built and natural systems, we must think in processes and examine different scales simultaneously. The course explores urban sustainability and resilience. At its core, sustainability is a radical concept that integrates the economy, equity (social justice), and the environment. Co-opted by marketing slogans, stripped of meaning and context, it has become vague and pliable. Sustainability and resilience demand a holistic systems view of the world. The course focuses on communities such as New Orleans and Eastwick where urban development has focused on economic concerns at the expense of the environment and equity resulting in unintended, and sometimes, catastrophic consequences. Students will have the opportunity to interact with community residents who have organized to develop strategies to address these ongoing issues.
Fall
1 Course Unit

URBS 2940 Global Cities: Urbanization in the Global South
This course examines the futures of urbanization in most of the world. With cities in "developing" countries set to absorb 95% of urban population growth in the next generation, the course explores the plans, spaces and social experiences of this dramatic urban century. How do proliferating urban populations sustain themselves in the cities of Latin America, Africa and Asia? What kinds of social and political claims do these populations make more just and sustainable cities? The course investigates the ongoing experiences in urban planning, infrastructure development and environmental governance in cities of the Global South. In so doing, it imagines new forms of citizenship, development and sustainability that are currently unfolding in these cities of the future.
Not Offered Every Year
Also Offered As: ANTH 2940
1 Course Unit

URBS 2950 Palermo: Urban Migration, the Built Environment, and Global Justice
This City Seminar sponsored by Penn’s Humanities+Urbanism+Design initiative explores Palermo, Italy, its migrant communities, built environment, and related questions of justice. In the first half of the semester, we will survey Palermo’s long history as one of the most “conquered” cities in the world, tracing different empires and peoples’ impacts on the city, its social life and built environment, to its recent history as a “sanctuary city” and center of diverse communities from Africa, Asia, and Europe. The class will travel to Palermo during the week of fall break, documenting the built environments of historic and contemporary immigrant neighborhoods, and meeting with leaders of city government, immigrant rights movements, and migrant community associations. Assisted by “cultural mediators” from various communities, students will produce case studies of different migrant communities, their civil society organizations, and the recent impacts they have had on the city and its built environment. Leaders of Palermo’s elected migrants’ city council, the Consulta delle Culture, will be our partners in this class and its engagement with migrant communities. During the second half of the semester, we will continue to explore contemporary topics related to migration, the built environment, and social justice in the city while students work to develop their case studies, which we will publish at the end of the semester on a web site that we build together.
Also Offered As: ITAL 2950
1 Course Unit
URBS 2970 Nature Culture Environmentalism
Water wars, deforestation, climate change. Amidst many uncertain crises, in this course we will explore the emergent relationship between people and the environment in different parts of the world. How do people access the resources they need to live? How, when and for whom does 'nature' come to matter? Why does it matter? And what analytical tools we might use to think, mitigate and adapt to the effects of climate change? Drawing together classical anthropological texts and some of the emergent debates in the field of climate studies and environmental justice, in this class we focus on the social-ecological processes through which different groups of humans imagine, produce and inhabit anthropogenic environments.

Fall
Also Offered As: ANTH 2970, SAST 2970
1 Course Unit

URBS 2999 Independent Study
Specialized topics in Urban Studies. This course may be taken by permit only, once a faculty advisor has agreed to be the professor of record, and the scope of work has been approved in advance by the department.

1 Course Unit

URBS 3000 Fieldwork Seminar
Students work 15 hours per week in field placement and meet weekly with class and instructors. The class is intended to help students reflect from a variety of perspectives on the work that they are doing in their placement organizations. The class format is primarily discussion. Students are required to complete assigned readings, prepare written and oral presentations, and submit a final project.

Spring
2 Course Units

URBS 3050 Housing, Race, and Community in the United States
One’s home is the first site of self-identity, socialization, and notions of citizenship. In the United States, neighborhoods are the basic units of political organization, educational options, and familial wealth. This course explores the intersections between race and housing in the United States with a specific focus on the experiences of African-Americans in urban centers. The intersectional housing experiences of Asian, Latinx, first-generation immigrants, Arab, and indigenous communities will also be analyzed. This course represents both a timely and nuanced opportunity to address housing as a focal point of existing racial tensions and deepening socio-economic inequalities in the U.S. Increasingly, housing has become a contested subject, with heated debates concerning its status as a human, and potentially constitutional, right. Students will explore urban governance values, the commodification of urban landscapes, and the institutional dimensions of race in the United States. Students will develop a critical understanding of the underlying structural causation for the issues faced by minority populations seeking adequate, affordable, and safe housing in the U.S. Prior knowledge of urban planning, housing, or social policy is not necessary for this course. Students will finish the course equipped with a broad knowledge base of associated development topics including globalization, commodification, and social justice.

Spring
Also Offered As: AFRC 3051
1 Course Unit

URBS 3120 Vulnerable Vets (SNF Paideia Program Course)
Drawing from interdisciplinary scholarship in the fields of sociology, history, psychology, psychiatry, and public health, this course interrogates the identity of vulnerable veterans (veterans who are incarcerated, homeless, or struggling with suicidal ideation). The course focuses on justice-involved veterans who are at the nexus of two of the United States largest, most powerful, and well-funded institutions—the criminal justice system and the military. “Sweet is war to those who have never experienced it,” states the Latin proverb. Central to the curriculum is this very disconnect, between those who have experienced war and those who have not. In addition to communing with veterans, we will analyze popular depictions of war, veterans, violence, and prisons in order to assess how military members, justice-involved people, and survivors of violence are understood in the public imagination versus how they in fact understand themselves and their realities. Students will have in-person dialog with both official and lay experts, including clinicians, veterans, military members, chaplains, and incarcerated people. Students will attend workshops at both the VA and a state prison.

Not Offered Every Year
1 Course Unit

URBS 3140 Participatory Cities (SNF Paideia Program Course)
What is a participatory city? What has that term meant in the past, what does it mean now, and what will it mean going forward? Against the backdrop of increasing inequality and inequity, and the rise in a search for solutions, what role can citizens play in co-creating more just cities and neighborhoods? How can citizens be engaged in the decision-making processes about the places where we live, work, and play? And most importantly, how can we work to make sure that all kinds of voices are meaningfully included, and that historically muted voices are elevated to help pave a better path forward? This course will connect theory with praxis as we explore together the history, challenges, methods, and approaches, and impact of bottom up and top down approaches to community participation and stakeholder involvement in cities. Multiple opportunities will be provided to be involved in community engagement work for live projects in Philadelphia.

Not Offered Every Year
Also Offered As: SOCI 2960
1 Course Unit

URBS 3200 Who Gets Elected and Why? The Science of Politics
What does it take to get elected to office? What are the key elements of a successful political campaign? What are the crucial issues guiding campaigns and elections in the U.S. at the beginning of the 21st century? This class will address the process and results of electoral politics at the local, state, and federal levels. Course participants will study the stages and strategies of running for public office and will discuss the various influences on getting elected, including: Campaign finance and fundraising, demographics, polling, the media, staffing, economics, and party organization. Each week we will be joined by guest speakers who are nationally recognized professionals, with expertise in different areas of the campaign and election process. Students will also analyze campaign case studies and the career of the instructor himself. Edward G. Rendell is the former Mayor of Philadelphia, former Chair of the Democratic National Committee, and former Governor of Pennsylvania.

Fall
Also Offered As: PSCI 1207
1 Course Unit
URBS 3320 Tutoring School: Theory and Practic
This course represents an opportunity for students to participate in academically based community service involving tutoring in a West Phila. public school. This course will serve a need for those students who are already tutoring through the West Phila. Tutoring Project or other campus tutoring. It will also be available to individuals who are interested in tutoring for the first time.
Spring
Also Offered As: EDUC 3123
1 Course Unit

URBS 3260 Tutoring in Urban Public Elementary Schools: A Child Development Perspective
The course provides an opportunity for undergraduate students to participate in academically based community service learning. Student will be studying early childhood development and learning while providing direct, one-to-one tutoring services to young students in Philadelphia public elementary schools. The course will cover foundational dimensions of the cognitive and social development of preschool and elementary school students from a multicultural perspective. The course will place a special emphasis on the multiple contexts that influence children's development and learning and how aspects of classroom environment (i.e., curriculum and classroom management strategies) can impact children's achievement. Also, student will consider a range of larger issues impacting urban education embedded in American society. The course structure has three major components: (1) lecture related directly to readings on early childhood development and key observation and listening skills necessary for effective tutoring, (2) weekly contact with a preschool or elementary school student as a volunteer tutor and active consideration of how to enhance the student learning, and (3) discussion and reflection of personal and societal issues related to being a volunteer tutor in a large urban public school.
Fall
Also Offered As: EDUC 3726
1 Course Unit

URBS 3300 GIS Applications in Social Science
This course will introduce students to the principles behind Geographic Information Science and applications of (GIS) in the social sciences. Examples of GIS applications in social services, public health, criminology, real estate, environmental justice, education, history, and urban studies will be used to illustrate how GIS integrates, displays, and facilitates analysis of spatial data through maps and descriptive statistics. Students will learn to create data sets through primary and secondary data collection, map their own data, and create maps to answer research questions. The course will consist of a combination of lecture and lab.
Fall
1 Course Unit

URBS 3350 Investigating the Old 7th Ward
The great scholar and civil rights leader, W.E.B. Du Bois, came to Philadelphia in 1896 to research the Black population of the Seventh Ward. The University of Pennsylvania published his study in 1899 as The Philadelphia Negro. Through this seminar-style class, students will study the impact of Du Bois' work then as well as its enduring impact and legacy for urban studies, sociology, public health, and social work. Taking inspiration from Du Bois' mixture of research methods and data sources, the course will focus on a range of historical research and digital humanities methods, including oral history, geographic information systems mapping, podcasts, video, augmented reality, visualization, and gaming. Students will develop skills in one or more of these methods and develop new materials for teaching about Du Bois and the Old Seventh Ward through a public history project and high school curriculum. There are no prerequisites for this course, but it is recommended that you have either already taken URBS 2000 (Intro to Urban Research), or have experience with ArcGIS.
Not Offered Every Year
1 Course Unit

URBS 3424 Political Ecologies of the City
Cities have been centres of aspiration for much of human history. They have provided a limited yet critical focus for social mobility, both in political and economic terms. As large agglomerations of political and economic power, urban residents have also consumed growing proportions of the earth's mineral, food and water resources from the national (and international) body. The contradictory aspects of urban aspiration frame this course. Drawing on the frameworks of political ecology, in this course we think through the cities of the global south to understand how cities are made. To do this, we will first focus on the construction on the liberal city and how it has been occupied, both formally and informally, by urban subjects in most of the world. Next, we will learn about projects through which natural resources have been directed to and through the city. Finally we will conclude with a particular attention to how urban resources are claimed by marginalized migrants, and the particular sorts of governance institutions these practices engender.
Not Offered Every Year
Also Offered As: ANTH 3424
Mutually Exclusive: ANTH 5424
1 Course Unit

URBS 3500 Cities and Stories
So much of what we know about cities comes from the stories we tell about them. This course takes the city-in-stories as both our subject and our muse. We will work across genres and disciplines, reading a mix of fiction and nonfiction in which cities figure prominently, from Italo Calvino's Invisible Cities to Sarah Broom's Yellow House. We'll go from Mumbai, in Katherine Boo's Behind the Beautiful Forevers, to Oakland, in Tommy Orange's There There. With each text, we'll examine how the city is represented, including what and who we see and don't see, and the role it plays in the narrative. We'll also explore the author's craft and write our own creative nonfiction about city streets and neighborhoods. The class will be part discussion-based seminar and part peer-review writing workshop. It is open to both creative writing and urban studies students excited to explore the intersections between our stories, our cities, and ourselves.
Spring
Also Offered As: ENGL 3513
1 Course Unit
URBS 3705 Jews and the City
Jews have always been an extraordinarily urban people. This seminar explores various aspects of the Jewish encounter with the city, examining the ways that Jewish culture has been shaped by and has helped to shape urban culture. We will examine European and American cities as well as some in Palestine/Israel, covering an expansive view of urban culture. We will consider Jewish involvement in political and cultural life, the various neighborhoods in which Jews have lived, relations with other ethnic groups, as well as many other topics. We will read some classic works in the field along with contemporary scholarship. No prior background in Jewish history is required. *This course may be applied toward the US, European, or Middle East requirements for the History Major or Minor, depending upon the research paper topic. Students must consult with the instructor to determine which geographic requirement will be fulfilled.*
Fall or Spring
Also Offered As: HIST 3705, JWST 3705
1 Course Unit

URBS 3930 Latinx Environmental Justice
This course explores the involvement of the Latinx environmental justice movement since the 1960s. It addresses theories and concepts of environmental racism and environmental justice, underscoring how Latinx have challenged, expanded, and contributed to the environmental justice discourse. In this course, students will explore national case studies of environmental and racial injustice as they bear on Latinx communities both in rural areas and in urban barrios throughout the United States. The course will analyze these case studies through the lens of Latinx artistic and literary texts (essays, paintings, short stories, documentaries, and short films) as they provide a unique historic and multicultural perspective of the Latinx experience with environmental injustice and of how Latinxs imagine alternative transitions and responses to environmental marginalization. In addition, the works of Latinx artists and writers will serve as case studies to deconstruct racial stereotypes of Latinxs as unconcerned about environmental issues, shedding light on how they share a broad engagement with environmental ideas. The case studies analyzed in this course emphasize race and class differences between farmworkers and urban barrio residents and how they affect their respective struggles. The unit on farmworkers will focus on workplace health issues such as toxic chemicals and collective bargaining contracts. The unit on urban barrios will focus on gentrification, affordable housing, and toxic substances in the home. We will also review current and past programs that have been organized to address the aforementioned problems. This is an Academically Based Community Service Course (ABCS course) through which students will learn from and provide support to a Latinx-serving organization in the City of Philadelphia on preventing exposure to hazardous substances, thus bridging the information gap on environmental justice issues in the Latinx community in Philadelphia. Information dissemination and education efforts will be conducted by collaborating with Esperanza Academy Charter School in Philadelphia to implement lessons on preventing exposure to hazardous substances. Studying environmental justice and pairing it with community service will heighten students' awareness of the complexities of culture, race, gender, and class while providing them with an invaluable experience of cross-cultural understanding.
Spring
Also Offered As: ANTH 3930, ENVS 3445, LALS 3930, SPAN 3930
Prerequisite: SPAN 1800 AND SPAN 1900
1 Course Unit

URBS 3999 Independent Study
Specialized topics in Urban Studies. This course may be taken by permit only, once a faculty advisor has agreed to be the professor of record, and the scope of work has been approved in advance by the department.
1 Course Unit

URBS 4000 Senior Seminar
Urban Studies senior research project
Fall
Prerequisite: URBS 2000 AND URBS 3000
1 Course Unit

URBS 4010 Urban Studies Honors
Students in the fall Urban Studies Senior Seminar (URBS400) whose papers are exceptional and show promise for publication will be invited to participate in the spring honors seminar. If they choose to participate, honors seminar participants will revise and refine their research/papers with the goal of their work for publication in an academic journal relevant to the topic. The seminar meets periodically during the semester, structured around a set of assignments geared to facilitate the process of revision. Students will be assigned to read each other’s work and meetings take the form of a workshop with students reporting on progress and providing feedback to improve and develop each other’s papers. In addition to completing the revised paper for a grade, participants in the honors seminar are required to present their work to a wider Urban Studies audience in a special session at the end of the semester and to provide documentation that they have submitted their papers for publication. Students who successfully complete the honors seminar will graduate with distinction in the major, noted on their transcripts and in the graduation materials.
Spring
Prerequisite: URBS 4000
1 Course Unit

URBS 4040 Philanthropy and the City
This course will focus on how urban communities are shaped by the nonprofit sector and the billions of philanthropic dollars that fuel their work. By bridging theory and practice, the class explores what dynamics are at play to deliver vital services or programs in healthcare, education, the arts, community development, and other issues. The course will also focus on these important questions: (1) Whose responsibility is the public good? How is that responsibility shared by the public, private, and nonprofit sectors? and (2) Given that responsibility for the public good, which individuals and groups make the decisions about how to serve the public good? How are these decisions made, and who benefits from these decisions? Students will consider these questions in an interdisciplinary context that will bring a historical and philosophical perspective to the examination of the values and institutions that characterize the contemporary philanthropy and the nonprofit sector.
Fall
1 Course Unit
URBS 4050 Religion, Social Justice & Urban Development
Urban development has been influenced by religious conceptions of social and economic justice. Progressive traditions within Judaism, Christianity, Islam, Buddhism, Hinduism, Jainism, Baha’i, Humanism and other religions and systems of moral thought have yielded powerful critiques of oppression and hierarchy as well as alternative economic frameworks for ownership, governance, production, labor, and community. Historical and contemporary case studies from the Americas, Europe, Africa, Asia, and the Middle East will be considered, as we examine the ways in which religious responses to poverty, inequality, and ecological destruction have generated new forms of resistance and development.

Also Offered As: URBS 4050, RELS 4050
1 Course Unit

URBS 4100 Urban Communities and the Arts
Urban Communities and the Arts concerns itself with Arts, Music and Activism in Philadelphia. We investigate the social, economic and cultural fabric from which activism in the arts arises. To do so, we will investigate the histories and artistic reactions to oppression in Philadelphia by drawing on specific examples from various sections of the city and through the media of music, visual art, theater, and dance. The long history of systemic and individual oppression in the US manifests itself in different ways in various urban neighborhoods in Philly and artists of various genres and inclinations participate in activism in many different ways. Examples of artistic and musical responses to the various forms of oppression will be offered and class participants will be asked to bring their own examples to share and analyze. By visiting significant arts practitioners and organizations that provide access to arts education and justice work, participants will have a hands-on experience to unpack the dynamics of artistic production in city life. In addition to art as an outlet for exposing oppression, we will also consider the ways that art and music become markers of the uniqueness of a neighborhood or city, which further complicates the idea of art as a tool for activism. Participants in Urban Communities and the Arts will unpack the role of music and art in defining city or neighborhood cultures by considering a few key sectors that reveal the ways in which cities fail to provide equal access to resources or participate in outright discrimination. At the same time, cities continue to cultivate creative spaces and socio-economic opportunities for economic gain and social understanding through art and music. It is the contradictions that this course will concern itself with and out of our study we will invite course participants to respond creatively. Participants will create either an original work of art, music or intellectual response like a visually interesting research poster as part of a final art/music show. Ultimately students will be asked to reflect back on the role of art in social and political activism to better understand the successes and failures of such movements as they come to define the ethos of city life and its limits.

Not Offered Every Year
Also Offered As: URBS 4100
1 Course Unit

URBS 4120 Building Non-Profits: The Business of a Mission-Driven Organization
This course will cover the basic elements of building and growing a non-profit organization, including the development of the mission and the board; needs assessment, program design, development, and management; financial management, contract compliance and understanding an audit; fundraising, public, foundation, corporate, and individual; communication and marketing; organizational administration (including staff and volunteer selection, management and development); public policy, research and advocacy. Students will make site visits and engage role play, in addition to research and writing.

Fall
1 Course Unit

URBS 4150 Urban Real Estate Markets
Cities evolve over time, comprised of various inputs of different sizes at different stages of urban evolution. However, as cities continue to densify and navigate real estate market cycles, opportunities to redefine the urban context, while promoting the individual brand, become ever more sensitive. Projects are increasingly complex, often involving multiple partnerships among private developers, public agencies, non-profits, and community groups. Today's development professionals need to be well-versed across a variety of disciplines and property types to effectively execute in an urban environment. As an introductory course in real estate development, this course will provide the underpinnings for critical decision-making in markets that change frequently and often unevenly - whether for financing, investing, development, public policy formulation, or asset management/disposition.

Spring
1 Course Unit

URBS 4170 Cities and Sustainability
A good idea is not enough - developing innovative and sustainable projects in cities requires understanding “how to get things done.” Developing projects to promote sustainability in major US cities requires sensitivity to the political and operational context within which cities implement innovative initiatives. Cities and Sustainability uses Philadelphia as a case study to explore the issues confronting modern American metropolises as they look to manage their resources and promote environmentally friendly policies. URBS 417 will introduce students to leading Philadelphia practitioners of sustainability and municipal projects. Students will be given the tools to politically, economically and critically analyze various sustainable policy initiatives across the United States.

Spring
1 Course Unit

URBS 4190 Urban Transportation in Flux
Transportation systems and networks impact everything from the literal shape of American cities to their economic vitality and the well-being of their citizens. Urban Infrastructure in Flux provides students with an over view of the political, business, and policy concerns and processes that inform how Americans get around by foot, transit, and car. URBS 419 explores the use and reuse of legacy infrastructure, and roots innovations such as driverless cars, and scooters, in a historical conflict over the right-of-way (ROW). Students will have the opportunity to meet professionals in the field and engage in primary source research and data analysis.

Fall
1 Course Unit
URBS 4200 Perspectives on Urban Poverty
This course provides an interdisciplinary introduction to 20th century urban poverty, and 20th century urban poverty knowledge. In addition to providing an historical overview of American poverty, the course is primarily concerned with the ways in which historical, cultural, political, racial, social, spatial/geographical, and economic forces have either shaped or been left out of contemporary debates on urban poverty. Of great importance, the course will evaluate competing analytic trends in the social sciences and their respective implications in terms of the question of what can be known about urban poverty in the contexts of social policy and practice, academic research, and the broader social imaginary. We will critically analyze a wide body of literature that theorizes and explains urban poverty. Course readings span the disciplines of sociology, anthropology, urban studies, history, and social welfare. Primacy will be granted to critical analysis and deconstruction of course texts, particularly with regard to the ways in which poverty knowledge creates, sustains, and constricts meaningful channels of action in urban poverty policy and practice interventions.
Fall
Also Offered As: HIST 0812, SOCI 2944
1 Course Unit

URBS 4280 Undergraduate Urban Research Colloquium
A seminar run in conjunction with the Institute for Urban Research at Penn, students will learn about the range of cutting-edge topics in urbanism that Penn faculty are working on and work closely with a faculty member on current research. Students will learn about new topics and methods in interdisciplinary urban research, and get first hand experience collecting urban data under the close supervision of an experienced researcher. Students and faculty jointly will present their findings for discussion. This course is a good introduction for how to frame and conduct an urban research project.
Spring
1 Course Unit

URBS 4300 Quantitative Methods and Tools for Urban Research
This course is an in-depth exploration of quantitative methods and tools fundamental for urban social science research. This course discusses concepts such as significance levels, t-tests, and regression. Additionally, this course provides students, including those with no previous background in R or other programming language, with a basic fluency in R. Concepts will include tabulating data, creating a regression model, and working with spatial data.
Not Offered Every Year
Prerequisite: URBS 2000
1 Course Unit

URBS 4350 The Political Economy of Urban Development
This course provides an introduction to the economic and political theories that have come to shape, for better or for worse, the spatial characteristics of late 20th century urbanism. It is intended to offer a range of analytical approaches to understanding the urban structures and processes that strategies of community-based organizers and urban policy planners seek to influence. The course focuses on postwar U.S. cities (Chicago and other Midwestern/ Northeast rust belt cities in particular), though a number of readings explore these issues in broader contexts. As a way to further understand postwar US urbanism, we will expand our focus briefly to the geopolitical/international scale during the weeks on neoliberalism and microfinance. Urban political economy refers to different theoretical traditions within the social sciences that explain urban development in terms of the relationship between markets, states, and community actors (or, civil society).
Part I of the course covers four different theories of modern political economy. Neoclassical, Keynesian, Marxist, and Neoliberal. Our purpose is to provide a framework for political economic analysis and an historical foundation for understanding postwar transformation. Part II of the course grounds the foundational material of Part I by tracing the economic and political forces that have shaped post-war urban development trends in Northeastern and Midwestern cities (especially Chicago, Detroit, Philadelphia and NY). Particular attention will be given to issues such as race, suburbanization, deindustrialization, welfare state retrenchment, gentrification, and public housing transformation. Part III examines a range of contemporary (post 1970) approaches to urban development, focusing on processes of neoliberalization, neo-clientalism, urban informality, sub prime mortgage lending, and microfinance.
Not Offered Every Year
1 Course Unit

URBS 4400 Introduction to City Planning: History, Theory and Practice
This course introduces students to the history, theories, and contemporary practice of city and regional planning. Readings, lectures, class discussion, and walking tours focus on: - The evolution of planning ideas, strategies, institutions, and powers, and of planning's influence on cities and regions around the world; - The structure and dynamics of urban change; - The ways planners and social and environmental scientists have understood, theorized, and responded to social, economic, political, and environmental conditions and change over time; and - The development of the planning profession and its relationships with allied fields, examining various types of planning, urban development, and design.
Fall
1 Course Unit

URBS 4480 Neighborhood Displacement and Community Power
This course uses the history of black displacement to examine community power and advocacy. It examines the methods of advocacy (e.g. case, class, and legislative) and political action through which community activists can influence social policy development and community and institutional change. The course also analyzes selected strategies and tactics of change and seeks to develop alternative roles in the group advocacy, lobbying, public education and public relations, electoral politics, coalition building, and legal and ethical dilemmas in political action. Case studies of neighborhood displacement serve as central means of examining course topics.
Spring
Also Offered As: AFRC 4480
1 Course Unit
URBS 4500 Urban Redevelopment
This course explores the politics and practice of urban development, examining and contrasting efforts led by government, community-based groups, and the private sector. Topics will include: the historical context, dating to the early 20th century, of contemporary practice; how decisions that shape neighborhood change are made and who makes them; technical aspects of community/economic development; and redevelopment and racial equity. The class will be in seminar format, mixing lecture, discussion, and guest speakers. The course requirements include a mid-term writing assignment, an in-class charrette, and a final presentation.
Spring
1 Course Unit

URBS 4510 The Politics of Housing and Urban Development
This course offers an exploration of how legislative action, government policymaking, and citizen advocacy influence plans for the investment of public capital in distressed urban neighborhoods. Course topics this semester will include an evaluation of the results of City of Philadelphia development policies under the administration of former Mayor Michael A. Nutter, as well as consideration of plans being undertaken by the administration of Mayor James F. Kenney, who took office in January. The course will also include an assessment of a large-scale property acquisition and development strategy being implemented by the Philadelphia Housing Authority in North Philadelphia and a review of recent and current reinvestment proposals for Camden’s waterfront and downtown-area neighborhoods.
Fall
Mutually Exclusive: GAFL 5690
1 Course Unit

URBS 4520 Community Economic Development
Community economic development concerns the revitalization of impoverished communities. As with all things economic, poor and working people may be the subjects or the objects of development. We will utilize case studies from Philadelphia and around the world in an exploration of various models of economic justice and sustainable development. Note: Attendance at the the first class is mandatory (for those already enrolled and for those considering enrollment in the course). Enrolled students who miss the first class must drop the course. Those who were not able to enroll but who attend the first class will be permitted to enroll.
Fall
1 Course Unit

URBS 4540 City Limits: The Impact of Urban Policy
This course assesses the changing role of public policy in American cities. In the past, government often believed that it could direct urban development. New realities - the rise of an informal labor market, global capital and labor flows, the flight of businesses and the middle class to the suburbs - have demonstrated that government must see itself as one - but only one - ‘player’ in a more complete, transactional process of policy making that crosses political boundaries and involves business, organized interest groups, and citizens. This seminar uses a case-study method to study how public policy can make a difference in the revitalization of distressed American cities. The seminar is designed for advanced undergraduates and graduate students. Seminar readings and projects will be organized around three themes: 1) history and vision, 2) data and analysis, and 3) policy and implementation. Students will be divided into project teams assigned to work on current development issues that will be reviewed by both public and private-sector experts. Extensive use will be made of real estate, economic development, and social indicator data to understand the complex forces at work in both large and small cities. Students will learn to access, analyze, and map information; to frame and interpret these data within a regional perspective; and to construct profiles of cities and neighborhoods. Students will study recent urban redevelopment initiatives in the Philadelphia region, including Philadelphia’s Neighborhood Transformations Initiative and New Jersey’s Camden Revitalization plans.
Spring
1 Course Unit

URBS 4570 Globalization & The City: Global Urbanization
In 2008, the UN estimated that the world’s population had become primarily urban, for the first time in history. According to the OECD, by the end of the century, close to 85% of the projected population will live in cities. The transition towards an urban planet is likely to have far-reaching economic, environmental, social, political, and cultural impacts on our species, many of which we cannot yet predict. But what is urbanization? Will it lead to more inequality, exploitation, conflict, resource consumption, and exposure to natural disasters and climate change, or is it an opportunity to move the world in a more sustainable and equitable direction? Taught by Chandan Deuskar and Patricio Zambrano Barragan, this course aims to explore these questions. In the first half of the semester, we will discuss various challenges associated with global urbanization and its impacts. In the second half, we will focus on responses to these challenges. The assignments will allow students to explore some of the most salient debates around global urbanization. By the end of the semester, students will be better able to understand the context for any future academic research, professional work, or business activities in the cities of the ‘developing world’. The course will help provide a foundation for any students considering graduate studies or professional work in the fields of urban planning or international development.
Not Offered Every Year
Also Offered As: SOCI 2945
1 Course Unit
**URBS 4730 The History & Theory of Community Organizing**
"Workers of the world, unite!"--Karl Marx. "Don't mourn. Organize!"--Joe Hill. "Strong people do not need strong leaders."--Ella Baker. "Freedom is a constant struggle."--Angela Davis. We will review the history and theory of critique, resistance, and solidarity, as we consider old and new social movements and freedom struggles around the world (Africa, the Americas, Europe, Asia)--from encampments for indigenous sovereignty of tribal lands to demonstrations by poor and working people seeking "the right to the city," from sit-ins and strikes to occupations and takeovers, from uprisings and insurrections to revolutions and counterrevolutions, from anti-capitalist, anti-colonial, anti-caste, and anti-racist insurgencies to mobilizations for racial and gender justice and solidarity economy; from civil rights, labor rights, student rights, human rights, animal rights, and environmental organizing to movements for peace, democracy, equality, and liberation--and more (based on student interests and commitments). Strategies and techniques will be reviewed. Successes and failures will be registered. Limitations and possibilities will be debated. Source material will be drawn from mainstream and radical traditions within popular praxis and numerous fields, including urban studies, philosophy and critical theory, religion, history, artand culture, anthropology, politics, development economics, social psychology, sociology, organizational development, and law. Note: Attendance at the first class is mandatory (for those already enrolled and for those considering enrollment in the course). Enrolled students who miss the first class must drop the course. Those who were not able to enroll but who attend the first class will be permitted to enroll. Not Offered Every Year Also Offered As: SOCI 2946
1 Course Unit

**URBS 4760 Urban Housing & Community Development Policy in America**
This course examines how public policy influences housing markets and how markets influence public policy. The course reviews the development of housing policy since World War II and how shifts in policy have influenced people's ability to find suitable shelter. Topics include: poverty and affordability, residential segregation / civil rights in housing, the financial crisis of 2008, mortgage foreclosure, affordable housing, and homelessness. The course focuses on the changing roles of different levels of government in housing policy and how the financial sector, the construction industry, and non-governmental organizations influence Americans housing options. Not Offered Every Year
1 Course Unit

**URBS 4800 Liberation and Ownership**
Who is going to own what we all have a part of creating? The history of the Americas, and of all peoples everywhere, is an evolving answer to the question of ownership. Ownership is about: the ties that bind and those that separate; production, participation, and control; the creation of community and the imposition of hierarchies--racial, sexual, and others; dreams of possessing and the burdens of debt and ecological despoliation; dependency and the slave yearning to breathe free. Of all the issues relevant to democracy, oppression, injustice, and inequality, ownership is arguably the most important and least understood. Utilizing a variety of disciplinary perspectives--with a particular emphasis on radical and critical theories of liberation, and by focusing on particular global sites and processes of capitalism, students will assess and refine their views regarding ownership and liberation in light of their own social, political, religious, aesthetic, and ethical commitments. Fall
Also Offered As: AFRC 4800
1 Course Unit

**URBS 4910 The Inclusive City: Participatory Design at Taller Puertorriqueno**
The Inclusive City: Participatory Design at Taller Puertorriqueno seminar will provide students in and beyond the Architecture department with the opportunity to learn from and with Taller Puertorriqueno about community, spacemaking, and memorialization in the built environment. Students will learn about a neighborhood and engage in collaborative participatory design, engaging primary sources in the Taller archives, and working on a collaborative design project. Starting from a general (region-urban) to particular (neighborhood) methodology research on site across several categories, and engaging primary sources in the Taller archives, the students will generate relational territorial cartographies and mappings, allowing them to develop a master architectural plan that includes urban strategies, as well as dynamic processes of community development. As a truly interdisciplinary course, students will utilize design concepts, historical methods, and ethnorracial lenses of analysis to collaborate with Taller Puertorriqueno to develop targeted architectural solutions that align with the organization's programmatic goals. Not Offered Every Year Also Offered As: AFRC 4920, HIST 0874, LALS 4910
1 Course Unit

**URBS 4999 Independent Study**
Specialized topics in Urban Studies. This course may be taken by permit only, once a faculty advisor has agreed to be the professor of record, and the scope of work has been approved in advance by the department. Fall or Spring
1-2 Course Units

**URBS 5050 Women and Urban Struggles in Latin America**
In Latin America, 80% of the population lives in a city. As many of these cities enter the worldwide competition for attracting networks and capitals—and to join the select club of the so-called global cities—many city residents become progressively dispossessed and excluded to the peripheries, where urban services are rarely adequate. Power relations of class, race, and gender play an essential role in how dispossession is orchestrated in the city and experienced by its residents. This course focuses on how women, specifically, find ways to "endure" in the cities of Latin America, exploring different cases of urban struggles led by women. Across the region, many have been pointing out the extraordinary leadership of women in a wide variety of political struggles—from occupying public places, to denouncing the disappearance of loved ones, and to community organizing that helps build necessary infrastructure in their neighborhoods. Women are also at the forefront of environmental and ecological transformations, leading initiatives to green their city through urban agriculture, reforestation, recycling, and compost projects. Addressed through a holistic approach to caring, these initiatives are embedded in broader struggles for housing, security, and wellness, specifically in the urban peripheries. The contingency of these projects is, at their core, multifaceted: they are typically part of women's implication in popular education, artivism, and human rights defense. During this course, we will explore and analyze how the specific urban contexts of Latin America affect women and their political subjectivities and how, through their struggles, they play an essential role in re-shaping their cities. Not Offered Every Year
Also Offered As: GSWS 5050, LALS 5050
1 Course Unit
URBS 5060 Public Environment of Cities: An Introduction to the Urban Landscape
This course will explore the role of public spaces - streets, boulevards, parks and squares - in cities and their social uses. With the University of Pennsylvania campus and the City of Philadelphia serving as our laboratory, we will critically examine the evolution of the movement of corridors, open space and buildings of the urban landscape and their changing uses. Following the flaneur tradition of Baudelaire and Benjamin, we will walk the city to experience and understand the myriad environments and neighborhoods that comprise it.
Not Offered Every Year
1 Course Unit

URBS 5300 GIS Applications in Social Science
This course will introduce students to the principles behind Geographic Information Science and applications of (GIS) in the social sciences. Examples of GIS applications in social services, public health, criminology, real estate, environmental justice, education, history, and urban studies will be used to illustrate how GIS integrates, displays, and facilitates analysis of spatial data through maps and descriptive statistics. Students will learn to create data sets through primary and secondary data collection, map their own data, and create maps to answer research questions. The course will consist of a combination of lecture and lab.
Fall
1 Course Unit

URBS 5320 Mapping Philadelphia
Philadelphia is a city that was mapped before it was built, inhabited before it was developed. Founder William Penn's original concept for the gridded city continues to inform the historical evolution of Philadelphia, even as city planners, architects, artists, and social justice activists work to transform the layers of our built environment. This class will study the city through a variety of archival maps, historical mapping practices, and emergent digital approaches to representing space and time. We will explore public history projects that seek approaches to place-making and place-keeping at neighborhood intersections, share dialogue with social practice artists who produce site-specific works, and visualize civic data through platforms such as OpenDataPhilly. Each student will pursue a final research project resulting in a close study of a particular street or intersection in the city. This is an MLA course open primarily to MLA students, Urban Studies undergraduate seniors, and Urban Studies graduate certificate program students. If you would like to register for the course, please contact Urban Studies Coordinator Vicky Karkov.
Spring
1 Course Unit

URBS 5420 Archiving Jazz: Visuality And Materiality In The Phila Jazz Community 1945-2019
This seminar will be organized around three distinct pathways. First, it will serve as an introduction to Jazz Studies and thus be attentive to the ways that jazz music has sparked an interdisciplinary conversation that is wide-ranging and ongoing. Second, we will be partnering with the African American Museum of Philadelphia to consider jazz within the realm of visual art. In light of efforts to map the "black interior," how have visual artists (e.g. painters, sculptors, filmmakers, and photographers) sought to represent jazz? Third, we will endeavor to develop partnerships with the Philadelphia (and beyond) jazz community, especially as it pertains to creating and sustaining an archive that serves as way to understand jazz as an instrument of placemaking and also as a vehicle for jazz musicians to take ownership of their narratives. The seminar will meet at the African American Museum of Philadelphia and be taught with members of the Museum staff. The course will culminate with a virtual exhibit of visual works and archival materials centering on Philadelphia's jazz community and (if funding is available) a free concert to be held at AAMP. Undergraduates are welcome to register for the course with permission of the instructor.
Not Offered Every Year
Also Offered As: AFRC 5420, ARTH 5190
1 Course Unit

URBS 5440 Public Environmental Humanities
This broadly interdisciplinary course is designed for Graduate and Undergraduate Fellows in the Penn Program in Environmental Humanities (PPEH) who hail from departments across Arts and Sciences as well as other schools at the university. The course is also open to others with permission of the instructors. Work in environmental humanities by necessity spans academic disciplines. By design, it can also address and engage publics beyond traditional academic settings. This seminar, with limited enrollment, explores best practices in public environmental humanities. Students receive close mentoring to develop and execute cross-disciplinary, public engagement projects on the environment. In spring 2018, participants have the opportunity to participate in PPEH's public engagement projects on urban waters and environmental data. These ongoing projects document the variety of uses that Philadelphians make of federal climateand environmental data, in and beyond city government; they also shine light onclimate and environmental challenges our city faces and the kinds of data we need to address them. Working with five community partners across Philadelphia, including the City's Office of Sustainability, students in this course will develop data use stories and surface the specific environmental questions neighborhoods have and the kinds of data they find useful. The course hosts guest speakers and research partners from related public engagement projects across the planet; community, neighborhood, open data, and open science advocates; and project partners in government in the City of Philadelphia and Commonwealth of Pennsylvania. Course assignments include: * 2 short-form essays (course blog posts); * a 12-hour research stay (conducted over multiple visits) with a community course partner to canvas data uses and desires; * authorship of 3 multimedia data stories; * co-organization and participation in a city-wide data storytelling event on May 2, 2018.
Not Offered Every Year
Also Offered As: ANTH 5440, COML 5440, ENVS 5440, GRMN 5440
1 Course Unit
URBS 5460 Global Citizenship
This course examines the possibilities and limitations of conceiving of and realizing citizenship on a global scale. Readings, guest lecturers, and discussions will focus on dilemmas associated with addressing issues that transcend national boundaries. In particular, the course compares global/local dynamics that emerge across different types of improvement efforts focusing on distinctive institutions and social domains, including: educational development; human rights; humanitarian aid; free trade; micro-finance initiatives; and the global environmental movement. The course has two objectives: to explore research and theoretical work related to global citizenship, social engagement, and international development; and to discuss ethical and practical issues that emerge in the local contexts where development initiatives are implemented. Spring
Also Offered As: ANTH 5460, EDUC 5431
1 Course Unit

URBS 5470 Anthropology and Education
An introduction to the intent, approach, and contribution of anthropology to the study of socialization and schooling in cross-cultural perspective. Education is examined in traditional, colonial, and complex industrial societies. Fall, Spring, and Summer Terms
Also Offered As: ANTH 5470, EDUC 5495
1 Course Unit

URBS 5610 History of the Line
This seminar offers a way of expanding our notion of “graphic art,” from concentrated studies of drawings and print to encounters with dance, design, video art, and urban planning. Open to graduate and undergraduate students. Not Offered Every Year
Also Offered As: ARTH 5612
1 Course Unit

URBS 5670 Urban Sociology
This course will examine the urban structures and processes which characterize the social and cultural milieu of the contemporary American city. Specific course topics will include the social organization of local urban subcultures and neighborhood communities, the cultural consequences of gentrification and racial segregation, the reputation of cities in the public imagination, and the commodification of the urban landscape. Also Offered As: SOCI 5670
1 Course Unit

URBS 5999 Independent Study
Specialized topics in Urban Studies. This course may be taken by permit only, once a faculty advisor has agreed to be the professor of record, and the scope of work has been approved in advance by the department. Fall or Spring
1 Course Unit

URBS 6080 Urban Studies Proseminar
Open to PhD students, this scholar-oriented seminar explores how academic researchers from different disciplines define researchable questions, craft research designs, and contribute to knowledge through an examination of important and/or recently published books and monographs with an urban focus. Required of all doctoral students enrolled in the Urban Studies Graduate Certificate Program. Enrollment is limited to 15 students. Other doctoral students may enroll on a space available basis. Course requirements include completion of a major research paper on a topic selected in consultation with the instructor. Spring
1 Course Unit

URBS 6604 Neoliberalism and the City
Over fifty percent of the worlds population now lives in cities. Neoliberalism-the ideology and accompanying policies and practices that champion the shifting of political decision making from the public sector to the private sector - has been widely recognized as having shown dramatic growth worldwide since the 1970s. It has also been widely regarded as a product of globalization. This course traces the history of neo-liberalism in global context with particular attention to neoliberalism's relationship to cities, and exam the role that urban growth has played in spurring neoliberal policies and practices. It asks how policy makers, voters, and private interest worldwide have responded to the growth of urban poverty and slums, challenges withing urban public education, unequal resource distribution, environmental pressures experienced within urban sanitation and waste disposal systems, and increased demands for municipal services like water, electricity, and transport infrastructers, and examined the rise of public-private partnerships, gated communities, initiatives to privatized education and municipal services, and efforts to relocate slum-dwellers and beautify cities as explicit strategies for attracting "global capital". The course also asks how the recent rise of neoliberal policies and practices differs from earlier market-driven and private sector led forms of political governance. The British and Dutch East India Companies are two famous examples of joint stock companies that assumed administrative and political roles over their colonies. How did the rise of these colonial relationships differ from current neoliberal shifts. Readings will draw heavily from ethnographic and urban studies, scholarship on South Asia, as well as Latin America, South Africa, the Middle East, Europe, and North America, exploring what each of these specific contexts has to teach us more generally about the relationship between urbanization, global capitalism, public and private sectors, and political processes and decision making. Not Offered Every Year
Also Offered As: SAST 6604
1 Course Unit

URBS 6999 Independent Study
Specialized topics in Urban Studies. This course may be taken by permit only, once a faculty advisor has agreed to be the professor of record, and the scope of work has been approved in advance by the department. Fall or Spring
1 Course Unit

URBS 7060 Culture/Power/Subjectivities
This doctoral level course will introduce students to a conceptual language and theoretical tools for analyzing and explaining the complex intersection of racialized, ethnic, gendered, sexual, and classed differences and asymmetrical social relations. The students will examine critically the interrelationships between culture, power, and subjectivity through a close reading of classical and contemporary social theory. Emphasis will be given to assessing the power of various theories for conceptualizing and explaining mechanisms of social stratification as well as the basis of social order and processes of social change. Not Offered Every Year
Also Offered As: ANTH 7040, EDUC 8405
1 Course Unit
URBS 7999 Independent Study
Specialized topics in Urban Studies. This course may be taken by permit only, once a faculty advisor has agreed to be the professor of record, and the scope of work has been approved in advance by the department. Not Offered Every Year
Fall or Spring
1 Course Unit

URBS 8999 Independent Study
Specialized topics in Urban Studies. This course may be taken by permit only, once a faculty advisor has agreed to be the professor of record, and the scope of work has been approved in advance by the department. Not Offered Every Year
Fall or Spring
1 Course Unit

URBS 9005 Finding Voice: Perspectives on Race, Class and Gender
This writing workshop explores the influence of identity, primarily race, class, gender, and sexuality, on the ways we convey our personal truths to the world. Not Offered Every Year
Also Offered As: AFRC 9005, ENGL 9005, GSWS 9005
1 Course Unit

URBS 9006 Learning from James Baldwin
This class will examine the intellectual legacy that James Baldwin left to present-day writers such as Toni Morrison, Charles Johnson, Ta-Nehisi Coates, Thulani Davis, Caryl Phillips, and others. We will spend time reading and discussing Baldwin’s novels, short stories, plays and essays, and students will research subjects of their own choosing about Baldwin’s life and art. Also Offered As: AFRC 9006, ENGL 9006, GSWS 9006
1 Course Unit

URBS 9013 Memoir Writing
This memoir workshop will shine light on the human experience as viewed through your personal lens. We’ll see how memoir can illuminate larger cultural themes - from the inhumanity of war, to racism, misogyny, and economic inequality - as viewed through lived experiences. Also Offered As: ENGL 9013, GSWS 9013
1 Course Unit

URBS 9016 Being Human: A Personal Approach to Race, Class & Gender
In this workshop, we will address the ways race, class, and gender impact our lives, our work, and our culture. As a class, we will create connection and community by practicing deep listening, daily writing, deep reading, and the sharing of ideas and observations. Not Offered Every Year
Also Offered As: AFRC 9016, ENGL 9016, GSWS 9016
1 Course Unit

URBS 9017 Considering Race, Class and Punishment in the American Prison System
This graduate writing seminar will examine the origins, myths, and realities of the complex industry that currently imprisons more than 2,300,000 men, women and teens in America’s city, county, state and federal prisons - the largest prison population and highest per-capita rate of imprisonment in the world. Not Offered Every Year
Also Offered As: AFRC 9017, ENGL 9017, GSWS 9017
1 Course Unit

URDU 0100 Beginning Hindi-Urdu Part I
In this course, students learn the fundamentals of Hindi-Urdu through hands-on practice using the language. Classes are interactive and there is a strong emphasis on the acquisition of speaking skills with attention to reading and writing to support this goal. Topics include: introductions; talking about yourself, your friends and your family; describing physical spaces such as the home and the city; daily life and daily routines; and likes, needs, wants, and interests. Students will also engage with level-appropriate authentic materials from the Hindi-Urdu speaking world. Beginning Hindi-Urdu I assumes no previous knowledge of Hindi-Urdu. Students with listening abilities but no speaking abilities are also welcome to enroll. The course teaches a single core spoken language style that is common to both Hindi and Urdu. All written materials are provided in both scripts, and students learn one script of their choosing. Fall
Also Offered As: HIND 0100
Mutually Exclusive: HIND 5100
1 Course Unit

URDU 0200 Beginning Hindi-Urdu Part II
Beginning Hindi-Urdu II is the second part of the first-year Hindi-Urdu sequence. In this course, students continue to learn the fundamentals of Hindi-Urdu through hands-on practice using the language. Classes are interactive and there is a strong emphasis on the acquisition of speaking skills; students also continue to improve literacy skills in the script of their choice (Hindi or Urdu – all materials are provided in both scripts). New topics include but are not limited to: future plans, recounting past events, traveling in South Asia, and navigating shopping and travel-related situations. Students will also engage with level-appropriate authentic materials from the Hindi-Urdu speaking world. After completing this course, students will be able to interact successfully with native speakers in a variety of everyday communication contexts. Beginning Hindi-Urdu II assumes one prior semester of classroom study or the equivalent proficiency. Students with some speaking ability but no reading-writing abilities may place into the course but should contact the instructor a few weeks before the beginning of the semester to ensure that this is the appropriate level. Spring
Also Offered As: HIND 0200
Mutually Exclusive: HIND 5200, URDU 5200
Prerequisite: HIND 0100 OR HIND 5100 OR URDU 0100 OR URDU 5100
1 Course Unit

URDU 0300 Intermediate Urdu Part I
This course allows students to continue improving their Urdu proficiency while also gaining a broad foundational understanding of Urdu society and culture throughout South Asia. The course provides students the tools needed to handle a variety of authentic written and spoken Urdu sources including film, music, media reports, folk tales, and simple literature. Student will also continue to increase their speaking and writing proficiency to be able to discuss a broad range of concrete, real-world topics. The course is designed for students with one year previous Urdu or Hindi study or the equivalent proficiency. Students with speaking ability in Urdu or Hindi but without reading/writing skills are encouraged to contact the instructor for placement. Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: HIND 0100
1 Course Unit

URDU 0301 Intermediate Urdu Part II
This course allows students to continue improving their Urdu proficiency while also gaining a broad foundational understanding of Urdu society and culture throughout South Asia. The course provides students the tools needed to handle a variety of authentic written and spoken Urdu sources including film, music, media reports, folk tales, and simple literature. Student will also continue to increase their speaking and writing proficiency to be able to discuss a broad range of concrete, real-world topics. The course is designed for students with one year previous Urdu or Hindi study or the equivalent proficiency. Students with speaking ability in Urdu or Hindi but without reading/writing skills are encouraged to contact the instructor for placement. Two Term Class, Student must enter first term; credit given after both terms are complete
Prerequisite: HIND 0100
1 Course Unit
URDU 0400 Intermediate Urdu Part II
This continuing second-year course allows students to continue improving their Urdu proficiency while also gaining a broad foundational understanding of Urdu society and culture throughout South Asia. The course provides students the tools needed to handle a variety of authentic written and spoken Urdu sources including film, music, media reports, folk tales, and simple literature. Students will also continue to increase their speaking and writing proficiency to be able to discuss a broad range of concrete, real-world topics. The course is designed for students with one year of previous Urdu or Hindi study or the equivalent proficiency.

Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

URDU 1500 Advanced Urdu: Language and Literature
This course is designed to give in-depth exposure to some of the finest works of classical and modern Urdu prose and poetry along with the historical and socio-political trends they represent. Figures covered range from Ghalib (b.1797) to Faiz, Fehmida Riaz, and post 9/11 Urdu prose and poetry. The course is open to both undergraduates and graduate students, subject to having intermediate level proficiency. The course is repeatable, and the content changes every semester. Multi-media content such as music, videos, blogs etc. will be actively incorporated. Every effort will be made to accommodate individual interests. Students are encouraged to contact the instructor with any questions, or if they are unsure about eligibility.

Fall
Prerequisite: URDU 0300 OR URDU 5300
1 Course Unit

URDU 5100 Beginning Hindi-Urdu Part I
This introductory course core proficiency in Hindi-Urdu up to the intermediate level. It is designed for students with little or no prior exposure to Hindi or Urdu. The course covers all four language skills (speaking, listening, reading, and writing) and all three models of communication (interpersonal, presentational, interpretive). Students will develop literacy skills in the primary script of their choice (Hindi or Urdu script). All written materials will be provided in both scripts. All meetings are interactive and students acquire the language by using it in realistic contexts. Culture is embedded in the activities and is also introduced through various authentic materials.

Fall
Also Offered As: HIND 5100
Mutually Exclusive: HIND 0100
1 Course Unit

URDU 5200 Beginning Hindi-Urdu Part II
This introductory course core proficiency in Hindi-Urdu up to the intermediate level. It is designed for students with little or no prior exposure to Hindi or Urdu. The course covers all four language skills (speaking, listening, reading, and writing) and all three models of communication (interpersonal, presentational, interpretive). Students will develop literacy skills in the primary script of their choice (Hindi or Urdu script). All written materials will be provided in both scripts. All meetings are interactive and students acquire the language by using it in realistic contexts. Culture is embedded in the activities and is also introduced through various authentic materials.

Spring
Also Offered As: HIND 5200
Mutually Exclusive: HIND 0200
1 Course Unit

URDU 5300 Intermediate Urdu Part I
This course allows students to continue improving their Urdu proficiency while also gaining a broad foundational understanding of Urdu society and culture throughout South Asia. The course provides students the tools needed to handle a variety of authentic written and spoken Urdu sources including film, music, media reports, folk tales, and simple literature. Student will also continue to increase their speaking and writing proficiency to be able to discuss a broad range of concrete, real-world topics. The course is designed for students with one year previous Urdu or Hindi study or the equivalent proficiency. Students with speaking ability in Urdu or Hindi but without reading/writing skills are encouraged to contact the instructor for placement.

Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

URDU 5400 Intermediate Urdu Part II
This continuing second-year course allows students to continue improving their Urdu proficiency while also gaining a broad foundational understanding of Urdu society and culture throughout South Asia. The course provides students the tools needed to handle a variety of authentic written and spoken Urdu sources including film, music, media reports, folk tales, and simple literature. Students will also continue to increase their speaking and writing proficiency to be able to discuss a broad range of concrete, real-world topics. The course is designed for students with one year of previous Urdu or Hindi study or the equivalent proficiency.

Two Term Class, Student must enter first term; credit given after both terms are complete
1 Course Unit

URDU 5500 Advanced Urdu: Language and Literature
This course is designed to give in-depth exposure to some of the finest works of classical and modern Urdu prose and poetry along with the historical and socio-political trends they represent. Figures covered range from Ghalib (b.1797) to Faiz, Fehmida Riaz, and post 9/11 Urdu prose and poetry. The course is open to both undergraduates and graduate students, subject to having intermediate level proficiency. The course is repeatable, and the content changes every semester. Multi-media content such as music, videos, blogs etc. will be actively incorporated. Every effort will be made to accommodate individual interests. Students are encouraged to contact the instructor with any questions, or if they are unsure about eligibility.

Fall
1 Course Unit
Veterinary & Biomedical Science (VBMS)

VBMS 6020 Histological Basis of Pathology
This course covers microscopic anatomy of tissues and organ systems of mammals important in veterinary medicine, e.g. dog, cat, mouse, rat, horse and cow. The central thread in the course is light microscopic structure as observed in standard stains, but this picture is amplified by electron microscopy, special stains and histochemistry. The material is presented, through lecture and laboratory, from the point of view of experimental biology, cell function, and disease. The course reveals that the structure or histology of the tissues of an animals body is not an arbitrary assemblage of cells but rather the structural expression of the diverse cell types that interact to carry out the functions of the body. Thus, through the microscopic study of the structure of tissues (histology) the functions of the tissues of the body may be inferred.
5 Credit Hours

VBMS 6030 Developmental Biology
The course examines classic and modern concepts in embryonic development as they relate to veterinary medicine. The lectures are designed to cover recent advances in the field with special emphasis on stem cells, specification of cell fate, manipulation of the genome and organogenesis. Examples of pathologies associated with aberrant development of major organ systems will be presented and discussed in the context of veterinary medicine.
3 Credit Hours

VBMS 6040 Introduction to the Neurosciences
This is an introductory course to the neurosciences and assumes a basic background in anatomy, cell biology, histology and biochemistry. At the cell/molecular level the course covers neurocytology, membrane bioelectrical events and their channel protein basis, neurotransmitters and their actions at the synapse. It also covers aspects of neurochemistry, neuropharmacology and focuses on neuroanatomy and function of neural systems. The latter include the somatic and autonomic components of the peripheral nervous system, the spinal cord and reflexes, primary sensory systems, motor pathways and limbic-vesical systems of the brain.
5 Credit Hours

VBMS 6050 Cellular and Biochemical Foundation of Disease
This course teaches the principles of biological chemistry as applied to metabolic relationships underlying cellular and physiological processes and the molecular mechanisms of disease. The first third of the course covers the basic biochemistry of amino acids, proteins (e.g., enzymes), nucleic acids, vitamins and coenzymes, carbohydrates and lipids. Normal as well as disease-related pathways for the processing of these biological materials are discussed. Species differences in metabolic pathways and clinical relevance are pointed out, wherever pertinent. The latter part of the course includes discussions of molecular genetics, and the physiological-biochemical functioning and regulation of cellular structures, tissues and organs: membranes, endocrine glands and hormones, blood, bone and connective tissue, liver, muscle, etc. Diseases specific to these structures are discussed in the context of veterinary medicine. Also included are such topics as prostaglandins, biochemistry of growth regulation, vision, taste, cell cycle and cancer. Laboratories include clinically relevant problem-based and library research projects that relate biochemistry to veterinary medicine, and identification of reproductive and endocrine conditions by diagnostic problem solving using student generated biochemical data.
10 Credit Hours

VBMS 6060 Animal Physiology
A strong training in animal physiology is crucial for veterinary education. Extensive and profound knowledge of normal processes that maintain animal life and enable animals to cope with a changing environment provides the crucial foundation for the understanding of breakdowns in homeostasis and disease states, and of key principles underlying diagnostics and treatment of animal diseases. The course provides a brief review of relevant molecular and cell biology concepts that enhance the comprehension of physiology (including metabolism, cell membrane permeability, bioelectric potentials, active transport, etc.) and a detailed study of the functional processes in the circulatory, respiratory, digestive, endocrine, muscular, renal and reproductive systems. This course primarily focuses on normal physiologic mechanisms in mammals and includes comparative physiology material pertinent to other vertebrates of veterinary interest. Furthermore, pathophysiological alterations of normal function and physiological principles of diagnostics and therapy are amply illustrated by clinical case examples.
10 Credit Hours

VBMS 6070 Pharmacology & Toxicology
The major objective of this course is to help veterinary students learn the principles of pharmacokinetics, the mechanisms of drug action, the sites at which drugs act, and how drugs may interact with, and alter the activity of, various organ systems. The material will also include properties, mechanisms of action, and biological effects of various chemical substances (drugs, environmental pollutants, toxins of plant origin, etc.) that interfere with normal cell and organ function. The course is intended to deal chiefly with basic Pharmacology and Toxicology rather than clinical therapeutics, although some therapeutics and clinical material will be discussed in relevant areas.
10 Credit Hours

Veterinary Clinical Studies - Medicine Courses (VMED)

VMED 6000 Introduction to Clinical Veterinary Medicine I
This course provides an introduction to clinical veterinary medicine for first year veterinary students, and includes sessions on management, restraint and physical examination of small animal patients. Laboratory sessions provide the opportunity for practicing physical examination and restraint of animals in supervised small groups. This course will be graded P/F.
Two Term Class, Student must enter first term; credit given after both terms are complete
2 Credit Hours

VMED 6010 Introduction to Clinical Veterinary Medicine II
Using a case-based organ/system approach, this course provides an introduction to the practice of clinical veterinary medicine in companion animals, and provides an introduction to special species companion animal, laboratory animal, and captive and wild animal veterinary practice. The course also introduces the concept of evidence-based medicine. Laboratory sessions provide exposure to auscultation, behavior abnormalities, clinical rounds discussion, grief management, nursing techniques and special species companion animal and laboratory animal examination.
4 Credit Hours
VMED 6020 Introduction to Clinical Veterinary Medicine III
This course provides an introduction to equine and production animal veterinary medicine for first year veterinary students, and includes sessions on management, restraint and physical examination of large animal patients. Laboratory sessions provide the opportunity for practicing physical examination and diagnostic procedures on horses and production animal species.
4 Credit Hours

VMED 6030 Introduction to Radiology
This lecture course is designed to provide the fundamental principles of clinical imaging in veterinary medicine as they pertain to physics and instrumentation. The emphasis is on radiography, but principles of ultrasonography, computerized tomography, magnetic resonance imaging and nuclear medicine are also discussed. Topics include production of diagnostic images, radiation safety, differences between the various imaging modalities and some features of normal radiographic anatomy of small animals (thorax and abdomen). The course includes a two-hour mandatory laboratory, focusing on case presentations with emphasis on thoracic and abdominal radiography.
2 Credit Hours

VMED 6040 Veterinary Medical Genetics
The objective of this course is to provide a background for understanding the underlying mechanisms, distribution, and control of genetic disease in domestic animals. Emphasis will be on concepts and information useful on a clinical level. Problem-based learning exercises integrate the concepts presented in the course.
2 Credit Hours

VMED 6050 Nutrition
Fundamental principles of nutrition are the background of recommendations for feeding various classes of animals. Types of foodstuffs and their nutrient composition are evaluated in relation to nutrient requirements, voluntary intake and food preferences of domestic species. Feeding programs for nutritional management of animal classes commonly encountered in veterinary medicine are discussed, and examples of clinical nutrition applications are presented.
3 Credit Hours

VMED 6060 Principles of Epidemiology
The fundamentals of descriptive, analytic, and clinical epidemiology will be covered as they relate to both population and individual animal problems in veterinary medicine. The major aims of the course are to provide an analytic basis for clinical decision making and the ability to interpret the veterinary literature for application in a practice setting. These aims will be accomplished by using examples to illustrate the epidemiologic approach to studying infectious and non-infectious disease, and in clinical decision-making.
2 Credit Hours

VMED 6070 Veterinary Public Health
This course examines the nature and scope of animal-human interactions with emphasis on the consequences of this relationship from an epidemiologic viewpoint. Included are the zoonotic diseases, those naturally transmitted from animals to man, and the role of pets in society. The traditional involvement of veterinarians in prevention and control of food borne diseases and in public health practice will also be discussed.
3 Credit Hours

VMED 6080 Introduction to Poultry, Swine, and Dairy Medicine
This course will cover clinical problem solving for disease diagnosis, treatment and control. In addition, current topics of interest in food animal medicine will be discussed. These include food safety, regulatory medicine, environmental impact, welfare issues and opportunities for food animal veterinarians. Class time will be used for both lecture and discussion. All material for quizzes will be presented in class. The grade for the course will be based on weekly quizzes.
2 Credit Hours

VMED 6090 Infectious & Metabolic Diseases
A core course of lectures on infectious and metabolic diseases of domestic animals. The topics in this course include: Rabies, Lymphosarcoma, Blue Tongue, Parturient Paresis, Listeriosis, Anthrax, Botulism, Leptospirosis, Canine Distemper, and many other polysystemic diseases.
7 Credit Hours

VMED 6100 Clinical Reproduction
Course covers reproduction in large and small domestic species, and includes the estrous cycle, heat detection, pregnancy, pregnancy loss, obstetrics, parturition, the postpartum period, male and female reproductive physiology, behavior, breeding soundness examination, and fertility problems. A two-hour problem solving session with the class divided into small groups will be held to discuss clinical cases. Grades will be based on a mid-term and a cumulative final examination.
5 Credit Hours

VMED 6110 Veterinary Medicine/Surgery I
Principles of diagnosis, including radiology, and medical and surgical management of infectious and noninfectious diseases of the head, neck and chest, including diseases of the oral structures, eye, ear, nose and throat, esophagus, lung, heart, pleura and chest wall. Course material is broken down in 4 sections covering ophthalmology, cardiology, diseases of the head and neck and non-cardiac intrathoracic diseases. An examination covering the lecture material is administered after each section.
9 Credit Hours

VMED 6120 Veterinary Medicine/Surgery II
This portion of the Medicine/Surgery core course deals with the pathophysiology, clinical features, and medical and surgical treatment of hematologic, endocrine, nephrologic, urogenital and oncologic disorders.
9 Credit Hours

VMED 6130 Veterinary Medicine/Surgery III
This core course covers the important medical and surgical diseases of the gastrointestinal system and the medical aspects of neurological diseases. Specific disease topics will include noninfectious gastrointestinal disorders; hepatobiliary, pancreatic and splenic disorders; and central and peripheral neurological diseases of domestic animals.
8 Credit Hours

VMED 6150 Dermatology
A core course of lectures discussing the infectious, ectoparasitic, allergic, autoimmune and metabolic cutaneous disorders of small animals, exotics and horses. Diseases are discussed with particular emphasis on pathogenesis, clinical recognition and treatment. Methods of diagnosis also are stressed so that the student is prepared to recognize and treat the various dermatoses met in the clinical year.
3 Credit Hours
VMED 6160 Clinical Animal Behavior
Behavior problems are among the most frequent reasons for surrender and euthanasia of pets. In this course we will discuss the most common behavior problems of dogs and cats, with an emphasis on diagnosis and treatment using both behavior modification and drug therapy. Prognosis and safety issues will also be discussed. Attention will be paid to the thought process used in working up and/or preventing behavioral disorders.
1 Credit Hour

VMED 6170 Veterinary Ethical Issues
The course goal is to enhance students overall ethical literacy. The course involves a combination of lectures on ethical theory and methodology, and group discussions of ethical case studies drawn from various branches of veterinary practice. The course will be graded as Pass/Fail and full attendance by all students is required unless otherwise pre-authorized by the course organizer.
1 Credit Hour

VMED 6180A Introduction to Clinical Veterinary Medicine IV
This year-long course for second year veterinary students is designed as a reinforcement of the first year introduction to clinical veterinary medicine series (VMED 6000, VMED 6010, 6020) and as a transition to the clinical year rotations. The emphasis is on practical experiences in our hospitals that will increase your clinical and technical skills as you familiarize yourselves with the hospitals facilities, policies and operations. The course will include approximately 11 hours of lecture; 32 hours of small-group practical clinical sessions per student (NBC) and 29 hours of small-group practical clinical sessions per student (MJR-VHUP). This will be a graded course - A, B, C or F.
Two Term Class, Student must enter first term; credit given after both terms are complete
2 Credit Hours

VMED 6180B Introduction to Clinical Veterinary Medicine IV
This year-long course for second year veterinary students is designed as a reinforcement of the first year introduction to clinical veterinary medicine series (VMED 6000, VMED 6010, 6020) and as a transition to the clinical year rotations. The emphasis is on practical experiences in our hospitals that will increase your clinical and technical skills as you familiarize yourselves with the hospitals facilities, policies and operations. The course will include approximately 11 hours of lecture; 32 hours of small-group practical clinical sessions per student (NBC) and 29 hours of small-group practical clinical sessions per student (MJR-VHUP). This will be a graded course - A, B, C or F.
Two Term Class, Student must enter first term; credit given after both terms are complete
2 Credit Hours

VMED 6190 Emerging and Exotic Diseases
This course will be offered on the internet through the Association of American Veterinary Medical Colleges website. The Center for Food Security and Public Health at Iowa State University maintains the course and operates the learning management system. The course is part of a larger effort by US Department of Agriculture to improve awareness of and preparedness for foreign animal disease incursions among veterinarians and veterinary students. The ability of a veterinarian to suspect and assist in the diagnosis of a foreign animal disease in livestock or companion animals is crucial to safeguarding Americas animals and ag ricultural sector and to protecting public health. In addition, the course also aims to convey a more comprehensive understanding of the role of accredited veterinarians in world agriculture. Parts of this course will be required training for subsequent USDA veterinary accreditation of new graduates. There will be a mandatory one hour session to introduce the course site, objectives, materials and requirements. The course site comprises six overview topics; four accreditation modules; nineteen case scenarios and twenty infectious disease inquiries. There are short tests associated with the various sections and students are required to score at least an 80% on each test. Students can take the test multiple times if needed to achieve that score. In addition to the course per se, there are numerous links to supplementary materials.
3 Credit Hours

VMED 6200 Introduction to Clinical Veterinary Medicine V
This course will comprise 8 hours of lecture/classroom exercises and discussion per student in addition to a series of online tutorials. Two of the 8 hours of lecture time will be devoted to orientation and trouble-shooting sessions to help students access and complete the online tutorials. Students are expected to complete the online tutorials outside of the classroom setting. The online tutorials will demonstrate how to navigate the hospital computer systems at both campuses so that students will be familiar with them prior to entering the clinics in their fourth year. The material presented in this course will build upon principles learned in previous ICVM courses, specifically by providing further instruction on and practice of written and verbal communication skills and by building upon the orientation to the teaching hospitals provided in ICVM IV. After completing this course, students should be able to: - Describe and use key aspects of client communication skills that are essential in the veterinary medical setting. - Recognize and interpret common aspects of non verbal communication understand how their non verbal communication can be used to improve their encounters with clients. - Understand and demonstrate the basic elements of a written discharge summary. - Navigate and utilize the electronic hospital systems on both campuses.
Fall
2 Credit Hours

VMED 6300 Foundational Toolkit I
The Foundational Toolkit I course provides the background material necessary to understand upcoming blocks in the first year of the veterinary curriculum. Content includes the role of veterinarians in society and One Health, fundamental concepts in population/production medicine and its interaction with the environment and human health, fundamental concepts in biochemistry, cell biology, developmental biology, histology, and molecular biology, basic anatomical principles, scientific and medical terminology, and foundations in the basis of image formation and interpretation of radiography and ultrasonography.
6-9 Credit Hours
VMED 6301 Foundational Toolkit II
The Foundational Toolkit II course provides background material necessary to understand the Spring semester blocks. Content builds on the Foundational Toolkit I and includes additional fundamental concepts in biochemistry, cell biology, and molecular biology and an introduction to cross-sectional imaging principles.
3-7 Credit Hours

VMED 6302 Capstone I
The Capstone I course offers a period at the end of the first semester for students to apply and integrate the information they have learned in the preceding blocks and courses. The assessments at the end of each block will focus largely on recall of information, assessments during the Capstone will emphasize higher-order thinking skills and real-world applications. Students will be involved in integrated case scenarios, reflective journaling of elective experience that related to curriculum, review for NAVLE, interdisciplinary evidence based medicine discussions, and critical thinking assessments. The Capstone period will also permit time for remediation of students who have been identified as requiring intervention.
1-4 Credit Hours

VMED 6303 Capstone II
The Capstone II course offers a period at the end of the second semester for students to apply and integrate the information they have learned in the preceding blocks and courses. While the assessments at the end of each block will focus largely on recall of information, assessments during the Capstone will emphasize higher-order thinking skills and real-world applications. Students will be involved in integrated case scenarios, reflective journaling of elective experience that related to curriculum, review for NAVLE, interdisciplinary evidence based medicine discussions, and critical thinking assessments. The Capstone period will also permit time for remediation of students who have been identified as requiring intervention.
3-5 Credit Hours

VMED 6304 The Hippiatrika: Becoming a Veterinary Clinician I
Hippiatrika I is the first in a series of four courses that take place in the fall and spring of the first two years of the curriculum. Named after one of the earliest collections of writings on veterinary medicine from the 5th and 6th century AD, the Hippiatrika series emphasizes the art and practice of clinical veterinary medicine, focusing on hands-on clinical skills as well as material associated with population medicine, One Health, communication, collaboration, professionalism, veterinary medical ethics, and regulation and finance. When applicable, course material is horizontally integrated with concurrent blocks.
5-7 Credit Hours

VMED 6305 The Hippiatrika: Becoming a Veterinary Clinician II
Hippiatrika II is the second in a series of four courses that take place in the fall and spring of the first two years of the curriculum. Named after one of the earliest collections of writings on veterinary medicine from the 5th and 6th century AD, the Hippiatrika series emphasizes the art and practice of clinical veterinary medicine, focusing on hands-on clinical skills as well as material associated with population medicine, One Health, communication, collaboration, professionalism, veterinary medical ethics, and regulation and finance. When applicable, course material is horizontally integrated with concurrent blocks.
5-7 Credit Hours

VMED 6306 Of Clouds and Clocks: Becoming a Veterinary Scientist I
Of Clouds and Clocks I is the first in a series of courses spanning the first two years of the core veterinary curriculum, named in homage to Karl Popperâs philosophy that the world is divided into mechanisms that are predictable (âclocksâ) and ones that are unpredictable (âcloudsâ). This analogy sums up the difficulties of applying science to complex organisms with complex diseases, which is a vital skill for every clinician-scientist. This semester will focus on the role of basic science in the practice of veterinary medicine and introduces basic concepts of clinical epidemiology. Lectures and group-based learning allow students to integrate science with clinical concepts from parallel courses.
2-3 Credit Hours

VMED 6307 Of Clouds and Clocks: Becoming a Veterinary Scientist II
Of Clouds and Clocks II is the second in a series of courses spanning the first two years of the core veterinary curriculum, named in homage to Karl Popperâs philosophy that the world is divided into mechanisms that are predictable (âclocksâ) and ones that are unpredictable (âcloudsâ). This analogy sums up the difficulties of applying science to complex organisms with complex diseases, which is a vital skill for every clinician-scientist. This semester will focus on fundamental statistics, the hierarchy of evidence and design and assessment of clinical studies. Lectures and group-based learning allow students to integrate science with clinical concepts from parallel courses.
2-5 Credit Hours

VMED 6308 Support & Movement I
The Support and Movement block in year 1 of the core curriculum introduces the musculoskeletal system from a comparative perspective and will cover the normal development, gross and micro anatomy, physiology and function of bones and muscles, including their cellular, extracellular and molecular components. It will impart foundational biological and clinical knowledge about the musculoskeletal system and ask students to apply this knowledge. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
6-10 Credit Hours

VMED 6309 Circulation & Respiration I
The Circulation and Respiration block in year 1 of the core curriculum will cover the normal development, gross and micro anatomy, physiology, function, and clinical assessment of the cardiovascular and respiratory systems. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
5-7 Credit Hours

VMED 6310 Reproduction & Development I
The Reproduction and Development block in year 1 of the core curriculum will cover the normal development, gross and micro anatomy, physiology, function, and clinical assessment of the reproductive system. Emphasis is placed on how structure lends to reproductive function, mechanisms of sexual development, the reproductive endocrine axis, reproductive cyclicity, sexual behavior, genetics, the processes of fertilization through parturition, and lactation. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
4-7 Credit Hours
VMED 6311 Defense & Barriers I
The Defense and Barriers block in year 1 of the core curriculum will cover the foundational understanding of the immune system, its innate and adaptive functions, its cellular and molecular participants and its sites of activity, including the primary, secondary organs as well as the barrier and mucosal organs (e.g. skin and gut). Students will also be introduced to the microbes that interact with the immune system, as well as the biological basis for the ability of microbes to induce and/or evade an immune response. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
4-7 Credit Hours

VMED 6312 Digestion & Metabolism I
The Digestion and Metabolism block in year 1 of the core curriculum will offer students an understanding of how the body processes nutrients, and how they are utilized to create energy. It will cover the normal development, gross and micro anatomy, physiology, function, and clinical assessment of the digestive tract for the domestic and exotic species as well as core nutritional concepts including nutrient requirements, feeds and feeding, macronutrient and micronutrient metabolism, and fundamentals of ration formulation. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
4-7 Credit Hours

VMED 6313 Elimination & Detoxification I
The Elimination and Detoxification block in year 1 of the core curriculum focuses on the detoxification and elimination roles of the hepatobiliary and urinary systems. It will cover the normal development, gross and micro anatomy, physiology, function, and clinical assessment of these systems. Topics covered include hepatic processing and removal of toxins, the urea cycle, renal mechanisms of fluid homeostasis, and the role of the kidney in acid-base balance. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
2-5 Credit Hours

VMED 6314 Cognition, Senses & Responses I
The Cognition, Senses and Responses block in year 1 of the core curriculum will examine the central and peripheral nervous systems, incorporating the gross and microscopic neuroanatomy of the brain, spinal cord, nerves, and eye, the physiology of the nervous system, and the neurobiology of behavior. Core topics in the principles of anesthesia and pain control will also be covered. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
4-7 Credit Hours

VMED 6315 Testing Course
Testing Course Attributes
6-9 Credit Hours

VMED 6400 Foundational Toolkit III
The Foundational Toolkit III course provides the background material necessary to understand upcoming blocks in the second year of the veterinary curriculum that focuses on the diagnosis and treatment of disease. Content includes fundamentals of pharmacology and toxicology, neoplasia and inflammation, and routine laboratory diagnostic techniques.
5-9 Credit Hours

VMED 6401 Foundational Toolkit IV
The Foundational Toolkit IV course provides background material necessary to understand the Spring semester blocks. Content builds on the Foundational Toolkit III and includes further diagnostic tools and advanced imaging modalities.
3-9 Credit Hours

VMED 6402 Capstone III
The Capstone III course offers a period at the end of the first semester for students to apply and integrate the information they have learned in the preceding blocks and courses. While the assessment in the tests at the end of modules will focus largely on recall of information, assessments during the Capstone will emphasize higher-order thinking skills and real-world applications. Students will be involved in integrated case scenarios, reflective journaling of elective experience that related to curriculum, review for NAVLE, interdisciplinary evidence based medicine discussions, and critical thinking assessments. The Capstone period will also permit time for remediation of students who have been identified as requiring intervention.
1-6 Credit Hours

VMED 6403 Capstone IV
The Capstone IV course offers a period at the end of the second semester for students to apply and integrate the information they have learned in the preceding blocks and courses. While the assessment in the tests at the end of modules will focus largely on recall of information, assessments during the Capstone will emphasize higher-order thinking skills and real-world applications. Students will be involved in integrated case scenarios, reflective journaling of elective experience that related to curriculum, review for NAVLE, interdisciplinary evidence based medicine discussions, and critical thinking assessments. The Capstone period will also permit time for remediation of students who have been identified as requiring intervention.
2-5 Credit Hours

VMED 6404 The Hippia trika: Becoming a Veterinary Clinician III
Hippiatrika III is the third in a series of four courses that take place in the fall and spring of the first two years of the curriculum. Named after one of the earliest collections of writings on veterinary medicine from the 5th and 6th century AD, the Hippia trika series emphasizes the art and practice of clinical veterinary medicine, focusing on hands-on clinical skills as well as material associated with population medicine, One Health, communication, collaboration, professionalism, veterinary medical ethics, and regulation and finance. When applicable, course material is horizontally integrated with concurrent blocks.
4-8 Credit Hours

2023-24 Catalog | Generated 08/02/23
VMED 6405 The Hippiatrika: Becoming a Veterinary Clinician IV
Hippiatrika IV is the third in a series of four courses that take place in the fall and spring of the first two years of the curriculum. Named after one of the earliest collections of writings on veterinary medicine from the 5th and 6th century AD, the Hippiatrika series emphasizes the art and practice of clinical veterinary medicine, focusing on hands-on clinical skills as well as material associated with population medicine, One Health, communication, collaboration, professionalism, veterinary medical ethics, and regulation and finance. When applicable, course material is horizontally integrated with concurrent blocks.
4-8 Credit Hours

VMED 6406 Of Clouds and Clocks: Becoming a Veterinary Scientist III
Of Clouds and Clocks III is a course that teaches the first two years of the core veterinary curriculum, named in homage to Karl Popper’s philosophy that the world is divided into mechanisms that are predictable (“clocks”) and ones that are unpredictable (“clouds”). This analogy sums up the difficulties of applying science to complex organisms with complex diseases, which is a vital skill for every clinician-scientist. This semester will focus on integrating evidence-based clinical research in the practice of veterinary medicine. Lectures and group-based learning allow students to integrate science with clinical concepts from parallel courses.
1-5 Credit Hours

VMED 6407 Of Clouds and Clocks: Becoming a Veterinary Scientist IV
Of Clouds and Clocks IV is the final course in a series of courses spanning the first two years of the core veterinary curriculum, named in homage to Karl Popper’s philosophy that the world is divided into mechanisms that are predictable (“clocks”) and ones that are unpredictable (“clouds”). This analogy sums up the difficulties of applying science to complex organisms with complex diseases, which is a vital skill for every clinician-scientist. This semester will focus on integrating evidence-based clinical research in the practice of veterinary medicine. Lectures and group-based learning allow students to integrate science with clinical concepts from parallel courses.
1-6 Credit Hours

VMED 6408 Support & Movement II
The Support and Movement block in year 2 of the core curriculum covers the pathology (gross, histopathologic, and clinicopathologic), medical ethics, and regulation and finance. When applicable, course material is horizontally integrated with concurrent blocks.
4-8 Credit Hours

VMED 6409 Circulation & Respiration II
The Circulation and Respiration block in year 2 of the core curriculum covers the pathology (gross, histopathologic, and clinicopathologic), diagnosis, medical treatment, and surgical interventions for diseases of the cardiovascular and respiratory systems. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
5-9 Credit Hours

VMED 6410 Reproduction & Development II
The Reproduction and Development block in year 2 of the core curriculum covers the pathology (gross, histopathologic, and clinicopathologic), diagnosis, medical treatment, and surgical interventions for diseases of the reproductive system. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
3-7 Credit Hours

VMED 6411 Defense & Barriers II
The Defense and Barriers block in year 2 of the core curriculum covers the pathology (gross, histopathologic, and clinicopathologic), medical treatment, and surgical interventions for diseases of the hematolymphoid system and skin/mucosal barriers. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
3-7 Credit Hours

VMED 6412 Digestion & Metabolism II
The Defense and Metabolism block in year 2 of the core curriculum covers the pathology (gross, histopathologic, and clinicopathologic), medical treatment, and surgical interventions for diseases of the digestive system. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
4-8 Credit Hours

VMED 6413 Elimination & Detoxification II
The Elimination and Detoxification block in year 2 of the core curriculum covers the pathology (gross, histopathologic, and clinicopathologic), medical treatment, and surgical interventions for diseases of the hepatobiliary and urinary systems. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
3-6 Credit Hours

VMED 6414 Cognition, Senses & Response II
The Cognition, Senses and Response block in year 2 of the core curriculum covers the pathology (gross, histopathologic, and clinicopathologic), medical treatment, and surgical interventions for diseases of the central and peripheral nervous systems, sensory organs, and behavior. Blocks will use a combination of lectures, laboratories, group assignments, seminars, and out of class projects to teach and reinforce the information. Case examples will be used to help the students better understand, research, integrate and think about the concepts taught in the classroom and laboratory.
4-8 Credit Hours
Veterinary Clinical Studies - New Bolton Center (VCSN)

VCSN 6300 Equine Neonatology & Intensive Care Medicine
The objectives of this course are to: (1) Introduce students to neonatal physiology and behavior as it applies to the foal; (2) Acquaint students with the clinical signs and pathophysiologic mechanisms of diseases in neonates; and (3) Provide students experience in the neonatal intensive care unit learning monitoring techniques (e.g. noninvasive blood pressure measurements, PCV, TP, stall side blood glucose, etc.) Observing normal and abnormal neonatal behavior and neonatal/maternal interactions, learning techniques of neonatal restraint, and assisting with diagnostic and therapeutic procedures as well as general nursing. Lectures will focus on foal diseases, intensive care therapies, periparturient problems, ventilatory support, musculoskeletal disorders, pharmacology and the neonate. Seminars will be used to apply lecture and reading material to clinical case discussions. A set of clinically-oriented problems covering case presentations, blood gas analysis, nutrition formulations, fluid therapy, nursing care protocols and periparturient events will be completed during the fourth quarter. The course grade will be based upon evaluation of clinical case problems, seminar participation, and mastering clinical skills (monitoring techniques, etc.) learned during foal-sitting. Enrollment requires approval of the course organizer and satisfactory academic standing.
4 Credit Hours

VCSN 6320 Diseases & Management of Sheep & Goats
This course is an introduction to small ruminant medicine and surgery. Flock and herd health programs involve control of infectious, parasitic, reproductive and metabolic disorders and provision of proper housing, feeding and reproductive management systems. Prevalent diseases and management systems of the Eastern U.S. will receive emphasis.
3 Credit Hours

VCSN 6330 Animal Health Economics
An introduction to a variety of economic concepts and decision making techniques that relate to the business of an agricultural enterprise and to the impact of veterinary services on that enterprise. Discussion of the role of production medicine in the overall profitability of animal agriculture.
2 Credit Hours

VCSN 6340 Clinical Biostatistics
This course presents a unified approach to the analysis and interpretation of clinical data. We start with a discussion of general linear models and show the types of problems to which they apply, and then move to generalized linear models, to survival models, and finally to general estimating equations. Our goal is to acquaint participants with a fairly comprehensive array of approaches to data analysis and, most particularly, to circumstances to which they apply. The objective is to prepare students for research activities, either as a career, or as a step towards "Board Certification" enabling them to plan studies, analyze data ensuing from studies, and to critically read articles in their area of interest.
2 Credit Hours

VCSN 6350 Equine & Farm Animal Anesthesia
This course will discuss sedation and intravenous or inhalant anesthesia of equine, food animal, and camelid patients. The lectures will review the clinical pharmacology of the commonly used anesthetic drugs and the anatomic and physiologic differences among the species and their relevance to anesthetic management. Patient preparation, drug selection, induction and intubation techniques, intra-operative monitoring and management of cardiovascular and respiratory abnormalities, post-operative analgesia and recovery complications will also be discussed. Three case-based problems with multiple questions related to various aspects of anesthesia care will be distributed during the course. The problems are take-home, open-book and students may work alone or in pairs. Time will be spent discussing the cases after the written answers are turned in.
2 Credit Hours

VCSN 6360 Clinical Applications of Pharmacology
This course is focused on the clinical pharmacological management of the major problems in veterinary practice. The vast majority of lectures directly apply to companion animals but when necessary, to emphasize a drug group or specific clinical problem, there are also several large animal lectures. This is an extension of core pharmacology and not an expanded version. The lectures will be given by the clinical and basic sciences faculty in their areas of expertise. Emphasis will be on the clinical aspects of drug therapy such as dosage range, duration of therapy, evaluation of therapy, and problems encountered with current drug therapy. Pharmacological therapy in the following areas of medicine and surgery are covered: antibiotics, cardiovascular, neurology, respiratory, urinary, gastrointestinal, endocrine, emergency medicine, ophthalmology, chemotherapeutic agents, fluid therapy, anti-inflammatory, pain medications and other topics as needed for the most comprehensive clinical overview. Emphasis is on case-based approaches to drug therapy. The major objectives of this course are: (1) Provide practical information on rational drug therapy before entering the clinics and the real world of veterinary practice. (2) Provide a sound basis for rationally evaluating the presently available drugs and the drugs of the future. The course grade is based on a weekly quiz and/or mid-term/final.
4 Credit Hours

VCSN 6370 Animal Production Systems
This elective course provides an overview of: (i) management and operational basics of food animal production systems (dairy, beef, swine, poultry, and aquaculture), (ii) contemporary issues concerning current practice and sustainable future of animal production systems, e.g., food safety & biosecurity, antibiotics & antimicrobial resistance, nutrient management & environmental regulations, and animal welfare & public concerns. Students will work in teams on debates from pre-arranged topics, and will complete periodic assignments. Course grades will be based on class participation (40%), homework assignments (30%), and team debate performance (30%).
2 Credit Hours
VCSN 6380 Introduction to Animal Welfare
This course will cover the basic principles, history, and application of animal welfare science for multiple species. Over a series of lectures, the complex issue of assessing good versus poor welfare will be addressed. The first few lectures will provide students with the background of this field, as well as key terms which define the assessment methods of animal welfare science. The multifaceted issue of poor versus good welfare will be addressed in a lecture on ethics and sociology. The background lectures will also cover the disparity in the assessment of pain, pleasure, stress, and suffering based on applying physiological versus behavioral measurements. Given the tools provided by the background lectures, the students will then learn about species-specific welfare issues in the subsequent lectures to include swine, poultry, bovine, equine, aquaculture, exotic/zoo animals, lab animals, shelter animals, companion animals and current events. Following each one-hour lecture, the students will engage in an hour of hands-on activities, and debates concerning that weeks topic. Students will also participate in one wet lab where they will have the opportunity to apply methods of welfare assessment that they have learned in class.
4 Credit Hours

VCSN 6390 Animal Welfare Science
This course is a foundational course for students enrolling in the Animal Welfare Certificate Program. This course covers the basic principles, history, and application of animal welfare science. Over a series of video modules, online discussions, assignments, and quizzes, this course will teach students to assess the welfare of animals in a variety of settings using science-based methods and reasoning. Students will learn current welfare issues by species. This class will engage in activities that build the skills to find and assess scientific sources of information. Finally, the link between science and ethics will be explored such that students understand various ethical frameworks and how they relate to animal welfare. The objective of the course is to provide students with the background and tools to apply animal welfare science in order to facilitate students’ ability to successfully engage in welfare deliberations and welfare science in a variety of fields.
6 Credit Hours

VCSN 6400 Large Animal Reproduction - NBC
This course covers in-depth reproductive management of cattle, horses, swine and small ruminants. Emphasis is placed on the herd or flock as a unit rather than on the individual animal. This course is the same as VCSN644 but with one-half of the laboratory time. The course is intended for those students who intend to pursue a career that will be exclusively or predominantly companion animal. A three-hour canine reproduction laboratory is included. The Laboratories include demonstrations by clinicians and hands-on practical experience for students in evaluating the male and the female reproductive status: PATH F - female pathology, PATH M - male pathology, OB1 - obstetrics, B&R - bull and ram breeding soundness examination, DOG - dog breeding soundness examination, vaginal cytology of the bitch, MARE1 - palpation of the genital tract per rectum of mare, COW1 - physical exam of the bovine genital tract, ULTRA - ultrasonography of the genital tract of animals.
3 Credit Hours

VCSN 6410 Advanced Poultry Medicine - NBC
This lecture/laboratory course is designed to provide students with a working knowledge of the recognition and diagnosis of selected diseases of poultry. Lectures will include discussion of the clinical, post-mortem and technical aspects of the diagnosis of selected avian diseases. The laboratory will provide each student with an opportunity to necropsy birds. Field visits to local poultry farms may be taken. The course grade will be based on weekly quizzes and a group project.
2 Credit Hours

VCSN 6420 Dairy Cattle Nutrition - NBC
The complexity of evaluating and balancing rations requires computer models. CPM-Dairy - developed at Cornell University, The University of Pennsylvania and The William H. Miner Agricultural Research Institute - evaluates and formulates rations according to a modified National Research Council (NRC) model and according to The Cornell Net Carbohydrate and Protein System (CNCP). CPM-Dairy will be used to describe nutrient requirements, supplies and utilization. Environmental effects on nutritional requirements will be demonstrated. The dynamics of ruminal fermentation and microbial growth will be illustrated in terms of how they affect nutrient supply. "Hands on Computer Sessions" will lead participants through ration formulation.
3 Credit Hours

VCSN 6430 Large Animal Reproduction - NBC
This course covers in-depth reproductive management of cattle, horses, swine and small ruminants. Emphasis is placed on the herd or flock as a unit rather than on the individual animal. This course is the same as VCSN644 but with one-half of the laboratory time. The course is intended for those students who intend to pursue a career that will be exclusively or predominantly companion animal. A three-hour canine reproduction laboratory is included. The Laboratories include demonstrations by clinicians and hands-on practical experience for students in evaluating the male and the female reproductive status: PATH F - female pathology, PATH M - male pathology, OB1 - obstetrics, B&R - bull and ram breeding soundness examination, DOG - dog breeding soundness examination, vaginal cytology of the bitch, MARE1 - palpation of the genital tract per rectum of mare, COW1 - physical exam of the bovine genital tract, ULTRA - ultrasonography of the genital tract of animals.
3 Credit Hours

VCSN 6440 Large Animal Reproduction - NBC
This course covers in-depth reproductive management of cattle, horses, swine and small ruminants. Emphasis is placed on the herd or flock as a unit rather than on the individual animal. Laboratories include demonstrations by clinicians and hands-on practical experience for students in evaluating the male and the female reproductive status of dogs and large domestic animals. Therapeutic information will be covered in problem-based cases that will be solved and formally presented by small student groups. Grades will be based on the therapeutic presentations, laboratory participation, mid-term exam and a comprehensive final examination. In addition to the laboratories listed in VCSN643 are the following eight laboratories: OB2 - fally, STALL - stallion breeding soundness examination SWINE - boar semen evaluation, heat detection and AI of sows, MARE2 - mare breeding soundness examination, palpation, MARE3 - using breeding soundness examination to solve infertility case, palpation, COW2 - bovine estrous cycle, palpation, COW3 - pregnancy diagnosis, palpation, COW4 - therapeutics, palpation.
4 Credit Hours
VCSN 6450 Large Animal Surgery & Surgical Exercises - NBC
Lectures given in this course will cover common surgical problems of the respiratory, gastrointestinal, musculoskeletal, and urogenital systems of horses and of the gastrointestinal system of domestic ruminants. Lecture material will cover the procedures to be done in each laboratory beforehand so that ample opportunity is allowed for preoperative preparation. Lectures are given on anesthesia with special emphasis on drugs to be used during the laboratory sessions. The surgical exercises and related laboratory procedures are designed to teach surgical techniques and principles, surgical anatomy, and basic surgical procedures in horses and domestic ruminants. Students will administer general anesthetics and apply the principles and techniques of physiologic monitoring of anesthetized large animals. The importance and the application of preoperative and postoperative management will be emphasized and students take full responsibility for their patient’s progress throughout the course. The course grade is derived from performance in the laboratories, quality of patient care, participation in conferences, and one final exam.
4 Credit Hours

VCSN 6460 Equine Lameness - NBC
This course covers the principles of lameness diagnosis and treatment in horses. The course features didactic lectures, actual lameness examinations, video tape viewing, computer aided learning and a diagnostic nerve block laboratory using cadaver specimens.
4 Credit Hours

VCSN 6470 Equine Orthopedics - NBC
The course reviews specific techniques in equine orthopaedics, and emphasizes understanding orthopaedic principles that are applicable to all species. Topics include more detailed information on internal fixation, relevant first-aid techniques, osteochondrosis and orthopedic sepsis.
1 Credit Hour

VCSN 6480 Equine Sports Medicine - NBC
This seminar course concerns the clinical application of basic physiologic and pathologic principles as they relate to the diagnosis and management of exercise-related diseases in the horse. Material will be presented in light of the demands of specific types of athletic activity. Laboratory demonstrations using the high-speed treadmill will be provided. Hands-on sessions are also provided to demonstrate the collection of arterial blood gas samples and upper airway endoscopy. Paper or oral presentation required.
3 Credit Hours

VCSN 6490 Large Animal Diagnostic Imaging - NBC
The course consists of a series of lectures, a radiographic positioning laboratory and an ultrasound/anatomy laboratory. Plain film radiography comprises the majority of the lectures but ultrasound, scintigraphy and prepurchase examination are included. A brief introduction to CT & MRI is also presented. Strong emphasis is placed on the equine species but incorporates radiography of other large animals. The course is designed to cover the basic principles of the different imaging techniques, radiographic and sonographic anatomy, and the basic interpretation of the imaging modalities.
3 Credit Hours

VCSN 6500 Applied Animal Welfare and Behavior
This course aims to provide students with practical skills helpful in the study of animal welfare and in the future offer a bridge to our proposed master’s program. Students will be exposed to critical reading of the scientific literature, development and testing of hypothesis as well as examining experimental paradigms used commonly to probe animal welfare and behavior. The goal of the course is for each student to conceive, develop, write, and present a research proposal on a question of interest in animal welfare that could provide the foundation for a future capstone project. Student assignments will include selected readings, synchronous and asynchronous online discussion of relevant course materials, and an oral presentation and written description of their research proposal.
6 Credit Hours

VCSN 6520 Regulations and Animal Welfare
This course will focus on regulations in the United States that have an impact on animal welfare. It will also look at oversight of research, clinical trials and informed consent in veterinary medicine. Over a series of video modules, online discussions, assignments and quizzes, this course will teach students the history and tenets of the current regulatory framework. Each week a synchronous session will explore the implications of regulations on animal welfare.
3 Credit Hours

VCSN 6530 Capstone in Animal Welfare and Behavior
This online course follows directly from the MSc Proseminar course (VPTH 637) where students developed their research questions, hypotheses, methods and piloted their approach to an investigation that could either be the product of original literature analysis and synthesis of new ideas or the result of investigative work that involves data collection and analysis*. Through structured meetings with mentors, peers and other AWB faculty, this semester long (6 credit) capstone course will provide Penn Vet MSc students with the guidance required to gather and interpret their data and communicate their results in written and oral form. Students will provide weekly updates on their research progress and will discuss and troubleshoot their projects with their peers and advisors in weekly synchronous sessions. Students will generate a formal protocol for their research approach, maintain online records of raw data, give a public oral presentation of their results and generate a paper describing their results in a format appropriate for publication.
Fall or Spring
6 Credit Hours
VCSN 6540 Animal Welfare in the Shelter and Community
Millions of cats and dogs enter shelters in the United States each year, where they can face increased stress, reduced quality of life, and, in some cases, an elevated risk of euthanasia. Developing a complex understanding of shelter management/structure and the environmental, behavioral, and physical factors that impact animal welfare are critical to developing constructive, evidence-based, and humane decisions and programs for both shelters and the community. Particular emphasis will be placed on behavioral problems and assessments as behavior is a leading risk factor for the relinquishment of dogs and cats and can drastically impact animal welfare. Shelters and welfare organizations are also striving to improve animal welfare in the community through public health type programming including addressing concepts like access to care and harm reduction. In this course, students will learn about key factors that impact animal welfare in the shelter and community and understand the utility of welfare assessments and scientifically informed policy. Students will discuss the multi-faceted role of animal shelters in the community in the context of One Welfare. They will also critically evaluate programs and policies designed to improve animal welfare using current scientific literature. In their final project, students will utilize this knowledge to recommend a protocol/policy to implement in a specific shelter or community setting. They will create a scientific policy paper targeted at the academic/scientific audience and then translate that information and present it to a lay audience via recorded PowerPoint. Prerequisite: VCSP 6330 AND VCSN 6390 AND VCSP 6390 AND VCSN 6500 6 Credit Hours

VCSN 6570 One Health & Global Food Security
By 2050 can the world sustain a population of over 9 billion people in the face of climate change, limited water and other natural resources, pollution, urbanization, political and income inequality, conflict, changing diets and patterns of disease? An interdisciplinary group of faculty will explore this complex question through six broad trends that affect global food sustainability and environmental health; 1) nutritional needs; 2) changing patterns of communicable and non-communicable diseases of humans and all types of animals; 3) natural resource inventory and management; 4) production technologies (intensive/extensive systems); 5) societal changes impacting production and food demand; 6) food distribution systems and access to food. The course is open to graduate and undergraduate students and will involve student participation and research. Spring 4 Credit Hours

VCSN 6580 Evolution of Animal Welfare
This course addresses how changing societal expectations about animal use impact animal welfare expectations. 3 Credit Hours

VCSN 6590 Contemporary Issues in Animal Welfare
This course covers contemporary animal welfare issues and some of their ethical implications 3 Credit Hours

VCSN 6590 Contemporary Issues in Animal Welfare
This course is intended to cover the animal welfare assessment requirements as outlined in the ACAW guidelines for board certification but also allows any students pursuing the master’s program to improve their welfare assessment abilities. Students must participate in assessment of Companion animals, Poultry production, Hooved stock production, Equids, Laboratory animals and Zoo animals. They must also choose at least 2 to assess from the following: Aquatic animals, aquaculture/fisheries, Wildlife/exotic animals, Animals in exhibitions/entertainment, Animals in education, and Working/assistant animals. Students will work on 3 assessments per week for a total of 9 assessments. The final week of the course will be dedicated to working on case studies from the student’s own experience. This will include identification of a situation where welfare would need to be assessed, determination of how to assess the welfare of the animal(s) and a written report of the assessment, including recommendations for steps that could be instituted so that the welfare could be improved. Each week a video and reading assignments will familiarize students with assessment techniques and tools. 3 Credit Hours

VCSN 6610 Swine Neonatology - NBC
This is an introductory course for students who want to learn more about swine production and swine medicine. It aims to familiarize 2nd and 3rd year veterinary students with several important aspects of swine neonatology/farrowing room management that includes parturient physiology and behavior of both the sow and the piglet, baby pig processing, and sow dystocia. All students will be required to attend the four hours of lecture, and four laboratory shifts. Each laboratory shift is 7 hours and available nights and weekends. Students will be required to monitor the farrowing house for sows in labor and attend the farrowings as needed to critically assess animal well-being. Students will be expected to provide appropriate sow or piglet interventions when indicated. Students will also assist with any routine management tasks such as piglet processing and vaccination. Students will be graded on their participation and success in meeting the course objectives. 1 Credit Hour

VCSN 6620 Applied Small Animal Behavior: Dog and Cat
Behavior problems are the most frequent reasons for surrender and euthanasia of pets. In this course, we will discuss the normal behavior and the most common behavior problems of dogs and cats with an emphasis on management including safety recommendations, environmental modification, and behavior modification. Expected outcomes, welfare and legal implications (for example, in case of dog aggression) will be discussed. Attention will also be paid to the thought process used in working up and/or preventing behavioral disorders. Prerequisite: VCSP 6330 AND VCSN 6390 AND VCSP 6390 AND VCSN 6500 6 Credit Hours
VCSN 6630 Professional Portfolio Development
This course will be the forum for students to organize portfolios and for students to meet and give peer feedback. The graduating cohort will be responsible for organizing peer review and the presentation of the portfolios. Any professional track student may participate in the ongoing Canvas community for the professional track development course and will be encouraged to do so. The student cohort that is graduating will enroll in the official course and organize weekly synchronous meetings for working on portfolio development and getting feedback. They will also be responsible for organizing presentations for each student to present their portfolio to the larger community. Two faculty advisors will be available as needed to facilitate. Prerequisite: VCSN 6330 AND VCSN 6390 AND VCSN 6500
6 Credit Hours

VCSN 7005 Large Animal Medicine - Foundation - NBC
Students in this rotation will assist clinicians in history taking, examinations and the medical management of large animal patients presented to the hospital at New Bolton Center. Students will participate in daily ward and Medicine teaching rounds, Radiology rounds and Pathology rounds. All students, whether in core or elective, will be expected to participate in night and weekend duty on a rotating basis. All students will prepare and present one clinical case discussion for Grand Rounds. Time commitment: at least 8 hours per day plus night and weekend duty. 6 Credit Hours

VCSN 7015 Large Animal Emergency/Critical Care - Foundation Rotation - NBC
This rotation is designed to teach students basic principles of large animal emergency medicine and surgery as well as the daily management of critically ill equine patients. Students will be involved in a variety of large animal emergency admissions including diagnostic procedures and surgery as well as post-operative or post-admission case management of horses with gastrointestinal disease. Students will attend regular 8 am morning rounds (see course description for Large Animal Surgery, VCSN 800), followed by morning case-based discussion rounds. The day will be spent either on emergency admissions or procedures and management of in-house patients. Daily afternoon rounds will be topic-based, and may be selected from the following topics: Laceration Repair, Emergency Stabilization of Fractures, Acute Abdomen (colic), Diarrhea, Fluid Therapy, Respiratory Distress, Acute Blood Loss/Hemorrhagic Shock, Food Animal Emergencies, Blood Gas Interpretation, Acute Neurologic Patient, Monitoring the Critically Ill Patient, Reproductive Emergencies, Management of Rectal Tears, Critical Care Journal Club. 6 Credit Hours

VCSN 7125 Food Animal Reproduction - NBC
The course is designed for those students anticipating entering large animal or mixed practice. Students will participate in the diagnosis and treatment of clinical reproductive cases in the hospital. Students will be responsible for the daily treatment and examination of all hospitalized cases at the Hofmann Center. Students will also assist in the management of reproductive problems of Widener Hospital patients. Exposure will vary due to fluctuations in case load. Additional "hands-on" practice of reproductive procedures will occur by the use of teaching animals. Organized laboratories will allow the student to become comfortable with diagnostic techniques of large animal species. On-call, weekend, and night duty are required. Students will be required to give a 15 minute presentation during the rotation and prepare two case letters/discharge instructions on animals they evaluated during the rotation. If student interest and time permit, students may go on field trips to breeding farms. 3 Credit Hours

VCSN 7135 Field Service - NBC
Students in this rotation will assist staff doctors in history taking, physical examinations, and the medical management of patients seen on the Field Service activities of the School's large animal practice. The student is required to attend the appropriate 8:00 a.m. daily rounds at New Bolton Center. The remainder of the day will be spent on field calls. The student will be required to be on night and weekend duty. Night duty will be divided equally among field service students in the rotation. Students on emergency duty are required to be within 15 minutes from New Bolton Center while on duty. Case presentations will be given by students on the second Wednesday of the rotation. Boots and coveralls are essential for this rotation. 6 Credit Hours

VCSN 7155 Diagnostic Ultrasound in Large Animals - NBC
This rotation will provide students with experience in the diagnosis and treatment of large animal cardiac diseases and the use of M-mode, 2-dimensional real-time, pulsed wave, color flow and continuous wave Doppler echocardiography and exercising electrocardiography. Students will also gain experience in the use of diagnostic ultrasonography in the evaluation of tendon and ligament injuries, diseases of the thorax and abdomen, and the evaluation of masses, swellings, neonates and high-risk pregnancies. Students will also gain experience in patient preparation; obtaining a quality ultrasonographic or echocardiographic image and cardiac Doppler studies; and in interpretation of these images and studies with staff and faculty supervision. Students will be responsible for patient care of animals presented to the Heart Station/Ultrasound Service during the rotation. Prerequisite: Core Medicine and Surgery Also Offered As: VCSN 7755 5 Credit Hours

VCSN 7165 Ultrasonography in Large Animals - NBC
For full course description see VCSN 7150. Prerequisite: Core Medicine and Surgery Also Offered As: VCSN 7765 2 Credit Hours
VCSN 7705 Large Animal Medicine -Foundation - NBC
Students in this rotation will assist clinicians in history taking, examinations and the medical management of large animal patients presented to the hospital at New Bolton Center. Students will participate in daily ward and Medicine teaching rounds, Radiology rounds and Pathology rounds. All students, whether in core or elective, will be expected to participate in night and weekend duty on a rotating basis. All students will prepare and present one clinical case discussion for Grand Rounds. Time commitment: at least 8 hours per day plus night and weekend duty.
6 Credit Hours

VCSN 7725 Food Animal Reproduction - NBC
The course is designed for those students anticipating entering large animal or mixed practice. Students will participate in the diagnosis and treatment of clinical reproductive cases in the hospital. Students will be responsible for the daily treatment and examination of all hospitalized cases at the Hofmann Center. Students will also assist in the management of reproductive problems of Widener Hospital patients. Exposure will vary due to fluctuations in case load. Additional "hands-on" practice of reproductive procedures will occur by the use of teaching animals. Organized laboratories will allow the student to become comfortable with diagnostic techniques of large animal species. On-call, weekend, and night duty are required. Students will be required to give a 15 minute presentation during the rotation and prepare two case letters/discharge instructions on animals they evaluated during the rotation. If student interest and time permit, students may go on field trips to breeding farms.
3 Credit Hours

VCSN 7735 Field Service - NBC
Students in this rotation will assist staff doctors in history taking, physical examinations, and the medical management of patients seen on the Field Service activities of the School's large animal practice. The student is required to attend the appropriate 8:00 a.m. daily rounds at New Bolton Center. The remainder of the day will be spent on field calls. The student will be required to be on night and weekend duty. Night duty will be divided equally among field service students in the rotation. Students on emergency duty are required to be within 15 minutes from New Bolton Center while on duty. Case presentations will be given by students on the second Wednesday of the rotation. Boots and coveralls are essential for this rotation.
6 Credit Hours

VCSN 7745 Large Animal Clinical Reproduction - NBC
The course is designed for those students anticipating entering large animal or mixed practice. Students will participate in the diagnosis and treatment of clinical reproductive cases in the hospital. Students will be responsible for the daily treatment and examination of all hospitalized cases at the Hofmann Center. Students will also assist in the management of reproductive problems of Widener Hospital patients. Exposure will vary due to fluctuations in case load. Additional "hands-on" practice of reproductive procedures will occur by the use of teaching animals. Organized laboratories will allow the student to become comfortable with diagnostic techniques of large animal species. On-call, weekend, and night duty are required. Students will be required to give a 15 minute presentation during the rotation and prepare two case letters/discharge instructions on animals they evaluated during the rotation. If student interest and time permit, students may go on field trips to breeding farms.
6 Credit Hours

VCSN 7755 Diagnostic Ultrasound in Large Animals - NBC
This rotation will provide students with experience in the diagnosis and treatment of large animal cardiac diseases and the use of M-mode, 2-dimensional real-time, pulsed wave, color flow and continuous wave Doppler echocardiography and exercising electrocardiography. Students will also gain experience in the use of diagnostic ultrasonography in the evaluation of tendon and ligament injuries, diseases of the thorax and abdomen, and the evaluation of masses, swellings, neonates and high-risk pregnancies. Students will also gain experience in patient preparation; obtaining a quality ultrasonographic or echocardiographic image and cardiac Doppler studies; and in interpretation of these images and studies with staff and faculty supervision. Students will be responsible for patient care of animals presented to the Heart Station/Ultrasound Service during the rotation. Prerequisite: Core Medicine and Surgery
Also Offered As: VCSN 7155
5 Credit Hours

VCSN 7765 Ultrasonography in Large Animals - NBC
For full course description see VCSN 7150. Prerequisite: Core Medicine and Surgery
Also Offered As: VCSN 7165
2 Credit Hours

VCSN 7775 Large Animal Neonatal Intensive Care Rotation - NBC
This elective provides students with experience in the management of critically ill large animal neonates and dams with periparturient complications. Daily rounds emphasize the use of monitoring techniques (e.g. capnography, ECG, BP monitor, fetal and neonatal ultrasonography), and various treatment modalities (e.g. parenteral nutrition, positive pressure ventilation, and fluid therapy) required in the management of critically ill neonatal foals and late-term pregnant mares. Students will have the opportunity to master the following manual and theoretical skills: arterial puncture and arterial blood gas analysis, calculation and application of parenteral and enteral nutrition formulations, catheterization techniques for veins and bladder, principles of fluid therapy as applied to patients with septic shock and patients requiring maintenance fluids, radiographic interpretation of neonatal thoracic and musculoskeletal disease, interpretation of fetal and neonatal sonograms, familiarity with different types of respiratory support and resuscitation protocols, and a working knowledge of a wide variety of pharmacologic agents including antibiotics, anticonvulsives, sedatives, analgesics, pressors and inotropic agents.
6 Credit Hours

VCSN 7785 Equine Welfare Clinical Elective
This 2-week clinical elective would be open to all fourth year veterinary students, and would be offered once per year, in rotation 1. The enrollment limit is 6 students, and is limited to students who have taken either of the two welfare courses (Applied Animal Welfare and Behavior, Dr. Parsons; Animal Welfare Science, Dr. Pierdon), and then to equine majors if there are any remaining places. Course goals: To provide a comprehensive and nuanced examination of the issues and concerns regarding equine welfare in the US.
5 Credit Hours
VCSN 7805 Ration Evaluation and Formulation - NBC
This course is intended to provide students with practical experience in evaluating dairy feeding programs and formulation of rations. Students will visit dairy farms, inspect feed storage and delivery systems, obtain representative samples of feedstuffs for analysis, examine production records, and assess animal body condition. Students will then evaluate the nutritional and economic adequacy of the whole feeding program, suggest recommendations for its improvement and prepare producer reports for discussion with faculty prior to implementation.
6 Credit Hours

VCSN 8005 Large Animal Surgery-Foundation - NBC
Students rotating through Large Animal Surgery at NBC will participate in all aspects of examination and diagnosis, including lameness evaluation and endoscopy, medical and surgical treatment and daily patient care of large animals. During one week of the two-week rotation, each student will be assigned to treat cattle, other domestic farm animals and horses, and during the other week, horses only. Night, weekend and holiday assignments, including treatments and emergency service, will be made according to the requirements of the overall hospital operation during a given session. Students usually are exposed to various surgical procedures (general soft tissue, abdominal, orthopedic, etc.) during any one rotation. During the rotation, students may gain experience with horses being examined on the High Speed Treadmill or undergoing imaging in the Nuclear Scintigraphy Unit. Students will also participate in a variety of didactic teaching rounds, barn rounds and teaching laboratories as described: Monday, Tuesday, Wednesday, Friday 4-5 pm - Surgery Teaching Rounds. Thursday 3-5 pm - Surgery Teaching Laboratory (Wet labs). Monday 8-9 am Radiology Rounds (case-based discussion led by the surgery faculty). Tuesday 8-9 am - Lameness Rounds (case-based discussion led by the radiology faculty). Wednesday 8-9 am - Radiology Rounds (case-based discussion led by the radiology faculty). Thursday 8-9 am - Grand Rounds (Student case presentations). Friday 8-9 am - Medicine Teaching Rounds (case-based discussion with Medicine faculty and house officers).
6 Credit Hours

VCSN 8125 Sports Medicine/Imaging - NBC
Goals of this rotation are to provide the students with the opportunity to obtain diagnostic skills through the use of different modalities and to incorporate these techniques into the decision-making process during the diagnosis and treatment of horses with performance problems. Students in this rotation will take more responsibility for their cases and follow them through the different specialties without being drawn away to the next case in their assigned area. Each student will spend his/her time in the following areas: 1 week - Ultrasound/Cardiology. 1 week - Nuclear Scintigraphy/Radiology/MRI. 1 week - Treadmill/Podology. 1 week - Poor performance clinic (lameness)
10 Credit Hours

VCSN 8145 Large Animal Radiology - NBC
In this rotation, students will gain experience in making and interpreting large animal radiographic examinations. They will assist the radiology technicians in taking and processing routine radiographs, attend film reading sessions, daily hospital rounds and review large animal radiographs independently and under supervision. Students will be required to write radiology reports.
5 Credit Hours

VCSN 8155 Large Animal Anesthesiology Service - NBC
During the Large Animal Anesthesiology Service Rotation, students will gain experience in: (1) anesthetizing equine and other farm animal patients for elective and emergency procedures; (2) alleviating pain in animals; (3) maintaining adequate vital functions during anesthesia and (4) managing fluid, electrolyte and acid-base disturbances in the perioperative period. In addition, the course offers the opportunity to apply the clinical pharmacology of perianesthetic drugs in various farm animal species. Students are requested to attend Anesthesia Service rounds on Mondays and Fridays (8-9:00 am) during their clinical rotation, which will also offer the opportunity to discuss anesthesia cases. Night and weekend emergency duty is mandatory and shared with veterinary technician students. The maximum emergency duty is 4 weekday nights and one 24-hour weekend day. Students are expected to report to the Sports Medicine Conference Room or Anesthesia Office promptly at 8:00 am on the first Monday morning of the 2-week rotation with scrubs, stethoscope and calculator. Students are requested to review the information contained in the class notes of the following courses for appropriate sections prior to entering the rotation: General Pharmacology and Toxicology (VBMS 607), Animal Physiology (VBMS 606), Anesthesia (VSUR 604), and the Equine and Farm Animal Anesthesia Elective (VCSN 635). Students should also be familiar with dosages of commonly used drugs and their clinical pharmacology and technical aspects of the practice of large animal anesthesia.
6 Credit Hours

VCSN 8165 Food Animal Anesthesiology Service - NBC
In this rotation, students will gain experience in planning and performing sedation and anesthesia in small ruminants, swine and cameldids. Specific clinical objectives during the five-day rotation include physical and chemical restraint, regional and general anesthesia techniques in various food and fiber producing animals, and operation and use of various anesthetic monitoring devices. Emphasis is on techniques and drugs commonly used in the field. Students will formulate plans for sedation and/or short term anesthesia in sheep/goats, pigs and cameldids and will then carry them out on teaching animals. Techniques for regional anesthesia for flank surgery in the bovine will be performed at Marshak Dairy.
3 Credit Hours
VCSN 8705 Large Animal Surgery-Foundation - NBC
Students rotating through Large Animal Surgery at NBC will participate in all aspects of examination and diagnosis, including lameness evaluation and endoscopy, medical and surgical treatment and daily patient care of large animals. During one week of the two-week rotation, each student will be assigned to treat cattle, other domestic farm animals and horses, and during the other week, horses only. Night, weekend and holiday assignments, including treatments and emergency service, will be made according to the requirements of the overall hospital operation during a given session. Students usually are exposed to various surgical procedures (general soft tissue, abdominal, orthopedic, etc.) during any one rotation. During the rotation, students may gain experience with horses being examined on the High Speed Treadmill or undergoing imaging in the Nuclear Scintigraphy Unit. Students will also participate in a variety of didactic teaching rounds, barn rounds and teaching laboratories as described: Monday, Tuesday, Wednesday, Friday 4-5 pm - Surgery Teaching Rounds. Thursday 3-5 pm - Surgery Teaching Laboratory (Wet labs). Monday 8-9 am Radiology Rounds (case-based discussion led by s u r g e y faculty). Tuesday 8-9 am - Lameness Rounds (case-based discussion led by Sports Medicine faculty). Wednesday 8-9 am - Radiology Rounds (case-based discussion led by radiology faculty). Thursday 8-9 am - Grand Rounds (Student case presentations). Friday 8-9 am - Medicine Teaching Rounds (case-based discussion with Medicine faculty and house officers).
6 Credit Hours

VCSN 8715 Equine Surgery Clinic - NBC
This elective is specifically designed to provide students interested in equine practice after graduation with additional exposure to a variety of orthopedic and soft tissue surgical problems of horses. Students will actively participate in all aspects of lameness and soft tissue diagnosis, treatment, surgery and patient care. Teaching rounds will involve daily barn rounds, daily didactic presentations and/or wet labs covering surgical topics. Laboratories include internal fixation of fractures, wound repair, arthroscopy, intestinal surgical techniques, laser surgery, head and neck surgery, video analysis of lameness and field anesthesia. Every effort is made to have students in this course perform field castrations with local veterinarians. Students will be expected to participate in after-hours treatments and surgical emergencies of horses; however, students will not be assigned to food animal patients during this rotation.
6 Credit Hours

VCSN 8725 Sports Medicine/Imaging - NBC
Goals of this rotation are to provide the students with the opportunity to obtain diagnostic skills through the use of different modalities and to incorporate these techniques into the decision-making process during the diagnosis and treatment of horses with performance problems. Students in this rotation will take more responsibility for their cases and follow them through the different specialties without being drawn away to the next case in their assigned area. Each student will spend his/her time in the following areas: 1 week - Ultrasound/Cardiology. 1 week - Nuclear Scintigraphy/Radiology/MRI. 1 week - Treadmill/Podology. 1 week - Poor performance clinic (lameness)
10 Credit Hours

VCSN 8735 Large Animal Emergency/Critical Care - Foundation Rotation - NBC
This rotation is designed to teach students basic principles of large animal emergency medicine and surgery as well as the daily management of critically ill equine patients. Students will be involved in a variety of large animal emergency admissions including diagnostic procedures and surgery as well as post-operative or post-admission case management of horses with gastrointestinal disease. Students will attend regular 8 am morning rounds (see course description for Large Animal Surgery, VCSN 800), followed by morning case-based discussion rounds. The day will be spent either on emergency admissions or procedures and management of in-house patients. Daily afternoon rounds will be topic-based, and may be selected from the following topics: Laceration Repair, Emergency Stabilization of Fractures, Acute Abdomen (colic), Diarrhea, Fluid Therapy, Respiratory Distress, Acute Blood Loss/Hemorrhagic Shock, Food Animal Emergencies, Blood Gas Interpretation, Acute Neurologic Patient, Monitoring the Critically Ill Patient, Reproductive Emergencies, Management of Rectal Tears, Critical Care Journal Club.
6 Credit Hours

VCSN 8745 Large Animal Radiology - NBC
In this rotation, students will gain experience in making and interpreting large animal radiographic examinations. They will assist the radiology technicians in taking and processing routine radiographs, attend film reading sessions, daily hospital rounds and review large animal radiographs independently and under supervision. Students will be required to write radiology reports.
5 Credit Hours

VCSN 8755 Large Animal Anesthesiology Service - NBC
During the Large Animal Anesthesia Service Rotation, students will gain experience in: (1) anesthetizing equine and other farm animal patients for elective and emergency procedures; (2) alleviating pain in animals; (3) maintaining adequate vital functions during anesthesia and (4) managing fluid, electrolyte and acid-base disturbances in the perioperative period. In addition, the course offers the opportunity to apply the clinical pharmacology of perianesthetic drugs in various farm animal species. Students are requested to attend Anesthesia Service rounds on Mondays and Fridays (8-9:00 am) during their clinical rotation, which will also offer the opportunity to discuss anesthesia cases. Night and weekend emergency duty is mandatory and shared with veterinary technician students. The maximum emergency duty is 4 weekday nights and one 24-hour weekend day. Students are expected to report to the Sports Medicine Conference Room or Anesthesia Office promptly at 8:00 am on the first Monday morning of the 2-week rotation with scrubs, stethoscope and calculator. Students are requested to review the information contained in the class notes of the following courses for appropriate sections prior to entering the rotation: General Pharmacology and Toxicology (VBMS 607), Animal Physiology (VBMS 606), Anesthesia (VSUR 604), and the Equine and Farm Animal Anesthesia Elective (VCSN 635). Students should also be familiar with dosages of commonly used drugs and their clinical pharmacology and technical aspects of the practice of large animal anesthesia.
6 Credit Hours
VCSN 8765 Food Animal Anesthesiology Service - NBC
In this rotation, students will gain experience in planning and performing sedation and anesthesia in small ruminants, swine and cameldids. Specific clinical objectives during the five-day rotation include physical and chemical restraint, regional and general anesthesia techniques in various food and fiber producing animals, and operation and use of various anesthetic monitoring devices. Emphasis is on techniques and drugs commonly used in the field. Students will formulate plans for sedation and/or short term anesthesia in sheep/goats, pigs and cameldids and will then carry them out on teaching animals. Techniques for regional anesthesia for flank surgery in the bovine will be performed at Marshall Dairy.
3 Credit Hours

VCSN 8775 Food Animal Medicine and Surgery Clinic - NBC
This elective rotation is designed to provide additional experience in food animal medicine and surgery to students who are likely to pursue bovine practice following graduation. Students will participate in the diagnosis and treatment of food animal (primarily dairy cattle) medical and surgical diseases. Teaching rounds will involve daily barn rounds, didactic presentations and wet labs covering medical and surgical topics. The emphasis will be on individual animal (as opposed to herd health) problems. Students will be responsible for after-hours treatments and emergencies of food animals only; students will not work with equine patients during this rotation. Each student will have three weeknights and one 24-hour weekend shift during the rotation (based on 8 students enrolled). Note: students that desire further experience in medical or surgical problems of all large animal species should elect either VCSN 7705 or VCSN 8705.
9 Credit Hours

VCSN 8785 Sports Medicine Clinic - NBC
The Sports Medicine Clinic provides exposure to many types of problems facing the equine practitioner, concentrating on lameness and performance evaluations. While part of the course stresses traditional lameness evaluation and clinical diagnoses, high-speed treadmill evaluations and nuclear scintigraphy enable the student to participate in more intricate problems affecting sport horses. The course will provide students with the opportunity to develop techniques of examination and diagnosis, and permit direct contact with clients. Students are expected to perform in all areas and participate to the maximum of their ability. Duties may include care and SOAPs of in patients and may include care over a weekend. There IS NO emergency duty. In order to participate students are required to have satisfactorily completed the prerequisite courses.
5 Credit Hours

VCSN 8795 Equine Podology - NBC
This course covers the principles of both normal and corrective shoeing as well as examining the current theories of hoofcare. The student will: attend surgery rounds beginning in radiology each morning; and work with the resident farrier and equine clinicians on the various lameness problems presented to the clinic. Foot anatomy and physiology will be stressed. While the students will not be required or expected to manually make or nail on a shoe, they will be required to participate in and observe the procedures utilized. Procedures expected of Equine veterinarians such as removing shoes and debriding the sole will be covered in detail. Additional specialties such as the application of extensions to foal hooves can be incorporated into the rotation if requested.
2 Credit Hours

VCSN 8805 Dairy Production Medicine Clinic - NBC
This program is an integrated curriculum sponsored by the Sections of CAHP, Field Service and Reproduction as a part of the Food Animal Majors Program of the School of Veterinary Medicine. Curriculum begins with an overview of the "Economic Reality" of dairy production progressing through "Quantitative Skills" - T test, Chi Square, and Proportions; "Semen Selection" - visit stud, concepts in genetics semen selection and allocation and linear programming approaches; "Heifer Rearing" - systems view of heifer rearing, evaluation of heifer weight gain and evaluation of heifer reproduction; "Dairy Herd" - vaccination programs through body condition scoring; "Milk Quality" - principles of milking machine, procedures evaluation, mastitis control programs, DHIA, SCC monitoring programs, microbiology and quality assurance Reproduction - traditional programs, new programs and evaluation and interpretation of infertility and pregnancy loss; "Monitoring Reproduction" - current measures, heat detection, breeding intervals, developing a heat detection program; "Record Systems" - DHIA records, paper records, DAIRY COMP 305 (down loading data); "Dairy Nutrition" - ration evaluation using Spantan, interaction with reproduction, MUN interpretations; "Culling" - basic economic concepts and sample applications; "Facilities Evaluation" - ventilation and free stalls; "Computer Data Bases" - DairyL, AABPL, Merck Diagnostic Program, Cornell Diagnostic Program and Internet sites; "Laboratories" - obstetrics/fetotomy, special procedures, follow the estrus cycle in a cow (2 students/cow), milk progesterone kits and breeding soundness examination; "Herd visits with private practitioners" 24 Credit Hours

VCSN 8815 Food Safety and Quality Assurance - NBC
The purpose of this course is to prepare the student to: 1) Identify human health hazards in food of animal origin. 2) Define some of the roles of the veterinarian in preventing/reducing the introduction of biohazards into the food chain. 3) Discuss the principles of safe food practices for both animals and humans. 4) Recognize and describe where laboratory studies (microbiology, toxicology, chemistry) would help define real or potential problems. 5) Define the appropriate times to utilize laboratory evaluations and become familiar with interpretive criteria. 6) Participate in field trips to learn about different practices and processes. Assess sites in terms of HACCP criteria. 7) Interact with representatives from local and federal agencies concerning policies, application of technology and recommendations concerning problem solving issues. 8) Discuss intervention actions that can be initiated during acts of bioagroterrorism and/or naturally-occurring disasters (using recent events as models for discussion). Case studies will be introduced as problem solving activities. 8 Credit Hours
VCSN 8825 Swine Production Medicine - NBC
On-farm problem solving and client communications will be emphasized in this course. Students will be required to interact with producers. Students will write a follow-up report describing the findings and recommendations from the farm visit. Each student will also be assigned a case that will require collation of careful history taking, judicious performance of diagnostic tests and critical analysis of computerized production records to reach their diagnosis. Students will visit farms and other allied industries to survey production systems and collect data to be analyzed in the course. Various production systems and cycles will be reviewed, performance targets will be explained, and their elasticity and economic prioritization will be discussed. Records and data will be analyzed and students will learn how to identify significant production deficiencies and associate these with disease processes - either non-infectious, management-related, or infectious. Strategies for dealing with specific deficiencies will be outlined and the benefits of intervening to improve productivity will be compared to the costs of disease and used in developing a recommendation for action by the producer.
6 Credit Hours

VCSN 8835 Advanced Swine Production Medicine - NBC
A new role for swine veterinarians is emerging in large scale swine production. So-called “corporate veterinarians” are employed by a single company and have the challenge of overseeing the production and health care concerns of the animals owned or managed by their employer. This course provides students with the opportunity to gain exposure to this emerging discipline in swine veterinary medicine. Principles of epidemiology, economics and health care delivery systems and their application to optimizing swine health and production will be provided. Students will work closely with selected professionals who are in a leading role in defining the veterinarians place in large scale, vertically integrated swine production. This course extends the offerings in VCSN 8825. Students will be expected to complete a small project or investigation during their visit.
6 Credit Hours

VCSN 8845 Swine Production - NBC
Veterinarians today cannot make useful contributions to the swine industry without an intimate understanding of swine production. The successful practice of modern swine production medicine depends on the ability of the veterinarian to interweave their traditional training in medicine with the intricacies of swine husbandry. This course provides students with the opportunity to gain hands-on experience in modern swine production systems and/or swine production medicine practices. Students will learn through immersion the basic management, husbandry and/or production medicine practice by working with a practice or a farm in specific phases of swine production at a few selected, nationally recognized swine companies. Permission of instructors required.
9 Credit Hours

VCSN 8855 Equine Ophthalmology - NBC
This course is designed to provide students with ophthalmology experience to supplement what they obtain in the Large Animal Medicine foundation rotation, and, if taken, the Small Animal Ophthalmology elective. It is intended both for students with a special interest in ophthalmology, to broaden their exposure to include equine ophthalmology, and for equine students, to provide them with ophthalmology training that will benefit their equine patients in either general or specialty practice. This latter is particularly important given that most equine students do not take the Small Animal Ophthalmology elective and so graduate without clinical ophthalmology experience. Students will participate in the diagnosis and treatment of clinical ophthalmology cases in the hospital. Students will assist with evaluation of new cases, both inpatient and outpatient, and will be responsible for the daily treatment and examination of all hospitalized ophthalmology cases. Students will handle communication with clients and construct discharge summaries when appropriate. Exposure will vary due to fluctuations in case load. Organized laboratories in slit-lamp biomicroscopy, indirect ophthalmoscopy, and tonometry will allow the student to become comfortable with ophthalmic diagnostic techniques.
6 Credit Hours

VCSN 8900 Large Animal Medicine and Surgery Holiday Emergency Rotation - NBC
Students will assist emergency clinicians and house officers in history taking, examinations, and the medical and surgical management of large animal patients presented on an emergency basis to the hospital at New Bolton Center. Students will also be responsible for the care and treatment of medical and surgical patients hospitalized at New Bolton Center. This rotation will consist of two 12-hour shifts per day including the weekends and any holidays (example Christmas and New Years Day). All students will be expected to participate in night, weekend, and holiday duty on a rotating basis. Students in this rotation will be responsible for five 12-hour shifts each during the one-week rotation. Students are expected to be on the premises during their duty shifts. Rounds to acquaint students with the hospitalized patients will be held daily during each shift with the emergency clinician/house officer/nursing staff on duty, but no formal teaching or Grand Rounds will occur during this rotation.
3 Credit Hours

Veterinary Clinical Studies - Surgery Courses (VSUR)

VSUR 6010 Surgical Principles
This Core lecture/laboratory/computer course emphasizes the basic principles of surgery and the application to surgical diseases of domestic animals. Attendance at laboratories for this course is mandatory. Missed laboratories will result in the grade of Incomplete for the course. Missed laboratories will be made up during the next time the missed laboratory becomes available. Clinical Exercises, Course VSUR 602, in Quarter 1 cannot be taken until all course requirements for Surgical Principles have been completed.
4 Credit Hours

VSUR 6020 Clinical Exercises
1 Credit Hour
VSUR 6030 Clinical Orthopedics
This course presents the basic principles of orthopedic surgery and orthopedic disease. Course material includes small animal orthopedics, large animal orthopedics and orthopedic radiology. Laboratories include two radiograph reading sessions, one splint lab, and a lab pining and wiring plastic bones.
4 Credit Hours

VSUR 6040 Anesthesia
This course reviews basic physiologic and pharmacologic aspects and their relationship to clinical application of general anesthesia. Uptake of anesthetic agents and distribution to various organ systems are discussed as are the changes in acid-base balance produced by the state of anesthesia. Effects of anesthesia on pulmonary gas exchange and cardiovascular function are emphasized. The clinical aspects of pre-anesthetic medications, the choice of anesthesia, equipment and techniques, cardiopulmonary resuscitation, and the management of specialized cases are discussed. One progressive examination is given, and the final exam is comprehensive.
5 Credit Hours

Veterinary Clinical Studies and Advanced Medicine - Philadelphia (VCSP)

VCSP 6320 Diagnosis of Common Veterinary Intoxications
The diagnosis of poisoning in small animals has become an important part of Veterinary Medicine. All parts of Veterinary education are used in making diagnoses and formulating treatment of the poisoned animal patient. Thus, the course involves the integration of preclinical and clinical subjects, rather than simply the study of toxicology. The instructors will provide detailed descriptions of cases from the Emergency Service files, integrated with the more typically academic aspects of toxicology. A variety of common toxins will be discussed including ethylene glycol, lead, zinc, organophosphates, rodenticide anticoagulants, cholecalciferol and non-steroidal anti-inflammatory drugs. The format for this course will be creative and include interactive lectures and discussions. The major emphasis of the course will be the clinical diagnosis and clinical management of intoxicated patients utilizing basic physiological and pharmacologic principles.
2 Credit Hours

VCSP 6330 Fundamentals of Animal Behavior
The ingestive (feeding and drinking) behavior of domestic and laboratory animals: affiliative and aggressive behavior, body language. locomotion and exploration. The social behavior of domestic and laboratory animals: environmental needs, body care, mechanism, adaptive value, ontogeny, and phylogeny. The ecology of individual development of a behavior, including the analysis of its modification through learning, and animal cognition. The evolution course will cover: The anatomy and physiology that regulate behavior, large (farm) animals, poultry, and laboratory animals. Specifically, the fundamental tools to interpret the behavior of small (companion) and large animal orthopedics and orthopedic radiology. Laboratories include two radiograph reading sessions, one splint lab, and a lab pining and wiring plastic bones.
6 Credit Hours

VCSP 6340 Emergency Preparedness and Response
Emergency preparedness and response integrates core professional competencies including communication, collaboration, management, lifelong learning, scholarship, promoting the value of research, leadership, diversity and multicultural awareness, and adapting to changing environments. The organization of this course emphasizes the clinically relevant aspects of public health in the context of emergency preparedness. The importance of emergency preparedness/response and public health is especially evident in the time of the Covid-19 pandemic, and this course should help emphasize the importance of understanding these concepts in a clinical setting for any graduating veterinarian. The course will help prepare students for approaching a patient from the population or response levels. This is relevant to all practitioners, as emergency preparedness and response is currently an asset in the execution of Covid-19 response strategies in private practice as well as sheltering or public health settings.
3 Credit Hours

VCSP 6350 Introduction to Companion Avian Medicine
This course is designed to provide the future veterinarian with the tools to evaluate, diagnose, and treat pet avian species in clinics and beyond. Although the course will mainly focus on common psittacine species kept as pets, information on columbiform and passerine species will be provided as well. Topics covered will include pet parrot taxonomy, husbandry, nutrition, clinical examination, common infectious and noninfectious diseases, and practical diagnostic and surgical techniques. The final grade is based on attendance (students with 3 unexcused absences will receive a penalty to their grade) and completion of an in-class final examination. Submission of a course evaluation at the end of the course is required for a grade.
2 Credit Hours

VCSP 6360 Introduction to Reptile and Amphibian Medicine
This course is designed to provide the future veterinarian with the tools to evaluate, diagnose, and treat captive reptiles and amphibians in clinics and private practice, zoological institutions, and herpetological collections. This course will focus on the more common species kept as pets. Topics covered will include captive husbandry, basic herpetology, nutrition, clinical examination, common infectious and noninfectious diseases, surgery and anesthesia, diagnostic and treatment techniques. The final grade is based on attendance (students with 3 unexcused absences will receive a penalty to their grade) and completion of an in-class final examination. Submission of a course evaluation at the end of the course is required for a grade.
2 Credit Hours

VCSP 6365 Introduction to Reptile and Amphibian Medicine
This course is designed to provide the future veterinarian with the tools to evaluate, diagnose, and treat captive reptiles and amphibians in clinics and private practice, zoological institutions, and herpetological collections. This course will focus on the more common species kept as pets. Topics covered will include captive husbandry, basic herpetology, nutrition, clinical examination, common infectious and noninfectious diseases, surgery and anesthesia, diagnostic and treatment techniques. The final grade is based on attendance (students with 3 unexcused absences will receive a penalty to their grade) and completion of an in-class final examination. Submission of a course evaluation at the end of the course is required for a grade.
2 Credit Hours

VCSP 6370 Professional Foundations
Includes: 1) making the transition from student to employed veterinarian (resumes, cover letters/letters of intent, interviews, and job selection); 2) personal finance and investment strategies; 3) negotiation skills; 4) stress management; 5) evaluating disability insurance and understanding basic retirement planning options to know what to ask in an interview as part of your benefit plan; 6) time management & goal planning and 7) workshops on obtaining internship or a residency, and (b) Interview Role-Playing/Communication skills. Students are required to submit detailed personal budgets for their first year after graduation and a typewritten resume or curriculum vitae. To receive an “A” students also must submit a 3-year personal, professional, and financial plan. Course notes will be distributed at the first class session.
2 Credit Hours
VCSP 6380 Legal Issues for Veterinarians
Course is a broad overview of the legal issues veterinarians face on a daily basis, including legal constraints on practice; overview of laws regulating animals (including laws specific to Pennsylvania); divorce and custody battles; illegal drug compounding; internet pharmacies; lemon laws; pet health insurance; vaccination and liability; negotiating and understanding the employment relationship; veterinary malpractice and state board investigations; responding to client complaints; importance of medical records/informed consents; and, applied professional ethics with clients and colleagues including study of social media. A course hand-out will be provided. Testing of students will be through the use of 2 homework assignments. Attendance mandatory.
2 Credit Hours

VCSP 6390 Animals & Society
This course is a foundational course for students enrolling in the Animal Welfare Certificate Program. It will describe the changing roles and status of animals in society, and examine the history of human-animal relationships through the lens of subsistence hunting, animal domestication, farming and pastoralism, animal research, and pet keeping. The historical development of ambivalent/oppositional attitudes to animal exploitation will also be described and discussed, and the remarkable diversity of contemporary human-animal relationships and their impacts on animal welfare will be explored across cultures and contexts. The influence of science, government, business, and non-governmental organizations in defining and influencing animal-related laws and policies will also be addressed.
6 Credit Hours

VCSP 6410 Small Animal Pediatrics
The objective of this course is to further familiarize the student with the small animal pediatric patient and the proper approach to clinical diagnosis. Lectures are complemented with case reports which serve as a basis for small group discussions. Emphasis is placed on integration of new and previously acquired knowledge to construct differential diagnoses when presented with appropriate historical data and physical as well as laboratory findings. Diagnostic tests and therapeutic regimes for various conditions are discussed in the context of these cases. Grading is based upon attendance, participation in case discussions and performance at a final take home exam.
2 Credit Hours

VCSP 6420 Topics in Neurology
This seminar series will stress broad topics, the majority to be selected by the students, which relate to clinical neurology or neuroscience in general. Seminar topics will be selected and presented by students. The course grade (Pass/Fail) is based on class participation.
2 Credit Hours

VCSP 6430 Small Animal Clinical Nutrition
The first half of the small animal nutrition course will be devoted to: (1) information on feeding normal dogs and cats for maintenance and the prevention of disease and (2) the pet food industry, including labeling, regulation and laboratory on the evaluation of pet foods. The second half of the course will examine the role of dietary manipulation in the management of a wide variety of canine and feline diseases. The course format utilizes a combination of individual and group exercises, discussion, cases, and lectures some of which will require preparation outside of scheduled class time. Grading will be pass/fail and based on attendance, class participation and an individual take-home project.
2 Credit Hours

VCSP 6460 Small Animal Surgery
This course will cover selected topics of advanced surgical procedures in dogs and cats. Emphasis will be given to diseases and conditions where treatment usually requires elaborate procedures. Material presented will involve most major organ systems such as the gastrointestinal tract, the respiratory tract and the urogenital tract. Furthermore, the skin, the endocrine system, and the peritoneal and pleural cavities will be given special consideration. Minimally invasive surgery as well as advanced surgical tools and equipment will also be discussed. The course will be restricted to what is generally understood as soft tissue surgery.
3 Credit Hours

VCSP 6470 Small Animal Surgery/Anesthesia Laboratory
The class is divided into 2 groups. Building on the Core Anesthesia and Surgery laboratory course, this course provides the student with experience as assistant surgeon, surgeon and anesthetist while performing exploratory laparotomy and hysterectomy in cats. The cats are provided by an animal shelter and are returned to the shelter for adoption following surgery. Students enrolled in the course, working in teams of three, are responsible for examination and veterinary care (under supervision) at least daily while the cats are at the Veterinary School. There are two additional laboratory sessions. One is a session during which enterotomy, intestinal anastomosis and other soft-tissue procedures will be performed by each student on tissues. The other is an orthopedic procedure session during which pinning and plating techniques are performed by each student on models.
2 Credit Hours

VCSP 6480 Small Animal Anesthesia
This lecture and discussion course will stress the application of physiology, pharmacology, clinical pharmacology, and economics to the problems encountered during the clinical administration of anesthesia.
1 Credit Hour

VCSP 6490 Emergency/Critical Care Medicine
Small group case-based discussions pertain to the clinical evaluation and management of small animal emergency and critical care patients. Life-threatening abnormalities of the nervous, cardiovascular, respiratory, endocrine, gastrointestinal, and urinary systems are presented in a problem-oriented manner. Actual clinical case material is used to illustrate principles with emphasis placed on the physiology and pathophysiology of the presenting problem. Monitoring and therapeutic procedures (both conservative and non-conservative) will be presented. The grade will be based on a final examination given to small groups at the end of the course. The examination will be a clinical problem similar to all the other clinical problems presented in the course. Everyone in the same group will receive the same grade.
3 Credit Hours

VCSP 6500 Small Animal Dentistry and Oral Surgery
Building on the dentistry and oral surgery information presented in VMED611, Med/Surg I, the lectures cover the spectrum of dental and oral diseases and procedures seen and practiced in small animals. The course is integrated with oral surgery lectures presented in VCSP 648, Small Animal Surgery elective. Although there are normally no laboratory practice sessions included in this course, laboratory practice sessions based on material in this course are included in the Small Animal Dentistry and Oral Surgery clinical rotation (VCSP 817,VCSP 877).
2 Credit Hours
VCSP 6510 Practice Management
Includes establishing a realistic fee schedule; effectively marketing veterinary services; determining how much income a practice owner really makes; the veterinary client's perception of value; establishing a small or mixed animal practice; medical records as a legal defense and to generate income; understanding the vet-pet-client relationship to develop a bond-centered practice; introduction to personnel management and employment law; understanding the Internal Revenue Code, the payment of taxes, and the need for a schedule C to reduce one's tax liability; successfully organizing one's basic business management strategies; and marketing veterinary services. A 300-page notebook and 150 page hard cover book entitled *The Art of Veterinary Practice Management* will accompany this course and be provided at no charge by a corporate sponsor. The final examination consists of a group project to be completed by 2-4 people using a typical practice management "head-ache" as the problem to be resolved. Four guest speakers will participate in this course.
3 Credit Hours

VCSP 6520 Introduction to Shelter Animal Medicine
This course is designed to complement the senior year Shelter Animal Medicine rotation by introducing students to some of the particular problems and issues facing veterinarians who work with animal shelters and animal control facilities. The course will combine lectures and discussion periods, and will involve significant out-of-course reading assignments. Topics covered will include: Husbandry and disease management, pet population dynamics and control, behavior and behavior problems, feral cats, and animal cruelty & neglect. Course grades will be determined by attendance, participation in discussions and a final take home exam.
2 Credit Hours

VCSP 6540 Small Animal Critical Care Medicine
This course offers a comprehensive overview of several key aspects of critical care medicine. Lectures will primarily use a "case-based" approach with discussion of the physiology of organ function and the pathophysiology of disease, and will highlight state-of-the-art concepts for these exciting patients. The final session will be a "hands-on" laboratory in which the students will work with the monitoring instruments that have been discussed during the course. Evaluation will be based on a take home examination.
2 Credit Hours

VCSP 6550 Introduction to Wildlife Medicine I
This course is designed to provide an overview of the field of wildlife medicine for first year veterinary students through a lecture and wet lab format. Lecture and/or laboratory topics will include zoonotic diseases, diseases of native mammals, marine mammals, reptiles and birds; pathology, physical examination techniques, and introductions to necropsy techniques, fracture immobilization, and emergency care. The format will consist of six lectures, each approximately one hour in length, and three two-hour wet labs. Optional lectures may be scheduled during the semester based on student interest and speaker availability. Students are expected to attend all lectures and participate in the wet labs to receive credit for the course. Grades will be based on attendance (50%) and on three worksheets (50%); a five-page paper may be substituted with approval of the instructor. Opportunities for clinical experience at the Frink Center for Wildlife will be scheduled during the semester; students are expected to sign up in advance and are responsible for their own transportation.
1 Credit Hour

VCSP 6560 Introduction to Wildlife Medicine II
This course is designed to provide an introduction to the clinical aspects of wildlife medicine for first year veterinary students through a lecture and wet lab format. Lecture and/or laboratory topics will include zoonotic diseases, diseases of native mammals, marine mammals, reptiles and birds; pathology, physical examination techniques, and introductions to necropsy techniques, fracture immobilization, and emergency care. The format will consist of six lectures, each approximately one hour in length, and three two-hour wet labs. Optional lectures may be scheduled during the semester based on student interest and speaker availability. Students are expected to attend all lectures and participate in the wet labs to receive credit for the course. Grades will be based on attendance (50%) and on three worksheets (50%); a five-page paper may be substituted with approval of the instructor. Opportunities for clinical experience at the Frink Center for Wildlife will be scheduled during the semester; students are expected to sign up in advance and are responsible for their own transportation.
1 Credit Hour

VCSP 6570 Aquatic Animal Medicine
The goal of this course is to give an introduction to aquatic animal medicine by providing students with information regarding the species and their care for pet, aquarium and aquaculture aquatic species. Water quality maintenance, clinical techniques, and common infectious and non-infectious diseases will be reviewed. This course is designed to cover NAVLE focused material as a review and it is designed to equip future aquatics veterinarians with clinically-relevant resources that will enable them to become practice ready after graduation.
2 Credit Hours

VCSP 6580 Pet Small Mammal Med/Surg
This introductory course will mainly cover pet rabbits and ferrets with some discussion of rodents and other small mammals seen in veterinary practice. Husbandry, physical examination, diagnostic testing, and treatment techniques of these animals will be presented. The most common health problems and surgeries will be discussed. After this course, the student should be better prepared to see these patients during their clinical rotations and in practice. Student evaluation will be based on a final exam.
2 Credit Hours

VCSP 6590 Small Animal Advanced Cardiology
This course will build on the core cardiology curriculum by introducing a wider range of topics involving cardiovascular disease, treatment, and research in small animals. In-depth topics include diagnosis and treatment of cardiac arrhythmias, correction of congenital heart defects using minimally invasive catheter-based therapies, echocardiography of feline cardiomyopathy, clinical pathophysiology of degenerative mitral valve disease, and a review of the clinical trial evidence that forms the basis of standard treatment recommendations for congestive heart failure. The course is designed for a relatively small number of students so that discussion and interaction with the instructor(s) is facilitated. The course is suitable for students that might be interested in cardiology specialization or research careers as well as for future general practice veterinarians that wish to provide a high level of cardiac care for their patients.
1 Credit Hour
VCSP 6600 Advanced Small Animal Electrocardiography and Arrhythmias
This course will build on the core cardiology curriculum by providing practical experience involving electrocardiographic (ECG) interpretation and the diagnosis and treatment of cardiac arrhythmias in small animals. Specific topics include diagnosis of both supraventricular and ventricular arrhythmias as well as proper selection of antiarrhythmic therapy and a introduction to artificial pacemaker implantation. The course is designed for a relatively small number of students so that discussion and interaction with the instructor(s) is facilitated. The course includes 6 hours of laboratory where students will work through ECG cases in a small group setting. The course is suitable for students that might be interested in cardiology specialization as well as for future practice veterinarians that wish to provide a high level of cardiac care for their patients.

2 Credit Hours

VCSP 6640 Student Shelter Opportunities
This course is an introduction to High Quality High Volume (HQHV) surgery in the shelter environment and consists of 17 online lecture hours and 3 hours of in-person lecture hours of material that utilizes the Association of Shelter Veterinarians' Veterinary Medical Care Guidelines for Spay-Neuter Programs. Lecture topics, assignments, and pre/post tests are delivered online and include an overview of HQHV surgery, patient handling, anesthesia and pain management in the shelter environment, partner protocols, patient monitoring, patient pre-surgical preparation, basic surgical principles, sterilization of the male and female cat, and sterilization of the male and female dog. In-person lecture and discussion sessions will complement and expand upon online material. The lab component of this course consists of four hours of skills lab and 16 hours in a clinical setting with shelter medicine faculty participating in perioperative activities, which include physical exam, induction, patient preparation, surgery, and recovery. Emphasis in this course is a holistic approach to HQHV spay/neuter including pre-clinical skill acquisition that also introduces some concepts of shelter medicine and community programming. Grading is pass/fail. Purchase of an online webtext is required. Curriculum/course to cover high-quality, high-volume surgical and anesthetic principles to properly prepare students for not only these experiences, but give them a better foundation for learning life-long skills and enhancing their surgical experience at Penn via authentic learning experiences. Students will have to complete extensive online learning, assessments, and skills labs for this course.

3 Credit Hours

VCSP 6670 Student Shelter Opportunities II
This course is designed to be a continuation of Shelter Surgical Opportunities I and consists of six hours of online lectures/exam that cover inhalant anesthesia, more advanced knots and suture patterns, sterilization of the female cat, special sterilization cases, emergency procedures in the shelter environment and surgical instruments and pack preparation. Eighteen hours of on-site work at a partner shelter will be devoted to learning to spay and participation in peri-operative activities. Lecture topics, assignments, and pre/post tests are delivered online. Emphasis in this course is a holistic approach to HQHV spay/neuter including pre-clinical skill acquisition that also introduces some concepts of shelter medicine and community programming. To be eligible to spay, neuter and dogs or do specialty procedures, students must reach an appropriate level of competency in performing the feline spay, feline castration, and clinical skills as determined by course instructors. Every effort will be made to allow students to meaningfully participate in non-sterilization surgeries such as mass removal, enucleation, amputation and wound repair after they are spay certified, although achievement of this goal may require an on-call option depending on caseload and individual student interest. This course can be taken any time, including the Summer, after passing Student Shelter Opportunities II and grading is pass/fail.

1 Credit Hour

VCSP 7005 Small Animal Internal Medicine-Foundation
The Internal Medicine rotation involves clinical training in all core medicine disciplines including endocrinology, gastroenterology, hematology, infectious disease, nephrology, oncology and pulmonary medicine. Fourth year students will assist doctors in history taking, physical examinations and the medical management of patients presented to the Matthew J. Ryan Veterinary Hospital of the University of Pennsylvania. Students will also have directed supervision on nutritional aspects of internal medicine cases by a board-certified clinical nutritionist. Emphasis will be placed on problem solving, understanding of pathophysiology and integration and utilization of principles of medicine. As experience is gained, students will assume more responsibility in patient management. Students and staff will participate in daily rounds and conferences.

12 Credit Hours

VCSP 7105 Small Animal Internal Medicine
The elective rotation in small animal internal medicine will provide further contact and experience in problems of internal medicine (diseases of the endocrine, gastrointestinal, hematologic, pulmonary, and urogenital systems). Students in the elective rotation will be assigned more complex cases, and they will be expected to assume more responsibility for patient management and decision-making.

6 Credit Hours
VCSP 7125 Small Animal Intensive Care Medicine Service
The ICU rotation provides a good medical approach to the management of critical and often very unstable patients. Since these cases are often very challenging diagnostically, and also very dynamic, they provide an excellent learning experience, with ample opportunity for one-on-one discussion with the clinician, and for background reading. Students have an opportunity to become familiar with use and interpretation of the advanced technical equipment available in the ICU, and are also encouraged to perform and perfect technical skills such as catheterization of blood vessels and urinary bladder, obtaining arterial blood samples, etc. During the rotation, we encourage integration and a team approach among the students, the ICU clinicians, and the nursing staff. Students on the ICU service start daily at or before 7:00 a.m., and stay until their cases are stable and all of the proposed diagnostics have been completed (usually 6-7 p.m.). Students are expected to SOAP the cases daily including weekends, to be closely involved in decision-making, diagnostics and therapeutics, and to present and discuss the cases at daily rounds. Students are internally scheduled to assist in treatments in the Intensive Care Unit; patient care shifts may include evening and overnight responsibilities. Weekend duties are distributed equitably among all assigned students. Cage rounds are held daily at approximately 2 P.M. Student teaching rounds are held most weekdays at approximately 2:30 P.M. 6 Credit Hours

VCSP 7155 Small Animal Cardiology Service
Students will participate in outpatient and inpatient cardiovascular examinations and treatments. Cardiology Clinic days are currently Wednesday/Thursday/Friday, but are subject to change. Cardiology invasive procedures are performed on Tuesdays. Cardiology also provides consultation to other services and accepts transfer of Cardiology cases for primary care. Student responsibilities include obtaining a complete medical history and performing a thorough physical examination with emphasis on the cardiovascular system. After an orientation period on the first day, students are responsible for recording and interpreting electrocardiograms as well as interpreting thoracic radiographs and pertinent clinical laboratory data. Students assist with recording echocardiograms and are expected to become familiar with echo image recognition and common measurement techniques. Students are also expected to summarize pertinent findings in cases under their care at daily rounds and be able to discuss their significance. Completion of the medical case record for review by the attending cardiologist is required. The group captain will develop a schedule for the daily examination and morning treatments (seven days/week) of all hospitalized cases for which the cardiology service is responsible. A quiz is administered the final day of the rotation and determines 15% of the students grade for the rotation. Students should review notes for VMED 611 and the small animal cardiology computer assisted learning site prior to beginning the rotation. 5 Credit Hours

VCSP 7165 Dermatology & Allergy Service
This course exposes the student to case material presented to the Dermatology and Allergy Clinic at the small animal. This course exposes the student to case material presented to the Dermatology and Allergy Clinic at the small animal hospital, and may include case material presented to the large animal hospital at New Bolton Center. Special emphasis is given in the discussion of each patient to the etio-pathogenesis, diagnosis, and treatment of disease. Attendance during receiving of large animal cases at NBC may be required on one Wednesday of each block, although volunteers will be sought first. 5 Credit Hours

VCSP 7175 Comprehensive Cancer Care Service
This rotation will expose students to a comprehensive approach to clinical oncology in small animals, including cancer diagnosis, staging, treatment, and palliative care. This service is primarily comprised of faculty and staff from Medical Oncology, Surgery, and Radiation Oncology. Other services, such as Interventional Radiology and Dentistry and Oral Surgery, will also be involved. Students are expected to participate in the care of outpatient and hospitalized cases (including pre and post-operative care for Surgical Oncology patients) and in patient care rounds in the morning and afternoon. Weekend duties include morning and afternoon treatments for hospitalized patients. Each student will present and discuss a journal article or relevant tumor topic once during the rotation. 6 Credit Hours

VCSP 7215 Primary Care Services
This rotation will offer students the opportunity to evaluate cases scheduled with the Primary Care Service (PCS). The Primary Care Service is designed to give students first-hand experience in dealing with common general practice clinical cases and with client communication. The main objective is for students to have the opportunity to be the vet while working under the guidance and supervision of a PCS veterinarian. 5 Credit Hours

VCSP 7220 Small Animal Pediatrics/Genetics/Reproduction
The Small Animal Pediatrics-Genetics-Reproduction Clinic is run under the supervision of two board-certified faculty and two residents and emphasizes the unique care of pediatric patients, the approach and management of hereditary diseases, and reproductive problems. Pediatric and genetics clinics are held on Mondays and Tuesdays, and reproduction appointments are seen any day of the week. In addition to the clinical appointments, there is opportunity to see several unique genetic diseases in dogs and cats and handle the youngest of pediatric patients in the animal colonies, as well as get an appreciation for the specialty diagnostic laboratories. The clinical rotation deals with the initial yet crucial pediatric wellness visits including nutrition, socialization and preventive care and disease issues specific to this age group. The clinic highlights the evaluation of normal development and diagnosis of diseases of puppies and kittens (<1 year). Moreover, kittens and puppies with known or suspected inherited disorders are examined for which genetic counseling or special diagnostic studies are required. It provides experience with routine immunizations, treatment and prevention of parasitism, and nutritional and spay/neuter counseling. Also Offered As: VCSP 7820 2 Credit Hours

VCSP 7705 Small Animal Internal Medicine
The elective rotation in small animal internal medicine will provide further contact and experience in problems of internal medicine (diseases of the endocrine, gastrointestinal, hematologic, pulmonary, and urogenital systems). Students in the elective rotation will be assigned more complex cases, and they will be expected to assume more responsibility for patient management and decision-making. 6 Credit Hours
VCSP 7725 Small Animal Intensive Care Medicine Service
The ICU rotation provides a good medical approach to the management of critical and often very unstable patients. Since these cases are often very challenging diagnostically, and also very dynamic, they provide an excellent learning experience, with ample opportunity for one-on-one discussion with the clinician, and for background reading. Students have an opportunity to become familiar with use and interpretation of the advanced technical equipment available in the ICU, and are also encouraged to perform and perfect technical skills such as catheterization of blood vessels and urinary bladder, obtaining arterial blood samples, etc. During the rotation, we encourage integration and a team approach among the students, the ICU clinicians, and the nursing staff. Students on the ICU service start daily at or before 7:00 a.m. and stay until their cases are stable and all of the proposed diagnostics have been completed (usually 6-7 p.m.). Students are expected to SOAP the cases daily including weekends, to be closely involved in decision-making, diagnostics and therapeutics, and to present and discuss the cases at daily rounds. Students are internally scheduled to assist in treatments in the Intensive Care Unit; patient care shifts may include evening and overnight responsibilities. Weekend duties are distributed equitably among all assigned students. Cage rounds are held daily at approximately 2 P.M. Student teaching rounds are held most weekdays at approximately 2.30 P.M.
6 Credit Hours

VCSP 7765 Dermatology & Allergy Service
This course exposes the student to case material presented to the Dermatology and Allergy Clinic at the small animal This course exposes the student to case material presented to the Dermatology and Allergy Clinic at the small animal hospital, and may include case material presented to the large animal hospital at New Bolton Center. Special emphasis is given in the discussion of each patient to the etio-pathogenesis, diagnosis, and treatment of disease. Attendance during receiving of large animal cases at NBC may be required on one Wednesday of each block, although volunteers will be sought first.
5 Credit Hours

VCSP 7775 Comprehensive Cancer Care Service
This rotation will expose students to a comprehensive approach to clinical oncology in small animals, including cancer diagnosis, staging, treatment, and palliative care. This service is primarily comprised of faculty and staff from Medical Oncology, Surgery, and Radiation Oncology. Other services, such as Interventional Radiology and Dentistry and Oral Surgery, will also be involved. Students are expected to participate in the care of outpatient and hospitalized cases (including pre and post-operative care for Surgical Oncology patients) and in patient care rounds in the morning and afternoon. Weekend duties include morning and afternoon treatments for hospitalized patients. Each student will present and discuss a journal article or relevant tumor topic once during the rotation.
6 Credit Hours

VCSP 7815 Primary Care Services
This rotation will offer students the opportunity to evaluate cases scheduled with the Primary Care Service (PCS). The Primary Care Service is designed to give students first-hand experience in dealing with common general practice clinical cases and with client communication. The main objective is for students to have the opportunity to be the vet while working under the guidance and supervision of a PCS veterinarian.
5 Credit Hours

VCSP 7820 Small Animal Pediatrics/ Genetics/ Reproduction
The Small Animal Pediatrics-Genetics-Reproduction Clinic is run under the supervision of two board-certified faculty and two residents and emphasizes the unique care of pediatric patients, the approach and management of hereditary diseases, and reproductive problems. Pediatric and genetics clinics are held on Mondays and Tuesdays, and reproduction appointments are seen any day of the week. In addition to the clinical appointments, there is opportunity to see several unique genetic diseases in dogs and cats and handle the youngest of pediatric patients in the animal colonies, as well as get an appreciation for the specialty diagnostic laboratories. The clinical rotation deals with the initial yet crucial pediatric wellness visits including nutrition, socialization and preventive care and disease issues specific to this age group. The clinic highlights the evaluation of normal development and diagnosis of diseases of puppies and kittens (<1 year). Moreover, kittens and puppies with known or suspected inherited disorders are examined for which genetic counseling or special diagnostic studies are required. It provides experience with routine immunizations, treatment and prevention of parasitism, and nutritional and spay/neuter counseling.
Also Offered As: VCSP 7220
2 Credit Hours

VCSP 7900 Small Animal Medicine Holiday Rotation
The holiday internal medicine rotation will be a “learning on your feet” experience. Students will have similar responsibilities as during the core medicine rotations. Clinic appointments will be scheduled only for the first part of week one. Students will be assigned out patients and ES transfers and will evaluate these patients, formulate problem lists and appropriate diagnostic plans, participate in diagnostic procedures (e.g., bone marrow aspirate, tracheal wash), and perform treatments. Formal teaching rounds may not be held, but students will discuss patients on an individual basis with clinicians. The hours of the rotation shifts will be 6AM to 6 PM and 12 noon to 12 midnight. Each student will be assigned to five shifts and will likely cover four 6 AM to 6 PM shifts and one noon to midnight shift.
3 Credit Hours

VCSP 7980 Small Animal Neurology Holiday Rotation
The holiday internal medicine rotation will be a “learning on your feet” experience. Students will have similar responsibilities as during the core medicine rotations. Clinic appointments will be scheduled only for the first part of week one. Students will be assigned out patients and ES transfers and will evaluate these patients, formulate problem lists and appropriate diagnostic plans, participate in diagnostic procedures (e.g., bone marrow aspirate, tracheal wash), and perform treatments. Formal teaching rounds may not be held, but students will discuss patients on an individual basis with clinicians. The hours of the rotation shifts will be 6AM to 6 PM and 12 noon to 12 midnight. Each student will be assigned to five shifts and will likely cover four 6 AM to 6 PM shifts and one noon to midnight shift.
3 Credit Hours

VCSP 8005 Small Animal Soft Tissue Surgery
This is an elective clinical rotation equivalent to courses VCSP 8000. Prerequisite: Core Surgery Courses CONFERENCE HOURS: 3 hrs/day of clinics (5) = 15 hours. 2-4 hrs/day of surgery (5) = 10-20 hours. 1 hr/ weekend morning (4) = 4 hour. TOTAL 29-39 hours.
6 Credit Hours

VCSP 8115 Small Animal Orthopedics
This is an elective rotation equivalent to SA Orthopedic Surgery VCSP 8115. Prerequisite: Core Surgery Courses
6 Credit Hours
VCSP 8135 Small Animal Emergency Service
Students are assigned to a busy 24-hour, 7-day per week emergency service on a shift system. The students are responsible for diagnosis and management of animals presented to the service under the supervision of Emergency Service staff. Emergency Service rounds are held Monday through Thursday inclusive, and include topics related to emergency medicine and surgery centered around case discussion.
6 Credit Hours

VCSP 8145 Small Animal Radiology Service
This course primarily offers experience in small animal diagnostic radiology with some exposure to diagnostic ultrasound. Principles of radiographic interpretation teaching rounds are held daily. Students will assist in the positioning of animals and taking of routine and special procedure radiographic examinations and will observe and assist with ultrasonographic examinations of Ryan Hospital clinic cases. Students will also interact with the radiologist or radiology resident during their interpretation of the clinic cases. A 2-hour examination is given on the last day of the rotation. See Learn.vet for information on clinical competencies to be assessed in this rotation and to access additional study materials.
6 Credit Hours

VCSP 8155 Small Animal Anesthesiology Service
Students are responsible for anesthetizing animals presented to the anesthesia service under the supervision of the Anesthesia staff. During the day, students will work closely with either the anesthesiologist on duty or a senior technician. Students will be scheduled with a technician for "on-call" night and weekend duty. On-call duties begin on the first Tuesday (or second day) of the rotation and continue to the last Sunday (or last day before the next rotation). The anesthesia service provides on-call services from 8 pm until 8 am during weekdays, and from Friday 8 pm until Monday 8 am over the weekend. In general, students schedule themselves for the on-call duties. Most rotations assign one student on-call per night during weekdays and split the weekend into 8-12-hour shifts. Anesthesia student rounds are conducted Mondays, Wednesdays, Thursdays, and Fridays. The first rounds on the first day of the rotation (usually a Monday) will occur at 9 am. Rounds on Wednesdays are at 8 am. Rounds on Thursdays and Fridays are at 7:30 am. Students are expected to attend grand rounds on Tuesdays. It is highly recommended that students prepare for their rotation by reviewing the course notes from the anesthesia core course and student surgery labs. The anesthesia handout will be given to students on the first day of the rotation. The rounds schedule and topics will be presented in more detail then.
6 Credit Hours

VCSP 8175 Small Animal Dentistry and Oral Surgery
Students participate in the client communication (including assessment of medical history), clinical examination, diagnostic testing (including patient restraint for intravenous catheter placement), treatment planning and treatment of animals presented with dental and oral diseases, including periodontal, endodontic, restorative and occlusal problems and oral and maxillofacial inflammation, infection, malformation, trauma and cancer. Mondays and Wednesdays are clinic appointment days, with rounds and a teaching laboratory or treatment procedures in the afternoons. Tuesdays, Thursdays and Fridays are treatment days. Occasionally, cases are hospitalized into Saturdays, and emergency cases may be referred from ES on Saturdays and Sundays. Responsibility for Saturday and Sunday patient care will be one to maximum two weekend days per student during the two-week rotation, and will most often consist of being on-call. Typically, Mondays and Wednesdays run from 8.30am-5.30pm (only rarely are there cases to SOAP on these mornings), and Tuesdays and Thursdays from 7am-6.30pm. One student will be assigned to early-call (7am) on Fridays (other students will have an 8.30am start); Friday responsibilities typically extend to 4pm, except for one late-call student. Prerequisite: Core surgery lecture courses.
5 Credit Hours

VCSP 8705 Small Animal Soft Tissue Surgery
This is an elective clinical rotation equivalent to courses VCSP 800. Prerequisite: Core Surgery Courses CONFERENCE HOURS: 3 hrs/day of clinics (5) = 15 hours. 2-4 hrs/day of surgery (5) = 10-20 hours. 1 hr/weekend morning (4) = 4 hour. TOTAL 29-39 hours.
6 Credit Hours

VCSP 8715 Small Animal Orthopedics
This is an elective rotation equivalent to SA Orthopedic Surgery VCSP 8115. Prerequisite: Core Surgery Courses
6 Credit Hours

VCSP 8725 Small Animal Ophthalmology
The goals of this clinical rotation are to ensure that students achieve proficiency in performing a complete ophthalmic examination and become familiar with recognizing and treating common problems in small animal ophthalmology practice. All students are required to meet at 7:30 am the first day, and then at 8:00 am on subsequent days of the rotation. Attendance is not required on Friday of each week but the free time is expected to be dedicated to independent study in ophthalmology. An introduction to the service will be given on the first day of the rotation which will include a graded, short quiz. It is recommended that students prepare for the clinical rotation by reviewing their course notes in ophthalmology. Clinical rounds will take place several times weekly. Topic rounds and a cadaver (pig eye), surgery wet lab will be included if time permits. Outpatient service (each day of the rotation): Students are responsible for history taking, clinical examination, treatment planning, preparation of client discharge instructions and some client communication. Surgery patients (each day of the rotation): Students assigned a patient for surgery will be responsible for helping with the patients admission (7:30am the day of surgery). In preparation for surgery, the student must have reviewed the surgical technique, performed a complete physical examination and reviewed pertinent bloodwork. SOAPs, a surgical report and client communication following the procedure are also expected. There will be an opportunity to assist with some of the surgical procedures.
6 Credit Hours
VCSP 8735 Small Animal Emergency Service
Students are assigned to a busy 24-hour, 7-day per week emergency service on a shift system. The students are responsible for diagnosis and management of animals presented to the service under the supervision of Emergency Service staff. Emergency Service rounds are held Monday through Thursday inclusive, and include topics related to emergency medicine and surgery centered around case discussion.
6 Credit Hours

VCSP 8745 Small Animal Radiology Service
This course primarily offers experience in small animal diagnostic radiology with some exposure to diagnostic ultrasound. Principles of radiographic interpretation teaching rounds are held daily. Students will assist in the positioning of animals and taking of routine and special procedure radiographic examinations and will observe and assist with ultrasonographic examinations of Ryan Hospital clinic cases. Students will also interact with the radiologist or radiology resident during their interpretation of the clinic cases. A 2-hour examination is given on the last day of the rotation. See Learn.vet for information on clinical competencies to be assessed in this rotation and to access additional study materials.
6 Credit Hours

VCSP 8755 Small Animal Anesthesiology Service
Students are responsible for anesthetizing animals presented to the anesthesia service under the supervision of the Anesthesia staff. During the day, students will work closely with either an anesthesiologist on duty or a senior technician. Students will be scheduled with a technician for “on-call” night and weekend duty. On-call duties begin the first Tuesday (or second day) of the rotation and continue through to the last Sunday (or last day before the next rotation). The anesthesia service provides on-call services from 8 pm until 8 am during weekdays, and from Friday 8 pm until Monday 8 am over the weekend. In general, students schedule themselves for the on-call duties. Most rotations assign one student on-call per night during weekdays and split the weekend into 8 or 12-hour shifts. Anesthesia student rounds are conducted Mondays, Wednesdays, Thursdays, and Fridays. The first rounds on the first day of the rotation (usually a Monday) will occur at 9 am. Rounds on Wednesdays are at 8 am. Rounds on Thursdays and Fridays are at 7:30 am. Students are expected to attend grand rounds on Tuesdays. It is highly recommended that students prepare for their rotation by reviewing the course notes from the anesthesiology core course and student surgery labs. The anesthesia handout will be given to students on the first day of the rotation. The rounds schedule and topics will be presented in more detail then.
6 Credit Hours

VCSP 8765 Small Animal Behavior Clinic
This is an elective clinical rotation in small animal behavioral medicine. Clinics are Wednesday and Thursday. Appointments are also seen on Fridays, and students are invited, but not required, to join us. Out-patient behavior clinic appointments are scheduled at approximately 3-4 hour intervals. Each student is responsible for reviewing behavior notes from VMED 6160 (9005), prior to his/her first scheduled clinic. Students are required to attend all case rounds (twice per day), review records before rounds, and be prepared to present all cases. Students will assist with medical and behavioral history-taking, physical examination and diagnosis, and are responsible for a selecting handouts and writing discharge letter summarizing the recommendations made. Behavioral topics and volunteer training sessions are offered, when possible, between afternoon appointments and rounds.
5 Credit Hours

VCSP 8775 Small Animal Dentistry and Oral Surgery
Students participate in the client communication (including assessment of medical history), clinical examination, diagnostic testing (including patient restraint for intravenous catheter placement), treatment planning and treatment of animals presented with dental and oral diseases, including periodontal, endodontic, restorative and occlusal problems and oral and maxillofacial inflammation, infection, malformation, trauma and cancer. Mondays and Wednesdays are clinic appointment days, with rounds and a teaching laboratory or treatment procedures in the afternoons. Tuesdays, Thursdays and Fridays are treatment days. Occasionally, cases are hospitalized into Saturdays, and emergency cases may be referred from ES on Saturdays and Sundays. Responsibility for Saturday and Sunday patient care will be one to maximum two weekend days per student during the two-week rotation, and will most often consist of being on-call. Typically, Mondays and Wednesdays run from 8.30am-5.30pm (only rarely are there cases to SOAP on these mornings), and Tuesdays and Thursdays from 7am- 6.30pm. One student will be assigned to early-call (7am on Fridays (other students will have an 8.30am start); Friday responsibilities typically extend to 4pm, except for one late-call student. Prerequisite: Core surgery lecture courses.
5 Credit Hours

VCSP 8785 Exotic Companion Animal Medicine/Surgery
The purpose of this rotation is to introduce the student to exotic companion animal medicine and surgery. Students will gain knowledge of these animals by hands-on experience and participation in rounds. The student will be expected to obtain histories, develop a rule-out list and a diagnostic plan on all appointments. Students will participate in patient management and assist with various diagnostic and treatment procedures for all scheduled appointments and exotic animal emergencies transferred from the emergency service. There will be a Monday through Sunday clinic schedule as appointments are seen 7 days a week. Additionally, students are expected to be "on-call" for night and daytime emergencies with a clinician. Students should expect the typical day to run from 8:00 AM - 7:00 PM.
6 Credit Hours

VCSP 8795 Working Dog Medicine
To gain experience with all aspects of working dog medicine: Students will handle working dogs to perform general physical examinations as well as specialized assessments including but not limited to breeding soundness exams to assess dogs value in reproduction, dental examinations, and fitness evaluations. Student examinations and handling will be incorporated into behavioral training of dogs to being handled and touched on all areas of their body. Students will participate in routine preventive care and assess and treat injuries or illnesses that occur in the WDC working dogs. Students will gain experience in behavior and sports medicine through participation in impulse control, search work, fitness and conditioning exercises. Students may incorporate other aspects of working dog medicine into their rotations depending on their interests. These areas include sports nutrition, dentistry, and various aspects of research.
6 Credit Hours
VCSP 8805 Shelter Animal Medicine
This rotation gives a complex overview of the field of shelter medicine and community outreach by partnering via a service-learning model with open and closed admission shelters, HQHV surgical clinics, schools, and outreach organizations like Pets for Life. A typical rotation focuses on authentic hands-on learning including four surgical days, mentored primary case management of medical cases and shelter population rounds, public clinical outreach, herd health management, training and behavioral assessment, and providing veterinary CE for shelter staff. Rounds and tour topics include cruelty investigation and humane law enforcement, behavior, ethics, exotics, and risk analysis. Dentistry, necropsies, consults, special procedures, and outreach to local middle schools can also be included as part of the rotation depending on the week.
5 Credit Hours

VCSP 8900 Small Animal Surgery Holiday Rotation
This rotation will be similar to a regular surgery rotation with some modifications dictated by the holiday schedule. Students will assist surgery faculty and house officers in history taking, examinations, and the surgical management of small animal patients presented on an emergency basis to the Veterinary Hospital of the University of Pennsylvania. Students will be responsible for the daily care of surgical patients hospitalized at Ryan Hospital. They will also assist in surgery and perform treatments. All students will be expected to participate in night, weekend, and holiday duty on a rotating basis. Two students will be assigned to On Call duty each night and will perform treatments until midnight and assist with cases needing surgery in the night and evening hours. Assignments will be made the first day of the rotation. Rounds to acquaint students with the hospitalized patients will be held each morning and as time permits with the emergency clinician/house officer/nursing staff on duty, but formal teaching or rounds will occur as time permits during this rotation.
3 Credit Hours

VCSP 8930 Small Animal Emergency Service Holiday Rotation
This rotation will be very similar to the Emergency Medicine clinical rotation elective course. Students will be involved in triage, patient stabilization, history and physical examination, diagnostic workup and treatment of patients seen in the emergency room. (We want students who have an interest in learning more about emergency medicine!) Specific time will not be set aside during the rotation for student rounds; however, teaching on a case-to-case basis will be stressed. Rotation shifts will be 8 AM to 8 PM and 8 PM to 8 AM. Each student will be assigned to 5 shifts during the rotation. There will be at least two students assigned to each shift.
3 Credit Hours

VCSP 8940 Small Animal Radiology Service
3 Credit Hours

Veterinary Independent Study & Research (VISR)

VISR 6480 Computer-Aided Learning
Independent study working on computer assisted learning (CAL) projects for the summer. Students work with Linda Lewis and various faculty members depending on the projects available. CAL students must be self-motivated and self-disciplined and able stay on task with minimal supervision. Students will need their own laptop and internet access or can work on either campus. Students should be comfortable working with computers, using Microsoft office, and browsing the web. Experience editing images, videos, and websites are helpful. Students may need to travel to NBC occasionally through the summer. Students work individually and as part of a team and typically work 40 hours/week for 10 weeks.
5 Credit Hours

VISR 6970 Independent Study and Research: Animal Welfare and Behavior Program
This course enables students to undertake a self-directed study and research on a topic in Animal Welfare and Behavior, under the supervision of a faculty member. Students may also use this course to finalize any dissertation requirements.
1 Credit Hour

VISR 6990 Independent Study and Research
This course enables students to undertake a self-directed study on a topic in Veterinary Medicine, under the supervision of a faculty member. Students are required to submit an Independent Study & Research (ISR) application to the Registrar Manager in the Office for Students. Credit may vary.
1-8 Credit Hours

VISR 6995 Independent Study and Research (VISR)

Veterinary Pathobiology (VPTH)

VPTH 5500 One Health Study Design Seminar
This seminar course will introduce students to One Health approaches that address critical local, regional and global health problems. Students will work in interdisciplinary teams to review case studies and analyze past and current literature where One Health approaches have been applied. The course is specifically designed to foster the development of skills that allow students to think and communicate across professional disciplines. It will also help students develop transdisciplinary connections that might serve them in their professional futures. Students will be assigned a transdisciplinary team. Grading will be based on team-led presentations and analysis of literature, participation in discussion, and a final capstone project (One Health in Practice Plan) in the form of both a paper and presentation.
Also Offered As: VPTH 6500
6 Credit Hours
VPTH 6020 General and Systemic Pathology
The course includes general pathology and systemic pathology. The general principles and mechanisms of disease are discussed through the basic principles of cell and tissue reactions to injury, including degeneration, necrosis, pathological pigmentation, disturbances of circulation, disturbances of growth, inflammation and neoplasia. This course completes the systemic pathology of domestic animals with emphasis on the etiology, pathogenesis, gross and microscopic lesions, and diagnosis of diseases of the organ systems in the body. Formal classroom lectures are complemented with laboratory classes, gross pathology demonstrations and Moodle-based exercises all aimed at interpretation of gross and microscopic lesions.
16 Credit Hours

VPTH 6030 Parasitology
This core course is concerned with fundamentals of the morphology and developmental cycles of helminth, arthropod and protozoan parasites of animals and those that are transmissible from animals to man. The epidemiology and control of the infections are stressed along with pathogenesis, pathology and immunology. Lectures are supplemented by demonstrations of living and fixed materials and by exercises in identification and diagnosis. Laboratory exercises are supplemented by independent work on case studies of clinical parasitisms.
8 Credit Hours

VPTH 6040 Immunology
This course aims to educate students in Veterinary Medicine on fundamental aspects of immunology, including functional anatomy of the immune system, mechanisms of innate and adaptive immunity, immunological mechanisms of disease, and principles of vaccination.
4 Credit Hours

VPTH 6050 Microbiology
This course presents the fundamentals of medical microbiology (bacteriology, mycology, virology) and the applied art of diagnostic bacteriology. Emphasis is placed on the microbial agents of veterinary disease, their biology, mode of pathogenesis, and control with some introductory material concerning treatment and recognition. This course is presented as prerequisite to a later study of infectious disease.
7 Credit Hours

VPTH 6060 Clinical Pathology
Appropriate test selection and interpretation are essential to diagnostic evaluation. This course is an introduction to Clinical Pathology presented via case-based learning. Topics include hematology, serum chemistries, urinalysis, cytopathology, clinical endocrinology and blood banking. Within each topic, discussion will cover indications, limitations and interpretation of specific tests, but the emphasis will focus on integrating this information in the context of laboratory panels. Laboratory exercises provide the opportunity to perform and demonstrate basic competency in urinalysis, blood smear preparation and evaluation, and blood banking, as well as to evaluate clinical cases individually and in groups. A microscope is needed for the laboratories.
6 Credit Hours

VPTH 6150A Intro Comp Med Research
This year-long course for second year veterinary students is designed as a reinforcement of the first year introduction to clinical veterinary medicine series (VMED 6000, 6010 and 6020) and as a transition to the clinical year rotations. The emphasis is on practical experiences in our hospitals that will increase your clinical and technical skills as you familiarize yourselves with the hospitals facilities, policies and operations. The course will include approximately 11 hours of lecture; 32 hours of small-group practical clinical sessions per student (NBC) and 29 hours of small-group practical clinical sessions per student (MJR-VHUP). This will be a graded course - A, B, C or F.
1 Credit Hour

VPTH 6150B Intro Comp Med Research
This year-long course for second year veterinary students is designed as a reinforcement of the first year introduction to clinical veterinary medicine series (VMED 6000, 6010 and 6020) and as a transition to the clinical year rotations. The emphasis is on practical experiences in our hospitals that will increase your clinical and technical skills as you familiarize yourselves with the hospitals facilities, policies and operations. The course will include approximately 11 hours of lecture; 32 hours of small-group practical clinical sessions per student (NBC) and 29 hours of small-group practical clinical sessions per student (MJR-VHUP). This will be a graded course - A, B, C or F.
1 Credit Hour

VPTH 6330 Ecotoxicology for Veterinarians
The major goal of this course is to provide an introduction to ecotoxicology, the science of assessing the effects of toxic substances on ecosystems with the goal of protecting entire ecosystems. The course will present lectures about various research and career opportunities involving ecotoxicology, such as measuring the effects of pollutants on ecosystems, wildlife serving as monitors of environmental quality, important environmental pollutants such as insecticides, petroleum hydrocarbons and metals, and approaches to rehabilitating damaged ecosystems. Students will research, plan, and present a PowerPoint presentation on a topic relevant to ecotoxicology. The course grade will be based on attendance, the group presentation, and student participation in class discussions.
2 Credit Hours

VPTH 6340 Microbial Pathogenesis
The goal of this course is to provide the student with a conceptual framework regarding the mechanisms of microbial pathogenesis. A range of host-microbe interactions will be studied to illustrate how different microbes breach host lines of defense and lead to infections. Transmission, etiological diagnosis, as well as prophylactic and therapeutic approaches against infectious agents will be discussed with examples related to viral and bacterial pathogens, including zoonotic and Category A select agents.
2 Credit Hours
VPTH 6350 Introduction to Fish Diseases
This course is intended to introduce veterinary students to the biology and medicine of teleost fish. The first few lectures will provide a foundation in the classification, gross anatomy and immunology of fish, including practical laboratory classes. The remainder of the course will be more clinically oriented, and will present the most prevalent diseases of fish, emphasizing both the pathology and etiology of the diseases. In addition, the course will also focus on health maintenance through the control of water quality and treatment of diseases in fish. This part of the course will include some practical laboratory demonstrations. Grades will be determined on the basis of class participation and a 5-6 page research paper on a topic of the students choice.
2 Credit Hours

VPTH 6370 Capstone Proseminar in Animal Welfare and Behavior
This semester long (6 credit) online course for students enrolled in the MSc in Animal Welfare and Behavior is designed to guide students in their development of their capstone Master's project. It will provide students with the skills to refine and communicate their research questions and goals, engage in scholarly discussion in an interdisciplinary setting and the opportunity to deepen their knowledge of cutting edge research in their area of interest. Through structured synchronous meetings with mentors and peers and opportunities to attend virtual seminars across campuses, the Proseminar course also exposes students to a network of future mentors and colleagues who may play important roles in their career development. The course culminates in a written proposal describing a research question and hypothesis with a scholarly introduction to the topic and an annotated bibliography.
6 Credit Hours

VPTH 6400 Large Animal Pathology & Toxicology
The first goal of this course is to introduce large animal autopsy techniques for the purposes of identification of common postmortem lesions and review of clinical-oriented anatomy. The second goal is to provide a systems-based approach to domestic and global diseases commonly encountered large animal species, including horses, cattle and small ruminants, swine, camels and cervids. The course requires students to recognize pertinent gross and microscopic lesions correlated with clinical history in order to formulate appropriate differential diagnoses and promote in-depth knowledge of non-infectious and infectious etiopathogeneses, including zoonoses and domestic and foreign reportable diseases. Components of this course include lecture, gross autopsy demonstration and laboratories that involve inspection of fresh gross specimens, and interactive small group seminars pertaining to toxicology and species-specific lesions. Grades will be determined by two homework assignments, one final exam, and attendance to laboratories and small group seminars.
3 Credit Hours

VPTH 6410 Laboratory Animal Medicine
Note: This course is encouraged as a prerequisite for VPTH 789 ULAR - Laboratory Animal Medicine Clinical Rotation. This course is designed to provide further information about laboratory animal medicine to those students with a potential interest in the field. Issues of pain and distress, facility design, regulatory issues, and special procedures involving rodents and rabbits are addressed. Students will also be introduced to the mechanism of an Institutional Animal Care and Use Committee and will be primary participants in a “mock” meeting with visiting members of the committee here at Penn and actual research protocols. Grades will be determined by class participation and a short paper on a topic relevant to laboratory animal medicine.
2 Credit Hours

VPTH 6500 One Health Study Design Seminar
This seminar course will introduce students to One Health approaches that address critical local, regional and global health problems. Students will work in interdisciplinary teams to review case studies and analyze past and current literature where One Health approaches have been applied. The course is specifically designed to foster the development of skills that allow students to think and communicate across professional disciplines. It will also help students develop transdisciplinary connections that might serve them in their professional futures. Students will be assigned a transdisciplinary team. Grading will be based on team-led presentations and analysis of literature, participation in discussion, and a final capstone project (One Health in Practice Plan) in the form of both a paper and presentation. Also Offered As: VPTH 5500
6 Credit Hours

VPTH 7105 Small Animal Diagnostic Services
The course in the Small Animal Section consists of exposure to the Diagnostic Services of MJR-VHUP, namely clinical pathology, anatomic pathology (necropsy service), parasitology and microbiology. The course is focused on development of clinical pathology and necropsy skills and will include a practicum of necropsy technique. A portion of the rotation is also focused on biopsy, parasitology and microbiology. Furthermore, students will be exposed large animal necropsy by spending time at PADLS at New Bolton Center. The bioanalytical pathology portion, which comprises clinical pathology, parasitology and microbiology, will be divided into microscopy, discussion, and online interactive lesson sections. During the microscopy section, students will work with the supervising clinical pathologist or resident in the evaluation, interpretation, and reporting of cytologic specimens and blood film reviews. Discussions involving parasitology and microbiology will also include treatment options and best practices. Online lessons include work in parasitology, clinical pathology and microbiology. Students are also required to perform necropsies, write necropsy reports and to familiarize themselves with the pathophysiology, histopathology and the clinical manifestations of various disorders encountered. Participation of students in presentation and discussion of cases is required. Students will be evaluated based upon enthusiasm, effort, ambition, and advancement in pathology knowledge as evaluated through the directed group discussions, necropsies, microscopy sessions and clinical competency outcomes assessments. A short paper is required.
6 Credit Hours
VPTH 7115 Farm Animal Pathology-NBC
The course will provide students with experience in farm animal and companion animal autopsies and biopsies including interpretation of gross and microscopic lesions in the context of clinical history, and proper collection of samples for histology and ancillary diagnostics (e.g. microbiology, parasitology, cytology and toxicology). Students will participate in the diagnostic services provided by the Pennsylvania Animal Diagnostic Laboratory System (PADLS) at New Bolton Center. Multiple species commonly encountered at our diagnostic laboratory (horses, cattle and small ruminants, swine, camelids and cervids, small animals and exotics) will be utilized to illustrate the pathogenesis of infectious and non-infectious disease, and the principles of gross and microscopic description with formulation of morphologic diagnoses. Students will be evaluated based upon enthusiasm, effort, ambition, and advancement in pathology knowledge as evaluated through diagnostic autopsy technique, directed group discussions, microscopy sessions and clinical competency outcomes assessments. A short paper providing a succinct scientific review of a select topic pertaining to large animal pathology is required. Although gross pathology will be emphasized, exposure to histopathology and occasionally cytology will be included. Although there is no lecture component to this course, there is a web-based introduction to VPTH 711 Diagnostic Services and VPTH 771 Diagnostic Services Elective, which students must review prior to the start of their rotation. Students may find this introduction by logging in to https://learn.vet.upenn.edu with their Penn Key and Vet Domain password.
Also Offered As: VPTH 7715
6 Credit Hours

VPTH 7185 Poultry Production Medicine-NBC
This course is designed to provide students with a working knowledge of the management and production of poultry from hatchery to processing. The course will involve multiple field trips to a hatchery, grow out pullet house, layer house, breeder house, processing plant and a feed mill. There will also conduct necropsies on cases submitted to the diagnostic laboratory and learn the diagnostic procedures such as serology, virology and PCR testing.
8 Credit Hours

VPTH 7705 Small Animal Diagnostic Services
The course in the Small Animal Section consists of exposure to the Diagnostic Services of MJR-VHUP, namely clinical pathology, anatomic pathology (necropsy service), parasitology and microbiology. The course is focused on development of clinical pathology and necropsy skills and will include a practicum of necropsy technique. A portion of the rotation is also focused on biopsy, parasitology and microbiology. Furthermore, students will be exposed large animal necropsy by spending time at PADLS at New Bolton Center. The bioanalytical pathology portion, which comprises clinical pathology, parasitology and microbiology, will be divided into microscopy, discussion, and online interactive lesson sections. During the microscopy section, students will work with the supervising clinical pathologist or resident in the evaluation, interpretation, and reporting of cyto logical specimens and blood film reviews. Discussions involving parasitology and microbiology will also include treatment options and best practices. Online lessons include work in parasitology, clinical pathology and microbiology. Students are also required to perform necropsies, write necropsy reports and to familiarize themselves with the pathophysiology, histopathology and the clinical manifestations of various disorders encountered. Participation of students in presentation and discussion of cases is required. Students will be evaluated based upon enthusiasm, effort, ambition, and advancement in pathology knowledge as evaluated through the directed group discussions, necropsies, microscopy sessions and clinical competency outcomes assessments. A short paper is required.
6 Credit Hours

VPTH 7715 Farm Animal Pathology-NBC
The course in the Small Animal Section consists of exposure to the Diagnostic Services of MJR-VHUP, namely clinical pathology, anatomic pathology (necropsy service), parasitology and microbiology. The course is focused on development of clinical pathology and necropsy skills and will include a practicum of necropsy technique. A portion of the rotation is also focused on biopsy, parasitology and microbiology. Furthermore, students will be exposed large animal necropsy by spending time at PADLS at New Bolton Center. The bioanalytical pathology portion, which comprises clinical pathology, parasitology and microbiology, will be divided into microscopy, discussion, and online interactive lesson sections. During the microscopy section, students will work with the supervising clinical pathologist or resident in the evaluation, interpretation, and reporting of cyto logical specimens and blood film reviews. Discussions involving parasitology and microbiology will also include treatment options and best practices. Online lessons include work in parasitology, clinical pathology and microbiology. Students are also required to perform necropsies, write necropsy reports and to familiarize themselves with the pathophysiology, histopathology and the clinical manifestations of various disorders encountered. Participation of students in presentation and discussion of cases is required. Students will be evaluated based upon enthusiasm, effort, ambition, and advancement in pathology knowledge as evaluated through the directed group discussions, necropsies, microscopy sessions and clinical competency outcomes assessments. A short paper is provided. A succinct scientific review of a select topic pertaining to large animal pathology is required. Although gross pathology will be emphasized, exposure to histopathology and occasionally cytology will be included. Although there is no lecture component to this course, there is a web-based introduction to VPTH 711 Diagnostic Services and VPTH 771 Diagnostic Services Elective, which students must review prior to the start of their rotation. Students may find this introduction by logging in to https://learn.vet.upenn.edu with their Penn Key and Vet Domain password.
Also Offered As: VPTH 7715
6 Credit Hours
Vietnamese (VIET)

VIET 0100 Elementary Vietnamese I
An introduction to the language of North and South Vietnam. Instruction includes reading, writing, speaking and listening.
Fall or Spring
1 Course Unit

VIET 0200 Elementary Vietnamese II
This is the continuation course to Elementary Vietnamese I. It is intended for learners who want to achieve an elementary-level in Vietnamese. Based on an interactive communication approach, its goal is to train students speaking, listening, reading and writing skills in Vietnamese. Learners are thoroughly involved in communicative activities such as conversations, performance simulations, drills, role-plays, games, etc. there are task-based activities in open communication settings where students can practice Vietnamese, make mistakes, and learn from them. Learners improve their reading and writing abilities by developing their grammar and meaning-based vocabulary.
Fall
1 Course Unit

VIET 0300 Intermediate Vietnamese I
A continuation of ALAN 110, the written and spoken language of Vietnam.
Fall or Spring
1 Course Unit

VIET 0400 Intermediate Vietnamese II
This is the continuation course of VIET 0300 Intermediate Vietnamese I. Instruction includes reading, writing, speaking and listening through the use of Conversational Vietnamese textbook, other media, and through students participation in various classroom activities. Learners will also acquaint themselves with Vietnamese culture through lesson content and supplementary course materials. By the end of the course students should be able to further their knowledge of reading and writing skills, enhance their conversation skills, and read and write short narratives.
Spring
1 Course Unit

VIET 0500 Advanced Vietnamese I
This is the continuation course to Intermediate Vietnamese II. Instruction includes reading, writing, speaking and listening through the use of Conversational Vietnamese textbook, other media, and through students participation in various classroom activities. Insight into Vietnamese culture will be achieved through lesson content and supplementary course materials. Course emphasis is on conversation skills and the ability to read and write short narratives.
Not Offered Every Year
1 Course Unit

VIET 0600 Advanced Vietnamese II for Healthcare Professionals
Advanced Vietnamese for Health Professions is a content-based course designed for students who have successfully completed the Intermediate Vietnamese course (or have an equivalent level of proficiency) and plan to work in health care professions. This course especially facilitates Penn medical and nursing students who are going to serve the underserved Vietnamese communities in the U.S. and Vietnam.
Not Offered Every Year
1 Course Unit

VPTH 7805 Poultry Production Medicine-NBC
This course is designed to provide students with a working knowledge of the management and production of poultry from hatchery to processing. The course will involve multiple field trips to a hatchery, grow out pullet house, layer house, breeder house, processing plant and a feed mill. There will also conduct necropsies on cases submitted to the diagnostic laboratory and learn the diagnostic procedures such as serology, virology and PCR testing.
8 Credit Hours

VPTH 7895 ULAR-Laboratory Animal Medicine
This rotation will provide an opportunity to work with the wide variety of animal species used in biomedical research at the University of Pennsylvania, including nonhuman primates, small rodents, guinea pigs, rabbits, dogs, cats, pigs, and sheep. The students will participate in all aspects of the care and treatment of these animals across the facilities at the University of Pennsylvania. Participation may include handling, husbandry, diagnosis, treatment, anesthesia, and assistance with surgery. Students will perform daily rounds with the clinical veterinarians and other staff members. The student may have the opportunity to observe on-going interdisciplinary research programs including cardiopulmonary bypass, organ transplantation, gene therapy, device implantations, and metabolic disease progression. Students will participate in clinical rounds, didactic training classes, and related seminars and journal clubs as scheduled. Participation in necropsies of clinical cases, sentinel animals, and study animals is expected. A brief assignment on aspects of lab animal medicine will be required prior to completion of the rotation. Depending upon scheduling, the students will have an opportunity to attend a meeting of the Institutional Animal Care and Use Committee. A recent (within 6 months) negative skin test against tuberculosis is required by the first day of the rotation.
5 Credit Hours

VPTH 7900 Small Animal Pathology Holiday Rotation
This is an elective rotation similar to the necropsy component of the Diagnostic Services Rotation, VPTH 710,770. The rotation consists of practicum spent in performing necropsies and interpreting findings. Students are required to perform necropsies, write necropsy reports and to familiarize themselves with the pathophysiology, histopathology and the clinical manifestations of various disorders encountered. There will be two one-week rotations over the Holiday period, each for 2 credits. Each rotation will consist of half of the Holiday period and will not meet on either Christmas Day (week one) or New Years Day (week two). There is no clinical pathology, parasitology or microbiology component to this rotation. No paper is required for this rotation.
2 Credit Hours
Viper (VIPR)

VIPR 1200 Vagelos Integrated Program in Energy Research (VIPER) Seminar, Part I
This is the first part of the two-semester seminar designed to introduce students to the VIPER program and help them prepare for energy-related research. During this course, invited speakers from across Penn will share their research to introduce students to a breadth of different topics within energy science, and research articles on various energy-related topics will be discussed. Students will be provided guidance on how to identify research groups of interest and reach out to faculty members in preparation for their research projects during the summer. Library research, presentation of data, basic research methods, research ethics, data analysis, and advisor identification will also be discussed. Students will develop their scientific research skills by reviewing scientific literature and synthesizing their findings, and they will build their collaboration skills by regularly working together in small, interactive student groups. Sample energy topics discussed will include: Applications of nanostructured materials in solar cells; Solid oxide fuel cells; Global climate modeling; radiant heat transfer; Nanocrystal-based technologies for energy storage; Photo-bioreactor systems for mass production of micro-algae; Advanced rare earths separations chemistry; Modeling of oxides for solar energy applications; and Electronic transport in carbon nanomaterials. Admission to VIPER program required to enroll.
Spring
0.5 Course Units

VIPR 1210 Vagelos Integrated Program in Energy Research (VIPER) Seminar, Part II
This is the second part of the two-semester seminar designed to introduce students to the VIPER program and help them prepare for energy-related research. Students will build upon their work in VIPR-120 crafting scientific research projects, and in VIPR-121, they will focus on how to communicate science effectively using a variety of different platforms. Students will develop their communication skills by critically thinking about elements of content development and visual design to best engage with their audience, and they will develop their collaboration skills by regularly working together in small, interactive student groups and by providing peer feedback to each other. Students will continue to discuss how to conduct research ethically and responsibly as well as critically evaluate the systems used to communicate science and their challenges.
Fall
Prerequisite: VIPR 1200
0.5 Course Units

VIPR 1300 VIPER Undergraduate Energy Research and Leadership Development
This course is designed to support and prepare students in the Vagelos Integrated Program in Energy Research (VIPER) in their on-going commitment to research activities and enhance their development as energy research leaders. This course is offered in the summer, fall, and spring terms, and module assignments will be specific to the term, as described below. Students are expected to complete a minimum number of graded module assignments which can be tailored to reflect their current research efforts and plans. This structure is designed to support sophomore, junior, and senior students throughout their undergraduate career. Students may register repeatedly for VIPR-1300 as they continue with their research experiences throughout their undergraduate career. Activities include making arrangements to conduct VIPER research over the summer, reading scientific literature related to their summer research projects, writing reports in preparation for and summarizing their summer research activities, summarizing and reflecting on their on-going research efforts during the semester, being actively involved in energy-relevant activities and submitting reflections about their experiences, and preparing materials for and presenting their energy research to the Penn community in the form of poster sessions and/or campus-wide presentations.
Fall, Spring, and Summer Terms
Prerequisite: VIPR 1200
0-0.5 Course Units

Visual Studies (VLST)

VLST 1010 Eye, Mind, and Image
Visual Studies 101 provides an introduction to the collaboration of eye, mind, and image that produces our experience of a visual world. How and what do we see? How do we perceive color, space, and motion? What is an image? Does seeing vary across cultures and time? What can art tell us about vision? Is there a 21st-century form of seeing? This course combines different approaches to the study of vision, drawing from psychology, cognitive science, philosophy, history of art, and fine art. Professors representing two or three disciplines present lectures that demonstrate the methods of their disciplines and draw connections across fields. This course combines different approaches to the study of vision, drawing from psychology, cognitive science, philosophy, history of art, and fine art. Professors representing two or three disciplines present lectures that demonstrate the methods of their disciplines and draw connections across fields.
Fall or Spring
Also Offered As: ARTH 1500
1 Course Unit

VLST 1020 Form and Meaning
This course will introduce students to the theory and practice of image making, focusing on the development of observational skills and analytical thinking. We will look at conventions of artistic representation across time and cultures; discuss types of visual information and modes of formal language; explore visual narrative techniques; and seek to expand our understanding of the role images play in our culture. We will look at conventions of pictorial representation across time and cultures; discuss types of visual information and modes of formal language; explore visual narrative techniques; and seek to expand our understanding of the role images play in our culture.
Fall or Spring
1 Course Unit
**VLST 1030 3 Dimensions: Time and Space**

Through studio projects, readings and class discussion, this class will begin to address, both conceptually and physically, basic 3D structures and translations between 3D and 2D, as well as materiality, experiential phenomena, light and time-based processes. The interconnection between mediums in our cultural climate employs a wide range of tools, processes, and ideas. It is imperative that visual studies students recognize and think through these connections. The work produced and ideas confronted in this class will facilitate discussions and constructive criticism on the fundamentals of space and time via the experiential, conceptual, and the formal as essential elements of meaning. The interconnection between mediums in our cultural climate employs a wide range of tools, processes, and ideas. It is imperative that visual studies students recognize and think through these connections. The work produced and ideas confronted in this class will facilitate discussions and constructive criticism on the fundamentals of space and time via the experiential, conceptual, and the formal as essential elements of meaning.

Fall or Spring
1 Course Unit

**VLST 1050 Inventing Photography**

Photography is a young medium and yet its history can be traced through differing narratives. Was the medium born in a French patent office, when the sun burned a handprint in silver salt, or when human eyes saw an inverted image projected into a dark space? Does photography reflect the perspective and biases of its inventors and users, or does it reinvent how we see the world? This seminar will take material and theoretical approaches to understanding the histories of photography. Students will handle original materials from photography’s history, make photographs using historic chemical-processes and styles while we learn about the history of early photography. This class will also include lectures and discussions of readings. This class will visit archives and museums on and off of campus. Prior experience with photography is welcome but not required.

Fall, even numbered years only
1 Course Unit

**VLST 1060 Virtual Reality Storytelling**

What does it mean to compose for an open world, in 3 dimensions, where the audience can move with 6 degrees of freedom? How does embodiment in a 360 degree space change the experience of the audience? What control does the director maintain when the user chooses their own immersive adventure? In this course, we will explore the past, present, and future of immersive narrative through a variety of media, including fictional texts, dystopian television shows, and Virtual Reality films. Using the critical theory of media scholars from diverse backgrounds, students will critique VR applications as models to inform their own iterative design process. Students will prototype their own VR narrative films with the tools available through the library makerspaces and media lab. No experience with film or emerging technology necessary.

Spring, even numbered years only
Prerequisite: None
1 Course Unit

**VLST 2090 Visual Culture through the Computer’s Eye**

Visual studies and the humanities more generally have thought about and modeled seeing of artworks for many centuries. What useful tools can machine learning develop from databases of art historical images or other datasets of visual culture? Can tools from machine learning help visual studies ask new questions? When put together, what can these fields teach us about visual learning, its pathways, its underlying assumptions, and the effects of its archives/datasets? Class project teams will ideally be composed of both humanities majors and engineering majors who will develop datasets and/or ask important questions of datasets, in addition to thinking and writing more generally about how computer vision could help in teaching and analyzing visual art. We are looking for a variety of students from different majors and schools to bring their diverse skill sets to the course. No programming knowledge is required. The course offers an example-based introduction to machine learning, so no prior knowledge of machine learning is required.

Fall or Spring
Also Offered As: CIS 1070
1 Course Unit

**VLST 2110 Perception**

How the individual acquires and is guided by knowledge about objects and events in their environment.

Fall
Also Offered As: PSYC 1340
Prerequisite: PSYC 0001 OR COGS 1001
1 Course Unit

**VLST 2120 Research Experience in Perception**

In this research course, students will begin by first replicating earlier experiments to measure human visual memory capacity. After several class discussions to discuss ideas, each student will design and conduct their own experiment to further investigate visual and/or familiarity memory.

Fall or Spring
Also Offered As: PSYC 4340
1 Course Unit

**VLST 2130 Images in Science**

Pictures, diagrams, graphs, and (more recently) computer images are ubiquitous in modern science. Visualizations are crucial in the process of research; for communicating evidence, theories, and experiments to other scientists; and for transmitting scientific ideas to the public. But serious questions about the validity of using images to convey knowledge about nature have been raised from the earliest natural philosophers onwards, and understanding precisely what any particular scientific image does can be surprisingly difficult. In this class we will investigate, as historical and cultural artifacts, images related to the generation or transmission of knowledge about nature, knowledge that has claims to a privileged epistemological status. The focus will be on three kinds of visual depictions: images of the macrocosm (the universe as a whole), images of the microcosm (the body and its parts), and the visualization of theories and data. What are the material and technological conditions underlying these images? What can the images we examine tell us about the communities and societies, including our own, in which they were created? What do they reveal about the nature of the scientific enterprise, about the relationship between the sensible world and the mind, and about ideals concerning truth, objectivity, and morality?

Spring
1 Course Unit
VLST 2140 Art as Intercultural Dialogue (SNF Paideia Program Course)
Art, dialogue theory and cultural differences come together in this experiential course. Students will explore and learn about all three of these components. They will experience true dialogue and learn about it. They will engage in interpersonal encounters with art, the key driver of cultural content for this course. Art will provide a neutral platform for perceiving cultural differences through careful exploration, verbal description, and an exchange of insights into ways artists express concerns, biases, and world views. Students will engage in dialogues to inquire into these and other personal and cultural differences, thereby participating in intercultural communication. Altogether the course will offer a safe space for students to exchange cultural and personal points of view as expressed in many forms of art and to then participate in dialogues that delve into these rich and complex forms of expression. True dialogue is not a discussion or argumentation aimed to unveil a single truth. True dialogue is a co-creation, a creative process, a source of newness, a discovery journey, and a portal to a new reality. This course is for students who want to be disrupted by a new understanding of art and to embrace new cultural realities as they stretch their perceptions, ideas and experiences. "Art opens a window into a culture's dreams, drives, and priorities" revealing "aspects of a culture's soul." It is frequently ambiguous and asks to be questioned. Individual perceptions and insights are worthy and do not fall into right or wrong categories. Because art is a dynamic and flexible tool to build personal equity, meaning a sense of fairness, students will enlarge their capacity to connect to the world's diversity through its multiple expressions. The ensuing dialogues will open thought rather than close it down and encourage openness to other ways of seeing the world. Because students will engage in true dialogue with one another and with art that arises from diverse backgrounds and ways of interpreting the world, they will emerge with increased confidence to interpret complex issues and manage diverse relationships. The course is experiential and hands-on. It requires personal commitment, an open mind and a desire to grow using new, non-traditional and effective ways of connecting art and intercultural dialogue. It does not require prior knowledge of or experience with art. As part of the experiential learning, some of the course activities will take place in museums and art galleries in Philadelphia.

Spring
1 Course Unit

VLST 2170 Visual Neuroscience
An introduction to the scientific study of vision, with an emphasis on the biological substrate and its relation to behavior. Topics will typically include physiological optics, transduction of light, visual thresholds, color vision, anatomy and physiology of the visual pathways, and the cognitive neuroscience of vision.

Spring
Also Offered As: NRSC 2217, PSYC 2240
Prerequisite: NRSC 1110
1 Course Unit

VLST 2210 Introduction to Philosophy of Mind
This course will survey several central topics in philosophy of mind, as well as investigate how philosophy of the mind interacts with scientific study of the mind. Among the questions we'll be asking are: What is it to have a mind? What is the relationship between the mind and the brain? Can there be a science of the mind? What can it tell us? What can philosophy contribute to a science of the mind? What is consciousness? What is it to think, to perceive, to act? How are perception, thought, and action related to one another? Fall or Spring
Also Offered As: PHIL 2640
1 Course Unit

VLST 2220 Philosophy of Perception
A seminar for majors in Philosophy. Taking our perceptual experience as a given, what causes it? In a realistic mood, we accept that objects in the environment, or in the "external world," cause us to have the perceptual experiences that we do (as of a table with food, or as of a garden with flowers in it). Yet on this realistic view, our perception is the result of a causal chain that leads from object to eye to brain to experiences, and we are only given the last element: the experience. So how do we really know how our experiences are caused, and where do we get the idea that they are caused by an external world of physical objects? The seminar will focus on the problem of the external world as examined by David Hume, Thomas Reid, G. E. Moore, and Bertrand Russell, along with recent authors.
Not Offered Every Year
Also Offered As: PHIL 3623
1 Course Unit

VLST 2230 Philosophy and Visual Perception
In this course, we'll use the biology, psychology and phenomenology of vision to explore philosophical questions about color, such as these: Color vision helps us get around in our environments, but in what sense is it a window onto reality, if it is? Are colors properties of objects, or are they inherently private, subjective properties of minds? What can non-human forms of color vision teach us about the nature of color, and how should we empirically study color vision? Do we need to see in color to understand it? How do our ordinary ways of talking and thinking about colors relate to the experiences we have in color? How does color vision figure in aesthetic judgment? And to what degree can it be influenced by learning, or by social biases like sexist or racist prejudices?
Also Offered As: PHIL 2843
1 Course Unit

VLST 2320 The Artist in History, 1400-Now
This course is an introduction to the history of art in a global context from the early 1400s to the present. Lectures will introduce students to significant moments in artistic production in both the Western and Eastern hemispheres through focused studies on crucial aspects of exchange between cultures and continents. Covering an era of increasing economic transactions, imperial conquests, and industrialization, this course will build recursively through themes such as: the emergence of authorial identity and models of artistic collaboration, the traffic of artistic materials and techniques and their adaptation in different cultural settings, and the foregrounding of art to both document and initiate political change. Developing vocabularies to discuss painting, sculpture, architecture, and prints, as well as photography and film, students will learn to analyze art's decisive role during times of social transformation, including modernization, colonization, and technological advances. We will also examine the role of broad-reaching media and the advent of art criticism in forming public opinion. Assignments will encourage students to think widely across geographies and study intimately local examples in the Philadelphia museums. This course fulfills Sector III: Arts and Letters and counts towards the History of Art major and minor requirements.
Spring
Also Offered As: ARTH 1020
1 Course Unit
VLST 2330 Art and Civilization in East Asia
Introduction to the major artistic traditions of China and Japan and the practices of art history. We will also consider aspects of Korean and Indian artistic traditions as they relate to those of China and Japan. Our approaches will be methodological in addressing how we understand these objects through careful looking; chronological in considering how the arts developed in and through history; and thematic in studying how art and architecture were used for philosophical, religious and material ends. Special attention will be given to the relationship between artistic production and the afterlife; to the impact of Buddhism and its purposes; to painting traditions and their patronages; and to modernist transformations of traditions.
Not Offered Every Year
Also Offered As: ARTH 1030, EALC 0100
1 Course Unit

VLST 2340 Art of Global Asia
This course surveys flows of ideas, images, and objects across, within, and beyond Asia. It considers how the art of Asia is and has been global from antiquity through the present, and introduces ‘Asia,’ ‘globality,’ and ‘art’ as key terms and concepts that shift over time and place. Artistic traditions are presented within broader historical, cultural, social, and economic frameworks, with attention to their local and regional significance. Trade, exchange, and interaction between cultures and groups, including but not limited to artists, pilgrims, merchants, warriors, and rulers, and the transmission of concepts through languages, religions, and philosophies, will be highlighted throughout. We shall address problems of iconophilia and iconoclasm, narrative and temporality, archeology and historiography, ritual and religion, sovereignty and kingship, gender and sexuality, colonialism and nationalism, diasporas and migration as they pertain to the images, objects, and sites of our study. We shall make use of local resources at the Penn Museum and Penn Libraries, as well as other sites, to show how objects retain and inflect these ideas. The course builds out from a central focus on the arts of South Asia or the arts of East Asia, depending upon the specialty of the faculty member teaching the course, with additional faculty offering guest lectures as available. Students with a background in art history, studio art, architecture, history, religion, literature, anthropology, and/or South or East Asian Studies are especially welcome.
Not Offered Every Year
Also Offered As: ARTH 1040, SAST 1040
1 Course Unit

VLST 2350 Introduction to Visual Culture of the Islamic World
A one-semester survey of Islamic art and architecture which examines visual culture as it functions within the larger sphere of Islamic culture in general. Particular attention will be given to relationships between visual culture and literature, using specific case studies, sites or objects which may be related to various branches of Islamic literature, including historical, didactic, philosophical writings, poetry and religious texts. All primary sources are available in English translation.
Not Offered Every Year
Also Offered As: ARTH 2350
1 Course Unit

VLST 2360 Art Now
One of the most striking features of today's art world is the conspicuous place occupied in it by the photographic image. Large-scale color photographs and time-based installations in projections are everywhere. Looking back, we can see that much of the art making of the past 60 years has also been defined by this medium, regardless of the form it takes. Photographic images have inspired countless paintings, appeared in combines and installations, morphed into sculptures, drawings and performances, and served both as the object and the vehicle of institutional critique. They are also an increasingly important exhibition site: where most of us go to see earthworks, happenings and body-art. This course is a three-part exploration of our photographic present.
Spring
Also Offered As: ARTH 2940, ENGL 2639, GSWS 2940
1 Course Unit

VLST 2370 Material History of Photography
Photography is a young medium and yet its history can be traced through differing narratives. Was the medium born in a French patent office, when the sun burned a handprint in silver salt, or when human eyes saw an inverted image projected into a dark space? Does photography reflect the perspective and biases of its inventors and users, or does it re-invent how we see the world? This seminar will take theoretical and material approaches to understanding the histories of photography. In addition to lectures and readings, students will handle original materials and make photographs using historic chemical-processes and styles.
Fall, even numbered years only
1 Course Unit

VLST 2390 Virtual Reality for Artists
With rapid developments in virtual reality technology, artists have new opportunities to exhibit work at any scale, create interactive and immersive experiences, and bridge distances between makers and viewers. This course will focus on creating art for virtual (and augmented) reality, and learning about the development of VR as a medium and how it is being utilized by contemporary artists. Students will create virtual exhibition spaces for images, videos, sculptures, and develop interactive work that can only exist in Virtual Reality. We will also develop 3D sculptures for augmented reality. We will develop our camera and editing skills for making still and video-based VR media and learn the fundamentals of 3D modeling in Blender. We will also develop advanced skills in Adobe Photoshop, Premier, and Rhino3d. Readings in this course will cover contemporary topics in VR and consider pre-VR immersive mediums such as Panorama painting and stereographic photography.
Fall
1 Course Unit

VLST 2500 Introduction to Printmaking
The course offers an introduction to several forms of printmaking including: intaglio, screen printing, relief, and monoprinting. Through in-class demonstrations students are introduced to various approaches to making and printing in each medium. The course enhances a student's capacity for developing images through two-dimensional design and conceptual processes. Technical and conceptual skills are developed through discussions and critiques.
Spring
Also Offered As: FNAR 1100
1 Course Unit
VLST 2510 Introduction to Photography
This course is an introduction to the basic processes and techniques of black & white photography. Students will learn how to expose and process 35mm film, SLR camera operation, darkroom procedures & printing, basic lighting and controlled applications. It begins with an emphasis on understanding and mastering technical procedures and evolves into an investigation of the creative and expressive possibilities of making images. This is a project-based course, where students will begin to develop their personal vision, their understanding of aesthetic issues and photographic history. Assignments, ideas and important examples of contemporary art will be presented via a series of slide lectures, critiques and discussion. No previous experience necessary. 35mm SLR cameras will be available throughout the semester for reservation and checkout from the photography equipment room.
Fall or Spring
Also Offered As: FNAR 1030
1 Course Unit

VLST 2520 Sculpture I
As an introduction to traditional and contemporary three-dimensional practice, this course is concerned with the concepts and methodologies surrounding three-dimensional art making in our time. Students experiment with a variety of modes of production, and develop some of the fundamental techniques used in sculpture. In addition to these investigations, assignments relative to the history and social impact of these practices are reinforced through readings and group discussion. Processes covered include use of the Fab Lab, wood construction, clay, paper, mixed media, and more.
Fall or Spring
Also Offered As: FNAR 1060
1 Course Unit

VLST 2530 Drawing I
This course is designed to develop visual awareness and perceptual acuity through the process of drawing. Students learn to sharpen perceptual skills through observational drawing, and to explore the expressive potential of drawing. A variety of problems and media will be presented in order to familiarize students with various methods of working and ways of communicating ideas visually. Subject matter will include object study, still life, interior and exterior space, self-portrait and the figure. Different techniques and materials (charcoal, graphite, ink, collage) are explored in order to understand the relationship between means, material and concept. Critical thinking skills are developed through frequent class critiques and through the presentation of and research into historical and contemporary precedent in drawing.
Fall or Spring
Also Offered As: FNAR 0010
1 Course Unit

VLST 2600 Photography Practices
This course is an introduction to the basic principles, strategies and processes of photographic practice. It is designed to broaden the student’s aesthetic explorations and to help the student develop a visual language based on cross-disciplinary artistic practice. Through a series of projects and exercises students will be exposed to a range of camera formats, techniques and encouraged to experiment with the multiple modes and roles of photography - both analogue and digital. Attention will also be given to developing an understanding of critical aesthetic and historical issues in photography. Students will examine a range of historical and contemporary photowork as an essential part of understanding the possibilities of image making. This course is primarily for first-years and sophomores. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu
Fall or Spring
Also Offered As: FNAR 1020
1 Course Unit

VLST 2610 Video I
In this studio based course, students are introduced to video production and postproduction as well as to selected historical and theoretical texts addressing the medium of video. Students will be taught basic camera operation, sound recording and lighting, as well as basic video and sound editing and exporting using various screening and installation formats. In addition to a range of short assignment-based exercises, students will be expected to complete three short projects over the course of the semester. Critiques of these projects are crucial to the course as students are expected to speak at length about the formal, technical, critical and historical dimensions of their works. Weekly readings in philosophy, critical theory, artist statements and literature are assigned. The course will also include weekly screenings of films and videos, introducing students to the history of video art as well as to other contemporary practices.
Fall or Spring
Also Offered As: CIMS 0610, FNAR 1010
1 Course Unit

VLST 2640 Art, Design and Digital Culture
This course is an introduction to the fundamental perception, representation, aesthetics, and design that shape today’s visual culture. It addresses the way artists and designers create images; design with analog and digital tools; communicate, exchange, and express meaning over a broad range of media; and find their voices within the fabric of contemporary art, design, and visual culture. Emphasis is placed on building an extended form of visual literacy by studying and making images using a variety of representation techniques; learning to organize and structure two-dimensional and three-dimensional space, and designing with time-based and procedural media. Students learn to develop an individual style of idea-generation, experimentation, iteration, and critique as part of their creative and critical responses to visual culture. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu
Fall or Spring
Also Offered As: DSGN 0010
Mutually Exclusive: DSGN 5001
1 Course Unit
VLST 2650 Digital Photography
This class offers an in-depth technical and conceptual foundation in digital imagery and the opportunity to explore the creative, expressive possibilities of photography. Students will become proficient with the basic use of the camera, techniques of digital capture, color management and color correction. They will also develop competency in scanning, retouching, printing and a variety of manipulation techniques in Photoshop. Through weekly lectures and critiques, students will become familiar with some of the most critical issues of representation, consider examples from photo history, analyze the impact of new technologies and social media. With an emphasis on structured shooting assignments, students are encouraged to experiment, expand their visual vocabulary while refining their technical skills. No previous experience is necessary. Although it is beneficial for students to have their own Digital SLR camera, registered students may reserve and checkout Digital SLR cameras and other high-end equipment from the department.
Fall or Spring
Also Offered As: FNAR 1040
1 Course Unit

VLST 3010 What is Visual Studies?
Visual Studies 301 is a seminar-format course that challenges students to develop independent ideas about how the eye, the mind and the image that is created therein, all work together to inform our conception of the world at large. Rather than present a unified viewpoint, the course asks the question, "What is visual studies?" by examining parallel and sometimes antagonistic approaches to the ways that human beings understand sight and the concept of visuality. Over the course of the semester, students will discuss and write about various approaches to vision, examining this contested field through the lenses of several disciplines -- including psychology, philosophy, and art history. By parsing and assimilating diverse ideas, students will decide for themselves what are the most pertinent and relevant approaches to the various avenues of research that present themselves in the emerging interdisciplinary field of Visual Studies.
Fall or Spring
Prerequisite: VLST 1010
1 Course Unit

VLST 3030 The Rise of Image Culture: History and Theories
Today images are everywhere; two centuries ago, they were rare. This seminar considers key historical and theoretical contexts for this change and its social consequences. With the help of some of the strongest critics and theorists of image culture, we will consider five interrelated aspects of the rise of image culture. - First, we will explore how new media and mechanical reproduction has changed the idea of the image over in the free market. - Second, we will explore how images operate through the psyche and gaze and how that operation is tied to social and political power. - Third, we will examine how representations make meaning and form identity in coded systems. - Fourth, we will consider the relationship between visual space and concepts of reality. And finally, we will interrogate how the physical and digital material that images are made from affects their meaning.
Spring
Also Offered As: ARTH 3070
1 Course Unit

VLST 3050 What is an Image?
The course explores various concepts of images. It considers natural images (as in optics), images as artifacts, virtual images, images as representations, and works of art as images. Themes to include: the image controversy in cognitive science, which asks whether some cognitive representations are irreducibly imagistic; the question of whether some images resemble what they represent; the development of the concept of the virtual image and of three-dimensional images; the notions of pictorial representation and non-representational images in art. Readings from C. S. Peirce, Nelson Goodman, Robert Hopkins, Dominic Lopes, W. J. T. Mitchell, John Kulvicki, and Mark Rollins, among others.
Fall
Also Offered As: ARTH 3071
1 Course Unit

VLST 3090 Investigative Photography for Scientists and Artists
Artists and scientists are likeminded when they make an image in pursuit of new insights. Pictures can reveal the composition of a specimen, expose a person's character, capture a place's distinctiveness, or produce a new occasion for intimacy. Rosalind Franklin's famous "Photograph 51" of DNA resulted from a desire to see the physical shape of heredity. The artist Shimpei Takeda places film directly on the ground in Fukushima to create a blind measurement of the radioactivity that remains in the earth. This course will introduce photography as an investigative medium for art and science. We will begin with learning the fundamentals of photography while considering ways in which photographs have changed and continue to change the way we perceive space and time. As the class progresses, students from the arts and sciences will work together to learn specialized photographic techniques and complete assignments that explore photography as an investigative medium.
Spring
1 Course Unit

VLST 3220 The Big Picture: Mural Arts in Philadelphia
The history and practice of the contemporary mural movement couples step by step analysis of the process of designing with painting a mural. In addition students will learn to see mural art as a tool for social change. This course combines theory with practice. Students will design and paint a large outdoor mural in West Philadelphia in collaboration with Philadelphia high school students and community groups. The class is co-taught by Jane Golden, director of the Mural Arts Program in Philadelphia, and Shira Walinsky, a mural arts painter and founder of Southeast by Southeast project, a community center for Burmese refugees in South Philadelphia.
Fall or Spring
Also Offered As: FNAR 1110, URBS 1110
1 Course Unit

VLST 3950 Senior Project
Permission of Instructor Required.
Two Term Class, Student must enter first term; credit given after both terms are complete
0.5 Course Units

VLST 3950A Senior Project
Permission of Instructor Required.
0.5 Course Units

VLST 3950B Senior Project
Permission of Instructor Required.
0.5 Course Units
WH 1010 Business and You
WH 101 is the first step of the Leadership Journey at Wharton. The course is designed to fuel students’ unique interests in academic, research, and professional pursuits; to raise awareness of the complexity of business; and to increase understanding of the interrelatedness of business disciplines. Students will also acquire greater awareness of their strengths and leadership potential as members of the Wharton community and as future professionals. Students will come to appreciate that leadership is an act and best developed through study, feedback from trusted colleagues and peers, and stretch experiences that stimulate growth and development. Students will also begin to hone skills essential to the pursuit of personal, academic, and professional goals: thinking creatively, analyzing problems, applying what you have learned, and reflecting on learnings. A case-analysis project will engage students with the community through helping local agencies examine business challenges that they face. This course is for Wharton students only.
Fall
0.5 Course Units

WH 1500 Evaluating Evidence
WH 150 provides an introduction to all stages of the research process for business topics. In the first third of the course, we discuss theory building, hypothesis development, and research design choices particularly in casual research. In the second third, we discuss data collection methods (e.g., surveys, experiments, case studies and fieldwork) and the use of archival databases. This part of the course emphasizes the interplay between research design and sampling/data collection methods. In the final third of the course, we introduce data analysis and interpretation, including methods for converting raw data into measurable constructs suited to statistical analysis.
Fall or Spring
1 Course Unit

WH 2010 Business Communication for Impact
The objective of WH 201 is to prepare you to communicate effectively as you pursue your educational, professional, and personal goals over the next few years. We have incorporated input from employers, employees, alumni and past WH 201 students to create a course that will prepare you to succeed at all types of communication: spoken and written, formal and informal, prepared and spontaneous. Communication is a skill that requires repeated practice to master. The class size is limited to eight students to allow you the opportunity to practice communicating every week. Class will meet for 80 minutes once a week for fourteen weeks. Please note that we are piloting different approaches to teaching this year in different sections of the course. The logistical details of some sections may differ from others, but everyone will be taught the same material and complete the same assignments.
Fall or Spring
0.5 Course Units

WH 2130 Global Modular Course B
TBD
0.5 Course Units

WH 2160 Global Modular Course
TBD
Not Offered Every Year
Mutually Exclusive: MKTG 8930
0.5 Course Units

WH 2970 Wharton Industry Exploration Program
WIEP features short-term courses that focus on various industries and feature visits to businesses, lectures, extracurricular activities, and networking opportunities with alumni. Students must apply online: https://undergrad-inside.wharton.upenn.edu/wiep/
0.5 Course Units
**WH 2980 Wharton International Program**

This short-term international business course gives undergraduate students an amazing global opportunity featuring business-site visits, lectures at partner schools, cultural excursions, and networking opportunities with undergraduate students and business contacts from the destination countries. In addition to learning about another country’s business environment and culture, students earn 0.5 course units that can be used towards business-breadth or elective credits.

0.5 Course Units

**WH 2990 Honors Thesis**

This seminar takes place over two semesters and provides students with the skills to perform their own research under the guidance of a Wharton faculty member. At the conclusion of the fall semester, students will produce a thesis proposal including literature review, significance of the research, methodology, and exploratory data if relevant. Throughout the fall semester faculty guests from a range of disciplines will present on their research in class, highlighting aspects that are relevant to the work students are engaging in at that point. During the second semester, students will collect and analyze data and write up the results in close collaboration with their faculty mentor. At the end of the spring semester, each student will present their research in a video presentation. Throughout the course, students will work individually, in small groups, and under the mentorship of a Wharton faculty member. The goal is to become capable independent researchers who incorporate feedback and critical (self-) analysis to take their research to the next level.

Two Term Class, Student must enter first term; credit given after both terms are complete

0.5 Course Units

**WH 2991 Honors Thesis**

This seminar takes place over two semesters and provides students with the skills to perform their own research under the guidance of a Wharton faculty member. At the conclusion of the fall semester, students will produce a thesis proposal including literature review, significance of the research, methodology, and exploratory data if relevant. Throughout the fall semester faculty guests from a range of disciplines will present on their research in class, highlighting aspects that are relevant to the work students are engaging in at that point. During the second semester, students will collect and analyze data and write up the results in close collaboration with their faculty mentor. At the end of the spring semester, each student will present their research in a video presentation. Throughout the course, students will work individually, in small groups, and under the mentorship of a Wharton faculty member. The goal is to become capable independent researchers who incorporate feedback and critical (self-) analysis to take their research to the next level.

Prerequisite: WH 2990

0.5 Course Units

**WH 3990 Honors Thesis**

This seminar takes place over two semesters and provides students with the skills to perform their own research under the guidance of a Wharton faculty member. At the conclusion of the fall semester, students will produce a thesis proposal including literature review, significance of the research, methodology, and exploratory data if relevant. Throughout the fall semester faculty guests from a range of disciplines will present on their research in class, highlighting aspects that are relevant to the work students are engaging in at that point. During the second semester, students will collect and analyze data and write up the results in close collaboration with their faculty mentor. At the end of the spring semester, each student will present their research in a video presentation. Throughout the course, students will work individually, in small groups, and under the mentorship of a Wharton faculty member. The goal is to become capable independent researchers who incorporate feedback and critical (self-) analysis to take their research to the next level.

Two Term Class, Student must enter first term; credit given after both terms are complete

0.5 Course Units

**WH 3991 Honors Thesis**

This seminar takes place over two semesters and provides students with the skills to perform their own research under the guidance of a Wharton faculty member. At the conclusion of the fall semester, students will produce a thesis proposal including literature review, significance of the research, methodology, and exploratory data if relevant. Throughout the fall semester faculty guests from a range of disciplines will present on their research in class, highlighting aspects that are relevant to the work students are engaging in at that point. During the second semester, students will collect and analyze data and write up the results in close collaboration with their faculty mentor. At the end of the spring semester, each student will present their research in a video presentation. Throughout the course, students will work individually, in small groups, and under the mentorship of a Wharton faculty member. The goal is to become capable independent researchers who incorporate feedback and critical (self-) analysis to take their research to the next level.

Prerequisite: WH 3990

0.5 Course Units

**WH 4010 Integrative Business Sim**

The Wharton Integrative Business Simulation is a for-credit, interactive business simulation that provides Wharton seniors with the opportunity to draw on their business knowledge—finance, management, marketing, leadership, and social responsibility—while formulating and executing business strategy in a competitive, team-based environment. Utilizing real-time problem solving within a dynamic simulation environment, teams design and implement strategic plans, integrate feedback from the consequences of those decisions, and interact with other teams to create shareholder and social value. Students must apply to request registration for this course.

0.5 Course Units

**Wolof (WOLF)**

**WOLF 0100 Elementary Wolof I**

The main objective of this course is to allow students to study an African language of their choice, depending on the availability of the instructor. The course will provide students with linguistics tools which will facilitate their research work in the target country. Cultural aspects of the speakers of the language will be introduced and reinforced.

Fall or Spring

1 Course Unit
WOLF 0200 Elementary Wolof II
Continuation of AFST 490.
Fall or Spring
1 Course Unit

WOLF 0300 Intermediate Wolof I
Intermediate level courses in a variety of African languages: Igbo, Shona, Wolof, Malagasy, Chichewa, Setswana, Manding, Afrikaans, Setswana. Focus on oral proficiency and productive language skills. All course are language specific and follow ACTFL proficiency guidelines.
Fall
1 Course Unit

WOLF 0400 Intermediate Wolof II
Continuation of AFST 492.
Spring
1 Course Unit

WOLF 1100 Advanced Wolof I
Language specific sections for students interested in doing country-specific research in a target language. Courses cover project-based skills for AFST research.
Fall
1 Course Unit

WOLF 1200 Advanced Wolof II
Continuation of AFST 494.
Spring
1 Course Unit

Yiddish (YDSH)

YDSH 0100 Beginning Yiddish I
The goal of this course is to help beginning students develop skills in Yiddish conversation, reading and writing. Yiddish is the medium of a millennium of Jewish life. We will frequently have reason to refer to the history and culture of Ashkenazie Jewry in studying the language.
Fall
Also Offered As: JWST 0160
1 Course Unit

YDSH 0200 Beginning Yiddish II
In this course, you can continue to develop basic reading, writing and speaking skills. Discover treasures of Yiddish culture: songs, literature, folklore, and films.
Spring
Also Offered As: JWST 0260
Prerequisite: YDSH 0100
1 Course Unit

YDSH 0300 Intermediate Yiddish I
The course will continue the first year's survey of Yiddish grammar with an additional emphasis on reading Yiddish texts. The course will also develop conversational skills in Yiddish.
Not Offered Every Year
Also Offered As: JWST 0360
Prerequisite: YDSH 0200
1 Course Unit

YDSH 0400 Intermediate Yiddish II
Continuation of YDSH 0300. Emphasis on reading texts and conversation.
Not Offered Every Year
Also Offered As: JWST 0460
Prerequisite: YDSH 0300
1 Course Unit

YDSH 0550 Readings in Modern Yiddish Literature
This course will survey modern Yiddish literature through readings of Yiddish prose and poetry from the end of the 19th century through the late 20th century. The class will be conducted in both Yiddish and English. Reading knowledge of Yiddish is required, although some texts will be available in English translation. Authors include I.L. Peretz, Isaac Bashevis Singer, Moyshe-Leyb Halpern, and Kadya Molodowsky.
Not Offered Every Year
Also Offered As: JWST 0550
1 Course Unit

YDSH 5010 Beginning Yiddish I
The goal of this course is to help beginning students develop skills in Yiddish conversation, reading and writing. Yiddish is the medium of a millennium of Jewish life. We will frequently have reason to refer to the history and culture of Ashkenazie Jewry in studying the language.
Fall
1 Course Unit

YDSH 5020 Beginning Yiddish II
In this course, you can continue to develop basic reading, writing and speaking skills. Discover treasures of Yiddish culture: songs, literature, folklore, and films.
Spring
Prerequisite: YDSH 5010
1 Course Unit

YDSH 5030 Intermediate Yiddish I
The course will continue the first year's survey of Yiddish grammar with an additional emphasis on reading Yiddish texts. The course will also develop conversational skills in Yiddish.
Not Offered Every Year
Prerequisite: YDSH 5020
1 Course Unit

YDSH 5040 Intermediate Yiddish II
Continuation of YDSH 0300. Emphasis on reading texts and conversation.
Not Offered Every Year
Prerequisite: YDSH 5030
1 Course Unit

YDSH 5080 Readings in Modern Yiddish Literature
This course will survey modern Yiddish literature through readings of Yiddish prose and poetry from the end of the 19th century through the late 20th century. The class will be conducted in both Yiddish and English. Reading knowledge of Yiddish is required, although some texts will be available in English translation. Authors include I.L. Peretz, Isaac Bashevis Singer, Moyshe-Leyb Halpern, and Kadya Molodowsky.
Not Offered Every Year
1 Course Unit
YDSH 5090 Topics in Yiddish Literature: Modernist Jewish Poetry
One version of this seminar considers works by Jewish women who wrote in Yiddish, Hebrew, English, and other languages in the late 19th through the 20th century. The texts, poetry and prose, will include both belles lettres and popular writings, such as journalism, as well as private works (letters and diaries) and devotional works. The course will attempt to define "Jewish writing," in terms of language and gender, and will consider each writer in the context of the aesthetic, religious, and national ideologies that prevailed in this period. Because students will come with proficiency in various languages, all primary texts and critical and theoretical materials will be taught in English translation. However, those students who can, will work on the original texts and share with the class their expertise to foster a comparative perspective. Because we will be discussing translated works, a secondary focus of the course will, in fact, be on literary translation's process and products. Another version of this seminar presents Jewish modernism as an international phenomenon of the early 20th century. The course will attempt to define "Jewish modernism" through the prism of poetry, which inevitably, given the historical events in Europe and America during this time, grapples with aesthetic, religious, and national ideologies and methods. The syllabus will focus mainly on poetry written in Yiddish and English, and will also include German, Russian, and Hebrew verse. All poetry, critical, and theoretical materials will be taught in English translation, although students who know the languages will work on the original texts and will bring to the table a comparative perspective. Because we will be discussing translated poems, a secondary focus of the course will, in fact, be on literary translation's process and products.
Not Offered Every Year
Also Offered As: COML 5090, GRMN 5090, GSWS 5090, JWST 5090
1 Course Unit

Yoruba (YORB)

YORB 0100 Elementary Yoruba I
The Elementary Yoruba I course can be taken to fulfill a language requirement, or for linguistic preparation to do research on Nigeria and the diaspora/Africa-related topics. The course emphasizes communicative competence to enable the students to acquire linguistic and extra-linguistic skills in Yoruba. The content of the course is selected from various everyday life situations to enable the students to communicate in predictable common daily settings. Culture, as it relates to language use, is also part of the course content. Students will acquire the speaking, listening, reading, and writing skills at the mid-high novice level, based on the ACTFL scale. The mid-high novice level proficiency skills that the students will acquire constitute threshold capabilities of the second semester range of proficiency to prepare students for Elementary Yoruba II course materials.
Fall
1 Course Unit

YORB 0200 Elementary Yoruba II
The main objective of this course is to further sharpen the Yoruba linguistic knowledge that the student acquired in level I. By the end of the course, the student should be able to (1) read, write, and understand simple to moderately complex sentences in Yoruba; and, (2) advance in the knowledge of the Yoruba culture.
Spring
Prerequisite: YORB 0100
1 Course Unit

YORB 0300 Intermediate Yoruba I
This course will engage students in interpersonal and interpretive activities to enable them to satisfy most work requirements with language usage that is often, but not always, acceptable and effective. They will be able to handle with confidence, but not with facility, most normal, high-frequency social conversational situations including extensive, but casual conversations about current events, as well as work, family, and autobiographical information. Students can get the gist of most everyday conversations but has some difficulty understanding native speakers in situations that require specialized or sophisticated knowledge. Students will show considerable ability to communicate effectively on topics relating to particular interests and special fields of competence. Often, they will show a high degree of fluency and ease of speech, yet when under tension or pressure, the ability to use the language effectively may deteriorate. Comprehension of normal native speech is typically nearly complete. Typically, students with this proficiency level can participate in most social, formal, and informal interactions, but limitations either in range of contexts, types of tasks or level of accuracy hinder effectiveness.
Fall
1 Course Unit

YORB 0400 Intermediate Yoruba II
Continuation of Intermediate I course: Level 2+ (Limited Working Proficiency, Plus)
Spring
1 Course Unit

YORB 1100 Advanced Yoruba I
Students will engage in interpersonal and interpretive tasks to develop productive skills to use the language with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations in practical, social and professional topics. Discourse will be cohesive. Students will use the language acceptably, but with some noticeable imperfections; yet, errors will never interfere with understanding and will rarely disturb the native speaker. Students will effectively combine structure and vocabulary to convey their meaning accurately, speaking readily and filling pauses suitably. In face-to-face conversation with natives speaking the standard dialect at a normal rate of speech, comprehension will be quite complete. Students can typically discuss particular interests and special fields of competence with reasonable ease. Can use the language as part of normal professional duties such as answering objections, clarifying points, justifying decisions, understanding the essence of challenges, stating and defending policy, conducting meetings, delivering briefings, or other extended and elaborate informative monologues. Can reliably elicit information and informed opinion from native speakers. Use of structural devices is flexible and elaborate. Without searching for words or phrases, students use the language clearly and relatively naturally to elaborate concepts freely and make ideas easily understandable to native speakers. Errors occur in low-frequency and highly complex structures.
Fall
1 Course Unit
YORB 1200 Advanced Yoruba II
Students will engage in interpersonal and interpretive tasks to develop productive skills to use the language with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations in practical, social and professional topics. Discourse will be cohesive. Students will use the language acceptably, but with some noticeable imperfections; yet, errors will never interfere with understanding and will rarely disturb the native speaker. Students will effectively combine structure and vocabulary to convey their meaning accurately, speaking readily and filling pauses suitably. In face-to-face conversation with natives speaking the standard dialect at a normal rate of speech, comprehension will be quite complete. Students can typically discuss particular interests and special fields of competence with reasonable ease. Can use the language as part of normal professional duties such as answering objections, clarifying points, justifying decisions, understanding the essence of challenges, stating and defending policy, conducting meetings, delivering briefings, or other extended and elaborate informative monologues. Can reliably elicit information and informed opinion from native speakers. Use of structural devices is flexible and elaborate. Without searching for words or phrases, students use the language clearly and relatively naturally to elaborate concepts freely and make ideas easily understandable to native speakers. Errors occur in low-frequency and highly complex structures.

Spring
1 Course Unit

YORB 1300 Yoruba Language and Culture
Students will engage in interpersonal and interpretive communicative modes of language use to satisfy professional needs in a wide range of sophisticated and demanding tasks. While students will be able to demonstrate obvious strengths, they may exhibit some hesitancy, uncertainty, effort or errors which limit the range of language-use tasks that can be reliably performed. Occasional patterned errors may occur in low frequency and highly-complex structures. Typically, there will be particular strength in fluency and one or more, but not all, of the following: breadth of lexicon, structural precision, discourse competence in a wide range of contexts and tasks often matching a native speaker's strategic and organizational abilities and expectations.

Not Offered Every Year
Prerequisite: YORB 1100 AND YORB 1200
1 Course Unit

YORB 1400 Yoruba Language & Culture II
Continuation of Language & Culture I course: Level 3+ (General Professional Proficiency, Plus)
Fall or Spring
Prerequisite: YORB 1100 AND YORB 1200
1 Course Unit

Zulu (ZULU)

ZULU 0100 Elementary Zulu I
The elementary Zulu I course can be taken to fulfill a language requirement, or for linguistic preparation to do research on South Africa, Southern Africa/Africa-related topics. The course emphasizes communicative competence to enable the students to acquire linguistic and extra-linguistic skills in Zulu. The content of the course is selected from various everyday life situations to enable the students to communicate in predictable common daily settings. Culture, as it relates to language use, is also part of the course content. Students will acquire the speaking, listening, reading, and writing skills at the mid-high novice level, based on the ACTFL scale. The mid-high novice level proficiency skills that the students will acquire constitute threshold capabilities of the second semester range of proficiency to prepare students for Intermediate Zulu II course materials.
Fall
1 Course Unit

ZULU 0120 Elementary Zulu: Accelerated
The Accelerated Elementary Zulu course is intensive, and can be taken to fulfill a language requirement, or for linguistic preparation to do research on South Africa, Southern Africa/Africa-related topics. The course emphasizes communicative competence to enable the students to acquire linguistic and extra-linguistic skills in Zulu. The content of the course is selected from various everyday life situations to enable the students to communicate in predictable common daily settings. Culture, as it relates to language use, is also part of the course content. Students will acquire the speaking, listening, reading, and writing skills at the ceiling of low intermediate level and floor of high novice level, based on the ACTFL scale. The low intermediate level proficiency skills that the students will acquire constitute threshold capabilities of the third semester range of proficiency to prepare students for Intermediate Zulu I course materials.
Fall or Spring
2 Course Units

ZULU 0200 Elementary Zulu II
The Elementary Zulu II course can be taken to fulfill a language requirement, or for linguistic preparation to do research on South Africa, Southern Africa/Africa-related topics. The course emphasizes communicative competence to enable the students to acquire linguistic and extra-linguistic skills in Zulu. The content of the course is selected from various everyday life situations to enable the students to communicate in predictable common daily settings. Culture, as it relates to language use, is also part of the course content. Students will acquire the speaking, listening, reading, and writing skills at the ceiling of low intermediate level and floor of high novice level, based on the ACTFL scale. The low intermediate level proficiency skills that the students will acquire constitute threshold capabilities of the third semester range of proficiency to prepare students for Intermediate Zulu I course materials.
Spring
1 Course Unit
ZULU 0300 Intermediate Zulu I
This course will engage students in interpersonal and interpretive activities to enable them to satisfy most work requirements with language usage that is often, but not always, acceptable and effective. They will be able to handle with confidence, but not with facility, most normal, high-frequency social conversational situations including extensive, but casual conversations about current events, as well as work, family, and autobiographical information. Students can get the gist of most everyday conversations but have some difficulty understanding native speakers in situations that require specialized or sophisticated knowledge. Students will show considerable ability to communicate effectively on topics relating to particular interests and special fields of competence. Often, they will show a high degree of fluency and ease of speech, yet when under tension or pressure, the ability to use the language effectively may deteriorate. Comprehension of normal native speech is typically nearly complete. Typically, students with this proficiency level can participate in most social, formal, and informal interactions, but limitations either in range of contexts, types of tasks or level of accuracy hinder effectiveness.

Fall
1 Course Unit

ZULU 0400 Intermediate Zulu II
Continuation of Intermediate I course: Level 2+ (Limited Working Proficiency, Plus)

Spring
1 Course Unit

ZULU 0800 Elementary Zulu I in Residence
This elementary course is for beginners and it requires no prior knowledge of Zulu. The course will expose students to the Zulu language and culture and will be based in the National Standards for Foreign Language Learning. Students will be engaged in communicative language learning through interpersonal, interpretive and presentational modes of language learning techniques. They will gain knowledge and understanding of the Zulu culture. They will use their Zulu language and culture learning experience to connect with other disciplines and further their knowledge of these disciplines through perspectives acquired from their Zulu class. They will also develop insight into the nature of language and culture through comparisons of the Zulu language and culture and their own. Through movies, songs, and other cultural activities online students will acquire the natural use of the language which will enable them to acquire linguistic and cultural skill to become life-long learners who can participate in Zulu communities in the U.S. and overseas.

Fall or Spring
0.5 Course Units

ZULU 1100 Advanced Zulu I
Students will engage in interpersonal and interpretive tasks to develop productive skills to use the language with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations in practical, social and professional topics. Discourse will be cohesive. Students will use the language acceptably, but with some noticeable imperfections; yet, errors will never interfere with understanding and will rarely disturb the native speaker. Students will effectively combine structure and vocabulary to convey their meaning accurately, speaking readily and filling pauses suitably. In face-to-face conversation with natives speaking the standard dialect at a normal rate of speech, comprehension will be quite complete. Students can typically discuss particular interests and special fields of competence with reasonable ease. Can use the language as part of normal professional duties such as answering objections, clarifying points, justifying decisions, understanding the essence of challenges, stating and defending policy, conducting meetings, delivering briefings, or other extended and elaborate informative monologues. Can reliably elicit information and informed opinion from native speakers. Use of structural devices is flexible and elaborate. Without searching for words or phrases, students use the language clearly and relatively naturally to elaborate concepts freely and make ideas easily understandable to native speakers. Errors occur in low-frequency and highly complex structures.

Fall
1 Course Unit

ZULU 1200 Advanced Zulu II
Continuation of Advanced I course: Level 3 (General Professional Proficiency)

Spring
1 Course Unit

ZULU 1300 Zulu Language and Culture I
Students will engage in interpersonal and interpretive communicative modes of language use to satisfy professional needs in a wide range of sophisticated and demanding tasks. While students will be able to demonstrate obvious strengths, they may exhibit some hesitancy, uncertainty, effort or errors which limit the range of language-use tasks that can be reliably performed. Occasional patterned errors may occur in low frequency and highly-complex structures. Typically, there will be particular strength in fluency and one or more, but not all, of the following: breadth of lexicon, structural precision, discourse competence in a wide range of contexts and tasks often matching a native speaker’s strategic and organizational abilities and expectations.

Spring
1 Course Unit

ZULU 1400 Zulu Language and Culture II
Continuation of Language & Culture I course: Level 3+ (General Professional Proficiency, Plus)

Spring
1 Course Unit
INDEX

A

<table>
<thead>
<tr>
<th>Academic Calendar</th>
<th>297</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Foundations (ACFD)</td>
<td>321</td>
</tr>
<tr>
<td>Academic Opportunities</td>
<td>20</td>
</tr>
<tr>
<td>Academic Opportunities</td>
<td>241</td>
</tr>
<tr>
<td>Academic Opportunities</td>
<td>251</td>
</tr>
<tr>
<td>Academic Opportunities</td>
<td>289</td>
</tr>
<tr>
<td>Academic Resources</td>
<td>297</td>
</tr>
<tr>
<td>Academic Standing</td>
<td>317</td>
</tr>
<tr>
<td>Accounting (ACCT)</td>
<td>321</td>
</tr>
<tr>
<td>Accounting, BS</td>
<td>256</td>
</tr>
<tr>
<td>Actuarial Mathematics, Minor</td>
<td>152</td>
</tr>
<tr>
<td>Add/Drop Period</td>
<td>314</td>
</tr>
<tr>
<td>Advising</td>
<td>20</td>
</tr>
<tr>
<td>Advising</td>
<td>300</td>
</tr>
<tr>
<td>Africana Studies (AFRC)</td>
<td>326</td>
</tr>
<tr>
<td>Africana Studies, Minor</td>
<td>152</td>
</tr>
<tr>
<td>Africana Studies: African American Studies, BA</td>
<td>23</td>
</tr>
<tr>
<td>Africana Studies: African Diaspora Studies, BA</td>
<td>23</td>
</tr>
<tr>
<td>Africana Studies: African Studies, BA</td>
<td>24</td>
</tr>
<tr>
<td>American Public Policy, Minor</td>
<td>153</td>
</tr>
<tr>
<td>American Sign Language and Deaf Studies, Minor</td>
<td>153</td>
</tr>
<tr>
<td>American Sign Language (ASLD)</td>
<td>361</td>
</tr>
<tr>
<td>Amharic (AMHR)</td>
<td>363</td>
</tr>
<tr>
<td>Anatomy (ANAT)</td>
<td>363</td>
</tr>
<tr>
<td>Ancient History (ANC)</td>
<td>365</td>
</tr>
<tr>
<td>Ancient History, BA</td>
<td>25</td>
</tr>
<tr>
<td>Ancient History, Minor</td>
<td>153</td>
</tr>
<tr>
<td>Ancient Near East Languages (ANEL)</td>
<td>373</td>
</tr>
<tr>
<td>Anthropology (ANTH)</td>
<td>374</td>
</tr>
<tr>
<td>Anthropology, Minor</td>
<td>154</td>
</tr>
<tr>
<td>Anthropology: Archaeology, BA</td>
<td>25</td>
</tr>
<tr>
<td>Anthropology: Biological Anthropology, BA</td>
<td>26</td>
</tr>
<tr>
<td>Anthropology: Cultural and Linguistic Anthropology, BA</td>
<td>27</td>
</tr>
<tr>
<td>Anthropology: Environmental Anthropology, BA</td>
<td>27</td>
</tr>
<tr>
<td>Anthropology: General Anthropology, BA</td>
<td>28</td>
</tr>
<tr>
<td>Anthropology: Medical Anthropology &amp; Global Health, BA</td>
<td>29</td>
</tr>
<tr>
<td>Applied Math &amp; Computational Science (AMCS)</td>
<td>419</td>
</tr>
<tr>
<td>Applied Positive Psychology (APOP)</td>
<td>421</td>
</tr>
<tr>
<td>Applied Positive Psychology, Certificate</td>
<td>205</td>
</tr>
</tbody>
</table>

| Arabic (ARAB) | 422 |
| Archaeological Science, Minor | 154 |
| Architectural History, Minor | 154 |
| Architecture (ARCH) | 426 |
| Architecture, Minor | 154 |
| Architecture: Design, BA | 30 |
| Architecture: History and Theory, BA | 31 |
| Architecture: Intensive Design, BA | 30 |
| Art & Archaeology of Mediterranean World (AAMW) | 445 |
| Art History (ARTH) | 456 |
| Asian American Studies (ASAM) | 498 |
| Asian American Studies, Minor | 155 |
| Asian Languages (ALAN) | 505 |
| Astronomy (ASTR) | 505 |
| Auditing | 314 |

B

| Bachelor of Applied Arts and Sciences (BAAS) | 506 |
| Behavioral & Decision Sciences (BDS) | 507 |
| Behavioral Economics, BS | 256 |
| Bengali (BENG) | 510 |
| Benjamin Franklin Seminars (BENF) | 512 |
| Biochemistry & Molecular Biophysics (BMB) | 513 |
| Biochemistry, BA | 31 |
| Biochemistry (BCHE) | 516 |
| Bioengineering (BE) | 516 |
| Bioengineering, BSE | 220 |
| Bioethics (BIOE) | 526 |
| Bioethics, Minor | 155 |
| Biological Basis of Behavior (BIBB) | 532 |
| Biology (BIOL) | 532 |
| Biology, Minor | 155 |
| Biology: Computational Biology, BA | 32 |
| Biology: Ecology & Evolutionary Biology, BA | 33 |
| Biology: General Biology, BA | 34 |
| Biology: Mathematical Biology, BA | 34 |
| Biology: Mechanisms of Disease, BA | 35 |
| Biology: Molecular & Cell Biology, BA | 36 |
| Biology: Neurobiology, BA | 37 |
| Biomedical Graduate Studies (BIOM) | 545 |
| Biomedical Informatics (BMIN) | 546 |
| Biomedical Science, BAS | 221 |
| Biophysics, BA | 37 |
Biophysics, Minor .................................................. 156
Biostatistics (BSTA) ................................................. 549
Biotechnology (BIOT) ................................................ 552
Bosnian-Croatian-Serbo ........................................... 552
Business Analytics, BS ............................................. 257
Business Economics & Public Policy (BEPP) .................. 553
Business Economics and Public Policy, BS ...................... 259
Business, Energy, Environment, and Sustainability, BS ........... 261

C
Career Services .......................................................... 301
Cell and Molecular Biology (CAMB) .............................. 563
Chemical & Biomolecular Engineering (CBE) .................. 572
Chemical & Biomolecular Engineering, Minor ................. 235
Chemical and Biomolecular Engineering, BSE .................. 222
Chemistry, BA .......................................................... 38
Chemistry (CHEM) ..................................................... 580
Chemistry, Minor ....................................................... 156
Chichewa (CHIC) ....................................................... 589
Chinese (CHIN) ......................................................... 589

Cinema and Media Studies, BA .................................. 39
Cinema and Media Studies (CIMS) ................................. 597
Cinema and Media Studies, Minor ................................ 157
Cinema (CINM) ........................................................ 596
City and Regional Planning (CPLN) ............................... 626
Class Attendance ....................................................... 314
Classical Studies (CLST) ............................................ 636
Classical Studies, Minor ............................................. 157
Classical Studies: Classical Civilizations, BA .................... 40
Classical Studies: Classical Languages and Literature, BA ........ 40
Classical Studies: Mediterranean Archaeology, BA ............ 41
Classics (CLSC) ........................................................ 661
Climate Change, Certificate ........................................ 206
Climate Change (CLCH) .............................................. 662
Cognitive Science (COSG) .......................................... 663
Cognitive Science, Minor ............................................. 158
Cognitive Science: Cognitive Neuroscience, BA .................. 41
Cognitive Science: Computation and Cognition, BA .......... 42
Cognitive Science: Individualized, BA ............................ 43
Cognitive Science: Language & Mind, BA ....................... 44
College (COLL) ........................................................ 664
Communication: Advocacy & Activism, BA ..................... 44
Communication: Audiences & Persuasion, BA ................... 46

Communication: Communication & Public Service, BA ........ 47
Communication: Culture & Society, BA ........................ 49
Communication: Data & Network Science, BA .................. 50
Communication: General Communication, BA ................. 52
Communication: Politics & Policy, BA ............................ 53
Communications (COMM) .......................................... 665
Community Engagement ............................................. 301
Comparative Literature (COML) ................................... 684
Comparative Literature, Minor ..................................... 158
Comparative Literature: Globalization, BA ....................... 55
Comparative Literature: Theory, BA .............................. 56
Comparative Literature: (Trans)national Literatures, BA ........ 54
Computational Neuroscience, Minor ............................ 158
Computer and Information Science (CIS) ....................... 725
Computer and Information Technology (CIT) .................... 741
Computer Engineering, BSE ....................................... 223
Computer Science, BAS ............................................. 225
Computer Science, BSE ............................................. 226
Computer Science, Minor .......................................... 235
Concentrations .......................................................... 255
Consumer Psychology, Minor ..................................... 159
Coordinated Dual Degree Programs ................................ 292
Coordinated Submatriculation Programs ......................... 293
Course and Exam-Related Policies ................................. 314
Course Load ........................................................... 314
Course Numbering & Academic Credit ............................ 314
Courses ................................................................. 321
Creative Studies, BAAS ............................................ 194
Creative Writing, Certificate ....................................... 207
Creative Writing (CRWR) ............................................ 742
Creative Writing, Minor ............................................. 160
Criminology, BA ...................................................... 57
Criminology (CRIM) .................................................. 744
Curriculum ............................................................. 17
Curriculum ............................................................. 220
Curriculum ............................................................. 243
Curriculum ............................................................. 254
Czech (CZCH) .......................................................... 747

D
Data Analytics and Psychological Sciences, BAAS ............... 196
Data Analytics and Social Sciences, BAAS ....................... 197
Data Analytics, Certificate ......................................... 208
<table>
<thead>
<tr>
<th>Course</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Analytics (DATA)</td>
<td>748</td>
</tr>
<tr>
<td>Data Science and Analytics, Minor</td>
<td>160</td>
</tr>
<tr>
<td>Data Science (DATS)</td>
<td>749</td>
</tr>
<tr>
<td>Data Science, Minor</td>
<td>236</td>
</tr>
<tr>
<td>Dean’s List</td>
<td>317</td>
</tr>
<tr>
<td>Demography (DEMG)</td>
<td>749</td>
</tr>
<tr>
<td>Dental - Community Oral Health (DCOH)</td>
<td>751</td>
</tr>
<tr>
<td>Dental - Dental Medicine (DENT)</td>
<td>751</td>
</tr>
<tr>
<td>Dental - Endodontics (DEND)</td>
<td>769</td>
</tr>
<tr>
<td>Dental - Graduate Advanced Dental Studies (GADS)</td>
<td>769</td>
</tr>
<tr>
<td>Dental - Graduate Core Curriculum (DADE)</td>
<td>773</td>
</tr>
<tr>
<td>Dental - Graduate Endodontics (GEND)</td>
<td>776</td>
</tr>
<tr>
<td>Dental - Graduate Oral and Population Health (GOPH)</td>
<td>777</td>
</tr>
<tr>
<td>Dental - Graduate Oral Health Sciences (GOHS)</td>
<td>779</td>
</tr>
<tr>
<td>Dental - Graduate Oral Medicine (GOMD)</td>
<td>782</td>
</tr>
<tr>
<td>Dental - Graduate Orthodontics (GORT)</td>
<td>783</td>
</tr>
<tr>
<td>Dental - Graduate Pediatrics (GPED)</td>
<td>785</td>
</tr>
<tr>
<td>Dental - Graduate Periodontics (GPRD)</td>
<td>786</td>
</tr>
<tr>
<td>Dental - Graduate Prosthodontics (GPRS)</td>
<td>788</td>
</tr>
<tr>
<td>Dental - Oral Medicine (DOMD)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Oral Surgery (DOSP)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Orthodontics (DORT)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Pediatrics (DPED)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Periodontics (DPRD)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Radiology (DRAD)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Radiology (DRAD)</td>
<td>793</td>
</tr>
<tr>
<td>Dental - Restorative Dentistry (DRST)</td>
<td>793</td>
</tr>
<tr>
<td>Design, BA</td>
<td>57</td>
</tr>
<tr>
<td>Design (DSGN)</td>
<td>793</td>
</tr>
<tr>
<td>Design, Minor</td>
<td>161</td>
</tr>
<tr>
<td>Digital Culture (DIGC)</td>
<td>802</td>
</tr>
<tr>
<td>Digital Humanities, Minor</td>
<td>161</td>
</tr>
<tr>
<td>Digital Media Design, BSE</td>
<td>227</td>
</tr>
<tr>
<td>Digital Media Design, Minor</td>
<td>236</td>
</tr>
<tr>
<td>Digital Strategies and Culture, Certificate</td>
<td>209</td>
</tr>
<tr>
<td>Diversity, Equity and Inclusion, BS</td>
<td>262</td>
</tr>
<tr>
<td>Dutch (DTCH)</td>
<td>804</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td></td>
</tr>
<tr>
<td>Earth and Environmental Science, BA</td>
<td>58</td>
</tr>
<tr>
<td>Earth and Environmental Science (EESC)</td>
<td>807</td>
</tr>
<tr>
<td>East Asian Area Studies, Minor</td>
<td>162</td>
</tr>
<tr>
<td>East Asian Languages &amp; Civilization (EALC)</td>
<td>815</td>
</tr>
<tr>
<td>East Asian Languages and Civilizations: Chinese, Minor</td>
<td>163</td>
</tr>
<tr>
<td>East Asian Languages and Civilizations: Dual Language, BA</td>
<td>59</td>
</tr>
<tr>
<td>East Asian Languages and Civilizations: East Asian Area Studies, BA</td>
<td>60</td>
</tr>
<tr>
<td>East Asian Languages and Civilizations: General East Asian Languages and Civilizations, BA</td>
<td>61</td>
</tr>
<tr>
<td>East Asian Languages and Civilizations: Japanese, Minor</td>
<td>163</td>
</tr>
<tr>
<td>East Asian Languages and Civilizations: Korean, Minor</td>
<td>164</td>
</tr>
<tr>
<td>East Central European Studies, Minor</td>
<td>164</td>
</tr>
<tr>
<td>Economic Policy, Minor</td>
<td>164</td>
</tr>
<tr>
<td>Economics, BA</td>
<td>61</td>
</tr>
<tr>
<td>Economics (ECON)</td>
<td>847</td>
</tr>
<tr>
<td>Economics, Minor</td>
<td>165</td>
</tr>
<tr>
<td>Education - Education Entrepreneurship (EDEN)</td>
<td>894</td>
</tr>
<tr>
<td>Education - Higher Education Management (EDHE)</td>
<td>897</td>
</tr>
<tr>
<td>Education - Independent School Teaching Residency (EDPR)</td>
<td>903</td>
</tr>
<tr>
<td>Education - Medical Education (EDME)</td>
<td>910</td>
</tr>
<tr>
<td>Education - Mid-Career Educational &amp; Organizational Leadership (EDMC)</td>
<td>911</td>
</tr>
<tr>
<td>Education - Penn Chief Learning Officer (EDCL)</td>
<td>918</td>
</tr>
<tr>
<td>Education - School &amp; Mental Health Counseling (EDSC)</td>
<td>920</td>
</tr>
<tr>
<td>Education - School Leadership (EDSL)</td>
<td>925</td>
</tr>
<tr>
<td>Education - Urban Teaching Residency Certificate (EDTC)</td>
<td>927</td>
</tr>
<tr>
<td>Education - Urban Teaching Residency Master’s (EDTF)</td>
<td>932</td>
</tr>
<tr>
<td>Education (EDUC)</td>
<td>858</td>
</tr>
<tr>
<td>Electrical &amp; Systems Engineering (ESE)</td>
<td>938</td>
</tr>
<tr>
<td>Electrical Engineering, BSE</td>
<td>228</td>
</tr>
<tr>
<td>Electrical Engineering, Minor</td>
<td>237</td>
</tr>
<tr>
<td>Energy &amp; Sustainability, Minor</td>
<td>237</td>
</tr>
<tr>
<td>Energy Management and Policy (ENMG)</td>
<td>952</td>
</tr>
<tr>
<td>Engineering &amp; Applied Science (EAS)</td>
<td>953</td>
</tr>
<tr>
<td>Engineering (ENGR)</td>
<td>961</td>
</tr>
<tr>
<td>Engineering Entrepreneur, Minor</td>
<td>238</td>
</tr>
<tr>
<td>Engineering Mathematics (ENM)</td>
<td>963</td>
</tr>
<tr>
<td>English (ENGL)</td>
<td>965</td>
</tr>
<tr>
<td>English Literature (ENLT)</td>
<td>1027</td>
</tr>
<tr>
<td>English, Minor</td>
<td>165</td>
</tr>
<tr>
<td>English: 18th/19th Centuries, BA</td>
<td>62</td>
</tr>
<tr>
<td>English: 20th/21st Centuries, BA</td>
<td>63</td>
</tr>
<tr>
<td>English: Africana Literature &amp; Culture, BA</td>
<td>64</td>
</tr>
<tr>
<td>English: Cinema &amp; Media Studies, BA</td>
<td>65</td>
</tr>
<tr>
<td>English: Creative Writing, BA</td>
<td>66</td>
</tr>
<tr>
<td>English: Drama, BA</td>
<td>66</td>
</tr>
<tr>
<td>English: Gender/Sexuality, BA</td>
<td>67</td>
</tr>
<tr>
<td>Topic</td>
<td>Page</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>English: General English, BA</td>
<td>68</td>
</tr>
<tr>
<td>English: Individualized, BA</td>
<td>69</td>
</tr>
<tr>
<td>English: Literary Theory &amp; Cultural Studies, BA</td>
<td>69</td>
</tr>
<tr>
<td>English: Literature, Journalism and Print Culture, BA</td>
<td>70</td>
</tr>
<tr>
<td>English: Medieval/Renaissance, BA</td>
<td>71</td>
</tr>
<tr>
<td>English: Poetry and Poetics, BA</td>
<td>72</td>
</tr>
<tr>
<td>English: The Novel, BA</td>
<td>73</td>
</tr>
<tr>
<td>Enrollment &amp; Degree Verification</td>
<td>301</td>
</tr>
<tr>
<td>Entrepreneurship and Innovation, BS</td>
<td>267</td>
</tr>
<tr>
<td>Environmental Humanities, Minor</td>
<td>166</td>
</tr>
<tr>
<td>Environmental Science, Minor</td>
<td>167</td>
</tr>
<tr>
<td>Environmental, Social, and Governance Factors for Business: Business, Energy, Environment and Sustainability, BS</td>
<td>263</td>
</tr>
<tr>
<td>Environmental, Social, and Governance Factors for Business: General, BS</td>
<td>264</td>
</tr>
<tr>
<td>Environmental, Social, and Governance Factors for Business: Social and Governance Factors, BS</td>
<td>266</td>
</tr>
<tr>
<td>Environmental Studies (ENVS)</td>
<td>1028</td>
</tr>
<tr>
<td>Environmental Studies, Minor</td>
<td>167</td>
</tr>
<tr>
<td>Environmental Studies: Environmental History and Regional Studies, BA</td>
<td>73</td>
</tr>
<tr>
<td>Environmental Studies: Environmental Policy and Application, BA</td>
<td>74</td>
</tr>
<tr>
<td>Environmental Studies: General Environmental Studies, BA</td>
<td>75</td>
</tr>
<tr>
<td>Environmental Studies: Global Environmental Systems, BA</td>
<td>76</td>
</tr>
<tr>
<td>Environmental Studies: Sustainability and Environmental Management, BA</td>
<td>76</td>
</tr>
<tr>
<td>Epidemiology (EPID)</td>
<td>1043</td>
</tr>
<tr>
<td>Ethics (ETHC)</td>
<td>1050</td>
</tr>
<tr>
<td>European Studies, Minor</td>
<td>168</td>
</tr>
<tr>
<td>External Exam Credit</td>
<td>315</td>
</tr>
<tr>
<td><strong>F</strong></td>
<td></td>
</tr>
<tr>
<td>Fellowships and Prizes</td>
<td>301</td>
</tr>
<tr>
<td>Filipino (FILP)</td>
<td>1050</td>
</tr>
<tr>
<td>Finance, BS</td>
<td>269</td>
</tr>
<tr>
<td>Finance (FANCE)</td>
<td>1051</td>
</tr>
<tr>
<td>Financial Aid</td>
<td>303</td>
</tr>
<tr>
<td>Fine Arts, BA</td>
<td>77</td>
</tr>
<tr>
<td>Fine Arts, BFA</td>
<td>198</td>
</tr>
<tr>
<td>Fine Arts (FNAR)</td>
<td>1064</td>
</tr>
<tr>
<td>Fine Arts, Minor</td>
<td>171</td>
</tr>
<tr>
<td>First-Year Seminar (FRSM)</td>
<td>1102</td>
</tr>
<tr>
<td>Folklore (FOLK)</td>
<td>1088</td>
</tr>
<tr>
<td>Foreign Language Study Opportunities</td>
<td>303</td>
</tr>
<tr>
<td>Foundational Approaches</td>
<td>18</td>
</tr>
<tr>
<td>French, Italian, and Germanic Studies (FIGS)</td>
<td>1088</td>
</tr>
<tr>
<td>French and Francophone Studies, BA</td>
<td>78</td>
</tr>
<tr>
<td>French and Francophone Studies, Minor</td>
<td>172</td>
</tr>
<tr>
<td>French (FREN)</td>
<td>1089</td>
</tr>
<tr>
<td><strong>G</strong></td>
<td></td>
</tr>
<tr>
<td>Gender, Sexuality &amp; Women's Studies (GSWS)</td>
<td>1102</td>
</tr>
<tr>
<td>Gender, Sexuality, &amp; Women's Studies: Feminist Studies, BA</td>
<td>79</td>
</tr>
<tr>
<td>Gender, Sexuality, &amp; Women's Studies: General, BA</td>
<td>79</td>
</tr>
<tr>
<td>Gender, Sexuality, &amp; Women's Studies: Global Gender and Sexuality Studies, BA</td>
<td>80</td>
</tr>
<tr>
<td>Gender, Sexuality, &amp; Women's Studies: Health and Disability Studies, BA</td>
<td>81</td>
</tr>
<tr>
<td>Gender, Sexuality, &amp; Women's Studies: LGBTQ Studies, BA</td>
<td>81</td>
</tr>
<tr>
<td>Gender, Sexuality, &amp; Women's Studies: Self Designed, BA</td>
<td>82</td>
</tr>
<tr>
<td>Gender, Sexuality, and Women's Studies, Minor</td>
<td>172</td>
</tr>
<tr>
<td>General Education Curriculum</td>
<td>18</td>
</tr>
<tr>
<td>Genetic Counseling (GENC)</td>
<td>1133</td>
</tr>
<tr>
<td>Genomics &amp; Comp. Biology (GCB)</td>
<td>1137</td>
</tr>
<tr>
<td>Geology (GEOL)</td>
<td>1139</td>
</tr>
<tr>
<td>Geology, Minor</td>
<td>173</td>
</tr>
<tr>
<td>German, BA</td>
<td>82</td>
</tr>
<tr>
<td>German, Minor</td>
<td>173</td>
</tr>
<tr>
<td>Germanic Languages (GRMN)</td>
<td>1139</td>
</tr>
<tr>
<td>Global and Regional Studies, Certificate</td>
<td>210</td>
</tr>
<tr>
<td>Global Health, Minor</td>
<td>249</td>
</tr>
<tr>
<td>Global Medieval Studies, Minor</td>
<td>173</td>
</tr>
<tr>
<td>Global MPA (GMPA)</td>
<td>1160</td>
</tr>
<tr>
<td>Global Programs</td>
<td>304</td>
</tr>
<tr>
<td>Global Studies (GLBS)</td>
<td>1162</td>
</tr>
<tr>
<td>Government Administration (GAFIL)</td>
<td>1164</td>
</tr>
<tr>
<td>Grade and GPA-Related Policies</td>
<td>317</td>
</tr>
<tr>
<td>Grade Grievance Process</td>
<td>318</td>
</tr>
<tr>
<td>Grades</td>
<td>318</td>
</tr>
<tr>
<td>Graduate Arts &amp; Sciences (GAS)</td>
<td>1173</td>
</tr>
<tr>
<td>Graduation Honors</td>
<td>319</td>
</tr>
<tr>
<td>Graduation Policies</td>
<td>318</td>
</tr>
<tr>
<td>Graduation Requirements</td>
<td>319</td>
</tr>
<tr>
<td>Greek (GREQ)</td>
<td>1173</td>
</tr>
<tr>
<td>Gujarati (GUJR)</td>
<td>1177</td>
</tr>
<tr>
<td><strong>H</strong></td>
<td></td>
</tr>
<tr>
<td>Health &amp; Societies (HSOC)</td>
<td>1178</td>
</tr>
<tr>
<td>Health and Societies: Bioethics and Society, BA</td>
<td>83</td>
</tr>
<tr>
<td>Health and Societies: Disease and Culture, BA</td>
<td>84</td>
</tr>
</tbody>
</table>
Health and Societies: Global Health, BA ........................................... 84
Health and Societies: Health Care Markets & Finance, BA .............. 85
Health and Societies: Health Policy & Law, BA ................................ 86
Health and Societies: Public Health, BA ........................................... 87
Health and Societies: Race, Gender and Health, BA ......................... 87
Health Care Innovation (HCIN) ...................................................... 1194
Health Care Management and Policy, BS ....................................... 270
Health Care Management (HCMG) .............................................. 1197
Health Communications, Minor .................................................... 249
Health Policy Research (HPR) ...................................................... 1203
Healthcare Quality and Safety (HQS) ............................................ 1206
Hebrew (HEBR) ............................................................................. 1208
Hindi (HIND) ................................................................................ 1210
Hispanic Studies, BA .................................................................... 88
Hispanic Studies, Minor ................................................................ 174
Historic Preservation (HSPV) ....................................................... 1211
History & Sociology of Science (HSSC) ........................................ 1218
History, Health and the Humanities, Minor .................................... 250
History (HIST) ............................................................................. 1223
History, Minor ............................................................................. 174
History of Art, BA .......................................................................... 89
History of Art, Minor .................................................................... 175
History: American History, BA .................................................... 90
History: Diplomatic History, BA ................................................... 90
History: Economic History, BA .................................................... 91
History: European History, BA .................................................... 92
History: Gender History, BA ....................................................... 93
History: General History, BA ....................................................... 93
History: Intellectual History, BA .................................................. 94
History: Jewish History, BA ....................................................... 95
History: World History, BA ....................................................... 95
Hungarian (HUNG) ....................................................................... 1275

I
Igbo (IGBO) .................................................................................. 1276
Immunology (IMUN) .................................................................... 1276
Implementation Science (IMP) ..................................................... 1278
Incomplete Grades ....................................................................... 318
Independent Study ....................................................................... 315
Individualized, BAAS ................................................................... 199
Individualized, BS ....................................................................... 271
Individualized Major, BA ............................................................. 96
Individualized Program, BAS ..................................................... 229
Indonesian (INDO) ..................................................................... 1279
Information for Athletes ................................................................ 304
Information for First-Generation, Lower Income Students ............. 304
Information for International Students ........................................ 304
Integrated Product Design (IPD) .................................................. 1280
Integrated Studies (INTG) ............................................................ 1279
Intercultural Communication (ICOM) .......................................... 1283
Interdisciplinary Studies ................................................................ 291
International Development, Minor ............................................. 175
International Relations, BA ....................................................... 96
International Relations (INTR) ..................................................... 1283
International Relations, Minor ................................................... 175
International Studies, BA ............................................................ 97
International Studies (INSP) ........................................................ 1285
Irish Gaelic (IRIS) .......................................................................... 1285
Italian (ITAL) .............................................................................. 1286
Italian Studies: Italian Culture, BA ............................................. 98
Italian Studies: Italian Culture, Minor ......................................... 176
Italian Studies: Italian Literature, BA ......................................... 98
Italian Studies: Italian Literature, Minor ..................................... 176

J
Japanese (JPAN) ........................................................................... 1300
Jewish Studies, BA ....................................................................... 99
Jewish Studies, Minor .................................................................. 177
Jewish Studies Program (JWST) ................................................... 1303
Journalistic Writing, Minor ........................................................ 177

K
Kannada (KAND) .......................................................................... 1314
Korean (KAND) ........................................................................... 1315

L
Landscape Architecture & Regional Planning (LARP) .................... 1319
Landscape Studies, Minor ............................................................ 177
Latin American & Latinx Studies, BA .......................................... 100
Latin American & Latinx Studies (LALS) ..................................... 1330
Latin American and Latinx Studies, Minor ................................ 178
Latin (LATN) .............................................................................. 1327
Law - Master in Law (LAWM) .................................................... 1360
Law and Society, Minor ............................................................. 178
Law (LAW) ................................................................................ 1359
Leadership & Communication, Certificate .................................. 211
Leadership and Communication, BAAS ..................................... 200
Leadership and Communication (LEAD) .................................... 1360
<table>
<thead>
<tr>
<th>Learning Resources</th>
<th>305</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaves of Absence</td>
<td>319</td>
</tr>
<tr>
<td>Legal Studies &amp; Business Ethics, BS</td>
<td>272</td>
</tr>
<tr>
<td>Legal Studies &amp; Business Ethics (LGST)</td>
<td>1361</td>
</tr>
<tr>
<td>Legal Studies &amp; History, Minor</td>
<td>178</td>
</tr>
<tr>
<td>Liberal and Professional Studies</td>
<td>194</td>
</tr>
<tr>
<td>Liberal and Professional Studies Course Credit</td>
<td>315</td>
</tr>
<tr>
<td>Libraries</td>
<td>305</td>
</tr>
<tr>
<td>Linguistics, BA</td>
<td>100</td>
</tr>
<tr>
<td>Linguistics (LING)</td>
<td>1372</td>
</tr>
<tr>
<td>Linguistics, Minor</td>
<td>179</td>
</tr>
<tr>
<td>Literature, Culture and Tradition, BAAS</td>
<td>201</td>
</tr>
<tr>
<td>Logic, Information, &amp; Computation, BA</td>
<td>101</td>
</tr>
<tr>
<td>Logic, Information, &amp; Computation, Minor</td>
<td>179</td>
</tr>
<tr>
<td>Logic, Information and Computation (LGIC)</td>
<td>1382</td>
</tr>
</tbody>
</table>

M

<table>
<thead>
<tr>
<th>Majors</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Majors</td>
<td>220</td>
</tr>
<tr>
<td>Majors</td>
<td>245</td>
</tr>
<tr>
<td>Malagasy (MALG)</td>
<td>1383</td>
</tr>
<tr>
<td>Malayalam (MLYM)</td>
<td>1384</td>
</tr>
<tr>
<td>Management (MGMT)</td>
<td>1385</td>
</tr>
<tr>
<td>Management: General Track, BS</td>
<td>274</td>
</tr>
<tr>
<td>Management: Multinational Management Track, BS</td>
<td>275</td>
</tr>
<tr>
<td>Management: Organizational Effectiveness Track, BS</td>
<td>276</td>
</tr>
<tr>
<td>Management: Strategic Management Track, BS</td>
<td>277</td>
</tr>
<tr>
<td>Managerial Economics (MGE)</td>
<td>1409</td>
</tr>
<tr>
<td>Marathi (MRTI)</td>
<td>1409</td>
</tr>
<tr>
<td>Marketing &amp; Communication, BS</td>
<td>278</td>
</tr>
<tr>
<td>Marketing &amp; Operations Management, BS</td>
<td>279</td>
</tr>
<tr>
<td>Marketing, BS</td>
<td>280</td>
</tr>
<tr>
<td>Marketing (MKTG)</td>
<td>1410</td>
</tr>
<tr>
<td>Master of Applied Positive Psychology (MAPP)</td>
<td>1425</td>
</tr>
<tr>
<td>Master of Liberal Arts (MLA)</td>
<td>1426</td>
</tr>
<tr>
<td>Master of Science in Social Policy (MSSP)</td>
<td>1427</td>
</tr>
<tr>
<td>Master of Science in Translational Research (MTR)</td>
<td>1433</td>
</tr>
<tr>
<td>Master of Urban Spatial Analytics (MUSA)</td>
<td>1435</td>
</tr>
<tr>
<td>Materials Science and Engineering, BSE</td>
<td>230</td>
</tr>
<tr>
<td>Materials Science and Engineering, Minor</td>
<td>239</td>
</tr>
<tr>
<td>Materials Science and Engineering, MSE</td>
<td>1436</td>
</tr>
<tr>
<td>Mathematical Economics, BA</td>
<td>102</td>
</tr>
<tr>
<td>Mathematical Sciences (MTHS)</td>
<td>1443</td>
</tr>
<tr>
<td>Mathematics (MATH)</td>
<td>1444</td>
</tr>
<tr>
<td>Mathematics, Minor</td>
<td>180</td>
</tr>
<tr>
<td>Mathematics: Biological Mathematics, BA</td>
<td>180</td>
</tr>
<tr>
<td>Mathematics: General Mathematics, BA</td>
<td>104</td>
</tr>
<tr>
<td>Maximum Time to Complete a Degree</td>
<td>319</td>
</tr>
<tr>
<td>Mechanical Engineering and Applied Mechanics, BSE</td>
<td>231</td>
</tr>
<tr>
<td>Mechanical Engineering and Applied Mechanics (MEAM)</td>
<td>1453</td>
</tr>
<tr>
<td>Mechanical Engineering and Applied Mechanics, Minor</td>
<td>240</td>
</tr>
<tr>
<td>Medical Physics (MPHY)</td>
<td>1464</td>
</tr>
<tr>
<td>Medical Sociology, Minor</td>
<td>181</td>
</tr>
<tr>
<td>Military Science (MSCI)</td>
<td>1465</td>
</tr>
<tr>
<td>Minors</td>
<td>151</td>
</tr>
<tr>
<td>Minors</td>
<td>235</td>
</tr>
<tr>
<td>Minors</td>
<td>249</td>
</tr>
<tr>
<td>Minors</td>
<td>289</td>
</tr>
<tr>
<td>Modern Middle Eastern Studies (MODM)</td>
<td>1468</td>
</tr>
<tr>
<td>Modern Middle Eastern Studies, BA</td>
<td>105</td>
</tr>
<tr>
<td>Modern Middle Eastern Studies, Minor</td>
<td>181</td>
</tr>
<tr>
<td>Music, BA</td>
<td>106</td>
</tr>
<tr>
<td>Music (MUSC)</td>
<td>1469</td>
</tr>
<tr>
<td>Music: Jazz and Popular Music, Minor</td>
<td>182</td>
</tr>
<tr>
<td>Music: Music, Minor</td>
<td>181</td>
</tr>
</tbody>
</table>

N

| Nanotechnology (NANO) | 1482 |
| Native American and Indigenous Studies, Minor | 183 |
| Naval Science (NSCI) | 1482 |
| Near Eastern Languages & Civilization (NELC) | 1484 |
| Near Eastern Languages & Civilizations: Ancient Near East, BA | 107 |
| Near Eastern Languages & Civilizations: Ancient Near East, Minor | 183 |
| Near Eastern Languages & Civilizations: Arabic & Hebrew Studies, BA | 107 |
| Near Eastern Languages & Civilizations: Arabic & Hebrew Studies, Minor | 183 |
| Near Eastern Languages & Civilizations: Arabic & Islamic Studies, BA | 108 |
| Near Eastern Languages & Civilizations: Arabic & Islamic Studies, Minor | 184 |
| Near Eastern Languages & Civilizations: Cultures and Societies of the Middle East and North Africa, BA | 109 |
| Near Eastern Languages & Civilizations: Cultures and Societies of the Middle East and North Africa, Minor | 184 |
| Near Eastern Languages & Civilizations: Hebrew & Judaica, BA | 109 |
| Near Eastern Languages & Civilizations: Hebrew & Judaica, Minor | 185 |
| Near Eastern Languages & Civilizations: Persian Language & Literature, BA | 110 |
Near Eastern Languages & Civilizations: Persian Language & Literature, Minor ................................................................. 185
Network and Social Systems Engineering (NETS) ........................................ 1511
Networked and Social Systems Engineering, BSE ................................. 232
Neuroscience and Health Care Management, Minor ................................. 186
Neuroscience, BA ............................................................................. 111
Neuroscience, Certificate .................................................................. 212
Neuroscience, Minor .......................................................................... 186
Neuroscience (NEUR) ........................................................................ 1512
Neuroscience (NGG) ........................................................................ 1513
Neuroscience (NRSC) ........................................................................ 1516
Nonprofit Leadership (NPLD) .............................................................. 1523
Nursing and Health Services Management, Minor ................................. 250
Nursing, BSN .................................................................................... 245
Nursing (NURS) ................................................................................ 1533
Nutrition, Minor ................................................................................ 186
Nutrition, Minor ................................................................................ 251
Nutrition Science, BA ......................................................................... 112
Nutrition Science, BSN ........................................................................ 248

O
Operations, Information & Decisions: Decision Processes Track, BS ... 281
Operations, Information & Decisions: General Track, BS ....................... 282
Operations, Information & Decisions: Information Systems Track, BS ... 283
Operations, Information & Decisions: Operations Management/Management Science Track, BS .......................................... 284
Operations, Information and Decisions (OIDD) ...................................... 1571
Organizational Anthropology, Certificate ............................................ 212
Organizational Anthropology (ORGC) .................................................. 1585
Organizational Dynamics (DYNM) ........................................................ 1586
Organizational Studies, BAAS ................................................................ 203

P
Part Time Status ................................................................................ 316
Pashto (PASH) .................................................................................. 1608
Pass/Fail ............................................................................................ 318
Penn Summer ..................................................................................... 311
Persian (PERS) .................................................................................. 1608
Petitions ............................................................................................. 316
Pharmacology (PHRM) ....................................................................... 1611
Philosophy, Minor ............................................................................. 187
Philosophy (PHIL) ............................................................................ 1613
Philosophy, Politics and Economics: Choice & Behavior, BA .......... 112
Philosophy, Politics and Economics: Distributive Justice, BA .......... 113
Philosophy, Politics and Economics: Ethics & Professions, BA .......... 114
Philosophy, Politics and Economics: Globalization, BA ..................... 114
Philosophy, Politics and Economics: Public Policy & Governance, BA .. 115
Philosophy, Politics, Economics (PPE) ............................................. 1631
Philosophy: General Philosophy, BA .............................................. 115
Philosophy: Humanistic Philosophy, BA .......................................... 116
Philosophy: Philosophy and Science, BA ........................................ 117
Philosophy: Political and Moral Philosophy, BA .............................. 118
Physical and Life Sciences, BAAS .................................................... 204
Physical and Life Sciences (PHYL) .................................................... 1633
Physics, Minor .................................................................................. 187
Physics (PHYS) ................................................................................ 1634
Physics: Astrophysics, BA ............................................................... 119
Physics: Biological Science, BA ....................................................... 119
Physics: Business & Technology, BA ............................................. 120
Physics: Chemical Principles, BA ................................................... 121
Physics: Computer Techniques, BA ............................................... 122
Physics: Physical Theory and Experimental Technique, BA .......... 123
Policies and Procedures .................................................................. 21
Policies and Procedures .................................................................. 314
Policy on Common Midterm Examinations ........................................ 316
Polish (PLSH) .................................................................................. 1641
Political Science, Minor ................................................................... 187
Political Science (PSCI) .................................................................... 1642
Political Science: American Politics, BA ........................................ 124
Political Science: Comparative Politics, BA ................................... 124
Political Science: General Political Science, BA ............................. 125
Political Science: Individualized, BA .............................................. 126
Political Science: International Relations, BA ................................. 127
Political Science: Political Economy, BA ....................................... 128
Political Science: Political Theory, BA .......................................... 128
Politics & Policy (PPOL) ................................................................... 1664
Portuguese (PRTG) .......................................................................... 1664
Pre-Health Core Studies, Post-Baccalaureate Preparatory Program ...... 217
Pre-Health Specialized Studies, Post-Baccalaureate Preparatory Program 217
Professional Writing, Certificate ....................................................... 213
Professional Writing (PROW) ............................................................ 1666
Programs .......................................................................................... 12
Psychoanalytic Studies, Minor .......................................................... 188
Psychology, BA ............................................................................... 129
Psychology, Behavior & Decision Sciences (PBDS) ......................... 1679
Psychology, Minor ........................................................................... 188
Psychology (PSYC) .......................................................................... 1668
<table>
<thead>
<tr>
<th>Category</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Health Studies (PUBH)</td>
<td>1680</td>
</tr>
<tr>
<td>Punjabi (PUNJ)</td>
<td>1688</td>
</tr>
<tr>
<td>Q</td>
<td>306</td>
</tr>
<tr>
<td>Quaker Consortium</td>
<td>1689</td>
</tr>
<tr>
<td>Quechua (QUEC)</td>
<td>316</td>
</tr>
<tr>
<td>R</td>
<td>285</td>
</tr>
<tr>
<td>Real Estate, BS</td>
<td>285</td>
</tr>
<tr>
<td>Real Estate (REAL)</td>
<td>1689</td>
</tr>
<tr>
<td>Registrar’s Office</td>
<td>306</td>
</tr>
<tr>
<td>Regulatory (REG)</td>
<td>1694</td>
</tr>
<tr>
<td>Religion and Culture (RELC)</td>
<td>1698</td>
</tr>
<tr>
<td>Religious Studies, BA</td>
<td>130</td>
</tr>
<tr>
<td>Religious Studies, Minor</td>
<td>189</td>
</tr>
<tr>
<td>Religious Studies (RELS)</td>
<td>1699</td>
</tr>
<tr>
<td>Research</td>
<td>307</td>
</tr>
<tr>
<td>Residency Requirement</td>
<td>319</td>
</tr>
<tr>
<td>Retailing, BS</td>
<td>286</td>
</tr>
<tr>
<td>Retaking Courses</td>
<td>316</td>
</tr>
<tr>
<td>Robotics (ROBO)</td>
<td>1719</td>
</tr>
<tr>
<td>Romance Languages (ROML)</td>
<td>1720</td>
</tr>
<tr>
<td>Romance Languages: French and Italian, BA</td>
<td>131</td>
</tr>
<tr>
<td>Romance Languages: French and Spanish, BA</td>
<td>132</td>
</tr>
<tr>
<td>Romance Languages: Italian and Spanish, BA</td>
<td>132</td>
</tr>
<tr>
<td>Rules Governing Final Examinations</td>
<td>316</td>
</tr>
<tr>
<td>Russian and East European Studies: Cinema, Arts and Letters, BA</td>
<td>133</td>
</tr>
<tr>
<td>Russian and East European Studies: History, Politics and Society, BA</td>
<td>134</td>
</tr>
<tr>
<td>Russian and East European Studies: Language, Literature and Culture, BA</td>
<td>134</td>
</tr>
<tr>
<td>Russian and East European Studies: Russian Culture and History, Minor</td>
<td>189</td>
</tr>
<tr>
<td>Russian and East European Studies: Russian Language, Literature and Culture, Minor</td>
<td>190</td>
</tr>
<tr>
<td>Russian and Eastern European Studies (REES)</td>
<td>1722</td>
</tr>
<tr>
<td>Russian (RUSS)</td>
<td>1720</td>
</tr>
<tr>
<td>S</td>
<td>1745</td>
</tr>
<tr>
<td>Sanskrit (SKRT)</td>
<td>1745</td>
</tr>
<tr>
<td>Scholars Programs</td>
<td>308</td>
</tr>
<tr>
<td>School of Arts &amp; Sciences</td>
<td>17</td>
</tr>
<tr>
<td>School of Engineering and Applied Science</td>
<td>219</td>
</tr>
<tr>
<td>School of Nursing</td>
<td>242</td>
</tr>
<tr>
<td>School of Social Policy and Practice (SSPP)</td>
<td>1746</td>
</tr>
<tr>
<td>School Policies</td>
<td>252</td>
</tr>
<tr>
<td>Science Foundations, Certificate</td>
<td>214</td>
</tr>
<tr>
<td>Science, Technology &amp; Society (STSC)</td>
<td>1747</td>
</tr>
<tr>
<td>Science, Technology and Society, Minor</td>
<td>190</td>
</tr>
<tr>
<td>Science, Technology and Society: Biotechnology &amp; Biomedicine, BA</td>
<td>135</td>
</tr>
<tr>
<td>Science, Technology and Society: Energy and Environment, BA</td>
<td>136</td>
</tr>
<tr>
<td>Science, Technology and Society: Global Science and Technology, BA</td>
<td>137</td>
</tr>
<tr>
<td>Science, Technology and Society: Information and Organizations, BA</td>
<td>137</td>
</tr>
<tr>
<td>Science, Technology and Society: Science/Nature/Culture, BA</td>
<td>138</td>
</tr>
<tr>
<td>Scientific Computing (SCMP)</td>
<td>1760</td>
</tr>
<tr>
<td>Scientific Processes (SPRO)</td>
<td>1760</td>
</tr>
<tr>
<td>Sectors</td>
<td>19</td>
</tr>
<tr>
<td>Social Difference, Diversity, Equity and Inclusion, Certificate</td>
<td>215</td>
</tr>
<tr>
<td>Social Difference, Diversity, Equity and Inclusion (SDEI)</td>
<td>1760</td>
</tr>
<tr>
<td>Social Impact &amp; Responsibility, BS</td>
<td>288</td>
</tr>
<tr>
<td>Social Welfare (SOCW)</td>
<td>1763</td>
</tr>
<tr>
<td>Social Work (SWRK)</td>
<td>1764</td>
</tr>
<tr>
<td>Sociology, Minor</td>
<td>190</td>
</tr>
<tr>
<td>Sociology (SOCL)</td>
<td>1781</td>
</tr>
<tr>
<td>Sociology: Applied Research and Data Analysis, BA</td>
<td>139</td>
</tr>
<tr>
<td>Sociology: Cities, Markets, and the Global Economy, BA</td>
<td>139</td>
</tr>
<tr>
<td>Sociology: Culture and Diversity, BA</td>
<td>140</td>
</tr>
<tr>
<td>Sociology: Education and Society, BA</td>
<td>141</td>
</tr>
<tr>
<td>Sociology: Family, Gender and Society, BA</td>
<td>142</td>
</tr>
<tr>
<td>Sociology: Law and Society, BA</td>
<td>143</td>
</tr>
<tr>
<td>Sociology: Medical Sociology, BA</td>
<td>143</td>
</tr>
<tr>
<td>Sociology: Population and Immigration, BA</td>
<td>144</td>
</tr>
<tr>
<td>Sociology: Structures of Opportunity and Inequality, BA</td>
<td>144</td>
</tr>
<tr>
<td>South Asia Studies, BA</td>
<td>145</td>
</tr>
<tr>
<td>South Asia Studies, Minor</td>
<td>190</td>
</tr>
<tr>
<td>South Asia Studies (SAST)</td>
<td>1808</td>
</tr>
<tr>
<td>Spanish and Portuguese (SPPO)</td>
<td>1843</td>
</tr>
<tr>
<td>Spanish (SPAN)</td>
<td>1829</td>
</tr>
<tr>
<td>Statistics and Data Science, BS</td>
<td>288</td>
</tr>
<tr>
<td>Statistics and Data Science, Minor</td>
<td>191</td>
</tr>
<tr>
<td>Statistics and Data Science (STAT)</td>
<td>1843</td>
</tr>
<tr>
<td>Statistics for Non-Wharton Students, Minor</td>
<td>289</td>
</tr>
<tr>
<td>Submatriculation</td>
<td>310</td>
</tr>
<tr>
<td>Sudanese Arabic (SARB)</td>
<td>1852</td>
</tr>
<tr>
<td>Survey Research and Data Analytics, Minor</td>
<td>191</td>
</tr>
<tr>
<td>Sustainability and Environmental Management, Minor</td>
<td>192</td>
</tr>
<tr>
<td>Swahili (SWAH)</td>
<td>1852</td>
</tr>
<tr>
<td>Swedish (SWED)</td>
<td>1853</td>
</tr>
<tr>
<td>Systems Science and Engineering, BSE</td>
<td>233</td>
</tr>
</tbody>
</table>
Systems Science and Engineering, Minor ........................................ 240

T
Tamil (TAML) ................................................................. 1854
Telugu (TELU) ............................................................. 1855
Thai (THAI) ................................................................. 1856
The Major ........................................................................... 20
The Wharton School .......................................................... 254
Theatre Arts, BA .............................................................. 146
Theatre Arts, Minor .......................................................... 192
Theatre Arts (THAR) ......................................................... 1857
Tibetan (TIBT) ................................................................. 1866
Tigrinya (TIGR) .............................................................. 1867
Transcripts .......................................................................... 312
Transfer Policies .................................................................. 320
Turkish (TURK) ................................................................. 1867
Twi (TWI) ........................................................................... 1870

U
Ukrainian (UKRN) ............................................................ 1871
University Minors ............................................................. 294
UpSkill, Certificate ........................................................... 216
Urban Education, Minor ................................................... 192
Urban Real Estate and Development, Minor ....................... 193
Urban Studies, BA ............................................................ 146
Urban Studies, Minor ......................................................... 193
Urban Studies (URBS) ....................................................... 1872
Urdu (URDU) ................................................................. 1892

V
Veterinary & Biomedical Science (VBMS) ......................... 1894
Veterinary Clinical Studies - Medicine Courses (VMED) .... 1894
Veterinary Clinical Studies - New Bolton Center (VCSN) .... 1900
Veterinary Clinical Studies - Surgery Courses (VSUR) ....... 1909
Veterinary Clinical Studies and Advanced Medicine - Philadelphia (VCSP) ........................................ 1910
Veterinary Independent Study & Research (VISR) .............. 1918
Veterinary Pathobiology (VPTH) ....................................... 1918
Vietnamese (VIET) ........................................................... 1922
Viper (VIPR) ..................................................................... 1923
Visual Studies (VLST) ....................................................... 1923
Visual Studies: Architecture Practice and Technology, BA ..... 147
Visual Studies: Art and Culture of Seeing, BA ..................... 148
Visual Studies: Art, Practice and Technology, BA ............... 149
Visual Studies: Philosophy and Science of Seeing, BA .......... 150

W
Wellness ............................................................................. 312
Wharton Undergraduate (WH) ............................................. 1929
Withdrawing From a Course ................................................ 317
Wolof (WOLF) .................................................................. 1930

Y
Yiddish (YDSH) ................................................................. 1931
Yoruba (YORB) .................................................................. 1932

Z
Zulu (ZULU) ...................................................................... 1933